**Product Data Sheet**
00813-0100-4444, Rev AM
March 2025

# Rosemount™ 8700M Magnetic Flowmeter Platform

- Industry leading performance:
  - Standard reference accuracy of 0.25% of rate
  - High reference accuracy of 0.15% of rate (optional)
- Rosemount 8732 Transmitter: Integral and remote mount designs, backlit display, and explosion-proof housing
- Rosemount 8712 Transmitter: Wall mount design, backlit display, 15-Button tactile key pad
- Available in 4-20 mA with HART®, FOUNDATION™ Fieldbus, Modbus® RS-485, Intrinsically Safe (I.S.) outputs, Process Diagnostics, and SMART™ Meter Verification to improve reliability and performance
- Rosemount 8705 Flanged Sensor: Fully welded sensor for maximum protection
- Rosemount 8711 Wafer Sensor: Economical, compact, fully welded, and lightweight sensor, provided with alignment spacers for easy installation
- Rosemount 8721 Hygienic (Sanitary) Sensor: Specifically designed for food, beverage, and life sciences applications

# Product Selection Guide

The Rosemount 8700M Magnetic Flowmeter Platform is available in a variety of sensor styles and configurations to ensure compatibility with virtually all applications and installations.

Other liner and electrode materials not listed may be available. Contact your local sales representative. For further guidance on selecting materials, refer to the Magnetic Flowmeter Material Selection Guide located on Rosemount.com (Technical Data Sheet Number 00816-0100-3033). For more information regarding the available product offering, see the Ordering information.

## Transmitter selection

| Transmitter | General characteristics |
|---|---|
| 8732  | ■ Integral and remote configurations available<br>■ HART®/Analog and Pulse outputs available<br>■ FOUNDATION™ Fieldbus and Pulse output available<br>■ Modbus® RS-485 and Pulse output available<br>■ Advanced Diagnostics available<br>■ LCD display, optional (with optional optical switch local operator interface)(1)<br>■ Three independent totalizers (A/B/C)<br>■ Two discrete channels (optional) |
| 8712  | ■ Wall mount configuration<br>■ HART/Analog and Pulse outputs available<br>■ Modbus RS-485 and Pulse output available<br>■ FOUNDATION™ Fieldbus and pulse output available<br>■ Advanced Diagnostics available<br>■ Local LCD display, optional (with optional 15 button tactile key pad(1))<br>■ Three independent totalizers (A/B/C)<br>■ Two discrete channels (optional) |

(1) *HART or Modbus protocol only.*

## Contents

# Sensor selection

**Table 1: Sensor Selection**

| Sensor | General characteristics |
|---|---|
| 8705<br>  | ■ Standard process sensor<br>■ Flanged process connections<br>■ Welded, sealed coil housing<br>■ ½ in. (15 mm) to 36 in. (900 mm)<br>■ Standard, reference, bullet-nose, and flat electrodes available |
| 8711<br>  | ■ Economical, compact, and lightweight alternative to flanged sensors<br>■ Wafer (flangeless) design<br>■ Welded, sealed coil housing<br>■ 1½ in. (40 mm) to 8 in. (200 mm)<br>■ Standard, reference, and bullet-nose electrodes available |
| 8721<br>  | ■ Hygienic (sanitary) sensor<br>■ Designed for food, beverage, and pharmaceutical applications<br>■ Variety of industry standard process connections<br>■ ½ in. (15 mm) to 4 in. (100 mm)<br>■ 3-A certified<br>■ Suitable for CIP/SIP |

# Magmeter Diagnostics

**Rosemount diagnostics reduce cost & improve output by enabling new practices**

Rosemount Magnetic Flowmeters provide device diagnostics that detect and warn of abnormal situations throughout the life of the meter - from installation to maintenance and meter verification. With Rosemount Magnetic Flowmeter diagnostics enabled, plant availability and throughput can be improved, and costs through simplified installation, maintenance and troubleshooting can be reduced.

**Table 2: Magnetic flowmeter diagnostics**

| Diagnostic name | Diagnostic category | Product capability |
|---|---|---|
| **Basic diagnostics** | | |
| Grounding and Wiring Fault | Installation | Standard |
| Tunable Empty Pipe | Process | Standard |
| Electronics Temperature | Meter Health | Standard |
| Coil Fault | Meter Health | Standard |
| Transmitter Fault | Meter Health | Standard |
| Reverse Flow | Process | Standard |
| Coil current | Maintenance | Standard |
| Electrode saturation | Process/Maintenance | Standard |
| **Advanced diagnostics** | | |
| High Process Noise | Process | Suite 1 (DA1) |
| Coated Electrode Detection | Process | Suite 1 (DA1) |
| Commanded Smart Meter Verification | Meter Health | Suite 2 (DA2) |
| Continuous Smart Meter Verification | Meter Health | Suite 2 (DA2) |
| 4-20 mA Loop Verification(1) | Installation | Suite 2 (DA2) |

(1) *Available with HART output only.*

**Options for accessing diagnostics**

Rosemount Magmeter Diagnostics can be accessed through the Local Operator Interface (LOI), ProLink® III v3.1, a HART Field Communicator(1), and AMS® Suite: Intelligent Device Manager(1). Contact your local Rosemount representative to activate diagnostics or for diagnostic availability on existing transmitters.

**Access diagnostics through the LOI for quicker installation, maintenance, and meter verification**

Rosemount Magnetic Flowmeter Diagnostics are available through the LOI to simplify maintenance.

**Access diagnostics through ProLink III v. 3.0 (HART)/ProLink III v. 3.1 (HART, Modbus)**

Simplify maintenance and troubleshooting practices by utilizing ProLink III v3.0/v3.1 to access diagnostics and troubleshooting information, log variable data, run SMART Meter Verification, and print verification reports.

**Access diagnostics through AMS Intelligent Device Manager(1) for the ultimate value**

The value of the diagnostics increases significantly when AMS Intelligent Device Manager is used. AMS Intelligent Device Manager provides a simplified screen flow and procedures for how to respond to the diagnostic messages.

(1) Available with HART output only.

# Magnetic flow meter sizing

Selecting the appropriate sensor size is an important step when considering a magnetic flow meter. Consider the physical properties of the process fluid, as well as the fluid velocity. It may be necessary to select a flow sensor that is larger or smaller than the adjacent piping to ensure the fluid velocity is in the recommended flow range for the application.

**Table 3: Sizing Guidelines**

| Application | Velocity range (ft/sec) | Velocity range (m/sec) |
|---|---|---|
| Full Range | 0 to 39 | 0 to 12 |
| Preferred service | 2 to 20 | 0.6 to 6.1 |
| Abrasive slurries | 3 to 10 | 0.9 to 3.1 |
| Non-abrasive slurries | 5 to 15 | 1.5 to 4.6 |

**Note**
Operation outside these guidelines may also give acceptable performance.

To convert flow rate to velocity, use the appropriate factor listed in Table 4 and the following equation:

$$\text{Velocity} = \frac{\text{Flow Rate}}{\text{Factor}}$$

| Example: Imperial units | Example: SI units |
|---|---|
| Magmeter Size: 4 in. (factor from Table 4 = 39.679) Normal Flow Rate: 300 GPM<br>$\text{Velocity} = \frac{300\ (\text{gpm})}{39.679}$<br>**Velocity = 7.56 ft/s** | Magmeter Size: 100 mm (factor from Table 4 = 492.78) Normal Flow Rate: 800 L/min<br>$\text{Velocity} = \frac{800\ (\text{L/min})}{492.78}$<br>**Velocity = 1.62 m/s** |

**Table 4: Line Size vs. Conversion Factor**

| Nominal line size—inches (mm) | Gallons per minute factor | Liters per minute factor |
|---|---|---|
| ½ (15) | 0.947 | 11.762 |
| 1 (25) | 2.694 | 33.455 |
| 1½ (40) | 6.345 | 78.806 |
| 2 (50) | 10.459 | 129.89 |
| 2 ½ (65) | 14.923 | 185.33 |
| 3 (80) | 23.042 | 286.17 |
| 4 (100) | 39.679 | 492.78 |
| 5 (125) | 62.356 | 774.42 |
| 6 (150) | 90.048 | 1,118.3 |
| 8 (200) | 155.93 | 1,936.5 |
| 10 (250) | 245.78 | 3,052.4 |
| 12 (300) | 352.51 | 4,378.0 |
| 14 (350) | 421.70 | 5,237.3 |

**Table 4: Line Size vs. Conversion Factor *(continued)***

| Nominal line size—inches (mm) | Gallons per minute factor | Liters per minute factor |
|---|---|---|
| 16 (400) | 550.80 | 6,840.6 |
| 18 (450) | 697.19 | 8,658.6 |
| 20 (500) | 866.51 | 10,761 |
| 24 (600) | 1,253.2 | 15,564 |
| 30 (750) | 2006.0 | 24,913 |
| 36 (900) | 2,935.0 | 36,451 |

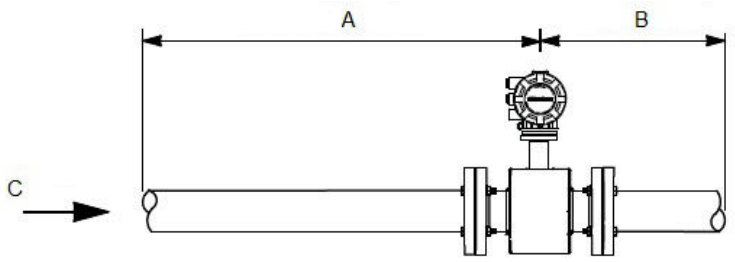
**Table 5: Line Size vs. Velocity/Rate**

| Nominal line size in inches (mm) | Minimum/maximum flow rate | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Gallons per minute | | | | Liters per minute | | | |
| | at 0.04 ft/sec (low-flow cutoff) | at 1 ft/sec (minimum range setting) | at 3 ft/sec | at 39.37 ft/sec (maximum range setting) | at 0.012 m/sec (low-flow cutoff) | at 0.3 m/sec (minimum range setting) | at 1 m/sec | at 12 m/sec (maximum range setting) |
| ½ (15) | 0.038 | 0.947 | 2.841 | 37.287 | 0.141 | 3.529 | 11.76 | 141.15 |
| 1 (25) | 0.108 | 2.694 | 8.081 | 106.05 | 0.401 | 10.04 | 33.45 | 401.46 |
| 1½ (40) | 0.254 | 6.345 | 19.04 | 249.82 | 0.946 | 23.64 | 78.81 | 945.67 |
| 2 (50) | 0.418 | 10.459 | 31.38 | 411.77 | 1.559 | 38.97 | 129.89 | 1,558.7 |
| 2½ (65) | 0.597 | 14.923 | 44.77 | 587.51 | 2.224 | 55.60 | 185.33 | 2,224.0 |
| 3 (80) | 0.922 | 23.042 | 69.13 | 907.17 | 3.434 | 85.85 | 286.17 | 3,434.0 |
| 4 (100) | 1.587 | 39.679 | 119.04 | 1,562.2 | 5.913 | 147.84 | 492.78 | 5,913.4 |
| 5 (125) | 2.494 | 62.356 | 187.07 | 2,454.9 | 9.293 | 232.33 | 774.42 | 9,293.0 |
| 6 (150) | 3.602 | 90.048 | 270.14 | 3,545.2 | 13.42 | 335.50 | 1,118.3 | 13,420 |
| 8 (200) | 6.237 | 155.93 | 467.79 | 6,138.9 | 23.24 | 580.96 | 1,936.5 | 23,238 |
| 10 (250) | 9.831 | 245.78 | 737.34 | 9,676.3 | 36.63 | 915.73 | 3,052.4 | 36,629 |
| 12 (300) | 14.10 | 352.51 | 1,057.5 | 13,878 | 52.54 | 1,313.4 | 4,378.0 | 52,535 |
| 14 (350) | 16.87 | 421.71 | 1,265.1 | 16,603 | 62.85 | 1,571.2 | 5,237.3 | 62,848 |
| 16 (400) | 22.03 | 550.80 | 1,652.4 | 21,685 | 82.09 | 2,052.2 | 6,840.6 | 82,087 |
| 18 (450) | 27.89 | 697.19 | 2,091.6 | 27,448 | 103.90 | 2,597.6 | 8,658.6 | 103,903 |
| 20 (500) | 34.66 | 866.51 | 2,599.5 | 34,114 | 129.14 | 3,228.4 | 10,761 | 129,137 |
| 24 (600) | 50.13 | 1,253.2 | 3,759.6 | 49,339 | 186.77 | 4,669.2 | 15,564 | 186,769 |
| 30 (750) | 80.24 | 2,006.0 | 6,018.0 | 78,976 | 298.96 | 7,474.0 | 24,913 | 298,959 |
| 36 (900) | 117.40 | 2,935.0 | 8,805.1 | 115,553 | 437.42 | 10,935 | 36,451 | 437,416 |

## Upstream and downstream piping

To ensure specified accuracy over widely varying process conditions, Emerson recommends installing the sensor with a minimum of five straight pipe diameters upstream and two pipe diameters downstream from the electrode plane.

**Figure 1: Upstream and Downstream Straight Pipe Diameters**




*A. Five pipe diameters (upstream)*
*B. Two pipe diameters (downstream)*
*C. Flow direction*

Installations with reduced upstream and downstream straight runs are possible. In reduced straight run installations, the meter may not meet accuracy specifications. Reported flow rates will still be highly repeatable.

## Sensor process reference grounding

In addition to grounding required by applicable safety/electrical standards or codes, a reliable process reference ground path is required between the sensor and the process fluid.

Optional grounding rings, process reference electrode, and lining protectors are available with the sensor to ensure proper process reference grounding.

See Table 25 and Table 26.

# Ordering information

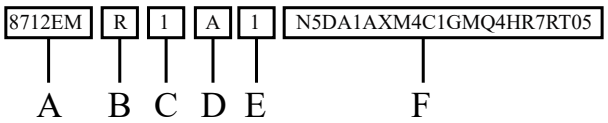
## Rosemount 8712EM Transmitter

The Rosemount 8712EM Transmitter with “Best in Class” performance, coupled with advanced diagnostics, provides unparalleled process management capabilities. An optional backlit 2-line by 16-character display/local operator interface is available. The transmitter can be configured using the 15 button tactile keypad.

**Note**
The starred (★) offerings represent the most common options, and should be selected for best delivery.

**Model code structure**

**Figure 2: Guide to model code structure**




A. *Base model*
B. *Mounting style*
C. *Power supply*
D. *Outputs*
E. *Conduit entry*
F. *Options (Table 7)*

Example model code with one selection out of each category:
`8712EM R 1 A 1 N5 DA1 AX M4 C1 GM Q4 HR7 RT05`

**Table 6: 8712EM requirements - select one from each available choice**

| Code | Description | |
|---|---|---|
| **Base model** | | |
| 8712EM | Magnetic Flowmeter Transmitter - Wall Mount | |
| **Mounting style** | | |
| R(1) | Wall Mount | ★ |
| **Power supply** | | |
| 1 | AC Power Supply (90 - 250 VAC, 50/60 Hz) | ★ |
| 2 | DC Power Supply (12 - 42 VDC) | ★ |

**Table 6: 8712EM requirements - select one from each available choice *(continued)***

| Code | Description | |
|---|---|---|
| **Outputs** | | |
| A | 4-20 mA Output with Digital HART Protocol & Scalable Pulse Output | ★ |
| B(2) | 4-20 mA Intrinsically Safe Output with Digital Hart Protocol & Intrinsically Safe Scalable Pulse Output | ★ |
| F | FOUNDATION Fieldbus Output & Scalable Pulse Output | ★ |
| M | Modbus RS-485 & Scalable Pulse Output | ★ |
| **Conduit entry** | | |
| 1 | ½–14 NPT | ★ |
| 2 | M20–1.5 adapters | ★ |

(1) *Zn plated CS U-bolt assembly*
(2) *Intrinsically safe outputs must be externally powered.*

## Options

**Note**
The following options are not required, but they must be included in the model number if desired.

**Table 7: 8712EM options - select only as needed**

| Code | Description | |
|---|---|---|
| **Hazardous area certifications** | | |
| -(1) | Ordinary Locations - (no code required) | ★ |
| N5 | US Approvals, Class I Div 2, Non-Incendive and Dust | ★ |
| N6 | Canadian Approvals, Class I Div 2, Non-Incendive and Dust | ★ |
| ND | ATEX Dust | ★ |
| N1(2) | ATEX Non-Sparking, ATEX Dust | ★ |
| NF | IECEx Dust | ★ |
| N7(2) | IECEx Non-Sparking, IECEx Dust | ★ |
| N2(2) | INMETRO Non-Sparking, INMETRO Dust | ★ |
| N3(2) | NEPSI Non-Sparking, NEPSI Dust | ★ |
| N4(2) | CML Non-Sparking, CML Dust | ★ |
| NW(2) | PESO Non-Sparking | ★ |
| **Advanced diagnostics** | | |
| DA1 | Process Diagnostics, High Process Noise Detection, and Electrode Coating | ★ |
| DA2 | Smart Meter Verification | ★ |
| **Discrete input/discrete output** | | |
| AX(3) | Two Discrete Channels (DI/DO 1, DO 2) | ★ |
| **Display** | | |
| M4(4) | LCD with Local Operator Interface | ★ |
| M5 | LCD Display only | ★ |

**Table 7: 8712EM options - select only as needed *(continued)***

| Code | Description | |
|---|---|---|
| **Miscellaneous** | | |
| C1 | Custom Configuration (completed CDS form required with order) | |
| D1[5] | High Accuracy Calibration | |
| B6 | 316 SST Mounting Bracket with U-bolt Kit for 2-in. Pipe Mount | |
| **Conduit electrical connectors[6]** | | |
| GE[7] | M12, 4-Pin, Male Connector (eurofast®) | |
| GM[7] | A Size Mini, 4-Pin, Male Connector (minifast®) | |
| GT[8] | A Size, Spade Terminal Mini, 5-pin, Male Connector (minifast) | |
| **Quality certificate** | | |
| Q4 | Calibration Data, per ISO 10474 3.1 / EN 10204 3.1 | ★ |
| **NTEP approval** | | |
| WM | US NTEP Certification | ★ |
| **Revision configuration** | | |
| HR7 | HART Revision 7 | ★ |
| **Quick Start Guide language** | | |
| YF | French | |
| YG | German | |
| YI | Italian | |
| YJ | Japanese | |
| YM | Chinese–Mandarin | |
| YP | Portuguese–Brazil | |
| YR | Russian | |
| YS | Spanish | |

(1) *Labeled with CSA(C/US), CE, C-tick and EAC.*
(2) *DC power only.*
(3) *Not available with FOUNDATION Fieldbus (output code F).*
(4) *Not available with FOUNDATION Fieldbus (output code F).*
(5) *The high accuracy calibration requires a matched sensor. It is only available when ordered with a sensor. Spare or replacement orders are not available with the D1 option.*
(6) *½" NPT conduit entries only*
(7) *Communication only.*
(8) *Power and communication.*

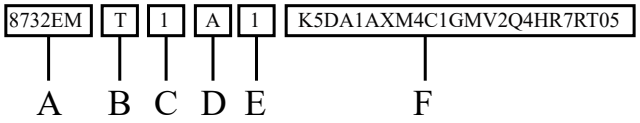
# Rosemount 8732EM Transmitter

The Rosemount 8732EM Transmitter with “Best in Class” performance, coupled with advanced diagnostics, provides unparalleled process management capabilities. An optional backlit 2-line by 16-character display/local operator interface is available. The transmitter can be configured by optical switches to simplify adjustments in hazardous environments without removing the cover.

**Note**
The starred (★) offerings represent the most common options, and should be selected for best delivery.

### Model code structure

**Figure 3: Guide to model code structure**




A. *Base model*
B. *Mounting style*
C. *Power supply*
D. *Outputs*
E. *Conduit entry*
F. *Options (Table 9)*

Example model code with one selection out of each category:
`8732EM T 1 A 1 K5 DA1 AX M4 C1 GM V2 Q4 HR7 RT05`

### Requirements

**Table 8: 8732EM requirements - select one from each available choice**

| Code | Description | |
|---|---|---|
| **Base model** | | |
| 8732EM | Magnetic Flowmeter Transmitter - Field Mount | ★ |
| **Mounting style** | | |
| T | Integral Field Mount | ★ |
| R(1) | Remote Field Mount | ★ |

**Table 8: 8732EM requirements - select one from each available choice *(continued)***

| Code | Description | |
|---|---|---|
| **Power supply** | | |
| 1 | AC Power Supply (90 -250 VAC, 50/60 Hz) | ★ |
| 2 | DC Power Supply (12 - 42 VDC) | ★ |
| 3(2) | DC Low Power Supply (12 - 30 VDC) | ★ |
| **Outputs** | | |
| A | 4-20 mA Output with Digital HART Protocol & Scalable Pulse Output | ★ |
| B(3) | 4-20 mA Intrinsically Safe Output with Digital Hart Protocol & Intrinsically Safe Scalable Pulse Output | ★ |
| F | FOUNDATION Fieldbus Output (FISCO) & Scalable Pulse Output | ★ |
| M | Modbus RS-485 & Scalable Pulse Output | ★ |
| **Conduit entry** | | |
| 1 | ½–14 NPT — Integral mount qty (2), remote mount qty (4) | ★ |
| 2 | M20–1.5 — Integral mount qty (2), remote mount qty (4) | ★ |
| 4 | ½–14 NPT, Additional Entry — Integral mount qty (3), remote mount qty (5) | ★ |
| 5 | M20–1.5, Additional Entry — Integral mount qty (3), remote mount qty (5) | ★ |

(1) *Zn plated CS mounting bolts and 304L bracket.*
(2) *Low Power available for integral mount transmitter with Output B or M only.*
(3) *Intrinsically safe outputs must be externally powered.*

## Options

**Note**
The following options are not required, but they must be included in the model number if desired.

**Table 9: 8732EM options - select only as needed**

| Example code | Category | |
|---|---|---|
| **Hazardous area certifications** | | |
| -[1] | Ordinary Locations - (no code required) | ★ |
| N5 | US Approvals, Class I Div 2, Non-Incendive and Dust | ★ |
| K5 | US Approvals, Class I Div 1, Explosion-proof and Dust | ★ |
| N6 | Canadian Approvals, Class I Div 2, Non-Incendive and Dust | ★ |
| K6 | US/Canadian Approvals, Flameproof with Increased Safety and Dust | ★ |
| KU[2] | US Approvals, Class I Div 1, Explosion-proof and Dust | ★ |
| ND | ATEX Dust | ★ |
| N1[3] | ATEX Non-Sparking, ATEX Dust | ★ |
| K1 | ATEX Flameproof with Increased Safety, ATEX Dust | ★ |
| NF | IECEx Dust | ★ |
| N7[3] | IECEx Non-Sparking, IECEx Dust | ★ |
| K7 | IECEx Flameproof with Increased Safety, IECEx Dust | ★ |
| N8[3] | EAC Non-Sparking; EAC Dust | ★ |
| K8 | EAC Flameproof with Increased Safety; EAC Dust | ★ |
| N2[3] | INMETRO Non-Sparking, INMETRO Dust | ★ |
| K2 | INMETRO Flameproof with Increased Safety, INMETRO Dust | ★ |
| N3[3] | NEPSI Non-Sparking; NEPSI Dust | ★ |
| K3 | NEPSI Flameproof with Increased Safety; NEPSI Dust | ★ |
| N4[3] | CML Non-Sparking, CML Dust | ★ |
| K4 | CML Flameproof with Increased Safety, CML Dust | ★ |
| K9 | KTL Flameproof with Increased Safety, KTL Dust | ★ |
| NW[3] | PESO Non-Sparking | ★ |
| KW | PESO Flameproof with Increased Safety | ★ |
| **Advanced diagnostics** | | |
| DA1 | Process Diagnostics, High Process Noise Detection, and Electrode Coating | ★ |
| DA2 | Smart Meter Verification | ★ |
| **Discrete input/discrete output** | | |
| AX[4][5] | Two Discrete Channels (DI/DO 1, DO 2) | ★ |
| **Display** | | |
| M4[5] | Local Operator Interface | ★ |
| M5 | LCD Display only | ★ |
| M6[5][6] | Local Operator Interface (Polycarbonate lens) | |
| M7[6] | LCD Display only (Polycarbonate lens) | |

**Table 9: 8732EM options - select only as needed *(continued)***

| Example code | Category | |
|---|---|---|
| **Miscellaneous** | | |
| C1 | Custom Configuration (completed CDS form required with order) | |
| D1[7] | High Accuracy Calibration | |
| SH[8] | 316 SST Electronics Housing and 316 SST Bracket (Remote mount only) | |
| B6 | 316 SST Mounting Bracket with 4-bolt Kit for 2-in. Pipe Mount | |
| **Conduit electrical connectors[9]** | | |
| GE[10] | M12, 4-Pin, Male Connector (eurofast®) | |
| GM[10] | A Size Mini, 4-Pin, Male Connector (minifast®) | |
| GT[11] | A Size, Spade Terminal Mini, 5-pin, Male Connector (minifast) | |
| **Paint** | | |
| V2 | Offshore/Near Shore Marine Paint (3 layer epoxy) | |
| **Quality certificate** | | |
| Q4 | Calibration Data, per ISO 10474 3.1 / EN 10204 3.1 | ★ |
| **NTEP approval** | | |
| WM | US NTEP Certification | ★ |
| **Revision configuration** | | |
| HR7 | HART Revision 7 | ★ |
| **Remote cable kit[12]** | | |
| RTxx | Standard Temperature Component Cables – -4 °F to 167 °F (-20 °C to 75 °C)<br>For xx: 01 = 10 ft, 02 = 20 ft, 03 = 30 ft, 04 = 40 ft, 05 = 50 ft, 10 = 100 ft, 15 = 150 ft, 20 = 200 ft, 25 = 250 ft, 30 = 300 ft, 35 = 350 ft, 40 = 400 ft, 45 = 450 ft, 50 = 500 ft | ★ |
| RHxx | Extended Temperature Component Cables – -58 °F to 257 °F (-50 °C to 125 °C)<br>For xx: 01 = 10 ft, 02 = 20 ft, 03 = 30 ft, 04 = 40 ft, 05 = 50 ft, 10 = 100 ft, 15 = 150 ft, 20 = 200 ft, 25 = 250 ft, 30 = 300 ft, 35 = 350 ft, 40 = 400 ft, 45 = 450 ft, 50 = 500 ft | ★ |
| RCxx[13] | Combination Coil and Electrode Cable – -4 °F to 167 °F (-20 °C to 80 °C)<br>For xx: 01 = 10 ft, 02 = 20 ft, 03 = 30 ft, 04 = 40 ft, 05 = 50 ft, 10 = 100 ft, 15 = 150 ft, 20 = 200 ft, 25 = 250 ft, 30 = 300 ft | ★ |
| RSxx[13] | Submersible Combination Coil and Electrode Cable – -4 °F to 167 °F/dry, 140 °F wet (-20 °C to 75 °C/dry, 60 °C wet); only available for Ordinary Locations.<br>For xx: 01 = 10 ft, 02 = 20 ft, 03 = 30 ft, 04 = 40 ft, 05 = 50 ft, 10 = 100 ft, 15 = 150 ft, 20 = 200 ft, 25 = 250 ft, 30 = 300 ft | ★ |
| **Quick Start Guide language** | | |
| YF | French | |
| YG | German | |
| YI | Italian | |
| YJ | Japanese | |
| YM | Chinese–Mandarin | |
| YP | Portuguese–Brazil | |
| YR | Russian | |
| YS | Spanish | |

(1) *Labeled with CSA (C/US), CE, C-tick and EAC.*

(2) *Modbus only.*
(3) *DC power only.*
(4) *Only available with conduit entry code 4 or 5.*
(5) *Not available with FOUNDATION Fieldbus (output code F).*
(6) *Ordinary locations only.*
(7) *The high accuracy calibration requires a matched sensor. It is only available when ordered with a sensor. Spare or replacement orders are not available with the D1 option.*
(8) *Not available with US/Canadian Approvals N5, K5, N6, or KU.*
(9) *½" NPT conduit entries only.*
(10) *Communication only.*
(11) *Power and communication.*
(12) *Remote cable kits are shipped with the transmitter and not connected to the terminals.*
(13) *Only available for ordinary locations.*

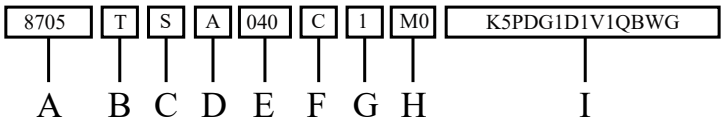
# Rosemount 8705-M Flanged Sensor

All flanged sensors are fabricated from stainless and carbon steel and welded to provide a hermetic seal that protects against moisture and other contaminants. Sizes range from ½ in. (15 mm) to 36 in. (900 mm). The sealed housing ensures maximum sensor reliability by protecting all internal components and wiring from the most hostile environments.

**Note**
The starred (★) offerings represent the most common options, and should be selected for best delivery.

**Model code structure**

**Figure 4: Guide to model code structure**




*A. Base model*
*B. Lining material*
*C. Electrode material*
*D. Electrode type*
*E. Line size*
*F. Flange type and material*
*G. Flange rating*
*H. Coil housing configuration*
*I. Options (Table 11)*

Example model code with one selection out of each category: `8705 T S A 040 C 1 M0 K5 PD G1 D1 V1 Q8 WG`

**Requirements**

**Table 10: 8705-M Flanged Sensor requirements - select one from each available choice**

| Code | Description | |
|---|---|---|
| **Base model** | | |
| 8705 | Magnetic Flanged Flowmeter Sensor | |

**Table 10: 8705-M Flanged Sensor requirements - select one from each available choice *(continued)***

| Code | Description | |
|---|---|---|
| **Lining material – Availability based on line size and flange type/rating. See Table 12 (slip on) and Table 13 (weld neck)** | | |
| T | PTFE. Available in line sizes:<br>■ ½ in. to 24 in. (15 mm to 600 mm): ASME Class 150, Class 300, Class 600 (derated), and EN 1092-1<br>■ 30 in. and 36 in. (750 mm and 900 mm) AWWA Class D, ASME Class 150, and MSS SP44 Class 150 | ★ |
| P | Polyurethane. Available in line sizes:<br>■ 1 in. to 24 in. (25 mm to 600 mm) ASME Class 150, Class 300, Class 600 (fully rated) and EN 1092-1<br>■ 30 in. and 36 in. (750 mm and 900 mm) AWWA Class D and MSS SP44 Class 150<br>■ 1 in. to 16 in. (25 mm to 400 mm) ASME Class 900<br>■ 1½ in. to 12 in. (40 mm to 300 mm) ASME Class 1500<br>Consult Technical Support for ASME Class 2500. | ★ |
| N | Neoprene. Available in line sizes:<br>■ 1 in. to 24 in. (25 mm to 600 mm) ASME Class 150, Class 300, Class 600 (fully rated) and EN 1092-1<br>■ 30 in. and 36 in. (750 mm and 900 mm) AWWA Class D, ASME Class 150, and MSS SP44 Class 150<br>■ 1 in. to 12 in. (25 mm to 300 mm) ASME Class 900 1½ in. to 12 in. (40 mm to 300 mm) ASME Class 1500<br>■ 1½ in. to 8 in. (40 mm to 200 mm) ASME Class 2500 | ★ |
| L | Linatex - Natural Rubber. Available in line sizes:<br>■ 1 in. to 24 in. (25 mm to 600 mm) ASME Class 150, Class 300, Class 600 (fully rated) and EN 1092-1<br>■ 30 in. and 36 in. (750 mm and 900 mm) AWWA Class D, ASME Class 150, and MSS SP44 Class 150<br>■ 1 in. to 12 in. (25 mm to 300 mm) ASME Class 900 1½ in. to 12 in. (40 mm to 300 mm) ASME Class 1500<br>■ 1½ in. to 8 in. (40 mm to 200 mm) ASME Class 2500 | |
| A[1] | PFA. Available in line sizes:<br>■ ½ in. to 12 in. (15 mm to 300 mm) ASME Class 150, Class 300, and EN 1092-1 Flanges<br>■ 14 in. (350 mm) ASME Class 150 | |
| F | ETFE. Available in line sizes:<br>■ ½ in. to 14 in. (15 mm to 350 mm) ASME Class 150, ASME Class 300, and EN 1092-1<br>■ 16 in. (400 mm) ASME Class 150 only<br>■ 1 in. to 10 in. (25 mm to 250 mm) ASME Class 600 (derated) | |
| D | Adiprene. Consult technical support for available line sizes. | |
| K | PFA+. Available in line sizes: ½ in. to 14 in. (15 mm to 350 mm) ASME Class 150, Class 300, and EN 1092-1 Flanges. | |
| H | PEX. Available in line sizes: 2 in., 3 in. and 4 in. (50 mm, 80 mm and 100 mm) ASME Class 150 and 300 only. | ★ |
| **Electrode material** | | |
| S | 316L Stainless Steel | ★ |
| H | Nickel Alloy 276 (UNS N10276) | ★ |
| T | Tantalum | ★ |
| P | 80% Platinum - 20% Iridium | ★ |
| N | Titanium | ★ |
| W | Tungsten-Carbide Coated 316L | |

**Table 10: 8705-M Flanged Sensor requirements - select one from each available choice *(continued)***

| Code | Description | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Y | Tungsten-Carbide Coated Nickel Alloy 276 | | | | | | | | |
| **Electrode type** | | | | | | | | | |
| A | 2 Measurement Electrodes - Standard | | | | | | | | ★ |
| E[2] | 2 Measurement Electrodes plus 1 Reference Electrode - Standard | | | | | | | | ★ |
| B[3] | 2 Measurement Electrodes - Bullet-nose | | | | | | | | |
| F[2][3] | 2 Measurement Electrodes plus 1 Reference Electrode - Bullet-nose | | | | | | | | |
| T | 2 Measurement Electrodes - Flat Head | | | | | | | | |
| U[2] | 2 Measurement Electrodes plus 1 Reference Electrode - Flat Head | | | | | | | | |
| | **Line size** | **Liner availability**<br>**In this section, the starred (★) offerings represent available liner based on line size. Consult factory for additional Flange Type/Rating sensor availability** | | | | | | | |
| | | **PTFE code T** | **Poly code P** | **Neo./Lin. codes N/L** | **PFA code A** | **ETFE code F** | **Adiprine code D** | **PFA+ code K** | **PEX code H** |
| 005 | ½ in. (15 mm) | ★ | | | ★ | ★ | | ★ | |
| 010 | 1 in. (25 mm) | ★ | ★ | ★ | ★ | ★ | | ★ | |
| 015 | 1½ in. (40 mm) | ★ | ★ | ★ | ★ | ★ | | ★ | |
| 020 | 2 in. (50 mm) | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 025 | 2½ in. (65 mm) | ★ | | ★ | ★ | ★ | | ★ | |
| 030 | 3 in. (80 mm) | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 040 | 4 in. (100 mm) | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 050 | 5 in. (125 mm) | ★ | | ★ | ★ | ★ | | ★ | |
| 060 | 6 in. (150 mm) | ★ | ★ | ★ | ★ | ★ | ★ | ★ | |
| 080 | 8 in. (200 mm) | ★ | ★ | ★ | ★ | ★ | ★ | ★ | |
| 100 | 10 in. (250 mm) | ★ | ★ | ★ | ★ | ★ | ★ | ★ | |
| 120 | 12 in. (300 mm) | ★ | ★ | ★ | ★ | ★ | ★ | ★ | |
| 140 | 14 in. (350 mm) | ★ | ★ | ★ | ★ | ★ | | ★ | |
| 160 | 16 in. (400 mm) | ★ | ★ | ★ | | ★ | | | |
| 180 | 18 in. (450 mm) | ★ | ★ | ★ | | | | | |
| 200 | 20 in. (500 mm) | ★ | ★ | ★ | | | | | |
| 240 | 24 in. (600 mm) | ★ | ★ | ★ | | | | | |
| 300 | 30 in. (750 mm) | ★ | ★ | ★ | | | | | |
| 360 | 36 in. (900 mm) | ★ | ★ | ★ | | | | | |
| **Flange type and material** | | | | | | | | | |
| C | Slip-On, Raised-Face, Carbon Steel | | | | | | See Table 12 for Slip-on availability. | | |
| S | Slip-On, Raised-Face, 304/304L Stainless Steel | | | | | | | | |
| P | Slip-On, Raised-Face, 316/316L Stainless Steel | | | | | | | | |
| F | Slip-On, Flat-Face, Carbon Steel | | | | | | | | |
| G | Slip-On, Flat-Face, 304/304L Stainless Steel | | | | | | | | |
| H | Slip-On, Flat-Face, 316/316L Stainless Steel | | | | | | | | |

**Table 10: 8705-M Flanged Sensor requirements - select one from each available choice *(continued)***

| Code | Description | |
|---|---|---|
| D | Weld-Neck, Raised-Face, Carbon Steel | See Table 13 for Weld-neck availability. |
| T | Weld-Neck, Raised-Face, 304/304L Stainless Steel | |
| R | Weld-Neck, Raised-Face, 316/316L Stainless Steel | |
| J | Weld-Neck, RTJ, Carbon Steel | |
| K | Weld-Neck, RTJ, 304/304L Stainless Steel | |
| L | Weld-Neck, RTJ, 316/316L Stainless Steel | |
| **Flange rating** | | |
| 1 | ASME B16.5, Class 150 (½ thru 24 in.); AWWA Class D (30 and 36 in.) | |
| 2 | Class 150 Line Size 30 and 36 in. only; (MSS SP44 with Slip-On Flange or B16.47 Series A with Weld-Neck Flange) | |
| 3 | ASME B16.5, Class 300 (½ thru 24 in.); (ASME B16.47 Class 300 for 30 and 36 in. Weld-Neck Flange only) | |
| 6 | ASME B16.5, Class 600 (maximum working pressure: derated 1000 psig) | |
| 7 | ASME B16.5, Class 600 | |
| 9(4) | ASME B16.5, Class 900 | |
| M(4) | ASME B16.5, Class 1500 | |
| N(4) | ASME B16.5, Class 2500 | |
| D | EN 1092-1, PN10 | |
| E | EN 1092-1, PN16 | |
| F | EN 1092-1, PN25 | |
| H | EN 1092-1, PN40 | |
| K(5) | AS2129, Table D | |
| L(5) | AS2129, Table E | |
| P(6) | JIS B 2220, 10K | |
| R(6) | JIS B 2220, 20K | |
| T(7) | JIS B 2220, 40K | |
| U(8) | AS4087, PN16 | |
| W(8) | AS4087, PN21 | |
| Y(8) | AS4087, PN35 | |
| **Housing configuration** | | |
| W0(9)(10) | Sealed, Welded Housing with Legacy Terminal Block | ★ |
| M0(11) | Sealed, Welded Housing | ★ |
| M1(11)(12) | Sealed, Welded Housing with Pressure Relief Port | |
| M2(11) | Sealed, Welded Housing with Sealed Electrode Compartments | |
| M4(11) | Sealed, Welded Housing with Sealed Electrode Compartments with Cap and Port | |

(1) *PFA lining maerial is not available with coil housing codes M2 or M4.*
(2) *Reference Electrode not available in line sizes ½ in. to 6 in. with M2/M4 coil housing.*
(3) *Not available in Tantalum - all line sizes; Not available in ½ in. - all materials; Not available in 1 in. with flanges #600 and greater.*
(4) *Not available with lining protectors.*
(5) *Not available with PFA (A) liner; not available with lining protectors.*
(6) *Available line sizes ½ in. to 24 in. (15 mm to 600 mm); not available with lining protectors.*
(7) *Available line sizes ½ in. to 16 in. (15 mm to 400 mm); not available with lining protectors.*
(8) *Available in 2 in. to 4 in. (50 mm to 100 mm) and 6 in. to 24 in. (150 mm to 600 mm) line sizes; not available with lining protectors.*

(9) *Available for ordinary locations or "EN" NEPSI China Domestic Only.*
(10) *Consult Product Data Sheet 00813-0100-4727 for technical details.*
(11) *Consult Technical Support for use with ordinary locations.*
(12) *Pressure relief valve must be installed appropriately to maintain the approvals on the meter. Recovery piping diameter must not be smaller than M6 to avoid building pressure after the valve.*

## Options

**Note**
The following options are not required, but they must be included in the model number if desired.

**Table 11: 8705-M Flanged Sensor options - select only as needed**

| Code | Description | |
|---|---|---|
| **Hazardous area certifications** | | |
| -(1) | Ordinary Locations - (no code required) | ★ |
| N5 | US Approvals, Class I Div 2, Non-Incendive with I.S. Electrodes; and Dust | ★ |
| K5(2) | US Approvals, Class I Div 1, Explosion proof with I.S. Electrodes; and Dust | ★ |
| N6 | Canadian Approvals, Class I Div 2, Non-Incendive with I.S. Electrodes; and Dust | ★ |
| K6 | US/Canadian Approvals, Increased Safety with I.S. Electrodes; and Dust | ★ |
| KU(2) | US Approvals, Class I Div 1, Explosion proof with I.S. Electrodes; and Dust | ★ |
| ND | ATEX Dust | ★ |
| N1 | ATEX Non-Sparking with I.S. Electrodes; ATEX Dust | ★ |
| K1 | ATEX Increased Safety with I.S. Electrodes; ATEX Dust | ★ |
| NF | IECEx Dust | ★ |
| N7 | IECEx Non-Sparking with I.S. Electrodes; IECEx Dust | ★ |
| K7 | IECEx Increased Safety with I.S. Electrodes; IECEx Dust | ★ |
| N8 | EAC Non-Sparking with I.S. Electrodes; EAC Dust | ★ |
| K8 | EAC Increased Safety with I.S. Electrodes; EAC Dust | ★ |
| N2 | INMETRO Non-Sparking with I.S. Electrodes; INMETRO Dust | ★ |
| K2 | INMETRO Increased Safety with I.S. Electrodes; INMETRO Dust | ★ |
| N3 | NEPSI Non-Sparking with I.S. Electrodes; NEPSI Dust | ★ |
| K3 | NEPSI Increased Safety with I.S. Electrodes; NEPSI Dust | ★ |
| N4 | CML Non-Sparking with I.S. Electrodes; CML Dust | ★ |
| K4 | CML Increased Safety with I.S. Electrodes; CML Dust | ★ |
| K9 | KTL Flameproof with Increased Safety, KTL Dust | ★ |
| NW | PESO Non-Sparking with Intrinsically Safe Electrodes | ★ |
| KW | PESO Increased Safety with Intrinsically Safe Electrodes | ★ |
| **Certifications** | | |
| CR | Canadian Registration Number (CRN) Certification | |
| PD(3) | Pressure Equipment Directive Certification (PED) | |
| DW(4) | NSF Drinking Water Certification | |

**Table 11: 8705-M Flanged Sensor options - select only as needed *(continued)***

| Code | Description | |
|---|---|---|
| **Grounding rings or Lining protectors[5]** | | |
| G1 | (2) 316L SST Ground Rings | |
| G2 | (2) Nickel Alloy 276 (UNS N10276) Ground Rings | |
| G3 | (2) Titanium Ground Rings | |
| G4 | (2) Tantalum Ground Rings | |
| G5 | (1) 316L SST Ground Ring | |
| G6 | (1) Nickel Alloy 276 (UNS N10276) Ground Ring | |
| G7 | (1) Titanium Ground Ring | |
| G8 | (1) Tantalum Ground Ring | |
| L1 | (2) 316L SST Lining Protectors | |
| L2 | (2) Nickel Alloy 276 (UNS N10276) Lining Protectors | |
| L3 | (2) Titanium Lining Protectors | |
| L5 | (1) 316L SST Lining Protector | |
| L6 | (1) Nickel Alloy 276 (UNS N10276) Lining Protector | |
| L7 | (1) Titanium Lining Protector | |
| **Integral mount configuration** | | |
| B3 | Integral Mount with 8732EM Transmitter | |
| **Calibration option** | | |
| D1[6] | High Accuracy Calibration (0.15% of rate for matched sensor and transmitter) | |
| D3 | Low Power Calibration | |
| **Special lay length** | | |
| H1[7] | Lay-length matching 8701 using spool piece/spacer | |
| H2[8] | Lay-length matching 8701 | |
| **Conduit entries** | | |
| J1[9] | M20–1.5 Conduit Entries | |
| **Non-standard calibration verification** | | |
| P05[10] | 5 Velocity Calibration Verification Report (5 velocities, 5 total points) | |
| EC1 | Expanded Verification (3 velocities, 9 total points) | |
| IC1 | ISO 17025 Verification (3 velocities, 9 total points) with ISO Certificate ½ in. to 14 in. (15 mm to 350 mm) | |
| **316 SST housing** | | |
| SH[11] | SST Coil Housing and Remote Junction Box | |
| **Junction box style** | | |
| SJ[11] | SST Remote Junction Box | |
| **Increased submergence protection[12]** | | |
| S05 | Potted junction box with 50 feet of submersible combo cable/cable gland | |
| S10 | Potted junction box with 100 feet of submersible combo cable/cable gland | |
| S15 | Potted junction box with 150 feet of submersible combo cable/cable gland | |
| S20 | Potted junction box with 200 feet of submersible combo cable/cable gland | |

**Table 11: 8705-M Flanged Sensor options - select only as needed *(continued)***

| Code | Description | |
|---|---|---|
| S25 | Potted junction box with 250 feet of submersible combo cable/cable gland | |
| S30 | Potted junction box with 300 feet of submersible combo cable/cable gland | |
| **Paint** | | |
| V1 | Coal Tar Paint | |
| V2 | Offshore/Near Shore Marine Paint (3 layer epoxy) | |
| **Quality certificates** | | |
| Q4 | Calibration Certificate per ISO 10474 3.1/EN 10204 3.1 | |
| Q5 | Hydrostatic Test Certificate | |
| Q8 | Material Traceability per ISO 10474 3.1/EN 10204 3.1 | |
| Q25 | Certificate of Compliance to NACE MR0175 and MR0103 | |
| Q66 | Weld Procedure Package (Weld Map, Weld Procedure Specification, Weld Procedure Qualification Record, Welder Performance Qualification) | |
| Q70 | NDE Weld Examination Inspection Certificate, ISO 10474 3.1 | |
| Q71(13) | NDE Weld Examination Inspection Certificate, ISO 10474 3.1 with images | |
| Q76 | Positive Material Identification (PMI) on flanges and pipe, per ASTM E1476-97 | |
| **NTEP approval** | | |
| WM | US NTEP Certification | |
| **Witness inspection** | | |
| WG | Witness Inspection | |
| **Quick Start Guide language** | | |
| YF | French | |
| YG | German | |
| YI | Italian | |
| YJ | Japanese | |
| YM | Chinese–Mandarin | |
| YP | Portuguese–Brazil | |
| YR | Russian | |
| YS | Spanish | |

(1) *Labeled with CSA(C/US), CE, C-tick and EAC.*
(2) *Available in line sizes ½ in. to 20 in. (15 mm to 500 mm),* ***excluding*** *2½ in. (65 mm) and 5 in. (125 mm) line sizes.*
(3) *Carbon Steel flanges for PED have a minimum process temperature limit of 0 °C.*
(4) *Available liners PTFE (T) all line sizes or Polyurethane (P) 4 in. or larger; electrode materials 316L SST (S) or Ni-Alloy 276 (H).*
(5) *Grounding rings and Lining protectors provide the same process reference function.*
(6) *The high accuracy calibration requires a matched transmitter. It is only available when ordered with a transmitter. Spare or replacement orders are not available with the D1 option. For sensor sizes greater than 12 in. (300 mm), the high accuracy is ±0.25% of rate from 3 to 39 ft/sec (1 to 12 m/sec). See Performance specifications.*
(7) *Available line sizes ½ in. to 12 in. (15 mm to 300 mm).*
(8) *Available in sensor line sizes ½ in. to 16 in. (15 mm to 400 mm).*
(9) *M20 conduit adapters are supplied for Ordinary Locations and US/Canadian Approvals N5, N6, K5 and KU.*
(10) *P05 verification; 1 run, 5 velocities, 5 total points for: ½ in. to 24 in. (15 mm to 600 mm) Velocities 2, 4, 6, 8, 10 ft/s; 30 in. (700 mm) Velocities 1, 2.3, 4, 6, 8 ft/s; 36 in. (900 mm) Velocities 1, 2.3, 4, 5, 6 ft/s.*
(11) *Not available with US/Canadian Approvals N5, K5, N6, or KU.*
(12) *Ordinary location only. Conduit not required.*
(13) *Weld-Neck only.*

## Slip-on flanges

**Table 12: Slip-on Flange Options by Line Size**

| | Flange code and rating | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **6** | **7** | **9** | **D** | **E** | **F** | **H** | **K** | **L** | **P** | **R** | **T** | **U** | **W** | **Y** |
| **Size code** | ASME Class 150 | MSS-SP44eClass 150 (30", 36") | ASME Class 300 | ASME Class 600 Derated | ASME Class 600 Full Rated | ASME Class 900 | EN PN10 | EN PN16 | EN PN25 | EN PN40 | AS2129 Table D | AS2129 Table E | JIS 10K | JIS 20K | JIS 40K | AS4087 PN16 | AS4087 PN21 | AS4087 PN35 |
| 005 | ★ | | ★ | ★ | ★ | | | | | ★ | ★ | ★ | ★ | ★ | ★ | | | |
| 010 | ★ | | ★ | ★ | ★ | ★ | | | | ★ | ★ | ★ | ★ | ★ | ★ | | | |
| 015 | ★ | | ★ | ★ | ★ | ★ | | | | ★ | ★ | ★ | ★ | ★ | ★ | | | |
| 020 | ★ | | ★ | ★ | ★ | ★ | | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 025 | ★ | | ★ | ★ | ★ | ★ | | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 030 | ★ | | ★ | ★ | ★ | ★ | | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 040 | ★ | | ★ | ★ | ★ | ★ | | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 050 | ★ | | ★ | ★ | ★ | ★ | | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | | | |
| 060 | ★ | | ★ | ★ | ★ | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 080 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 100 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 120 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 140 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 160 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 180 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | | ★ | ★ | ★ |
| 200 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | | ★ | ★ | ★ |
| 240 | ★ | | ★ | ★ | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | | ★ | ★ | ★ |
| 300 | ★(1) | ★ | ★ | | | | | | | | ★ | ★ | | | | ★ | ★ | ★ |
| 360 | ★(1) | ★ | ★ | | | | ★ | ★ | | | ★ | ★ | | | | ★ | ★ | ★ |

(1) *AWWA Class D*

## Weld neck flanges

**Table 13: Weld Neck Flange Options by Line Size**

| | Flange code and rating | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **6** | **7** | **9** | **D** | **E** | **F** | **H** | **M** | **N** |
| **Size code** | ASME Class 150 | ASME Class 150 (30", 36") | ASME Class 300 | ASME Class 600 Derated | ASME Class 600 Full Rated | ASME Class 900 | EN PN10 | EN PN16 | EN PN25 | EN PN40 | ASME Class 1500 | ASME Class 2500 |
| 005 | ★ | | ★ | | | | | | | ★ | | |
| 010 | ★ | | ★ | ★ | ★ | ★ | | | | ★ | ★ | |
| 015 | ★ | | ★ | ★ | ★ | ★ | | | | ★ | ★ | ★ |
| 020 | ★ | | ★ | ★ | ★ | ★ | | | | ★ | ★ | ★ |
| 025 | | | | | | | | | | | ★ | ★ |
| 030 | ★ | | ★ | ★ | ★ | ★ | | | | ★ | ★ | ★ |
| 040 | ★ | | ★ | ★ | ★ | ★ | | ★ | | ★ | ★ | ★ |
| 050 | | | | | | | | | | | | |
| 060 | ★ | | ★ | ★ | ★ | ★ | | ★ | ★ | ★ | ★ | ★ |
| 080 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| 100 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | |
| 120 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | |
| 140 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | | |
| 160 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | | |
| 180 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | | |
| 200 | ★ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | | |
| 240 | ★ | | ★ | ★ | ★ | | ★ | ★ | ★ | ★ | | |
| 300 | | ★(1) | ★(1) | | | | | | | | | |
| 360 | | ★(1) | ★(1) | | | | ★ | ★ | ★ | | | |

(1) *ASME B16.47 Series A*

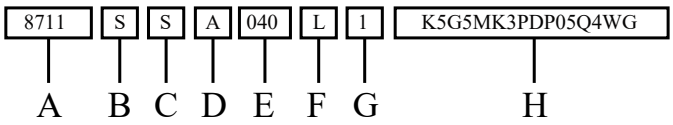
# Rosemount 8711-M/L Wafer Sensors

The flangeless design of the wafer sensor makes it an economical, compact, and lightweight alternative to flanged magnetic flowmeters. Alignment spacers are provided with every 8711-M/L which help center the sensor in the process line simplifying installation.

**Note**
The starred (★) offerings represent the most common options, and should be selected for best delivery.

### Model code structure

**Figure 5: Guide to model code structure**




*A. Base model*
*B. Lining material*
*C. Electrode material*
*D. Electrode type*
*E. Line size*
*F. Transmitter mounting configuration*
*G. Mating pipe flange pressure rating*
*H. Options (Table 15)*

Example model code with one selection out of each category: `8711 S S A 040 L 1 K5 G5 MK3 PD P05 Q4 WG`

### Requirements

**Table 14: Rosemount 8711-M/L Wafer Sensor requirements – select one from each available choice**

| Code | Product description | |
|---|---|---|
| **Base model** | | |
| 8711 | Rosemount Wafer Sensor | |
| **Wafer Sensor lining material** | | |
| A[1] | PFA | |
| S | PTFE | ★ |
| F | ETFE | |

**Table 14: Rosemount 8711-M/L Wafer Sensor requirements – select one from each available choice *(continued)***

| Code | Product description | |
|---|---|---|
| **Electrode material** | | |
| S | 316L Stainless Steel | ★ |
| H | Nickel Alloy 276 (UNS N10276) | ★ |
| T | Tantalum | ★ |
| P | 80% Platinum - 20% Iridium | ★ |
| N | Titanium | ★ |
| **Electrode type** | | |
| A | 2 Measurement Electrodes | ★ |
| E | 2 Measurement Electrodes plus 1 Reference Electrode | |
| B[2] | 2 Bullet-nose Measurement Electrodes | |
| F[2] | 2 Measurement Bullet-nose Electrodes plus 1 Reference Bullet-nose Electrode | |
| **8711-R/U line size** | | |
| 15F | 0.15 in. (4 mm) liner material PFA only; mounting configuration R/U only | ★ |
| 30F | 0.30 in. (8 mm) liner material PFA only; mounting configuration R/U only | ★ |
| 005 | ½ in. (15 mm); mounting configuration R/U only | ★ |
| 010 | 1 in. (25 mm); mounting configuration R/U only | ★ |
| **8711-M/L line size** | | |
| 015 | 1½ in. (40 mm) | |
| 020 | 2 in. (50 mm) | |
| 030 | 3 in. (80 mm) | |
| 040 | 4 in. (100 mm) | |
| 060 | 6 in. (150 mm) | |
| 080 | 8 in. (200 mm) | |
| **Transmitter mounting configuration** | | |
| R[3] [4] | Remote Mount with Legacy Terminal Block | |
| U [3] [4] | Integral Mount IMS Cable Assembly for use with an 8732EM Transmitter | |
| L | Remote Mount with Field Replaceable Terminal Block | |
| M[5] | Integral Mount Socket Module/Direct Lead Assembly for use with an 8732EM Transmitter | |

**Table 14: Rosemount 8711-M/L Wafer Sensor requirements – select one from each available choice *(continued)***

| Code | Product description |
|---|---|
| **Mating pipe flange pressure rating - Includes three alignment spacers (where applicable)** | |
| 1 | ASME, Class 150 |
| 3 | ASME, Class 300 |
| D | EN1092-1, PN10 |
| E | EN1092-1, Flange Rating up to PN16 |
| F | EN1092-1, Flange Rating up to PN25 |
| H | EN1092-1, Flange Rating up to PN40 |
| P | JIS B2220, 10K |
| R | JIS B2220, 20K |
| U | AS4087, PN16 |
| W | AS4087, PN21 |
| Y | AS4087, PN35 |

(1) *Available for 15F, 30F only.*
(2) *not available in 0.15 in., 0.3 in., or ½ in. line sizes.*
(3) *Available for Ordinary Locations, "EN" NEPSI China Domestic, "KD" ATEX, "N5," CSA (C/US) or "E5" CSA (C/US) only.*
(4) *Reference Product Data Sheet 00813-0100-4727 for technical details.*
(5) *Consult Technical Support for use with Ordinary Locations.*

### Options

**Note**
The following options are not required, but they must be included in the model number if desired.

**Table 15: Rosemount 8711-M/L Wafer Sensor options - select only as needed**

| Code | Description | |
|---|---|---|
| **Hazardous area certifications** | | |
| -[1] | Ordinary Locations - (no code required) | ★ |
| N5 | US Approvals, Class I Div 2, Non-Incendive with I.S. Electrodes; and Dust | ★ |
| K5 | US Approvals, Class I Div 1, Explosion-proof with I.S. Electrodes; and Dust | ★ |
| N6 | Canadian Approvals, Class I Div 2, Non-Incendive with I.S. Electrodes; and Dust | ★ |
| K6 | US/Canadian Approvals, Increased Safety with I.S. Electrodes; and Dust | ★ |
| KU | US Approvals, Class I Div 1, Explosion-proof with I.S. Electrodes; and Dust | ★ |
| ND | ATEX Dust | ★ |
| N1 | ATEX Non-Sparking with I.S. Electrodes; ATEX Dust | ★ |
| K1 | ATEX Increased Safety with I.S. Electrodes; ATEX Dust | ★ |
| NF | IECEx Dust | ★ |
| K9 | KTL Flameproof with Increased Safety, KTL Dust | ★ |
| N7 | IECEx Non-Sparking with I.S. Electrodes; IECEx Dust | ★ |
| K7 | IECEx Increased Safety with I.S. Electrodes; IECEx Dust | ★ |
| N8 | EAC Non-Sparking with I.S. Electrodes; EAC Dust | ★ |
| K8 | EAC Increased Safety with I.S. Electrodes; EAC Dust | ★ |
| N2 | INMETRO Non-Sparking with I.S. Electrodes; INMETRO Dust | ★ |
| K2 | INMETRO Increased Safety with I.S. Electrodes; INMETRO Dust | ★ |
| N3 | NEPSI Non-Sparking with I.S. Electrodes; NEPSI Dust | ★ |
| K3 | NEPSI Increased Safety with I.S. Electrodes; NEPSI Dust | ★ |
| N4 | CML Non-Sparking with I.S. Electrodes; CML Dust | ★ |
| K4 | CML Increased Safety with I.S. Electrodes; CML Dust | ★ |
| NW | PESO Non-Sparking with Intrinsically Safe Electrodes | ★ |
| KW | PESO Increased Safety with Intrinsically Safe Electrodes | ★ |
| **Increased submergence protection[2]** | | |
| S05 | Potted junction box with 50 feet of submersible combo cable/cable gland | |
| S10 | Potted junction box with 100 feet of submersible combo cable/cable gland | |
| S15 | Potted junction box with 150 feet of submersible combo cable/cable gland | |
| S20 | Potted junction box with 200 feet of submersible combo cable/cable gland | |
| S25 | Potted junction box with 250 feet of submersible combo cable/cable gland | |
| S30 | Potted junction box with 300 feet of submersible combo cable/cable gland | |

**Table 15: Rosemount 8711-M/L Wafer Sensor options - select only as needed *(continued)***

| Code | Description |
|---|---|
| **Grounding rings** | |
| G1 | (2) 316L SST Ground Rings |
| G2 | (2) Nickel Alloy 276 (UNS N10276) Ground Rings |
| G3 | (2) Titanium Ground Rings |
| G4 | (2) Tantalum Ground Rings |
| G5 | (1) 316L SST Ground Ring |
| G6 | (1) Nickel Alloy 276 (UNS N10276) Ground Ring |
| G7 | (1) Titanium Ground Ring |
| G8 | (1) Tantalum Ground Ring |
| **Mounting hardware** | |
| MK2 | Carbon Steel mounting Studs & Nuts Kit |
| MK3 | 316 SST mounting Studs & Nuts Kit |
| **Certifications** | |
| PD | Pressure Equipment Directive Certification (PED) |
| DW[(3)] | NSF Drinking Water Certification |
| **Calibration option** | |
| D1[(4)] | High Accuracy Calibration (0.15% of rate for matched sensor and transmitter) |
| **Conduit entries** | |
| J1[(5)] | M20–1.5 Conduit Entries |
| **Junction box style** | |
| SJ[(6)] | SST Remote Junction Box |
| **Non-standard calibration verification** | |
| P05[(7)] | 5 Velocity Calibration Verification Report (5 velocities, 5 total points) |
| EC1 | Expanded Verification (3 velocities, 9 total points) |
| IC1 | ISO 17025 Verification (3 velocities, 9 total points) with ISO Certificate ½ in. to 8 in. (15 mm to 200 mm) |
| **Quality certificates** | |
| Q4 | Calibration Certificate per ISO 10474 3.1/ EN 10204 3.1 |
| Q5 | Hydrostatic Test Certificate |
| Q8 | Material Traceability per ISO 10474 3.1 / EN 10204 3.1 |
| Q25 | Certificate of Compliance to NACE MR0175 and MR0103 |
| Q66[(8)] | Weld Procedure Package (Weld Map, Weld Procedure Specification, Weld Procedure Qualification Record, Welder Performance Qualification) |
| Q70[(8)] | NDE Weld Examination Inspection Certificate, ISO 10474 3.1 |
| Q76[(8)] | Positive Material Identification (PMI) on Pipe, per ASTM E1476-97 |
| **Witness inspection** | |
| WG | Witness Inspection |

**Table 15: Rosemount 8711-M/L Wafer Sensor options - select only as needed *(continued)***

| Code | Description |
|---|---|
| **Quick Start Guide language** | |
| YF | French |
| YG | German |
| YI | Italian |
| YJ | Japanese |
| YM | Chinese–Mandarin |
| YP | Portuguese–Brazil |
| YR | Russian |
| YS | Spanish |

(1) *Labeled with CSA (C/US), CE, C-tick and EAC.*
(2) *Ordinary location only, line sizes 1½ in. (40 mm) to 8 in. (200 mm). Conduit not required.*
(3) *Available liner PTFE (T) and electrode materials 316L SST (S) or Ni-Alloy 276 (H).*
(4) *The high accuracy calibration requires a matched transmitter. It is only available when ordered with a transmitter. Spare or replacement orders are not available with the D1 option.*
(5) *M20 conduit adapters are supplied for Ordinary Locations and US/Canadian Approvals N5, N6, K5 and KU.*
(6) *Not available with US/Canadian Approvals N5, N6, K5, or KU.*
(7) *P05 verification; 1 run, 5 velocities at 2, 4, 6, 8, 10 ft/s; 5 total points.*
(8) *Available on 6 and 8 in. only.*

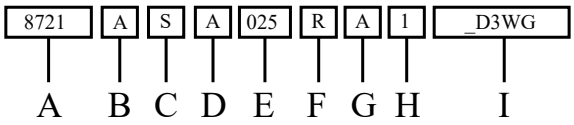
# Rosemount 8721 Hygienic (Sanitary) Sensor

The 8721 Hygienic Sensor is specifically designed for the demanding applications in food, beverage, and life sciences. The robust, all-welded, full diameter sensor is constructed of FDA approved materials, authorized to display the 3-A Symbol (Authorization #1222). Sizes range from ½ in. (15 mm) to 4 in. (100 mm) and are available in a variety of industry standard process connections.

**Note**
The starred (★) offerings represent the most common options, and should be selected for best delivery.

**Model code structure**

**Figure 6: Guide to model code structure**




A. *Base model*
B. *Lining material*
C. *Electrode material*
D. *Electrode type*
E. *Line size*
F. *Transmitter mounting configuration*
G. *Process connection type*
H. *Process gasket material*
I. *Options (Table 17)*

Example model code with one selection out of each category: `8721 A S A 025 R A 1 _ D3 WG`

**Requirements**

**Table 16: Rosemount 8721 Hygienic Sensor Requirements - select one from each available choice**

| Model | Product description | |
|---|---|---|
| **Base model** | | |
| 8721 | Rosemount Hygienic Sensor | |
| **Lining material** | | |
| A | PFA | ★ |

**Table 16: Rosemount 8721 Hygienic Sensor Requirements - select one from each available choice *(continued)***

| Model | Product description | |
|---|---|---|
| **Electrode material** | | |
| S | 316L SST | ★ |
| H | Nickel Alloy 276 (UNS N10276) | ★ |
| P | 80% Platinum-20% Iridium | |
| **Electrode type** | | |
| A | 2 Measurement Electrodes | ★ |
| **Line size** | | |
| 005 | ½ in. (15 mm) | ★ |
| 010 | 1 in. (25 mm) | ★ |
| 015 | 1½ in. (40 mm) | ★ |
| 020 | 2 in. (50 mm) | ★ |
| 025 | 2½ in. (65 mm) | ★ |
| 030 | 3 in. (80 mm) | ★ |
| 040 | 4 in. (100 mm) | ★ |
| **Transmitter mounting configuration** | | |
| R | Remote Mount with Replaceable Terminal Block | ★ |
| U | Integral mount | ★ |
| **Process connection type** | | |
| A(1) | Tri Clamp | ★ |
| B(2) | IDF Sanitary screw type | ★ |
| C | ANSI Weld Nipple | |
| D | DIN 11851 (Imperial) | |
| E | DIN 11851 (Metric) | |
| F | DIN 11864-1 form A | |
| G | DIN 11864-2 form A | |
| H | SMS Connection | |
| J | Cherry-Burrell I-Line | |
| K | DIN 11850 Weld Nipple | |
| **Gasket material** | | |
| 1 | Silicone | ★ |
| 2 | EPDM | ★ |
| 4 | Viton® | |
| 8 | EPDM Compression limiting(3) | |
| 9 | Viton Compression limiting(3) | |
| X | No Gasket - User Supplied (Order gasket kit as a spare part) | |

(1) *Tri Clamp specification per BPE ½-inch (15 mm) line size with Tri Clamp fittings use a ¾-inch fitting and requires ¾-inch gaskets.*
(2) *IDF Specification per BS4825 Part 4.*
(3) *Compression limiting gasket required for European Hygienic Engineering & Design Group (EHEDG).*

## Options

**Note**
The following options are not required, but they must be included in the model number if desired.

**Table 17: Rosemount 8721 Hygienic Sensor options - select only as needed**

| Model | Product description | |
|---|---|---|
| -[1] | Ordinary Locations - (no code required) | ★ |
| **Non-standard calibration verification** | | |
| P05[2] | 5 Velocity Calibration Verification Report (5 velocities, 5 total points) | |
| EC1 | Expanded Verification (3 velocities, 9 total points) | |
| IC1 | ISO 17025 Verification (3 velocities, 9 total points) with ISO Certificate ½ in. to 4 in. (15 mm to 100 mm) | |
| **Other options** | | |
| AH | Electro-Polished process connection (Ra ≤ 15µinch) | |
| D1[3] | High Accuracy Calibration (0.25% of rate for matched sensor and transmitter system) | |
| D3 | High Velocity Meter Verification. Calibration verified at 1, 3, 10 and 20 ft/sec (0.3. 1, 3, and 6 m/s) | |
| HP | Process Data PD340 (Alfa-Laval PD340) 250mm lay length and Tri Clamp process connections | |
| J1 | M20–1.5 Conduit Adapter (Remote mount only) | |
| Q4 | Calibration Certificate per ISO 10474 3.1/ EN 10204 3.1 | |
| Q8 | Material Traceability Certificate per ISO 10474 3.1 / EN 10204 3.1(product contact surfaces) | |
| SJ | 316 SST Remote Junction Box | |
| **NTEP approval** | | |
| WM | US NTEP Certification | |
| **Witness inspection** | | |
| WG | Witness inspection | |
| **Quick Start Guide language** | | |
| YF | French | |
| YG | German | |
| YI | Italian | |
| YM | Chinese–Mandarin | |
| YP | Portuguese–Brazil | |
| YR | Russian | |
| YS | Spanish | |

(1) *Labeled with CSA (C/US), CE, C-tick and EAC.*
(2) *P05 verification; 1 run, 5 velocities at 2, 4, 6, 8, 10 ft/s; 5 total points.*
(3) *The high accuracy calibration requires a matched transmitter. It is only available when ordered with a transmitter. Spare or replacement orders are not available with the D1 option.*

# Rosemount 8714D Magnetic Flowmeter Simulator Reference Calibration Standard


The Rosemount 8714D Magnetic Flowmeter Simulator attaches to an 8732EM Transmitter's sensor connections to ensure traceability to NIST standards and long-term accuracy of the flowmeter system.

**Note**
The starred (★) offerings represent the most common options, and should be selected for best delivery.

**Table 18: Rosemount 8714 Ordering Information**

| Model | Product | |
|---|---|---|
| 8714 | Magnetic Flowmeter Simulator - Reference Calibration Standard | ★ |
| **Calibrator style** | | |
| D | Multi-point Reference Calibration Standard | ★ |
| **Quality certificates** | | |
| Q4 | Flow Calibration Certificate | ★ |
| **Quick Start Guide language** | | |
| YF | French | ★ |
| YG | German | ★ |
| YI | Italian | ★ |
| YM | Chinese–Mandarin | ★ |
| YP | Portuguese–Brazil | ★ |
| YR | Russian | ★ |
| YS | Spanish | ★ |

# Ordering flowmeter equipment

### Ordering procedure

To order, select the desired sensor and/or transmitter by specifying model codes from the ordering table.

For remote transmitter applications, note the cable specification requirements.

Sensors and transmitters must be selected from Product Data Sheet 00813-0100-4444, unless otherwise noted.

### Standard configuration

Unless the Configuration Data Sheet is completed, the transmitter will be shipped as follows:

| | |
|---|---|
| Engineering units: | ft/sec |
| 4 mA: | 0 |
| 20 mA: | 30 |
| Sensor size: | 3 in. |
| Empty pipe: | On |
| Sensor calibration number: | 1000005010000000 |

Integrally mounted transmitters are factory configured with the paired sensor size and appropriate calibration number.

### Custom configuration (option code C1)

If Option Code C1 is ordered, the Configuration Data Sheet (CDS) must be submitted at the time of order.

### Standard tagging

Instrument tags for the transmitter and sensors are as follows:

- 316SST laser etched label, permanently attached
- Main label:

| | |
|---|---|
| Model string | 8712EM: character height 0.060 in. (1.5 mm)<br>8732EM: character height 0.085 in. (2.1 mm)<br>8705, 8711, 8721: character height 0.065 in. (1.6 mm) |
| Tag name | 1 line 21 characters, height 0.065 in. (1.6 mm) |

- Additional 316SST 'wire-on' tag available: 5 lines, 17 characters per line (3.2 mm height)

### Interconnecting cable

Interconnecting cables are required to connect a remote mount transmitter to the sensor. When ordering cable, review the hazardous area approval requirements and the installation location requirements for proper cable selection.

- Cables can be ordered as individual component cables or a combination coil drive/electrode cable.
- Cables can be ordered as part of the transmitter model number or as a spare parts kit. Integrally mounted transmitters are factory wired and do not require additional interconnecting cables.
- Individual component cables require equal lengths of coil drive cable and electrode cable and should be limited to less than 500 feet (152 m). Consult an Emerson Flow representative for lengths between 500–1000 feet (152–300 m).
- Combination coil drive/electrode cable is only available for Ordinary Locations and should be limited to less than 330 feet (100 m).

### Component cable kits

| Standard temperature — –4 °F to 167 °F (–20 °C to 75 °C) | | | | |
|---|---|---|---|---|
| **Cable kit #** | **Description** | **Component** | **Alpha direct p/n** | **Alpha equivalent** |
| 08732-0065-0001 (feet) | Kit, Component Cables, Std Temp, (includes Coil and Electrode) | Coil | 518243 | 2442C |
| | | Electrode | 518245 | 2413C |
| 08732-0065-0002 (meters) | Kit, Component Cables, Std Temp (includes Coil and Electrode) | Coil | Not available | Not available |
| | | Electrode | Not available | Not available |
| 08732-0065-0003 (feet) | Kit, Component Cables, Std Temp (includes Coil and I. S. Electrode) | Coil | 518243 | Not available |
| | | I. S. Electrode | 518244 | Not available |
| 08732-0065-0004 (meters) | Kit, Component Cables, Std Temp (includes Coil and I. S. Electrode) | Coil | Not available | Not available |
| | | I.S. Electrode | Not available | Not available |

| Extended temperature — –58 °F to 257 °F (–50 °C to 125 °C) | | | | |
|---|---|---|---|---|
| **Cable kit #** | **Description** | **Component** | **Alpha direct p/n** | **Alpha equivalent** |
| 08732-0065-1001 (feet) | Kit, Component Cables, Ext Temp (includes Coil and Electrode) | Coil | 840310 | Not available |
| | | Electrode | 518189 | Not available |
| 08732-0065-1002 (meters) | Kit, Component Cables, Ext Temp (includes Coil and Electrode) | Coil | Not available | Not available |
| | | Electrode | Not available | Not available |
| 08732-0065-1003 (feet) | Kit, Component Cables, Ext Temp (includes Coil and I. S. Electrode) | Coil | 840310 | Not available |
| | | I. S. Electrode | 840309 | Not available |
| 08732-0065-1004 (meters) | Kit, Component Cables, Ext Temp (includes Coil and I. S. Electrode) | Coil | Not available | Not available |
| | | I.S. Electrode | Not available | Not available |

### Combo cable kits

| Coil/electrode cable — –4 °F to 176 °F (–20 °C to 80 °C) | |
|---|---|
| **Cable Kit #[(1)]** | **Description** |
| 08732-0065-2001 (feet) | Kit, Combo Cable, Standard |
| 08732-0065-2002 (meters) | |
| 08732-0065-3001 (feet) | Kit, Combo Cable, Submersible[(2)] |
| 08732-0065-3002 (meters) | |

(1) *Only available for Ordinary Locations.*
(2) *80 °C dry/60 °C wet/33 ft continuous submergence.*

# Product specifications

## Rosemount 8700M Flowmeter Platform specifications

The tables below outline some of the basic performance, physical, and functional specifications of the Rosemount 8700M Magnetic Flowmeter Platform.

**Table 19: Rosemount 8712EM Transmitter Specifications**

| | | |
|---|---|---|
|  | Model | 8712EM |
| | Base accuracy(1) | 0.25% Standard 0.15% High Accuracy Option |
| | Mounting | Remote |
| | Power supply | Global AC or DC |
| | User interface | LCD display with 15 button tactile keypad (with HART or Modbus protocols only)<br>LCD display only<br>No display |
| | Communication protocol | HART<br>FOUNDATION™ fieldbus<br>Modbus RS-485 |
| | Diagnostics | Basic, DA1, DA2 |
| | Sensor compatibility | All Rosemount plus other manufacturers |
| | Detailed specifications | 8712 and 8732 Transmitter specifications |
| | Ordering information | Ordering information |

(1) *For complete accuracy specifications, please refer to Transmitter functional specifications.*

**Table 20: Rosemount 8732EM Transmitter Specifications**

| | | |
|---|---|---|
|  | Model | 8732EM |
| | Base accuracy(1) | 0.25% Standard 0.15% High Accuracy Option |
| | Mounting | Integral or Remote |
| | Power supply | Global AC or DC |
| | User interface | LCD display with 4 Optical Switch LOI (with HART or Modbus protocols only)<br>LCD display only<br>No display |
| | Communication protocol | HART<br>FOUNDATION™ fieldbus<br>Modbus RS-485 |
| | Diagnostics | Basic, DA1, DA2 |
| | Sensor compatibility | All Rosemount plus other manufacturers |
| | Detailed specifications | 8712 and 8732 Transmitter specifications |
| | Ordering information | Ordering information |

(1) *For complete accuracy specifications, please refer to Transmitter functional specifications.*

**Table 21: Rosemount Sensor Specifications**

| | | |
|---|---|---|
| **8705 Sensor** | | |
|  | Style | Flanged |
| | Base accuracy(1) | 0.25% Standard 0.15% High Accuracy Option |
| | Line sizes | ½ in. to 36 in. (15 mm to 900 mm) |
| | Design features | Standard Process Design |
| | Detdetailed specifications | 8705-M Flanged Sensor Specifications |
| | Ordering information | Rosemount 8705-M Flanged Sensor |
| **8711 Sensor** | | |
|  | Style | Wafer |
| | Base accuracy(1) | 0.25% Standard 0.15% High Accuracy Option |
| | Line sizes | 1½ in. to 8 in. (40 mm to 200 mm) |
| | Design features | Compact, Light Weight |
| | Detailed specifications | 8711-M/L Wafer Sensor Specifications |
| | Ordering information | Rosemount 8711-M/L Wafer Sensors |
| **8721 Sensor** | | |
|  | Style | Hygienic (sanitary) |
| | Base accuracy(1) | 0.5% Standard 0.25% High Accuracy Option |
| | Line sizes | ½ in. to 4 in. (15 mm to 100 mm) |
| | Design features | 3-A CIP/SIP |
| | Detailed specifications | 8721 Hygienic (Sanitary) Sensor Specifications |
| | Ordering information | Rosemount 8721 Hygienic (Sanitary) Sensor |

(1) *For complete accuracy specifications, refer to the sensor's detailed specifications.*

**Table 22: Lining Material Selection**

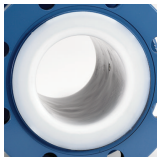
| Liner material | General characteristics |
|---|---|
| PFA, PFA+  | Best chemical resistance |
| | Better abrasion resistance than PTFE |
| | Best high temperature capabilities |
| | Process temperature: –58 to 350 °F (–50 to 177 °C) |
| PTFE  | Highly chemical resistant |
| | Excellent high temperature capabilities |
| | Process temperature: –58 to 350 °F (–50 to 177 °C) |

**Table 22: Lining Material Selection *(continued)***

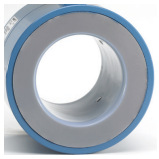
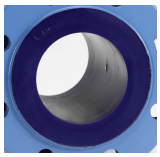
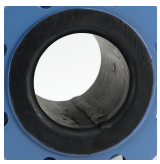
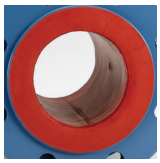
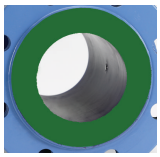
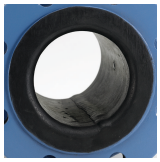
| Liner material | General characteristics |
|---|---|
| ETFE  | Excellent chemical resistance |
| | Better abrasion resistance than PTFE |
| | Process temperature: –58 to 300 °F (–50 to 149 °C) |
| Polyurethane  | Limited chemical resistance |
| | Excellent abrasion resistance for slurries with small and medium particles |
| | Process temperature: 0 to 140 °F (–18 to 60 °C) |
| | Typically applied in clean water applications |
| Neoprene  | Very good abrasion resistance for small and medium particles |
| | Better chemical resistance than polyurethane |
| | Typically applied in water with chemicals, and sea water applications |
| | Preferred liner for high pressure > ASME B16.5 Class 900 |
| | Process temperature: 0 to 176 °F (–18 to 80 °C) |
| Linatex Rubber  | Limited chemical resistance especially in acids |
| | Very good abrasion resistance for large particles |
| | Softer material than polyurethane and neoprene |
| | Typically applied in mining slurries |
| | Process temperature: 0 to 158 °F (–18 to 70 °C) |
| Adiprene  | Ideal for applications with high salinity and/or hydrocarbon carryover |
| | Excellent abrasion resistance |
| | Typically used for Water Injection, Recovered Water, and Coal Gasification Slurries |
| | Preferred liner for high pressure > ASME B16.5 Class 900 |
| | Process temperature: 0 to 200 °F (–18 to 93 °C) |
| PEX  | Typically applied in general purpose water, wastewater, sea water, including applications where chemicals may be present |
| | Excellent abrasion resistance |
| | Good high temperature capabilities |
| | Process temperature: 0 to 203 °F (–18 to 95 °C) |

**Table 23: Electrode Material**

| Electrode material | General characteristics |
|---|---|
| 316L Stainless Steel | Good corrosion resistance |
| | Good abrasion resistance |
| | Not recommended for sulfuric or hydrochloric acids |

**Table 23: Electrode Material *(continued)***

| Electrode material | General characteristics |
|---|---|
| Nickel Alloy 276 (UNS N10276) | Better corrosion resistance |
| | High strength |
| | Good in slurry applications |
| | Effective in oxidizing fluids |
| Tantalum | Excellent corrosion resistance |
| | Not recommended for hydrofluoric acid, fluorosilic acid, or sodium hydroxide |
| 80% Platinum 20% Iridium | Best chemical resistance |
| | Expensive material |
| | Not recommended for aquaregia |
| Titanium | Better chemical resistance |
| | Better abrasion resistance |
| | Good for sea water applications |
| | Not recommended for hydrofluoric or sulfuric acid |
| Tungsten Carbide coated | Limited chemical resistance |
| | Best abrasion resistance |
| | High concentration slurries |
| | Preferred electrode for oil and gas fracturing applications |

**Table 24: Electrode Type**

| Electrode type | General characteristics |
|---|---|
| Standard Measurement | Lowest cost |
| | Good for most applications |
| Measurement + Reference Electrode(1) | Low cost grounding option especially for large line sizes |
| | If using a reference electrode, process fluid must have a minimum conductivity of 100 microSiemens/cm |
| | Not recommended for electrolytic or galvanic corrosion applications |
| Bullet-nose | Extended head protrudes into the flow stream for self-cleaning |
| | Best option for coating processes |
| Flat Head | Low profile head |
| | Best option for abrasive slurries |

(1) *See Table 25 and Table 26 for grounding options and installation.*

**Table 25: Process Reference Options**

| Grounding options | General characteristics |
|---|---|
| No Grounding Options (grounding straps) | Acceptable for conductive unlined pipe |
| | Grounding straps provided at no cost |
| Reference Electrode | Same material as measurement electrodes |
| | Sufficient grounding option when process fluid conductivity is greater than 100 microSiemens/cm |
| | Not recommended in electrolysis applications, galvanic corrosion applications, applications where the electrodes may coat, or non-conductive pipe. |

**Table 25: Process Reference Options *(continued)***

| Grounding options | General characteristics |
|---|---|
| Grounding Rings | Low conductivity process fluids |
| | Cathodic or electrolysis applications that may have stray currents in or around the process |
| | Variety of materials for process fluid compatibility |
| Lining Protectors | Protect upstream edge of sensor from abrasive fluids |
| | Permanently installed on sensor |
| | Protect liner material from over torquing of flange bolts |
| | Provide ground path and eliminate need for grounding rings or reference electrode |
| | Required for applications where Flexitallic gaskets are used |

**Table 26: Process Reference Installation**

| Type of pipe | Grounding straps | Grounding rings | Reference electrode | Lining protectors |
|---|---|---|---|---|
| Conductive unlined pipe | Acceptable | Not required | Not required | Not required |
| Conductive lined pipe | Not acceptable | Acceptable | Acceptable | Acceptable |
| Non-conductive pipe | Not acceptable | Acceptable | Not recommended | Acceptable |

# 8712 and 8732 Transmitter specifications

## Transmitter functional specifications

### Sensor compatibility

Compatible with Rosemount 8705, 8711, and 8721 sensors. Compatible with AC and DC powered sensors of other manufacturers.

### Transmitter coil drive current

500 mA

### Flow rate range

Capable of processing signals from fluids with velocities between 0.04 and 39 ft/s (0.01 to 12 m/s) for both forward and reverse flow in all sensor sizes. Full scale continuously adjustable between –39 and 39 ft/s (–12 to 12 m/s).

### Conductivity limits

Process liquid must have a conductivity of 5 microSiemens/cm (5 micromhos/cm) or greater.

### Power supply

- 90 - 250 VAC @ 50/60 Hz
- 12 - 42 VDC
- 12 - 30 VDC (8732EM with HART or Modbus protocol only)

**Line power fuses**

- 90 - 250 VAC systems:
  - 2 amp quick acting
  - Bussman AGC2 or equivalent
- 12 - 42 VDC systems
  - 3 amp quick acting
  - Bussman AGC3 or equivalent
- 12 - 30 VDC systems
  - 3 amp quick acting
  - Bussman AGC3 or equivalent

**Power consumption**

- 90 - 250 VAC: 40 VA maximum
- 12 - 42 VDC: 15 W maximum
- 12 - 30 VDC: 3 W maximum HART
- 12 - 30 VDC: 4 W maximum Modbus

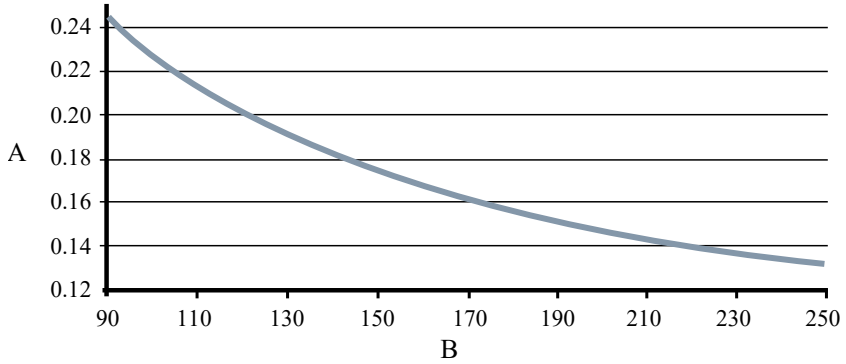
**Switch-on current**

- At 250 VAC: Maximum 35.7 A (< 5 ms)
- At 42 VDC: Maximum 42 A (< 5 ms)
- At 30 VDC: Maximum 42 A (< 5 ms)

**AC power supply requirements**

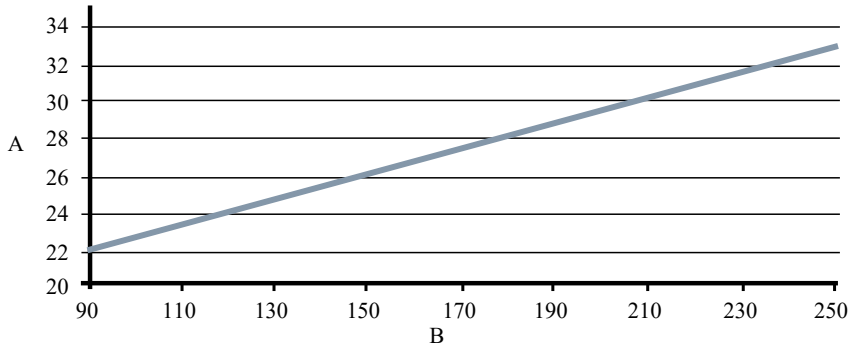
Units powered by 90 - 250 VAC have the following power requirements. Peak inrush is 35.7 A at 250 VAC supply, lasting approximately 1 ms. Inrush for other supply voltages can be estimated with: Inrush (Amps) = Supply (Volts) / 7.0

**Figure 7: AC current requirements**




*A. Supply current (amps)*
*B. Power supply (VAC)*

**Figure 8: Apparent power**

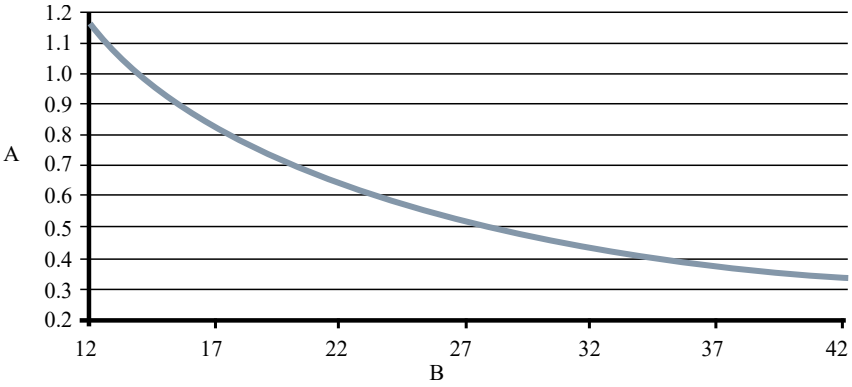



*A. Apparent power (VA)*
*B. Power supply (VAC)*

### DC power supply requirements

Standard DC Units powered by 12 VDC power supply may draw up to 1.2 A of current steady state. Low power DC units may draw up to 0.25 A of current steady state. Peak inrush is 42 A at 42 VDC supply, lasting approximately 1 ms. Inrush for other supply voltages can be estimated with: Inrush (Amps) = Supply (Volts) / 1.0

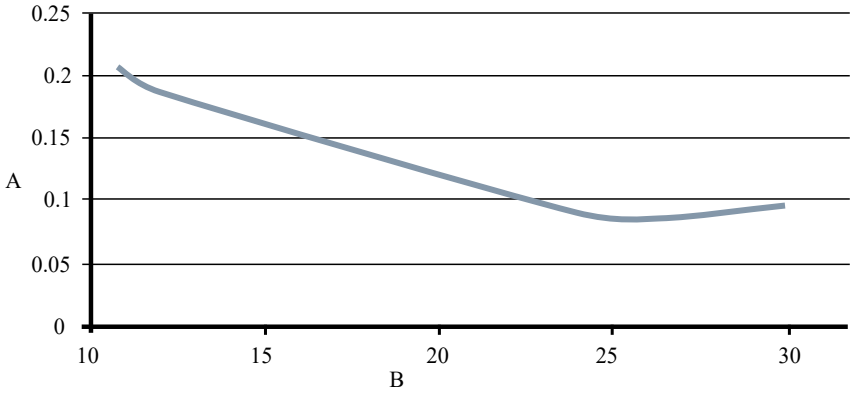
**Figure 9: DC current requirements**




*A. Supply current (amps)*
*B. Power supply (VDC)*

### DC low power supply requirements

**Figure 10: Low power DC current requirements**




*A. Supply current (amps)*
*B. Power supply (VDC)*

### Low power software option

This software option lowers the coil current from 500 mA to 75 mA in order to conserve power for applications in remote locations where power is scarce. The coils are still driven in a continuous manner optimizing measurement performance and providing access to all diagnostic capabilities. Because of the reduced coil current, flow measurement accuracy is reduced to 1% of rate for low power systems. Table 27 shows the power consumption that can be expected for various configurations. Due to the reduced coil current, sensor size is limited to a maximum line size of 10 in. (250 mm).

The low power option is available for integral mount with DC power only (option code 3) and output code B (4-20 mA/HART/Pulse) or M (Modbus RS-485 / Pulse). To ensure the sensor will support the low power functionality, option code D3 for a low power calibration must appear in the sensor model number.

Sample model numbers for a low power system are:

`8732EMT3M1N6M4DA1DA2`

`8705DHA020D7M0N6B3D3`

**Table 27: Low power consumption**

| Output code | Power consumption | Flow accuracy | Measurement range |
|---|---|---|---|
| Output Code B<br>Utilize Pulse Output Only | 2 Watts Maximum | 1% of Rate | 0.04 fps to 39 fps<br>0.01 m/s to 12 m/s |
| Output Code B<br>Utilize Pulse and Analog Output | 3 Watts Maximum | 1% of Rate | 0.04 fps to 39 fps<br>0.01 m/s to 12 m/s |
| Output code M<br>Utilizing Modbus RS-485 and Pulse Output | 4 Watts Maximum | 1% of Rate | 0.04 fps to 39 fps<br>0.01 m/s to 12 m/s |

**Ambient temperature limits**

- Operating:
  - –58 to 140 °F (–50 to 60 °C) without LOI/Display
  - –4 to 140 °F (–20 to 60 °C) with LOI/Display
  - The LOI/Display will not be visible at temperatures below –4 °F (–20 °C).
- Storage:
  - –58 to 185 °F (–50 to 85 °C) without LOI/Display
  - –22 to 176 °F (–30 to 80 °C) with LOI/Display

**Humidity limits**

0–95% RH to 140 °F (60 °C)

**Altitude limits**

AC Input Voltage: Maximum 250 VAC – Up to 2000 meters ( 6,500 feet)

AC Input Voltage: Maximum 150 VAC – Up to 4000 meters (13,000 feet)

DC Input Voltage: No altitude limit

**Transient protection rating**

Built in transient protection that conforms to:

- IEC 61000-4-4 for burst currents
- IEC 61000-4-5 for surge currents

**Turn-on time**

- 5 minutes to rated accuracy from power up
- 5 seconds from power interruption

**Start-up time**

50 ms from zero flow

**Low flow cut-off**

Adjustable between 0.01 and 38.37 ft/s (0.003 and 11.7 m/s). Below selected value, output is driven to the zero flow rate signal level.

**Overrange capability**

Signal output will remain linear until 110% of upper range value or 44 ft/s (13 m/s). The signal output will remain constant above these values. Out of range message displayed on LOI/Display and the Field Communicator.

**Damping**

Adjustable between 0 and 256 seconds

## Advanced diagnostics capabilities

**Basic**

- Self test
- Transmitter faults
- Analog output test
- Pulse output test
- Tunable empty pipe

- Reverse flow
- Ground/wiring fault
- Coil circuit fault
- Electronics temperature

**Process diagnostics (DA1)**

- High process noise
- Electrode coating diagnostic

**Smart Meter Verification (DA2)**

- Smart Meter Verification (continuous or commanded)
- 4-20 mA loop verification[2]

## Output signals

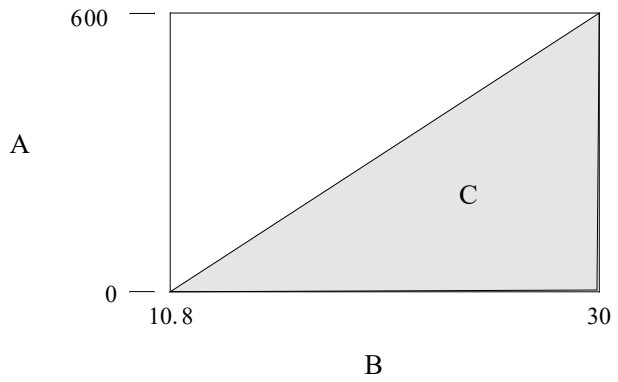
**Analog output adjustment [3]**

4–20 mA, switch-selectable as internally or externally powered.

**Analog loop load limitations**

- Internally powered 24 VDC max, 500 ohms max loop resistance
- Externally powered 10.8 - 30 VDC max.
- Loop resistance is determined by the voltage level of the external power supply at the transmitter terminals:

**Figure 11: Analog loop load limitations**




*A. Load (ohms)*
*B. Power supply (volts)*
*C. Operating region*

- $R_{max}$ = 31.25 ($V_{ps}$–10.8)
- $V_{ps}$ = power supply voltage (volts)
- Rmax = maximum loop resistance (ohms)

The analog output is automatically scaled to provide 4 mA at lower range value and 20 mA at upper range value. Full scale continuously adjustable between –39 and 39 ft/s (–12 to 12 m/sec), 1 ft/s (0.3 m/s) minimum span.

(2) Available with HART output only.
(3) For transmitters with intrinsically safe outputs (option code B), power must be supplied externally.

HART® Communications is a digital flow signal. The digital signal is superimposed on the 4–20 mA signal and is available for the control system interface. A minimum of 250 ohms loop resistance is required for HART communications.

### Analog alarm mode

High or low alarm signal is user-selectable via the Alarm switch on the front of the electronics. NAMUR-compliant alarm limits are software configurable and can be preset via CDS (C1). Individual diagnostic alarms are also software configurable. Alarms will drive the analog signal to the following mA values.

| | | |
|---|---|---|
| Low | 3.75 mA | Requires CDS (C1) |
| High | 22.50 mA (for 8732EM and 8712EM Modbus)<br>22.60 mA (for 8732EM, 8712EM and 8750W HART) | Factory default |
| NAMUR Low | 3.5 mA | Requires CDS (C1) |
| NAMUR High | 22.6 mA | Requires CDS (C1) |

### FOUNDATION™ Fieldbus output

| | |
|---|---|
| **Output signal** | Manchester-encoded digital signal that conforms to IEC 1158-2 and ISA 50.02 |
| **Scheduled Entries** | Seven (7) |
| **Links** | Twenty (20) |
| **Virtual Communications Relationships (VCRs)** | One (1) predefined (F6, F7) Nineteen (19) configurable |
| **FISCO compliant** | Reference appropriate 8732EM Approvals QSG for details |

### FOUNDATION™ fieldbus function blocks

**Table 28: Function block execution times**

| Block | Execution time (milliseconds) |
|---|---|
| Resource (RB) | — |
| Transducer (TB) | — |
| Analog Input (AI) | 15 |
| Proportional/Integral/Derivative (PID) | 20 |
| Integrator (INT) | 25 |
| Arithemetic (AR) | 25 |
| Discrete Output (DO) | 15 |

| | |
|---|---|
| **Transducer Block** | The transducer block calculates flow from the measured induced voltage. The calculation includes information related to the calibration number, line size, and diagnostics. |
| **Resource Block** | The resource block contains physical transmitter information, including available memory, manufacturer identification, device type, software tag, and unique identification. |
| **Backup Link Active Scheduler (LAS)** | The transmitter is classified as a device link master. A device link master can function as a Link Active Scheduler (LAS) if the current link master device fails or is removed from the segment. The host or other configuration tool is used to download the schedule for the application to the link master device. In the absence of a primary link master, the transmitter will claim the LAS and provide permanent control for the H1 segment. |
| **Diagnostics** | The transmitter automatically performs continuous self-diagnostics. The user can perform on-line testing of the transmitter digital signal. Advanced simulation diagnostics are available. This enables remote verification of the electronics via a flow signal generator built into the electronics. |

| | |
|---|---|
| | The sensor strength value can be used to view the process flow signal and provide information regarding filter settings. |
| **Analog Input** | The AI function block processes the measurement and makes it available to other function blocks. The AI function block also allows filtering, alarming, and engineering unit changes. |
| **Arithmetic Block** | Provides pre-defined application-based equations including flow with partial density compensation, electronic remote seals, hydrostatic tank gauging, ratio control and others. |
| **Proportional/ Integral/ Derivative** | The PID function block provides a sophisticated implementation of the universal PID algorithm. The PID function block features input for feed forward control, alarms on the process variable, and control deviation. The PID type (series or Instrument Society of America [ISA]) is user-selectable on the derivative filter. |
| **Integrator** | The standard integrator block is available for totalization of flow. |
| **Reverse Flow** | Detects and reports reverse flow |
| **Software Lockout** | A write-lock switch and software lockout are provided in the resource function block. |
| **Totalizer** | Non-volatile totalizer for net, gross, forward and reverse totals. |
| **Discrete Output** | The DO function block processes a discrete setpoint and saves it to a specified channel to produce an output signal. The block supports mode control, output tracking, and simulation. |

### Modbus® RS-485 output

Transmitters with a Modbus output provide an RS-485 signal to a Modbus host system; data rates can be configured from 1200 baud to 115.2 kilobaud.

### Profibus PA output

See Rosemount 8700 Series Magnetic Flowmeter Systems Product Data Sheet.

### Scalable pulse frequency adjustment

- 0-10,000 Hz, switch-selectable as internally or externally powered (4)
- Pulse value can be set to equal desired volume in selected engineering units
- Pulse width adjustable from 0.1 to 650 ms
- Internally powered: Outputs up to 12 VDC(5)
- Externally powered: Input 5 - 28 VDC

### Output testing

| | |
|---|---|
| **Analog output test (5)** | Transmitter may be commanded to supply a specified current between 3.5 and 23 mA. |
| **Pulse output test** | Transmitter may be commanded to supply a specified frequency between 1 and 10,000 Hz.(4) |

(4) For transmitters with intrinsically safe outputs (option code B), frequency range is limited to 0-5000 Hz and must be powered externally.
(5) For transmitters with intrinsically safe outputs (option code B), power must be supplied externally.

**Optional discrete output function (AX option)**

Externally powered at 5 - 28 VDC, 240 mA max, solid state switch closure to indicate either:

| | |
|---|---|
| **Reverse flow** | Activates switch closure output when reverse flow is detected. |
| **Zero flow** | Activates switch closure output when flow goes to 0 ft/s or below low flow cutoff. |
| **Empty pipe** | Activates switch closure output when an empty pipe condition is detected. |
| **Transmitter faults** | Activates switch closure output when a transmitter fault is detected. |
| **Flow limit 1, flow limit 2** | Activates switch closure output when the transmitter measures a flow rate that meets the conditions established for this alert. There are two independent flow limit alerts that can be configured as discrete outputs. |
| **Totalizer limit** | Activates switch closure output when the transmitter measures a total flow that meets the conditions established for this alert. |
| **Diagnostic status** | Activates switch closure output when the transmitter detects a condition that meets the configured criteria of this output. |

**Optional discrete input function (AX option)**

Externally powered at 5 - 28 VDC, 1.4 - 20 mA to activate switch closure to indicate either:

| | |
|---|---|
| **Reset Totalizer A (or B or C)** | Resets Totalizer A (or B or C) value to zero. |
| **Reset All Totals** | Resets all totalizer values to zero. |
| **Positive Zero Return (PZR)** | Forces outputs of the transmitter to zero flow. |

**Security lockout**

Security lockout switch on the electronics board can be set to deactivate all LOI and HART-based communicator functions to protect configuration variables from unwanted or accidental change.

**LOI lockout**

The display can be manually locked to prevent unintentional configuration changes. The display lock can be activated through a HART communication device, or by holding the UP arrow for 3 seconds and then following the on-screen instructions. When the display lock is activated, a lock symbol will appear in the lower right hand corner of the display. To deactivate the display lock, hold the UP arrow for 3 seconds and follow the on-screen instructions.

Display auto lock can be configured from the LOI with the following settings: OFF, 1 Minute, or 10 Minutes.

**Sensor compensation**

Rosemount sensors are calibrated in a flow lab at the factory and are assigned a calibration number. The calibration number must be entered into the transmitter, enabling interchangeability of sensors without calculations or a compromise in standard accuracy.

Transmitters and other manufacturers' sensors can be calibrated at known process conditions or at the Rosemount NIST-Traceable Flow Facility. Transmitters calibrated on site require a two-step procedure to match a known flow rate. This procedure can be found in the operations manual.

## Performance specifications

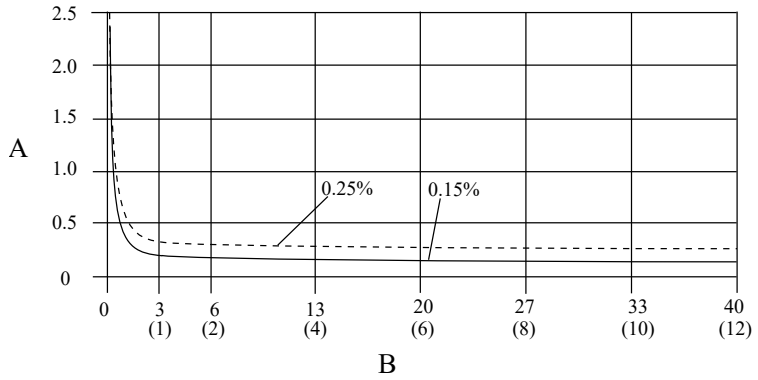
**System specifications are given using the frequency output and with the unit at reference conditions.**

**Accuracy**

Includes the combined effects of linearity, hysteresis, and repeatability.

**Rosemount 8705-M Sensor**

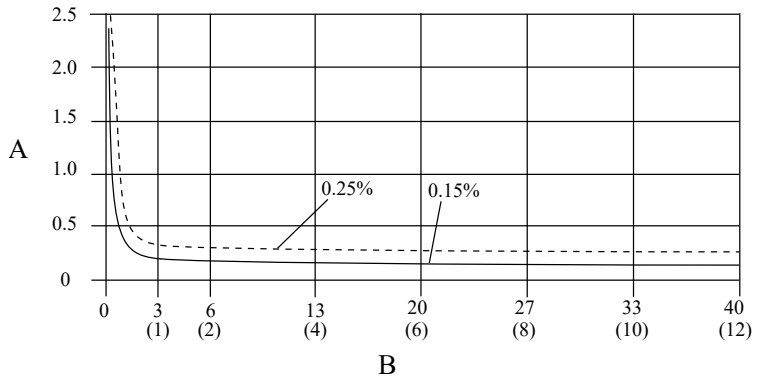
- Standard system accuracy:
  - ±0.25% of rate ±1.0 mm/sec from 0.04 to 6 ft/s (0.01 to 2 m/s)
  - ±0.25% of rate ±1.5 mm/sec above 6 ft/s (2 m/s)
- Optional high accuracy:[6]
  - ±0.15% of rate ±1.0 mm/sec from 0.04 to 13 ft/s (0.01 to 4 m/s)
  - ±0.18% of rate above 13 ft/s (4 m/s)




*A. Percentage of rate*
*B. Velocity in ft/s (m/s)*

**Rosemount 8711-M/L Sensor**

- Standard system accuracy:
  - ±0.25% of rate ±2.0 mm/sec from 0.04 to 39 ft/s (0.01 to 12 m/s)
- Optional high accuracy:
  - ±0.15% of rate ±1.0 mm/sec from 0.04 to 13 ft/s (0.01 to 4 m/s)
  - ±0.18% of rate above 13 ft/s (4 m/s)

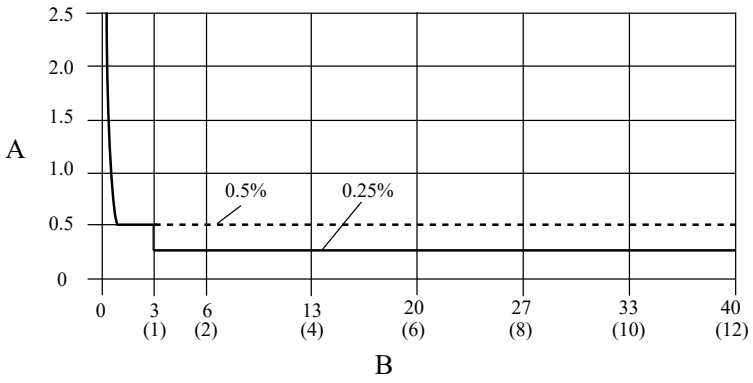



*A. Percentage of rate*
*B. Velocity in ft/s (m/s)*

(6) For sensor sizes greater than 12 in. (300 mm), the high accuracy is ±0.25% of rate from 3 to 39 ft/sec (1 to 12 m/sec).

**Rosemount 8721 Sensor**

- Standard system accuracy:
  - ±0.5% of rate ±1.5 mm/s from 0.04 to 1.0 ft/s (0.01 and 0.3 m/s)
  - ±0.5% of rate from 1 to 39 ft/s (0.3 to 12 m/s)
- Optional high accuracy:
  - ±0.25% of rate from 3 to 39 ft/s (1 to 12 m/s):




*A. Percentage of rate*
*B. Velocity in ft/s (m/s)*

**Other manufacturers' sensors**

- When calibrated in the Rosemount Flow Facility, system accuracies as good as 0.5% of rate can be attained.
- There is no accuracy specification for other manufacturers' sensors calibrated in the process line.

**Analog output effects**

Analog output has the same accuracy as frequency output plus an additional ±4 µ A at room temperature.

| | |
|---|---|
| Repeatability | ±0.1% of reading |
| Response time (analog output) | 20 ms max response time to step change in input |
| Stability | ±0.1% of rate over six months |
| Ambient temperature effect | ±0.25% change over operating temperature range |

## 8712 Wall mount transmitter physical specifications

**Materials of construction**

| | |
|---|---|
| Housing | Low copper aluminum<br>Type 4X and IEC 60529 IP66, IP69 |
| Paint | Polyurethane coat (1.8 to 2.2 mils thick) |
| Cover gaskets | Silicone |

**Electrical connections**

| | |
|---|---|
| Conduit entries | ½–14 NPT or M20–1.5[(1)] |
| Terminal block screws | 6-32 (No. 6) suitable for up to 14 AWG wire |
| Safety grounding screws | External stainless assembly, M5; internal 8-32 (No. 8) |

(1) *M20–1.5 connections provided with an adapter.*

### Vibration rating

2G per IEC 61298

### Dimensions

See Figure 12.

### Weight

| | |
|---|---|
| Wall mount transmitter | Approximately 11 lbs. (5 kg) |

Add 1 pound (0.5 kg) for LOI/Display.

## 8732 Field mount transmitter physical specifications

### Materials of construction

| | |
|---|---|
| Standard housing | Low copper aluminum<br>Type 4X and IEC 60529 IP66/67/68/69(1) |
| Paint | Polyurethane coat (1.8 to 2.2 mils thick) |
| Optional housing | 316/316L unpainted, option code SH<br>Type 4X and IEC 60529 IP66/67/68/69(1) |
| Cover gasket | Aluminum housing: Buna-N<br>316 SST housing: Silicone |

(1) *For applications where the transmitter may be submerged, even temporarily, contact Emerson Flow Technical Support for details.*

### Electrical connections

| | |
|---|---|
| Conduit entries | Available in ½ inch NPT or M20. See ordering table footnotes for details. |
| Terminal block screws | 6-32 (No. 6) suitable for up to 14 AWG wire |
| Safety grounding screws | External stainless assembly, M5; internal 8-32 (No. 8) |

### Vibration rating

| | |
|---|---|
| Integral mount | 2G per IEC 61298 |
| Remote mount | 5G per IEC 61298 |

### Dimensions

See Figure 13.

### Weight

| | | |
|---|---|---|
| Field mount transmitter only | Aluminum | Approximately 7 lbs. (3.2 kg) |
| | 316 stainless steel | Approximately 23 lbs. (10.5 kg) |

Add 1 pound (0.5 kg) for LOI/Display.

# 8705-M Flanged Sensor Specifications

## Functional specifications

### Service

Conductive liquids and slurries

### Line sizes

½ in. to 36 in. (15 mm to 900 mm)

### Sensor coil resistance

2 - 20 Ω

### Interchangeability

Rosemount 8705-M sensors are interchangeable with 8712EM and 8732EM transmitters. System accuracy is maintained regardless of line size or optional features. Each sensor nameplate has a sixteen-digit calibration number that can be entered into a transmitter during configuration.

### Upper range limit

39.37 ft/s (12 m/s)

### Ambient temperature limits

- –20 to 140 °F (–29 to 60 °C) standard carbon steel housing design
- –58 to 140 °F (–50 to 60 °C) with "SH" all stainless housing design(7)

### Pressure limits

See Process temperature limits.

### Vacuum limits

| | |
|---|---|
| PTFE lining | Full vacuum to +350 °F (+177 °C) through 4 in. (100 mm) line sizes.<br>Consult an Emerson Flow representative for vacuum applications with line sizes of 6 inches (150 mm) or larger. |
| All other standard sensor lining materials | Full vacuum to maximum material temperature limits for all available line sizes. |

### Submergence protection IP68

The remote mount sensor is rated IP68 for continuous submergence. Tested to a depth of 33 ft. (10 m) for a period of 48 hours. IP68 rating requires that the transmitter must be remote mount. Installer must use IP68 approved cable glands, conduit connections, and/or conduit plugs.

(7) Not available for Class/Div approval codes N5, N6, K5, KU.

### Conductivity limits

Process liquid must have a conductivity of 5 microSiemens/cm or greater. Consult an Emerson Flow representative for conductivity less than 5 microSiemens/cm.

### Process temperature limits

| | |
|---|---|
| PTFE lining | –58 to +350 °F (–50 to +177 °C) |
| ETFE lining | –58 to +300 °F (–50 to +149 °C) |
| PFA and PFA+ lining | –58 to +350 °F (–50 to +177 °C) |
| Polyurethane lining | 0 to +140 °F (–18 to +60 °C) |
| Neoprene lining | 0 to +176 °F (–18 to +80 °C) |
| Linatex lining | 0 to +158 °F (–18 to +70 °C) |
| Adiprene lining | 0 to +200 °F (–18 to +93 °C) |

**Notes**

- Carbon steel flanges for PED have a minimum process temperature limit of 32 °F (0 °C).
- Sensors ordered with hazardous location ratings may have different maximum process temperature limits. The sensors must be installed and used as directed by the installation drawing number noted on the serial nameplate.

**Table 29: Temperature vs. Pressure Limits for ASME B16.5 class flanges [1]**

| **Sensor temperature vs. pressure limits for ASME B16.5 class flanges (up to 36 in. line sizes)[2]** | | | | | |
|---|---|---|---|---|---|
| **Flange material** | **Flange rating** | **Pressure** | | | |
| | | **@ -20 to 100 °F (-29 to 38 °C)** | **@ 200 °F (93 °C)** | **@ 300 °F (149 °C)** | **@ 350 °F (177 °C)** |
| Carbon Steel | Class 150 | 285 psi | 260 psi | 230 psi | 215 psi |
| | Class 300 | 740 psi | 680 psi | 655 psi | 645 psi |
| | Class 600[3] | 1000 psi | 800 psi | 700 psi | 650 psi |
| | Class 600[4] | 1480 psi | 1350 psi | 1315 psi | 1292 psi |
| | Class 900 | 2220 psi | 2025 psi | 1970 psi | 1935 psi |
| | Class 1500 | 3705 psi | 3375 psi | 3280 psi | 3225 psi |
| | Class 2500 | 6170 psi | 5625 psi | 5470 psi | 5375 psi |
| 304/304L Stainless Steel<br>316/316L Stainless Steel | Class 150 | 275 psi | 235 psi | 205 psi | 190 psi |
| | Class 300 | 720 psi | 620 psi | 530 psi | 500 psi |
| | Class 600[3] | 1000 psi | 800 psi | 700 psi | 650 psi |
| | Class 600[4] | 1440 psi | 1200 psi | 1055 psi | 997 psi |
| | Class 900 | 2160 psi | 1800 psi | 1585 psi | 1497 psi |
| | Class 1500 | 3600 psi | 3000 psi | 2640 psi | 2495 psi |
| | Class 2500 | 6000 psi | 5000 psi | 4400 psi | 4160 psi |

(1) *Liner temperature limits must also be considered.*
(2) *30 in. and 36 in. AWWA C207 Class D rated to 150 psi at atmospheric temperature.*
(3) *Flange rating Code 6.*
(4) *Flange rating Code 7.*

**Table 30: Temperature vs. Pressure Limits for AS2129 Table D and E flanges (1)**

| Sensor temperature vs. pressure limits for AS2129 Table D and E flanges (4 in. to 24 in. line sizes) | | | | | |
|---|---|---|---|---|---|
| **Flange Material** | **Flange Rating** | **Pressure** | | | |
| | | **@ -29 to 50 °C (-20 to 122 °F)** | **@ 100 °C (212 °F)** | **@ 150 °C (302 °F)** | **@ 200 °C (392 °F)** |
| Carbon Steel | D | 101.6 psi | 101.6 psi | 101.6 psi | 94.3 psi |
| | E | 203.1 psi | 203.1 psi | 203.1 psi | 188.6 psi |

(1) *Liner temperature limits must also be considered.*

**Table 31: Temperature vs. Pressure Limits for EN 1092-1 flanges (1)**

| Sensor temperature vs. pressure limits for EN 1092-1 flanges (15 mm to 600 mm Line Sizes) | | | | | |
|---|---|---|---|---|---|
| **Flange material** | **Flange rating** | **Pressure** | | | |
| | | **@ -29 to 50 °C (-20 to 122 °F)** | **@ 100 °C (212 °F)** | **@ 150 °C (302 °F)** | **@ 175 °C (347 °F)** |
| Carbon Steel | PN 10 | 10 bar | 10 bar | 9.7 bar | 9.5 bar |
| | PN 16 | 16 bar | 16 bar | 15.6 bar | 15.3 bar |
| | PN 25 | 25 bar | 25 bar | 24.4 bar | 24.0 bar |
| | PN 40 | 40 bar | 40 bar | 39.1 bar | 38.5 bar |
| 304/304L Stainless Steel<br>316/316L Stainless Steel | PN 10 | 9.1 bar | 7.5 bar | 6.8 bar | 6.5 bar |
| | PN 16 | 14.7 bar | 12.1 bar | 11.0 bar | 10.6 bar |
| | PN 25 | 23 bar | 18.9 bar | 17.2 bar | 16.6 bar |
| | PN 40 | 36.8 bar | 30.3 bar | 27.5 bar | 26.5 bar |

(1) *Liner temperature limits must also be considered.*

## Physical specifications

Rosemount magnetic flow meters are designed to the standards defined in ASME B31.3. This standard is used as the basis for all of our other pressure vessel certifications, such as CRN and PED.

### Non-wetted materials

| | |
|---|---|
| Sensor Pipe | Type 304/304L SST or Type 316/316L SST |
| Flanges(1) | Flat-Face (FF) and Raised-Face (RF) |
| Standard coil housing | Rolled carbon steel |
| Remote junction box | Painted aluminum |
| Paint | Polyurethane coat (2.6 mils or greater) |
| Optional coil housing | ASTM 240 316/316L SST, unpainted, option code SH |
| Optional remote junction box | ASTM-A351 GRADE CF3M SST, unpainted, option code SJ; included with option code SH |

(1) *Ambient temperature low limit for A105 carbon steel is –20 °F (–29 °C) per ANSI B16.5. For colder ambient environments, stainless steel flanges must be used.*

### Process-wetted materials

| | |
|---|---|
| Flanges[1] | Ring Type Joint (RTJ) |
| Lining | PTFE, ETFE, PFA, Polyurethane, Neoprene, Linatex, Adiprene, PFA+ |
| Electrodes | 316L SST, Nickel Alloy 276 (UNS N10276), Tantalum, 80% Platinum-20% Iridium, Titanium |

(1) *Ambient temperature low limit for A105 carbon steel is –20 °F (–29 °C) per ANSI B16.5. For colder ambient environments, stainless steel flanges must be used.*

### Flat-faced flanges

Sensors ordered with flat-faced flanges and Neoprene or Linatex liners are manufactured with the liner extending to the outer dimension of the flange. All other liner selections extend to the diameter of raised face dimension and create a raised surface on the flange face.

### Process connections

| | |
|---|---|
| ASME B16.5 | ■ Class 150 and Class 300: ½ inch to 24 inch (15 mm to 600 mm)<br>■ Class 600: ½ inch to 24 inch (15 mm to 600 mm)[1]<br>■ Class 900: 1 inch to 12 inch (25 mm to 300 mm)[2]<br>■ Class 1500: 1½ inch to 12 inch (40 mm to 300 mm)[2]<br>■ 1½ inch to 6 inch (40 mm to 150 mm)[2] |
| ASME B16.47 | ■ Class 150: 30 inch to 36 inch (750 mm to 900 mm)<br>■ Class 300: 30 inch to 36 inch (750 mm to 900 mm) |
| AWWA C207 | ■ Class D: 30 inch and 36 inch (750 mm and 900 mm) |
| MSS SP44 | ■ Class 150: 30 inch to 36 inch (750 mm to 900 mm) |
| EN 1092-1 | ■ PN10: 200 mm to 900 mm (8 inch to 36 inch)<br>■ PN16: 100 mm to 900 mm (4 inch to 36 inch)<br>■ PN25: 200 mm to 900 mm (8 inch to 36 inch)<br>■ PN40: 15 mm to 900 mm (½ inch to 36 inch) |
| AS2129 | ■ Table D and Table E: 15 mm to 900 mm (½ inch to 36 inch) |
| AS4087 | ■ PN16, PN21, PN35: 50 mm to 600 mm (2 inch to 24 inch) |
| JIS B2220 | ■ 10K, 20K, 40K: 15 mm to 200 mm (½ inch to 8 inch) |

(1) *For PTFE, PFA, PFA+, and ETFE, maximum working pressure is derated to 1000 psig.*
(2) *For Class 900 and higher flange ratings, liner selection is limited to resilient liners.*

### Electrical connections

| | |
|---|---|
| Conduit entries | Available with ½ inch NPT and M20 |
| Terminal block screws | 6-32 (No. 6) suitable for up to 14 AWG wire |
| Safety grounding screws | External stainless assembly, M5; internal 8-32 (No. 8) |

### Process reference electrode (optional)

A process reference electrode can be installed similarly to the measurement electrodes through the sensor lining. It will be made of the same material as the measurement electrodes.

### Grounding rings (optional)

Grounding rings can be installed between the flange and the sensor face on both ends of the sensor. Single ground rings can be installed on either end of the sensor. They have an I.D. slightly larger than the sensor I.D. and an external

tab to attach ground straps. Grounding rings are available in 316L SST, Nickel Alloy 276 (UNS N10276), titanium, and tantalum. See Figure 24.

**Lining protectors (optional)**

Lining protectors can be installed between the flange and the sensor face on both ends of the sensor. The leading edge of lining material is protected by the lining protector; lining protectors cannot be removed once they are installed. Lining protectors are available in 316L SST, Nickel Alloy 276 (UNS N10276), and titanium. See Figure 23.

**Dimensions**

See Figure 13 through Figure 22.

**Weight**

See Table 35 through Table 55.

# 8711-M/L Wafer Sensor Specifications

## Functional specifications

**Service**

Conductive liquids and slurries

**Line sizes**

1.5 in. to 8 in. (40 mm to 200 mm)

**Sensor coil resistance**

10 - 18 Ω

**Interchangeability**

Rosemount 8711-M/L Sensors are interchangeable with 8712EM and 8732EM Transmitters. System accuracy is maintained regardless of line size or optional features. Each sensor nameplate has a sixteen-digit calibration number that can be entered into a transmitter during configuration.

**Upper range limit**

39.37 ft/s (12 m/s)

**Process temperature limits**

| | |
|---|---|
| ETFE lining | -20 to 300 °F (–29 to 149 °C) |
| PTFE lining | -20 to 350 °F (-29 to 177 °C) |

**Ambient temperature limits**

–20 to 140 °F (–29 to 60 °C)

**Maximum safe working pressure at 100 °F (38 °C)**

| | |
|---|---|
| ETFE lining | Full vacuum to 740 psi (5.1 MPa) |
| PTFE lining | ■ Line sizes 1.5 in. (40 mm) through 4 in. (100 mm); Full vacuum to 740 psi (5.1 MPa)<br>■ Consult Technical Support for vacuum applications with line sizes of 6 in. (150 mm) or larger |

**Submergence protection IP68**

The remote mount sensor is rated IP68 for continuous submergence. Tested to a depth of 33 ft (10 m) for a period of 48 hours. IP68 rating requires that the transmitter must be remote mount. Installer must use IP68 approved cable glands, conduit connections, and/or conduit plugs.

**Conductivity limits**

Process liquid must have a minimum conductivity of 5 microSiemens/cm (5 micromhos/cm) or greater for 8711.

## Physical specifications

**Non-wetted materials**

| | |
|---|---|
| Sensor body | ■ 303 SST<br>■ CF3M or CF8M<br>■ Type 304/304L |
| Coil housing | Rolled carbon steel |
| Remote junction box | Painted aluminum |
| Paint | Polyurethane coat (2.6 mils or greater) |

**Process-wetted materials**

| | |
|---|---|
| Lining | PTFE, ETFE |
| Electrodes | 316L SST, Nickel Alloy 276 (UNS N10276), Tantalum, 80% Platinum—20% Iridium, Titanium |

**Electrical connections**

| | |
|---|---|
| Conduit entries | Available with ½ inch NPT and M20. See ordering table footnotes for details |
| Terminal block screws | 6-32 (No. 6) suitable for up to 14 AWG wire |
| Safety grounding screws | External stainless assembly, M5; internal 8-32 (No. 8) |

**Process reference electrode (optional)**

A process reference electrode can be installed similarly to the measurement electrodes through the sensor lining. It will be made of the same material as the measurement electrodes.

**Grounding rings (optional)**

Grounding rings can be installed between the flange and the sensor face on both ends of the sensor. They have an I.D. slightly smaller than the sensor I.D. and an external tab to attach ground wiring. Grounding rings are available in 316L SST, Nickel Alloy 276 (UNS N10276), titanium, and tantalum. See Table 24.

### Dimensions

See Figure 25.

### Weight

See Table 59.

### Process connections—Mounts between these flange configurations

| | |
|---|---|
| ASME B16.5 | Class 150, 300 |
| EN 1092-1 | PN10, PN16, PN25, PN40 |
| JIS B2220 | 10K, 20K |
| AS4087 | PN16, PN21, PN35 |

### Studs, nuts, and washers—MK2-carbon steel

| Component | ASME B16.5 | EN1092-1 |
|---|---|---|
| Studs, full thread | CS, ASTM A193, Grade B7 | CS, ASTM A193, Grade B7 |
| Hex nuts | ASTM A194 Grade 2H | ASTM A194 Grade 2H; DIN 934 H = D |
| Flat washers | CS, Type A, Series N, SAE per ANSI B18.2.1 | CS, DIN 125 |
| All items | Clear, chromate zinc-plated | Yellow zinc-plated |

### Studs, nuts, and washers—MK3-316 SST

| Component | ASME B16.5 | EN1092-1 |
|---|---|---|
| Studs, full thread | ASTM A193, Grade B8M Class 1 | ASTM A193, Grade B8M Class 1 |
| Hex nuts | ASTM A194 Grade 8M | ASTM A194 Grade 8M; DIN 934 H = D |
| Flat washers | 316 SST, Type A, Series N, SAE per ANSI B18.2.1 | 316 SST, DIN 125 |

# 8721 Hygienic (Sanitary) Sensor Specifications

## Functional specifications

### Service

Conductive liquids and slurries

**Line sizes**

½ in. to 4 in. (15 mm to 100 mm)

**Sensor coil resistance**

5 -10 Ω

**Interchangeability**

Rosemount 8721 sensors are interchangeable with Rosemount 8712EM and 8732EM transmitters. System accuracy is maintained regardless of line size or optional features. Each sensor label has a 16 digit calibration number that can be entered into the transmitter during configuration.

**Conductivity limits**

Process liquid must have a minimum conductivity of 5 microSiemens/cm (5 micromhos/cm) or greater. Excludes the effect of interconnecting cable length in remote mount transmitter installations.

**Flow rate range**

Capable of processing signals from fluids that are traveling between 0.04 and 39 ft/s (0.01 to 12 m/s) for both forward and reverse flow in all sensor sizes. Full scale continuously adjustable between –39 and 39 ft/s (–12 to 12 m/s).

**Sensor ambient temperature limits**

14 to 140 °F (–15 to 60 °C)

**Process temperature limits**

**PFA lining** -20 to 320 °F (-29 to 160 °C)

**Table 32: Pressure limits**

| Line size | Max working pressure | CE mark max. working pressure |
|---|---|---|
| ½ in. (15 mm) | 300 psi (20.7 bar) | 300 psi (20.7 bar) |
| 1 in. (25 mm) | 300 psi (20.7 bar) | 300 psi (20.7 bar) |
| 1 ½ in. (40 mm) | 300 psi (20.7 bar) | 300 psi (20.7 bar) |
| 2 in. (50 mm) | 300 psi (20.7 bar) | 300 psi (20.7 bar) |
| 2 ½ in. (65 mm) | 300 psi (20.7 bar) | 240 psi (16.5 bar) |
| 3 in. (80 mm) | 300 psi (20.7 bar) | 198 psi (13.7 bar) |
| 4 in. (100 mm) | 210 psi (14.5 bar) | 148 psi (10.2 bar) |

**Vacuum limits**

Full vacuum at maximum lining material temperature; consult Technical Support.

**Submergence protection IP68**

The remote mount 8721 sensor is rated IP68 for submergence to a depth of 33 ft (10 m) for a period of 48 hours. IP68 rating requires that the transmitter must be remote mount. Installer must use IP68 approved cable glands, conduit connections, and/or conduit plugs.

## Physical specifications

**Mounting**

Integrally mounted transmitters are factory-wired and do not require interconnecting cables. The transmitter can rotate in 90° increments. Remote-mounted transmitters require only a single conduit connection to the sensor.

**Non-wetted materials**

| | |
|---|---|
| Sensor | 304 Stainless Steel (wrapper), 304 Stainless Steel (pipe) |
| Terminal junction box | Low copper aluminum<br>Optional: 304 Stainless Steel |

**Process wetted materials (sensor)**

| | |
|---|---|
| Liner | PFA with Ra < 32µ in. (0.8 µm) |
| Electrodes | ■ 316L SST with Ra < 15µ in. (0.38 µm)<br>■ Nickel Alloy 276 (UNS N10276) with Ra < 15µ in. (0.38 µm)<br>■ 80% Platinum-20% Iridium with Ra < 15µ in. (0.38 µm) |

**Process connections**

The Rosemount 8721 Sanitary Sensor is designed using a standard IDF fitting as the basis for providing a flexible, hygienic interface for a variety of process connections. The Rosemount 8721 Sensor has the threaded or **male** end of the IDF fitting on the ends of the base sensor. The sensor can be directly connected with user supplied IDF fittings and gaskets. If other process connections are needed, the IDF fittings and gaskets can be provided and welded directly into the sanitary process tubing, or can be supplied with adapters to standard Tri Clamp process connections. All connections are PED compliant for group 2 fluids.

| | |
|---|---|
| Tri Clamp sanitary coupling | ■ IDF Sanitary Coupling (screw type)<br>■ IDF specification per BS4825 part 4<br>■ ANSI Weld Nipple<br>■ DIN 11850 Weld Nipple<br>■ DIN 11851 (Imperial and Metric)<br>■ DIN 11864-1 form A<br>■ DIN 11864-2 form A<br>■ SMS 1145<br>■ Cherry-Burrell I-Line |

**Process connection material**

- 316L Stainless Steel with Ra < 32µ in. (0.8 µm)
- Optional Electropolished Surface Finish with Ra < 15µ in. (0.38 µm)

**Process connection gasket material**

- Silicone
- EPDM
- Viton

**Electrical connections**

| | |
|---|---|
| Conduit entries | ½-in. NPT standard, M20 adapters |
| Terminal block screws | M3 |
| Safety grounding screws | External stainless assembly, M5; internal 6-32 (No. 6) |

### Dimensions

See Figure 27 through Figure 34; Table 60 and Table 61.

### Weight

**Table 33: 8721 Sensor Weight**

| Line size | Sensor only | 008721-0350 Tri Clamp fitting (Each) |
|---|---|---|
| ½ in. (15 mm) | 4.84 lbs (2.20 kg) | 0.58 lbs (0.263 kg) |
| 1 in. (25 mm) | 4.52 lbs (2.05 kg) | 0.68 lbs (0.309 kg) |
| 1 ½ in. (40 mm) | 5.52 lbs (2.51 kg) | 0.88 lbs (0.400 kg) |
| 2 in. (50 mm) | 6.78 lbs (3.08 kg) | 1.30 lbs (0.591 kg) |
| 2 ½ in. (65 mm) | 8.79 lbs (4.00 kg) | 1.66 lbs (0.727 kg) |
| 3 in. (80 mm) | 13.26 lbs (6.03 kg) | 2.22 lbs (1.01 kg) |
| 4 in. (100 mm) | 21.04 lbs (9.56 kg) | 3.28 lbs (1.49 kg) |

| | |
|---|---|
| Aluminum remote junction box | ■ Approximately 1 lb. (0.45 kg)<br>■ Paint - Polyurethane (1.3 to 5 mils) |
| SST remote junction box | ■ Approximately 2.5 lbs. (1.13 kg)<br>■ Unpainted |

# 8714D Reference Calibration Standard

## Functional specifications

### Ambient temperature limits

- Operating: – 30 to 140 °F (–34 to 60°C)
- Storage: –40 to 140°F (–40 to 60°C)

### Humidity Limits

0 to 95% relative humidity

## Performance specifications

### Accuracy

- ±0.05% of rate at 30 ft/s
- ±0.10% of rate at 10 ft/s and 3 ft/s

### Warm-up Time

30 minutes

### Ambient Temperature Effect

< 0.015% of rate per 10°F (< 0.027% per 10°C)

### Humidity Effect

- No effect from 0 to 60% relative humidity
- < 0.10% of rate from 60 to 90% relative humidity

### Long-Term Stability

< 0.10% of rate shift in one year.

## Physical specifications

### Electrical connections

Electrical connections are compatible with Model 8712E or Model 8732E terminal blocks. Electrical connections are not compatible with Model 8712H terminal block.

### Mounting

Any position is acceptable.

### Materials of construction

| | |
|---|---|
| Housing | Extruded aluminum |
| Covers | Stamped aluminum, silk-screened |
| Paint | Epoxy polyester |

### Weight

Approximately 10 lb. (4.5 kg).

# Product certifications

For detailed approval certification information and installation drawings, please see the appropriate document listed below:

- Document number 00825-MA00-0001: *Rosemount 8700M Approval Document - IECEx and ATEX*
- Document number 00825-MA00-0002: *Rosemount 8700M Approval Document – Class Division*
- Document number 00825-MA00-0003: *Rosemount 8700M Approval Document - North America Zone*
- Document number 00825-MA00-0007: *Rosemount 8700M Approval Document - NEPSI EN Zone 1 China*

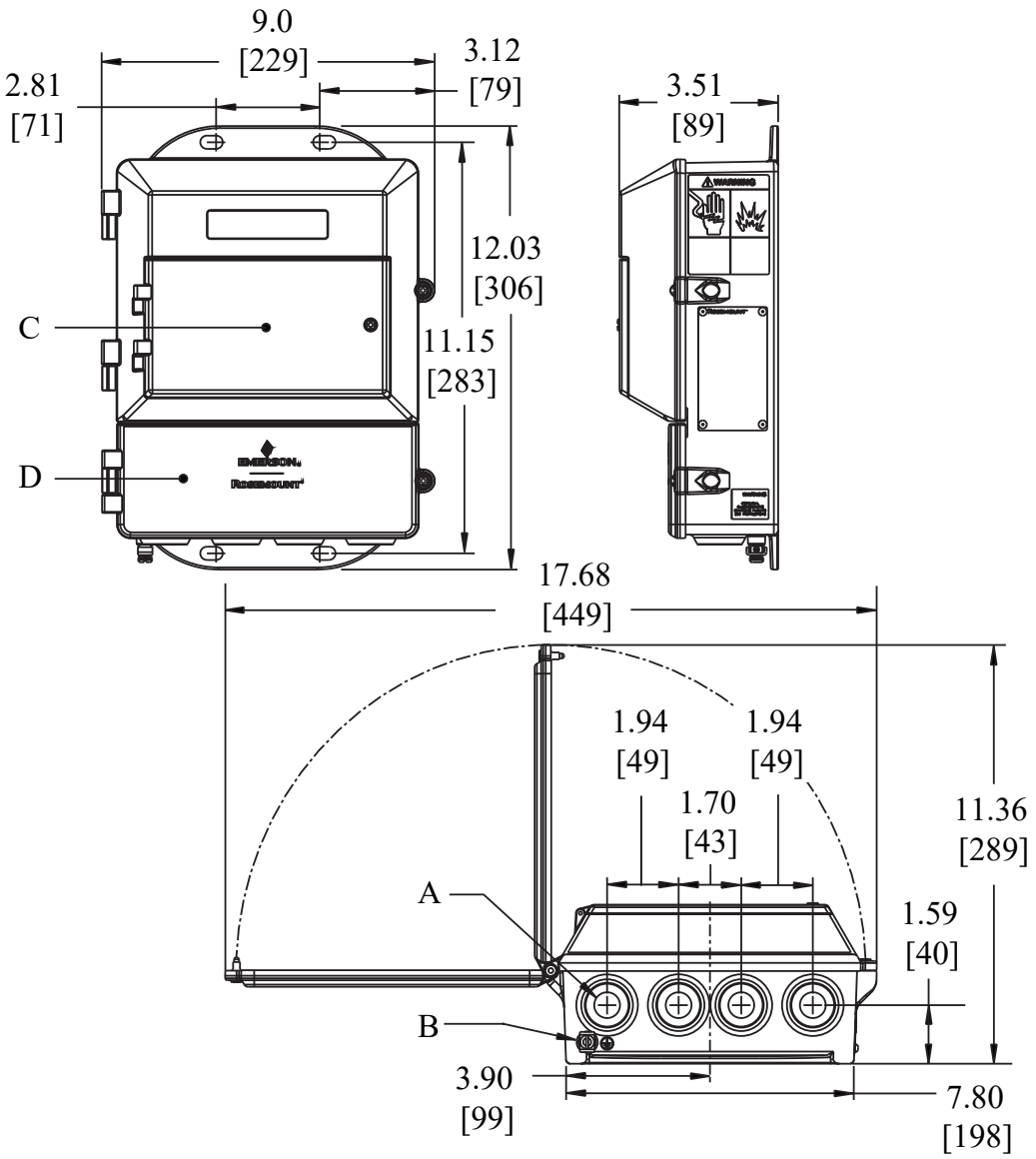
**NAMUR Compliance (8732 HART only)**

- NE21: Electromagnetic Compatibility of Equipment for Industrial Processes and Laboratory
- NE43: Standardisation of the Signal Level for the Failure Information of Digital Transmitters
- NE53: Software and Hardware of Field Devices and Signal Processing Devices with Digital Electronics
- NE70: Magnetic Inductive Flowmeters (MIF)
- NE95: Basic Principles of Homologation
- NE107: Self-Monitoring and Diagnosis of Field Devices

# Dimensional drawings

## 8712 Wall mount transmitter dimensions

**Figure 12: 8712 Wall mount transmitter dimensions**

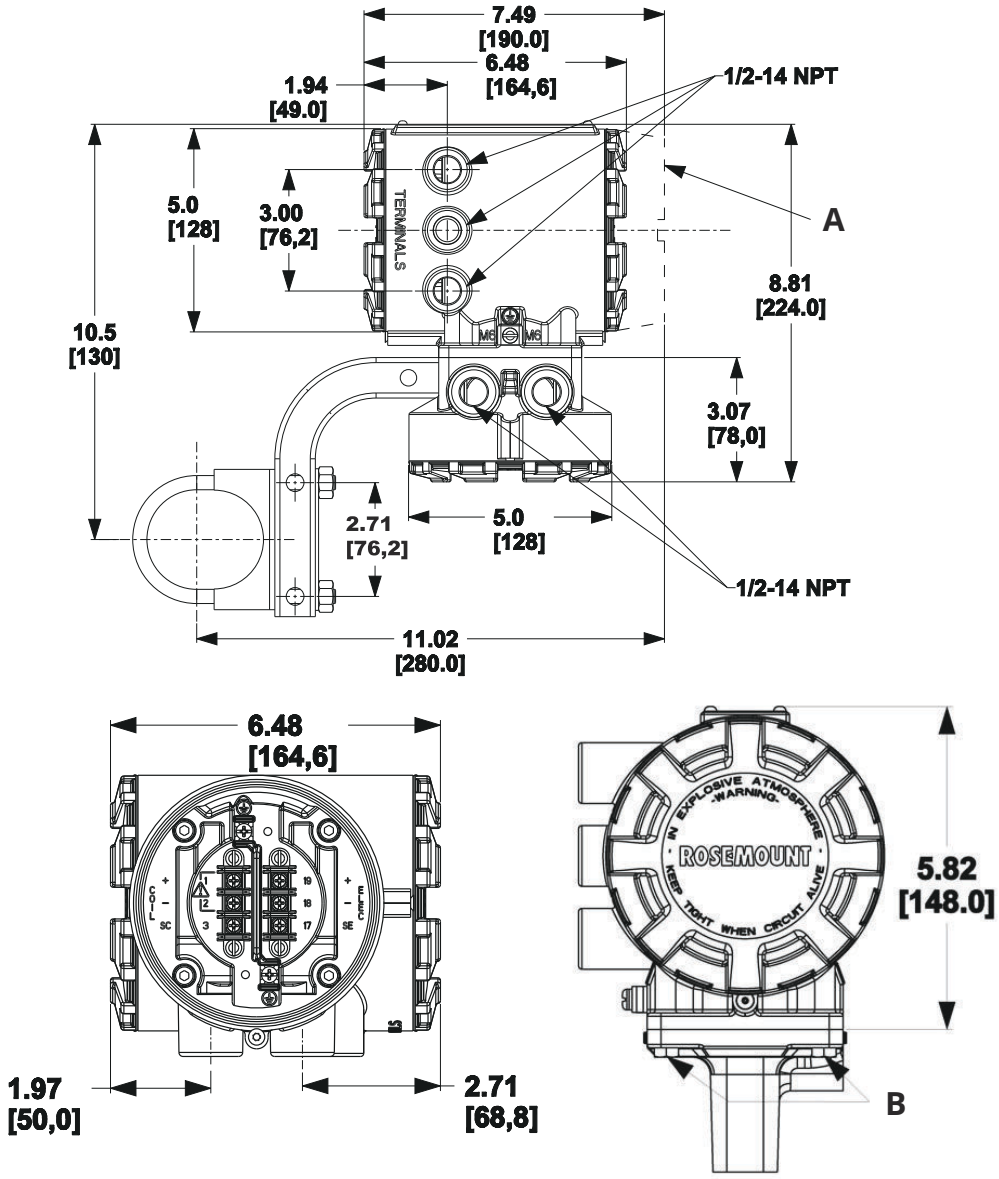



Dimensions are in inches [millimeters].

*A. Conduit entry, ½ –14 NPT (4 places)*
*B. Ground lug*
*C. LOI keypad cover*
*D. Lower cover opens for electrical connections*

# 8732 Field mount transmitter dimensions

**Figure 13: 8732 Field mount transmitter dimensions**




Dimensions are in inches [millimeters].

*A. LOI cover*
*B. Mounting screws*

# 8705-M Low pressure sensor dimensions

The following notes apply to Figure 14 through Figure 17 and Table 35 through Table 46:

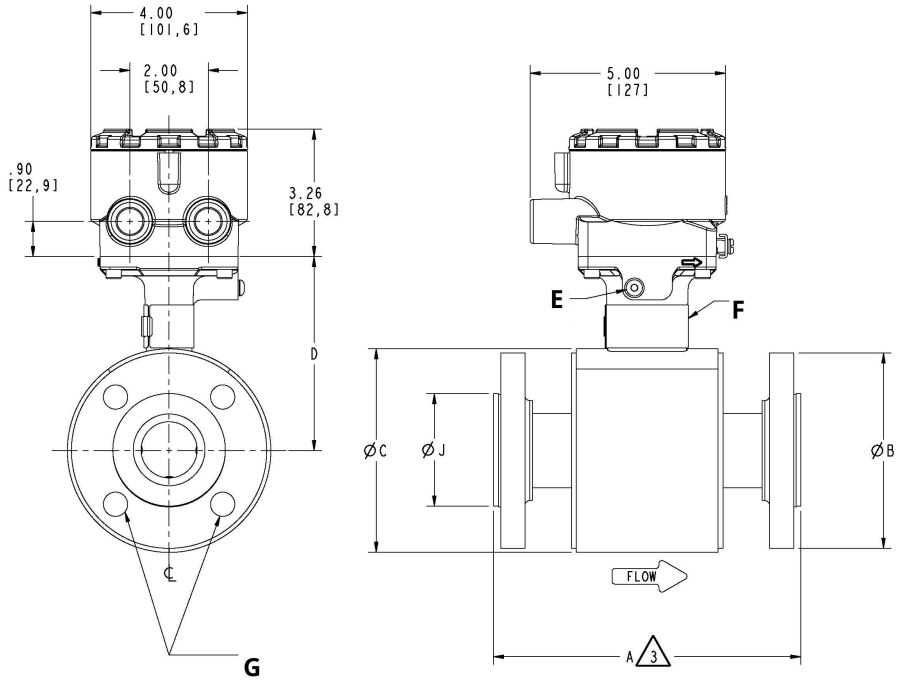
- 2. I – Optional relief valve assembly is 1.75 in. (44.5 mm).

-  – Dimension *A* for flow meters with slip-on flat face (SO/FF) flanges is equal to that of a raised face flange (SO/RF). If using lining protectors, see *Lining Protector* sheet. If using ground rings, see *Ground Rings* sheet.
-  – For brevity, the model number list only contains the codes for carbon steel flanges. 304 and 316 stainless steel flanges are dimensionally identical to carbon steel. Use Table 34 to find the carbon steel code that corresponds to each stainless steel code.

**Table 34: Steel Codes**

| Stainless steel codes | Carbon steel codes |
|---|---|
| S, P | C |
| T, R | D |
| G, H | F |
| K, L | J |

**Figure 14: 8705-M Flanged sensor 0.5 in. to 2.5 in. (DN 15 mm to 65 mm) slip-on flanges—low pressure (P < Class 300)**




Dimensions are in inches [millimeters].

**E** See Figure 15.

**F** Nameplate

**G** Flange bolts to straddle center line

**Figure 15: M1 Housing Option Detail**

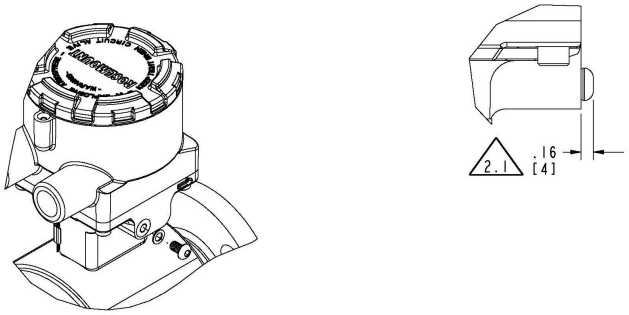


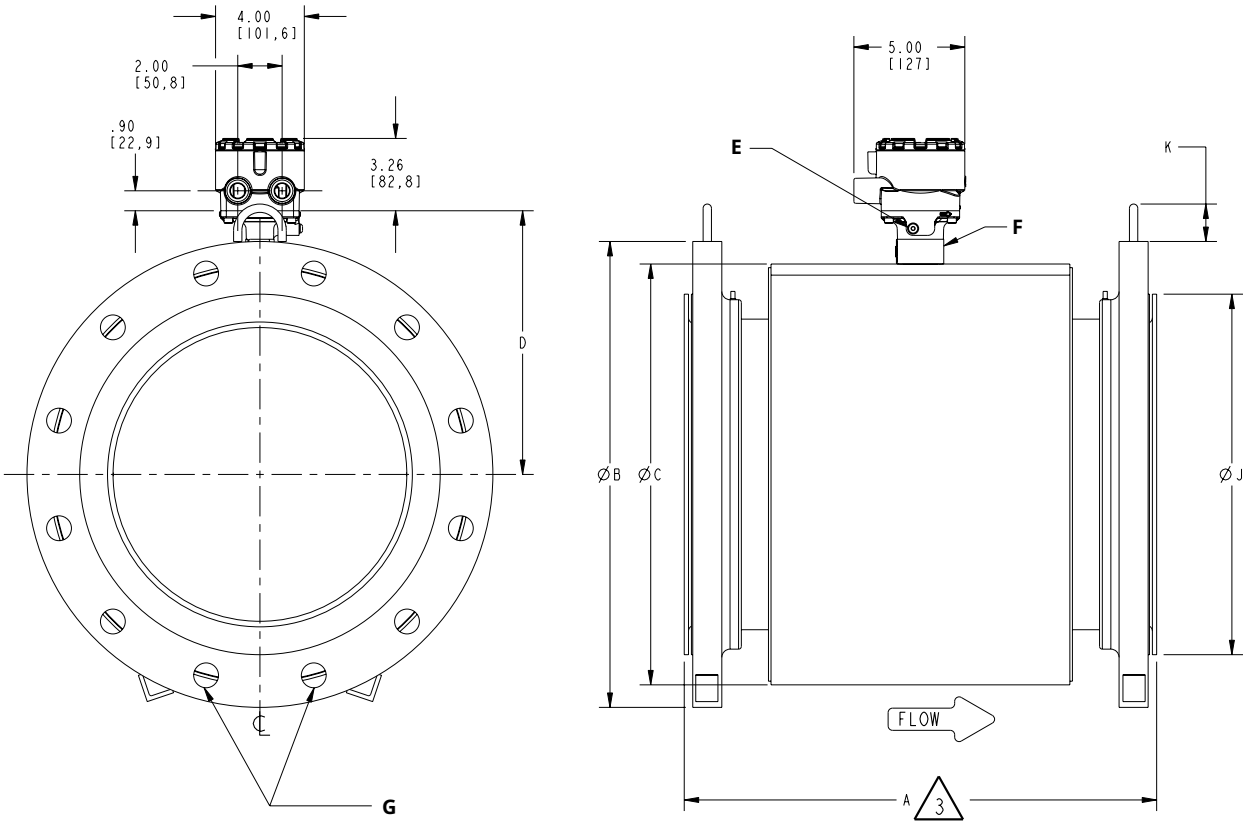
**Table 35: 8705-M Flanged Sensor 0.5 in. to 2.5 in. slip-on flanges—low pressure (P ≤ Class 300)—Inches**

| SIZE, DESCRIPTION | MODEL NUMBER [5] | OVERALL LENGTH | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | FLOW TUBE WEIGHT (lbs.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | | | STYLE A | STYLE B | | |
| 0.5 (15) ASME - 150 , SO / RF | 8705 _ _ _ 005C1 | 7.88 | 7.88 | 7.88 | 7.98 | 7.88 | 7.88 | 3.50 | 4.50 | 4.41 | 4.61 | 1.38 | 9 |
| 0.5 (15) ASME - 300 , SO / RF | 8705 _ _ _ 005C3 | 7.88 | 7.88 | 7.88 | 7.98 | 7.88 | 7.88 | 3.75 | 4.50 | 4.41 | 4.61 | 1.38 | 10 |
| 0.5 (15) DIN - PN40, SO / RF | 8705 _ _ _ 005CH | 7.88 | 7.88 | 7.88 | 7.98 | 7.88 | 7.88 | 3.74 | 4.50 | 4.41 | 4.61 | 1.77 | 10 |
| 0.5 (15) AS2129 TABLE D, SO / RF | 8705 _ _ _ 005CK | 7.88 | 7.88 | 7.88 | 7.98 | 7.88 | | 3.74 | 4.50 | 4.41 | 4.61 | 1.85 | 8 |
| 0.5 (15) AS2129 TABLE E, SO / RF | 8705 _ _ _ 005CL | 7.88 | | 7.88 | 7.98 | 7.88 | | 3.74 | 4.50 | 4.41 | 4.61 | 1.85 | 8 |
| 0.5 (15) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 005CP | 7.88 | | 7.88 | 7.98 | 7.88 | | 3.74 | 4.50 | 4.41 | 4.61 | 1.77 | 10 |
| 0.5 (15) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 005CR | 7.88 | | 7.88 | 7.98 | 7.88 | | 3.74 | 4.50 | 4.41 | 4.61 | 1.77 | 10 |
| 0.5 (15) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 005CT | 8.38 | | 8.38 | 8.48 | 8.38 | | 4.53 | 4.50 | 4.41 | 4.61 | 1.77 | 13 |
| 1 (25) ASME - 150 , SO / RF | 8705 _ _ _ 010C1 | 7.88 | 7.88 | 7.88 | 7.97 | 7.88 | 7.88 | 4.25 | 4.50 | 4.41 | 4.61 | 2.00 | 11 |
| 1 (25) ASME - 300 , SO / RF | 8705 _ _ _ 010C3 | 7.88 | 7.88 | 7.88 | 7.97 | 7.88 | 7.88 | 4.88 | 4.50 | 4.41 | 4.61 | 2.00 | 14 |
| 1 (25) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 010C6 | 8.67 | 8.67 | 8.67 | 8.76 | 8.67 | | 4.88 | 4.50 | 4.41 | 4.61 | 2.00 | 15 |
| 1 (25) DIN - PN40, SO / RF | 8705 _ _ _ 010CH | 7.88 | 7.88 | 7.88 | 7.97 | 7.88 | 7.88 | 4.53 | 4.50 | 4.41 | 4.61 | 2.68 | 14 |
| 1 (25) AS2129 TABLE D, SO / RF | 8705 _ _ _ 010CK | 7.88 | 7.88 | 7.88 | 7.97 | 7.88 | | 4.53 | 4.50 | 4.41 | 4.61 | 2.56 | 10 |
| 1 (25) AS2129 TABLE E, SO / RF | 8705 _ _ _ 010CL | 7.88 | 7.88 | 7.88 | 7.97 | 7.88 | | 4.53 | 4.50 | 4.41 | 4.61 | 2.48 | 10 |
| 1 (25) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 010CP | 7.88 | | 7.88 | 7.97 | 7.88 | | 4.92 | 4.50 | 4.41 | 4.61 | 2.64 | 13 |
| 1 (25) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 010CR | 7.88 | | 7.88 | 7.97 | 7.88 | | 4.92 | 4.50 | 4.41 | 4.61 | 2.64 | 14 |
| 1 (25) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 010CT | 8.67 | | 8.67 | 8.76 | 8.67 | | 5.12 | 4.50 | 4.41 | 4.61 | 2.76 | 17 |
| 1.5 (40) ASME - 150 , SO / RF | 8705 _ _ _ 015C1 | 7.87 | 7.87 | 7.80 | 7.90 | 7.87 | 7.87 | 5.00 | 5.21 | 4.82 | 4.97 | 2.88 | 15 |
| 1.5 (40) ASME - 300 , SO / RF | 8705 _ _ _ 015C3 | 7.87 | 7.87 | 7.80 | 7.90 | 7.87 | 7.87 | 6.12 | 5.21 | 4.82 | 4.97 | 2.88 | 21 |
| 1.5 (40) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 015C6 | 8.63 | 8.63 | 8.56 | 8.65 | 8.63 | | 6.12 | 5.21 | 4.82 | 4.97 | 2.88 | 23 |
| 1.5 (40) DIN - PN40, SO / RF | 8705 _ _ _ 015CH | 7.87 | 7.87 | 7.80 | 7.90 | 7.87 | 7.87 | 5.91 | 5.21 | 4.82 | 4.97 | 3.46 | 19 |
| 1.5 (40) AS2129 TABLE D, SO / RF | 8705 _ _ _ 015CK | 7.87 | | 7.80 | 7.90 | 7.87 | | 5.31 | 5.21 | 4.82 | 4.97 | 3.07 | 12 |
| 1.5 (40) AS2129 TABLE E, SO / RF | 8705 _ _ _ 015CL | 7.87 | | 7.80 | 7.90 | 7.87 | | 5.31 | 5.21 | 4.82 | 4.97 | 3.07 | 13 |
| 1.5 (40) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 015CP | 7.87 | | 7.80 | 7.90 | 7.87 | | 5.51 | 5.21 | 4.82 | 4.97 | 3.19 | 16 |
| 1.5 (40) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 015CR | 7.87 | | 7.80 | 7.90 | 7.87 | | 5.51 | 5.21 | 4.82 | 4.97 | 3.19 | 17 |
| 1.5 (40) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 015CT | 8.63 | | 8.56 | 8.65 | 8.63 | | 6.30 | 5.21 | 4.82 | 4.97 | 3.54 | 24 |
| 2 (50) ASME - 150 , SO / RF | 8705 _ _ _ 020C1 | 7.87 | 7.87 | 7.80 | 7.90 | 7.87 | 7.87 | 6.00 | 5.21 | 4.82 | 4.97 | 3.62 | 20 |
| 2 (50) ASME - 300 , SO / RF | 8705 _ _ _ 020C3 | 7.87 | 7.87 | 7.80 | 7.90 | 7.87 | 7.87 | 6.50 | 5.21 | 4.82 | 4.97 | 3.62 | 23 |
| 2 (50) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 020C6 | 8.78 | 8.78 | 8.71 | 8.80 | 8.78 | | 6.50 | 5.21 | 4.82 | 4.97 | 3.62 | 28 |
| 2 (50) DIN - PN40, SO / RF | 8705 _ _ _ 020CH | 7.87 | 7.87 | 7.80 | 7.90 | 7.87 | 7.87 | 6.50 | 5.21 | 4.82 | 4.97 | 4.02 | 23 |
| 2 (50) AS2129 TABLE D, SO / RF | 8705 _ _ _ 020CK | 7.87 | | 7.80 | 7.90 | 7.87 | | 5.91 | 5.21 | 4.82 | 4.97 | 3.54 | 14 |
| 2 (50) AS2129 TABLE E, SO / RF | 8705 _ _ _ 020CL | 7.87 | | 7.80 | 7.90 | 7.87 | | 5.91 | 5.21 | 4.82 | 4.97 | 3.54 | 15 |
| 2 (50) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 020CP | 7.87 | | 7.80 | 7.90 | 7.87 | | 6.10 | 5.21 | 4.82 | 4.97 | 3.78 | 18 |
| 2 (50) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 020CR | 7.87 | | 7.80 | 7.90 | 7.87 | | 6.10 | 5.21 | 4.82 | 4.97 | 3.78 | 19 |
| 2 (50) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 020CT | 8.78 | | 8.71 | 8.80 | 8.78 | | 6.50 | 5.21 | 4.82 | 4.97 | 4.13 | 27 |
| 2 (50) AS4087 PN16, SO / RF | 8705 _ _ _ 020CU | 7.87 | | 7.80 | 7.90 | 7.87 | | 5.91 | 5.21 | 4.82 | 4.97 | 3.54 | 16 |
| 2 (50) AS4087 PN21, SO / RF | 8705 _ _ _ 020CW | 7.87 | | 7.80 | 7.90 | 7.87 | | 6.50 | 5.21 | 4.82 | 4.97 | 4.06 | 34 |
| 2 (50) AS4087 PN35, SO / RF | 8705 _ _ _ 020CY | 7.87 | | 7.80 | 7.90 | 7.87 | | 6.50 | 5.21 | 4.82 | 4.97 | 4.06 | 96 |
| 2.5 (65) ASME - 150 , SO / RF | 8705 _ _ _ 025C1 | 7.82 | | 7.76 | | | | 7.00 | 6.31 | 5.37 | 5.52 | 4.12 | 27 |
| 2.5 (65) ASME - 300 , SO / RF | 8705 _ _ _ 025C3 | 7.82 | | 7.76 | | | | 7.50 | 6.31 | 5.37 | 5.52 | 4.12 | 32 |
| 2.5 (65) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 025C6 | 8.86 | | 8.80 | | | | 7.50 | 6.31 | 5.37 | 5.52 | 4.12 | 40 |
| 2.5 (65) DIN - PN16, SO / RF | 8705 _ _ _ 025CE | 7.82 | | 7.76 | | | | 7.28 | 6.31 | 5.37 | 5.52 | 4.80 | 27 |
| 2.5 (65) DIN - PN40, SO / RF | 8705 _ _ _ 025CH | 7.82 | | 7.76 | | | | 7.28 | 6.31 | 5.37 | 5.52 | 4.80 | 31 |
| 2.5 (65) AS2129 TABLE D, SO / RF | 8705 _ _ _ 025CK | 7.82 | | 7.76 | | | | 6.50 | 6.31 | 5.37 | 5.52 | 4.06 | 17 |
| 2.5 (65) AS2129 TABLE E, SO / RF | 8705 _ _ _ 025CL | 7.82 | | 7.76 | | | | 6.50 | 6.31 | 5.37 | 5.52 | 4.06 | 19 |
| 2.5 (65) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 025CP | 7.82 | | 7.76 | | | | 6.89 | 6.31 | 5.37 | 5.52 | 4.57 | 25 |
| 2.5 (65) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 025CR | 7.82 | | 7.76 | | | | 6.89 | 6.31 | 5.37 | 5.52 | 4.57 | 26 |
| 2.5 (65) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 025CT | 7.82 | | 7.76 | | | | 7.87 | 6.31 | 5.37 | 5.52 | 5.12 | 40 |
| 2.5 (65) AS4087 PN16, SO / RF | 8705 _ _ _ 025CU | 7.82 | | 7.76 | | | | 6.50 | 6.31 | 5.37 | 5.52 | 4.06 | 18 |
| 2.5 (65) AS4087 PN21, SO / RF | 8705 _ _ _ 025CW | 7.82 | | 7.76 | | | | 7.28 | 6.31 | 5.37 | 5.52 | 4.80 | 24 |
| 2.5 (65) AS4087 PN35, SO / RF | 8705 _ _ _ 025CY | 7.82 | | 7.76 | | | | 7.28 | 6.31 | 5.37 | 5.52 | 4.80 | 27 |

**Table 36: 8705-M Flanged sensor DN 15 mm to 65 mm slip-on flanges—low pressure (P ≤ Class 300)—mllimeters**

| SIZE, DESCRIPTION | MODEL NUMBER [5] | OVERALL LENGTH | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | FLOW TUBE WEIGHT ( kg ) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIN "A" LINATEX | DIM "A" POLY | DIN "A" PFA | | | STYLE A | STYLE B | | |
| 0.5 (15) ASME - 150 , SO / RF | 8705 _ _ _ 005C1 | 200 | 200 | 200 | 203 | 200 | 200 | 89 | 114 | 112 | 117 | 35 | 4 |
| 0.5 (15) ASME - 300 , SO / RF | 8705 _ _ _ 005C3 | 200 | 200 | 200 | 203 | 200 | 200 | 95 | 114 | 112 | 117 | 35 | 5 |
| 0.5 (15) DIN - PN40, SO / RF | 8705 _ _ _ 005CH | 200 | 200 | 200 | 203 | 200 | 200 | 95 | 114 | 112 | 117 | 45 | 5 |
| 0.5 (15) AS2129 TABLE D, SO / RF | 8705 _ _ _ 005CK | 200 | 200 | 200 | 203 | 200 | | 95 | 114 | 112 | 117 | 47 | 4 |
| 0.5 (15) AS2129 TABLE E, SO / RF | 8705 _ _ _ 005CL | 200 | | 200 | 203 | 200 | | 95 | 114 | 112 | 117 | 47 | 4 |
| 0.5 (15) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 005CP | 200 | | 200 | 203 | 200 | | 95 | 114 | 112 | 117 | 45 | 4 |
| 0.5 (15) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 005CR | 200 | | 200 | 203 | 200 | | 95 | 114 | 112 | 117 | 45 | 5 |
| 0.5 (15) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 005CT | 213 | | 213 | 215 | 213 | | 115 | 114 | 112 | 117 | 45 | 6 |
| 1 (25) ASME - 150 , SO / RF | 8705 _ _ _ 010C1 | 200 | 200 | 200 | 202 | 200 | 200 | 108 | 114 | 112 | 117 | 51 | 5 |
| 1 (25) ASME - 300 , SO / RF | 8705 _ _ _ 010C3 | 200 | 200 | 200 | 202 | 200 | 200 | 124 | 114 | 112 | 117 | 51 | 6 |
| 1 (25) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 010C6 | 220 | 220 | 220 | 223 | 220 | | 124 | 114 | 112 | 117 | 51 | 7 |
| 1 (25) DIN - PN40, SO / RF | 8705 _ _ _ 010CH | 200 | 200 | 200 | 202 | 200 | 200 | 115 | 114 | 112 | 117 | 68 | 6 |
| 1 (25) AS2129 TABLE D, SO / RF | 8705 _ _ _ 010CK | 200 | 200 | 200 | 202 | 200 | | 115 | 114 | 112 | 117 | 65 | 4 |
| 1 (25) AS2129 TABLE E, SO / RF | 8705 _ _ _ 010CL | 200 | 200 | 200 | 202 | 200 | | 115 | 114 | 112 | 117 | 63 | 5 |
| 1 (25) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 010CP | 200 | | 200 | 202 | 200 | | 125 | 114 | 112 | 117 | 67 | 6 |
| 1 (25) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 010CR | 200 | | 200 | 202 | 200 | | 125 | 114 | 112 | 117 | 67 | 6 |
| 1 (25) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 010CT | 220 | | 220 | 223 | 220 | | 130 | 114 | 112 | 117 | 70 | 8 |
| 1.5 (40) ASME - 150 , SO / RF | 8705 _ _ _ 015C1 | 200 | 200 | 198 | 201 | 200 | 200 | 127 | 132 | 122 | 126 | 73 | 7 |
| 1.5 (40) ASME - 300 , SO / RF | 8705 _ _ _ 015C3 | 200 | 200 | 198 | 201 | 200 | 200 | 155 | 132 | 122 | 126 | 73 | 9 |
| 1.5 (40) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 015C6 | 219 | 219 | 217 | 220 | 219 | | 155 | 132 | 122 | 126 | 73 | 11 |
| 1.5 (40) DIN - PN40, SO / RF | 8705 _ _ _ 015CH | 200 | 200 | 198 | 201 | 200 | 200 | 150 | 132 | 122 | 126 | 88 | 9 |
| 1.5 (40) AS2129 TABLE D, SO / RF | 8705 _ _ _ 015CK | 200 | | 198 | 201 | 200 | | 135 | 132 | 122 | 126 | 78 | 6 |
| 1.5 (40) AS2129 TABLE E, SO / RF | 8705 _ _ _ 015CL | 200 | | 198 | 201 | 200 | | 135 | 132 | 122 | 126 | 78 | 6 |
| 1.5 (40) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 015CP | 200 | | 198 | 201 | 200 | | 140 | 132 | 122 | 126 | 81 | 7 |
| 1.5 (40) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 015CR | 200 | | 198 | 201 | 200 | | 140 | 132 | 122 | 126 | 81 | 8 |
| 1.5 (40) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 015CT | 219 | | 217 | 220 | 219 | | 160 | 132 | 122 | 126 | 90 | 11 |
| 2 (50) ASME - 150 , SO / RF | 8705 _ _ _ 020C1 | 200 | 200 | 198 | 201 | 200 | 200 | 152 | 132 | 122 | 126 | 92 | 9 |
| 2 (50) ASME - 300 , SO / RF | 8705 _ _ _ 020C3 | 200 | 200 | 198 | 201 | 200 | 200 | 165 | 132 | 122 | 126 | 92 | 11 |
| 2 (50) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 020C6 | 223 | 223 | 221 | 224 | 223 | | 165 | 132 | 122 | 126 | 92 | 13 |
| 2 (50) DIN - PN40, SO / RF | 8705 _ _ _ 020CH | 200 | 200 | 198 | 201 | 200 | 200 | 165 | 132 | 122 | 126 | 102 | 11 |
| 2 (50) AS2129 TABLE D, SO / RF | 8705 _ _ _ 020CK | 200 | | 198 | 201 | 200 | | 150 | 132 | 122 | 126 | 90 | 6 |
| 2 (50) AS2129 TABLE E, SO / RF | 8705 _ _ _ 020CL | 200 | | 198 | 201 | 200 | | 150 | 132 | 122 | 126 | 90 | 7 |
| 2 (50) JIS B220 - 10K, SO / RF | 8705 _ _ _ 020CP | 200 | | 198 | 201 | 200 | | 155 | 132 | 122 | 126 | 96 | 8 |
| 2 (50) JIS B220 - 20K, SO / RF | 8705 _ _ _ 020CR | 200 | | 198 | 201 | 200 | | 155 | 132 | 122 | 126 | 96 | 9 |
| 2 (50) JIS B220 - 40K, SO / RF | 8705 _ _ _ 020CT | 223 | | 221 | 224 | 223 | | 165 | 132 | 122 | 126 | 105 | 12 |
| 2 (50) AS4087 PN16, SO / RF | 8705 _ _ _ 020CU | 200 | | 198 | 201 | 200 | | 150 | 132 | 122 | 126 | 90 | 7 |
| 2 (50) AS4087 PN21, SO / RF | 8705 _ _ _ 020CW | 200 | | 198 | 201 | 200 | | 165 | 132 | 122 | 126 | 103 | 16 |
| 2 (50) AS4087 PN35, SO / RF | 8705 _ _ _ 020CY | 200 | | 198 | 201 | 200 | | 165 | 132 | 122 | 126 | 103 | 44 |
| 2.5 (65) ASME - 150 , SO / RF | 8705 _ _ _ 025C1 | 199 | | 197 | | | | 178 | 160 | 136 | 140 | 105 | 12 |
| 2.5 (65) ASME - 300 , SO / RF | 8705 _ _ _ 025C3 | 199 | | 197 | | | | 191 | 160 | 136 | 140 | 105 | 15 |
| 2.5 (65) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 025C6 | 225 | | 224 | | | | 191 | 160 | 136 | 140 | 105 | 18 |
| 2.5 (65) DIN - PN16, SO / RF | 8705 _ _ _ 025CE | 199 | | 197 | | | | 185 | 160 | 136 | 140 | 122 | 12 |
| 2.5 (65) DIN - PN40, SO / RF | 8705 _ _ _ 025CH | 199 | | 197 | | | | 185 | 160 | 136 | 140 | 122 | 14 |
| 2.5 (65) AS2129 TABLE D, SO / RF | 8705 _ _ _ 025CK | 199 | | 197 | | | | 165 | 160 | 136 | 140 | 103 | 8 |
| 2.5 (65) AS2129 TABLE E, SO / RF | 8705 _ _ _ 025CL | 199 | | 197 | | | | 165 | 160 | 136 | 140 | 103 | 8 |
| 2.5 (65) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 025CP | 199 | | 197 | | | | 175 | 160 | 136 | 140 | 116 | 11 |
| 2.5 (65) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 025CR | 199 | | 197 | | | | 175 | 160 | 136 | 140 | 116 | 12 |
| 2.5 (65) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 025CT | 199 | | 197 | | | | 200 | 160 | 136 | 140 | 130 | 18 |
| 2.5 (65) AS4087 PN16, SO / RF | 8705 _ _ _ 025CU | 199 | | 197 | | | | 165 | 160 | 136 | 140 | 103 | 8 |
| 2.5 (65) AS4087 PN21, SO / RF | 8705 _ _ _ 025CW | 199 | | 197 | | | | 185 | 160 | 136 | 140 | 122 | 11 |
| 2.5 (65) AS4087 PN35, SO / RF | 8705 _ _ _ 025CY | 199 | | 197 | | | | 185 | 160 | 136 | 140 | 122 | 12 |

**Figure 16: 8705-M Flanged Sensor 3 in. to 36 in. (DN 80 mm to 900 mm) slip-on flanges—low pressure (P ≤ Class 300)**




Dimensions are in inches [millimeters].

**E** See Figure 15.

**F** Nameplate

**G** Flange bolts to straddle center line

**Table 37: 8705-M Flanged Sensor 3 in. to 6 in. slip-on flanges—low pressure (P ≤ Class 300)—Inches**

| SIZE, DESCRIPTION | MODEL NUMBER ⑤ | OVERALL LENGTH | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (lbs.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | | | STYLE A | STYLE B | | | |
| 3 (80) ASME - 150 , SO / RF | 8705 _ _ _ 030C1 | 7.87 | 7.87 | 7.75 | 7.84 | 7.87 | 7.83 | 7.50 | 7.21 | 5.82 | 5.97 | 5.00 | 1.70 | 34 |
| 3 (80) ASME - 300 , SO / RF | 8705 _ _ _ 030C3 | 8.63 | 8.63 | 8.51 | 8.60 | 8.63 | 8.60 | 8.25 | 7.21 | 5.82 | 5.97 | 5.00 | 1.70 | 43 |
| 3 (80) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 030C6 | 12.40 | 12.40 | 12.29 | 12.39 | 12.40 | | 8.25 | 7.21 | 5.82 | 5.97 | 5.00 | 1.70 | 53 |
| 3 (80) EN1092-1- PN40, SO / RF | 8705 _ _ _ 030CH | 7.87 | 7.87 | 7.75 | 7.84 | 7.87 | 7.87 | 7.87 | 7.21 | 5.82 | 5.97 | 5.43 | 1.70 | 38 |
| 3 (80) AS2129 TABLE D, SO / RF | 8705 _ _ _ 030CK | 7.87 | | 7.75 | 7.84 | 7.87 | | 7.28 | 7.21 | 5.82 | 5.97 | 4.80 | 1.70 | 24 |
| 3 (80) AS2129 TABLE E, SO / RF | 8705 _ _ _ 030CL | 7.87 | | 7.75 | 7.84 | 7.87 | | 7.28 | 7.21 | 5.82 | 5.97 | 4.80 | 1.70 | 24 |
| 3 (80) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 030CP | 7.87 | | 7.75 | 7.84 | 7.87 | | 7.28 | 7.21 | 5.82 | 5.97 | 4.96 | 1.70 | 28 |
| 3 (80) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 030CR | 7.87 | | 7.75 | 7.84 | 7.87 | | 7.87 | 7.21 | 5.82 | 5.97 | 5.20 | 1.70 | 34 |
| 3 (80) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 030CT | 12.40 | | 12.29 | 12.39 | 12.40 | | 8.27 | 7.21 | 5.82 | 5.97 | 5.51 | 1.70 | 52 |
| 3 (80) AS4087 PN16, SO / RF | 8705 _ _ _ 030CU | 7.87 | | 7.75 | 7.84 | 7.87 | | 7.28 | 7.21 | 5.82 | 5.97 | 4.80 | 1.70 | 20 |
| 3 (80) AS4087 PN21, SO / RF | 8705 _ _ _ 030CW | 7.87 | | 7.75 | 7.84 | 7.87 | | 8.07 | 7.21 | 5.82 | 5.97 | 5.55 | 1.70 | 56 |
| 3 (80) AS4087 PN35, SO / RF | 8705 _ _ _ 030CY | 7.87 | | 7.75 | 7.84 | 7.87 | | 8.07 | 7.21 | 5.82 | 5.97 | 5.55 | 1.70 | 109 |
| 4 (100) ASME - 150 , SO / RF | 8705 _ _ _ 040C1 | 9.84 | 9.84 | 9.69 | 9.78 | 9.84 | 9.84 | 9.00 | 7.91 | 6.17 | 6.32 | 6.19 | 1.70 | 45 |
| 4 (100) ASME - 300 , SO / RF | 8705 _ _ _ 040C3 | 10.88 | 10.88 | 10.73 | 10.82 | 10.88 | 10.88 | 10.00 | 7.91 | 6.17 | 6.32 | 6.19 | 1.70 | 65 |
| 4 (100) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 040C6 | 12.83 | 12.83 | 12.70 | 12.79 | 12.83 | | 10.75 | 7.91 | 6.17 | 6.32 | 6.19 | 1.70 | 94 |
| 4 (100) EN1092-1 - PN16, SO / RF | 8705 _ _ _ 040CE | 9.84 | 9.81 | 9.69 | 9.78 | 9.81 | 9.81 | 8.66 | 7.91 | 6.17 | 6.32 | 6.22 | 1.70 | 41 |
| 4 (100) EN1092-1 - PN40, SO / RF | 8705 _ _ _ 040CH | 9.84 | 9.81 | 9.69 | 9.78 | 9.81 | 9.81 | 9.25 | 7.91 | 6.17 | 6.32 | 6.38 | 1.70 | 49 |
| 4 (100) AS2129 TABLE D, SO / RF | 8705 _ _ _ 040CK | 9.84 | 9.84 | 9.69 | 9.78 | 9.84 | | 8.46 | 7.91 | 6.17 | 6.32 | 6.06 | 1.70 | 31 |
| 4 (100) AS2129 TABLE E, SO / RF | 8705 _ _ _ 040CL | 9.84 | 9.84 | 9.69 | 9.78 | 9.84 | | 8.46 | 7.91 | 6.17 | 6.32 | 6.06 | 1.70 | 33 |
| 4 (100) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 040CP | 9.84 | | 9.69 | 9.78 | 9.84 | | 8.27 | 7.91 | 6.17 | 6.32 | 5.95 | 1.70 | 35 |
| 4 (100) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 040CR | 9.84 | | 9.69 | 9.78 | 9.84 | | 8.86 | 7.91 | 6.17 | 6.32 | 6.30 | 1.70 | 44 |
| 4 (100) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 040CT | 12.83 | | 12.70 | 12.79 | 12.83 | | 9.84 | 7.91 | 6.17 | 6.32 | 6.50 | 1.70 | 75 |
| 4 (100) AS4087 PN16, SO / RF | 8705 _ _ _ 040CU | 9.84 | | 9.69 | 9.78 | 9.84 | | 8.46 | 7.91 | 6.17 | 6.32 | 6.06 | 1.70 | 28 |
| 4 (100) AS4087 PN21, SO / RF | 8705 _ _ _ 040CW | 9.84 | | 9.69 | 9.78 | 9.84 | | 9.06 | 7.91 | 6.17 | 6.32 | 6.57 | 1.70 | 68 |
| 4 (100) AS4087 PN35, SO / RF | 8705 _ _ _ 040CY | 9.84 | | 9.69 | 9.78 | 9.84 | | 9.06 | 7.91 | 6.17 | 6.32 | 6.57 | 1.70 | 119 |
| 5 (125) ASME - 150 , SO / RF | 8705 _ _ _ 050C1 | 9.79 | | 9.71 | | | | 10.00 | 9.61 | 7.02 | 7.17 | 7.31 | 1.70 | 54 |
| 5 (125) ASME - 300 , SO / RF | 8705 _ _ _ 050C3 | 10.94 | | 10.86 | | | | 11.00 | 9.61 | 7.02 | 7.17 | 7.31 | 1.70 | 89 |
| 5 (125) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 050C6 | 12.89 | | 12.81 | | | | 13.00 | 9.61 | 7.02 | 7.17 | 7.31 | 1.70 | 157 |
| 5 (125) EN1092-1 - PN16, SO / RF | 8705 _ _ _ 050CE | 9.79 | | 9.50 | | | | 9.84 | 9.61 | 7.02 | 7.17 | 7.40 | 1.70 | 55 |
| 5 (125) EN1092-1 - PN40, SO / RF | 8705 _ _ _ 050CH | 9.79 | | 9.71 | | | | 10.63 | 9.61 | 7.02 | 7.17 | 7.40 | 1.70 | 65 |
| 5 (125) AS2129 TABLE D, SO / RF | 8705 _ _ _ 050CK | 9.79 | | 9.71 | | | | 10.04 | 9.61 | 7.02 | 7.17 | 7.32 | 1.70 | 43 |
| 5 (125) AS2129 TABLE E, SO / RF | 8705 _ _ _ 050CL | 9.79 | | 9.71 | | | | 10.04 | 9.61 | 7.02 | 7.17 | 7.32 | 1.70 | 44 |
| 5 (125) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 050CP | 9.79 | | 9.71 | | | | 9.84 | 9.61 | 7.02 | 7.17 | 7.17 | 1.70 | 49 |
| 5 (125) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 050CR | 9.79 | | 9.71 | | | | 10.63 | 9.61 | 7.02 | 7.17 | 7.68 | 1.70 | 64 |
| 5 (125) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 050CT | 10.94 | | 10.86 | | | | 11.81 | 9.61 | 7.02 | 7.17 | 7.87 | 1.70 | 112 |
| 6 (150) ASME - 150 , SO / RF | 8705 _ _ _ 060C1 | 11.81 | 11.75 | 11.61 | 11.71 | 11.73 | 11.81 | 11.00 | 9.98 | 7.30 | 7.35 | 8.50 | 1.70 | 68 |
| 6 (150) ASME - 300 , SO / RF | 8705 _ _ _ 060C3 | 13.06 | 13.02 | 12.88 | 12.97 | 13.00 | 13.06 | 12.50 | 9.98 | 7.30 | 7.35 | 8.50 | 1.70 | 117 |
| 6 (150) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 060C6 | 14.23 | 14.19 | 14.05 | 14.14 | 14.17 | | 14.00 | 9.98 | 7.30 | 7.35 | 8.50 | 1.70 | 178 |
| 6 (150) EN1092-1 - PN16, SO / RF | 8705 _ _ _ 060CE | 11.81 | 11.75 | 11.61 | 11.71 | 11.73 | 11.81 | 11.22 | 9.98 | 7.30 | 7.35 | 8.35 | 1.70 | 67 |
| 6 (150) EN1092-1 - PN25, SO / RF | 8705 _ _ _ 060CF | 11.81 | 11.80 | 11.66 | 11.75 | 11.78 | 11.86 | 11.81 | 9.98 | 7.30 | 7.35 | 8.58 | 1.70 | 83 |
| 6 (150) EN1092-1 - PN40, SO / RF | 8705 _ _ _ 060CH | 13.06 | 13.02 | 12.88 | 12.97 | 13.00 | 13.06 | 11.81 | 9.98 | 7.30 | 7.35 | 8.58 | 1.70 | 95 |
| 6 (150) AS2129 TABLE D, SO / RF | 8705 _ _ _ 060CK | 11.81 | | 11.61 | 11.71 | 11.73 | | 11.02 | 9.98 | 7.30 | 7.35 | 8.31 | 1.70 | 52 |
| 6 (150) AS2129 TABLE E, SO / RF | 8705 _ _ _ 060CL | 11.81 | | 11.61 | 11.71 | 11.73 | | 11.02 | 9.98 | 7.30 | 7.35 | 8.15 | 1.70 | 57 |
| 6 (150) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 060CP | 11.81 | | 11.61 | 11.71 | 11.73 | | 11.02 | 9.98 | 7.30 | 7.35 | 8.35 | 1.70 | 64 |
| 6 (150) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 060CR | 11.81 | | 11.61 | 11.71 | 11.73 | | 12.01 | 9.98 | 7.30 | 7.35 | 9.06 | 1.70 | 82 |
| 6 (150) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 060CT | 14.23 | | 14.05 | 14.14 | 14.17 | | 13.98 | 9.98 | 7.30 | 7.35 | 9.45 | 1.70 | 161 |
| 6 (150) AS4087 PN16, SO / RF | 8705 _ _ _ 060CU | 11.81 | | 11.61 | 11.71 | 11.73 | | 11.02 | 9.98 | 7.30 | 7.35 | 8.31 | 1.70 | 46 |
| 6 (150) AS4087 PN21, SO / RF | 8705 _ _ _ 060CW | 11.81 | | 11.61 | 11.71 | 11.73 | | 12.01 | 9.98 | 7.30 | 7.35 | 9.13 | 1.70 | 98 |
| 6 (150) AS4087 PN35, SO / RF | 8705 _ _ _ 060CY | 11.81 | | 11.61 | 11.71 | 11.73 | | 12.01 | 9.98 | 7.30 | 7.35 | 9.13 | 1.70 | 186 |

**Table 38: 8705-M Flanged Sensor 8 in. to 12 in. slip-on flanges—low pressure (P ≤ Class 300)—Inches**

| SIZE, DESCRIPTION | MODEL NUMBER (5) | OVERALL LENGTH | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (lbs.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | | | STYLE A | STYLE B | | | |
| 8 (200) ASME - 150 , SO / RF | 8705 _ _ _ 080C1 | 13.78 | 13.69 | 13.53 | 13.63 | 13.65 | 13.78 | 13.50 | 11.92 | 8.27 | 8.32 | 10.62 | 1.70 | 105 |
| 8 (200) ASME - 300 , SO / RF | 8705 _ _ _ 080C3 | 15.60 | 15.54 | 15.42 | 15.51 | 15.54 | 15.60 | 15.00 | 11.92 | 8.27 | 8.32 | 10.62 | 1.70 | 183 |
| 8 (200) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 080C6 | 16.72 | 16.66 | 16.54 | 16.63 | 16.66 | | 16.50 | 11.92 | 8.27 | 8.32 | 10.62 | 1.70 | 272 |
| 8 (200) DIN - PN10, SO / RF | 8705 _ _ _ 080CD | 13.78 | 13.69 | 13.53 | 13.63 | 13.65 | 13.78 | 13.39 | 11.92 | 8.27 | 8.32 | 10.55 | 1.70 | 97 |
| 8 (200) DIN - PN16, SO / RF | 8705 _ _ _ 080CE | 13.78 | 13.69 | 13.53 | 13.63 | 13.65 | 13.78 | 13.39 | 11.92 | 8.27 | 8.32 | 10.55 | 1.70 | 96 |
| 8 (200) DIN - PN25, SO / RF | 8705 _ _ _ 080CF | 13.78 | 13.69 | 13.53 | 13.63 | 13.65 | 13.78 | 14.17 | 11.92 | 8.27 | 8.32 | 10.94 | 1.70 | 120 |
| 8 (200) DIN - PN40, SO / RF | 8705 _ _ _ 080CH | 15.60 | 15.54 | 15.42 | 15.51 | 15.54 | 15.60 | 14.76 | 11.92 | 8.27 | 8.32 | 11.22 | 1.70 | 158 |
| 8 (200) AS2129 TABLE D, SO / RF | 8705 _ _ _ 080CK | 13.78 | | 13.53 | 13.63 | 13.65 | | 13.19 | 11.92 | 8.27 | 8.32 | 10.55 | 1.70 | 77 |
| 8 (200) AS2129 TABLE E, SO / RF | 8705 _ _ _ 080CL | 13.78 | | 13.53 | 13.63 | 13.65 | | 13.19 | 11.92 | 8.27 | 8.32 | 10.39 | 1.70 | 86 |
| 8 (200) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 080CP | 13.90 | | 13.53 | 13.63 | 13.65 | | 12.99 | 11.92 | 8.27 | 8.32 | 10.32 | 1.70 | 81 |
| 8 (200) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 080CR | 15.60 | | 15.42 | 15.51 | 15.54 | | 13.78 | 11.92 | 8.27 | 8.32 | 10.83 | 1.70 | 134 |
| 8 (200) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 080CT | 16.72 | | 16.54 | 16.63 | 16.66 | | 15.94 | 11.92 | 8.27 | 8.32 | 11.42 | 1.70 | 232 |
| 8 (200) AS4087 PN16, SO / RF | 8705 _ _ _ 080CU | 13.78 | | 13.53 | 13.63 | 13.65 | | 13.19 | 11.92 | 8.27 | 8.32 | 10.55 | 1.70 | 73 |
| 8 (200) AS4087 PN21, SO / RF | 8705 _ _ _ 080CW | 13.78 | | 13.53 | 13.63 | 13.65 | | 14.57 | 11.92 | 8.27 | 8.32 | 11.65 | 1.70 | 136 |
| 8 (200) AS4087 PN35, SO / RF | 8705 _ _ _ 080CY | 15.60 | | 15.42 | 15.51 | 15.54 | | 14.57 | 11.92 | 8.27 | 8.32 | 10.24 | 1.70 | 241 |
| 10 (250) ASME - 150 , SO / RF | 8705 _ _ _ 100C1 | 15.00 | 14.85 | 14.63 | 14.73 | 14.75 | 15.00 | 16.00 | 14.64 | 9.69 | 9.68 | 12.75 | 2.00 | 152 |
| 10 (250) ASME - 300 , SO / RF | 8705 _ _ _ 100C3 | 17.13 | 17.08 | 16.86 | 16.95 | 16.98 | 17.13 | 17.50 | 14.64 | 9.69 | 9.68 | 12.75 | 2.00 | 267 |
| 10 (250) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 100C6 | 19.54 | 19.56 | 19.34 | 19.43 | 19.46 | | 20.00 | 14.64 | 9.69 | 9.68 | 12.75 | 2.00 | 462 |
| 10 (250) DIN - PN10, SO / RF | 8705 _ _ _ 100CD | 15.00 | 14.85 | 14.63 | 14.73 | 14.75 | 15.00 | 15.55 | 14.64 | 9.69 | 9.68 | 12.60 | 2.00 | 134 |
| 10 (250) DIN - PN16, SO / RF | 8705 _ _ _ 100CE | 15.00 | 14.85 | 14.63 | 14.73 | 14.75 | 15.00 | 15.94 | 14.64 | 9.69 | 9.68 | 12.60 | 2.00 | 138 |
| 10 (250) DIN - PN25, SO / RF | 8705 _ _ _ 100CF | 15.00 | 14.85 | 14.63 | 14.73 | 14.75 | 15.00 | 16.73 | 14.64 | 9.69 | 9.68 | 13.19 | 2.00 | 174 |
| 10 (250) DIN - PN40, SO / RF | 8705 _ _ _ 100CH | 17.13 | | 16.86 | 16.95 | 16.98 | 17.13 | 17.72 | 14.64 | 9.69 | 9.68 | 13.58 | 2.00 | 244 |
| 10 (250) AS2129 TABLE D, SO / RF | 8705 _ _ _ 100CK | 15.00 | | 14.63 | 14.73 | 14.75 | | 15.94 | 14.64 | 9.69 | 9.68 | 12.91 | 2.00 | 122 |
| 10 (250) AS2129 TABLE E, SO / RF | 8705 _ _ _ 100CL | 15.00 | | 14.63 | 14.73 | 14.75 | | 15.94 | 14.64 | 9.69 | 9.68 | 12.91 | 2.00 | 137 |
| 10 (250) JIS B2200- 10K, SO / RF | 8705 _ _ _ 100CP | 15.00 | | 14.63 | 14.73 | 14.75 | | 15.75 | 14.64 | 9.69 | 9.68 | 12.76 | 1.70 | 129 |
| 10 (250) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 100CR | 17.13 | | 16.86 | 16.95 | 16.98 | | 16.93 | 14.64 | 9.69 | 9.68 | 13.58 | 1.70 | 218 |
| 10 (250) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 100CT | 19.54 | | 19.34 | 19.43 | | | 18.70 | 14.64 | 9.69 | 9.68 | 13.98 | 1.70 | 382 |
| 10 (250) AS4087 PN16, SO / RF | 8705 _ _ _ 100CU | 15.00 | | 14.63 | 14.73 | 14.75 | | 15.94 | 14.64 | 9.69 | 9.68 | 12.91 | 2.00 | 96 |
| 10 (250) AS4087 PN21, SO / RF | 8705 _ _ _ 100CW | 15.00 | | 14.63 | 14.73 | 14.75 | | 16.93 | 14.64 | 9.69 | 9.68 | 13.74 | 2.00 | 176 |
| 10 (250) AS4087 PN35, SO / RF | 8705 _ _ _ 100CY | 17.13 | | 16.86 | 16.95 | 16.98 | | 16.93 | 14.64 | 9.69 | 9.68 | 12.24 | 2.00 | 299 |
| 12 (300) ASME - 150 , SO / RF | 8705 _ _ _ 120C1 | 18.01 | 17.90 | 17.68 | 17.78 | 17.80 | 18.00 | 19.00 | 16.80 | 10.77 | 10.76 | 15.00 | 2.00 | 231 |
| 12 (300) ASME - 300 , SO / RF | 8705 _ _ _ 120C3 | 20.14 | 20.02 | 19.80 | 19.89 | 19.92 | 20.14 | 20.50 | 16.80 | 10.77 | 10.76 | 15.00 | 2.00 | 387 |
| 12 (300) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 120C6 | 22.08 | 22.10 | 21.88 | 21.98 | 22.00 | | 22.00 | 16.80 | 10.77 | 10.76 | 15.00 | 2.00 | 623 |
| 12 (300) DIN - PN10, SO / RF | 8705 _ _ _ 120CD | 18.01 | 17.90 | 17.68 | 17.78 | 17.80 | 18.00 | 17.52 | 16.80 | 10.77 | 10.76 | 14.57 | 2.00 | 178 |
| 12 (300) DIN - PN16, SO / RF | 8705 _ _ _ 120CE | 18.01 | 17.90 | 17.68 | 17.78 | 17.80 | 18.00 | 18.11 | 16.80 | 10.77 | 10.76 | 14.88 | 2.00 | 192 |
| 12 (300) DIN - PN25, SO / RF | 8705 _ _ _ 120CF | 18.01 | 17.90 | 17.68 | 17.78 | 17.80 | 18.00 | 19.09 | 16.80 | 10.77 | 10.76 | 15.55 | 2.00 | 242 |
| 12 (300) DIN - PN40, SO / RF | 8705 _ _ _ 120CH | 20.14 | | 19.80 | 19.89 | 19.92 | 20.14 | 20.28 | 16.80 | 10.77 | 10.76 | 16.14 | 2.00 | 351 |
| 12 (300) AS2129 TABLE D, SO / RF | 8705 _ _ _ 120CK | 18.01 | | 17.68 | 17.78 | 17.80 | | 17.91 | 16.80 | 10.77 | 10.76 | 14.88 | 2.00 | 172 |
| 12 (300) AS2129 TABLE E, SO / RF | 8705 _ _ _ 120CL | 18.01 | | 17.68 | 17.78 | 17.80 | | 17.91 | 16.80 | 10.77 | 10.76 | 14.72 | 2.00 | 185 |
| 12 (300) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 120CP | 18.01 | | 17.68 | 17.78 | 17.80 | | 17.52 | 16.80 | 10.77 | 10.76 | 14.49 | 2.00 | 166 |
| 12 (300) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 120CR | 20.14 | | 19.80 | 19.89 | 19.92 | | 18.90 | 16.80 | 10.77 | 10.76 | 15.55 | 2.00 | 285 |
| 12 (300) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 120CT | 22.08 | | 21.88 | 21.98 | 21.78 | | 21.26 | 16.80 | 10.77 | 10.76 | 16.14 | 3.13 | 546 |
| 12 (300) AS4087 PN16, SO / RF | 8705 _ _ _ 120CU | 18.01 | | 17.68 | 17.78 | 17.80 | | 17.91 | 16.80 | 10.77 | 10.76 | 14.88 | 2.00 | 138 |
| 12 (300) AS4087 PN21, SO / RF | 8705 _ _ _ 120CW | 18.01 | | 17.68 | 17.78 | 17.80 | | 19.29 | 16.80 | 10.77 | 10.76 | 15.98 | 2.00 | 225 |
| 12 (300) AS4087 PN35, SO / RF | 8705 _ _ _ 120CY | 20.14 | | 19.80 | 19.89 | 19.92 | | 19.29 | 16.80 | 10.77 | 10.76 | 14.25 | 2.00 | 370 |

**Table 39: 8705-M Flanged sensor 14 in. to 20 in. slip-on flanges—low pressure (P ≤ Class 300)—Inches**

| SIZE, DESCRIPTION | MODEL NUMBER (5) | OVERALL LENGTH | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (lbs.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | | | STYLE A | STYLE B | | | |
| 14 (350) ASME - 150 , SO / RF | 8705 _ _ _ 140C1 | 20.91 | 20.93 | 20.71 | 20.80 | 20.83 | 21.00 | 21.00 | 18.92 | 11.83 | 11.82 | 16.25 | 2.00 | 300 |
| 14 (350) ASME - 300 , SO / RF | 8705 _ _ _ 140C3 | 23.16 | 23.18 | 22.96 | 23.05 | 23.08 | | 23.00 | 18.92 | 11.83 | 11.82 | 16.25 | 2.00 | 517 |
| 14 (350) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 140C6 | 25.74 | | | | | | 23.75 | 18.92 | 11.83 | 11.82 | 16.25 | 2.00 | 773 |
| 14 (350) DIN - PN10, SO / RF | 8705 _ _ _ 140CD | 20.91 | 20.93 | 20.71 | 20.80 | 20.83 | 21.00 | 19.88 | 18.92 | 11.83 | 11.82 | 16.93 | 2.00 | 252 |
| 14 (350) DIN - PN16, SO / RF | 8705 _ _ _ 140CE | 20.91 | | 20.71 | 20.80 | 20.83 | 21.00 | 20.47 | 18.92 | 11.83 | 11.82 | 17.24 | 2.00 | 276 |
| 14 (350) DIN - PN25, SO / RF | 8705 _ _ _ 140CF | 20.91 | | 20.71 | 20.80 | 20.83 | | 21.85 | 18.92 | 11.83 | 11.82 | 17.72 | 2.00 | 359 |
| 14 (350) DIN - PN40, SO / RF | 8705 _ _ _ 140CH | 23.16 | | 22.96 | 23.05 | 23.08 | | 22.83 | 18.92 | 11.83 | 11.82 | 18.31 | 2.00 | 480 |
| 14 (350) AS2129 TABLE D, SO / RF | 8705 _ _ _ 140CK | 20.91 | | 20.71 | 20.80 | 20.83 | | 20.67 | 18.92 | 11.83 | 11.82 | 17.24 | 2.00 | 230 |
| 14 (350) AS2129 TABLE E, SO / RF | 8705 _ _ _ 140CL | 20.91 | | 20.71 | 20.80 | 20.83 | | 20.67 | 18.92 | 11.83 | 11.82 | 17.24 | 2.00 | 257 |
| 14 (350) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 140CP | 20.91 | | 20.71 | 20.80 | 20.83 | | 19.29 | 18.92 | 11.83 | 11.82 | 16.26 | 2.00 | 221 |
| 14 (350) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 140CR | 23.16 | | 22.96 | 23.05 | 23.08 | | 21.26 | 18.92 | 11.83 | 11.82 | 17.32 | 2.00 | 385 |
| 14 (350) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 140CT | 25.74 | | 25.54 | 25.64 | | | 23.03 | 18.92 | 11.83 | 11.82 | 17.91 | 2.00 | 702 |
| 14 (350) AS4087 PN16, SO / RF | 8705 _ _ _ 140CU | 20.91 | | 20.71 | 20.80 | 20.83 | | 20.67 | 18.92 | 11.83 | 11.82 | 17.24 | 2.00 | 219 |
| 14 (350) AS4087 PN21, SO / RF | 8705 _ _ _ 140CW | 20.91 | | 20.71 | 20.80 | 20.83 | | 21.65 | 18.92 | 11.83 | 11.82 | 18.07 | 2.00 | 294 |
| 14 (350) AS4087 PN35, SO / RF | 8705 _ _ _ 140CY | 23.16 | | 22.96 | 23.05 | 23.08 | | 21.65 | 18.92 | 11.83 | 11.82 | 16.50 | 2.00 | 497 |
| 16 (400) ASME - 150 , SO / RF | 8705 _ _ _ 160C1 | 23.88 | 23.90 | 23.68 | 23.77 | 23.80 | | 23.50 | 20.94 | 12.84 | 12.83 | 18.50 | 3.13 | 388 |
| 16 (400) ASME - 300 , SO / RF | 8705 _ _ _ 160C3 | 26.13 | | 25.93 | 26.02 | 26.05 | | 25.50 | 20.94 | 12.84 | 12.83 | 18.50 | 3.13 | 705 |
| 16 (400) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 160C6 | 29.24 | | | | | | 27.00 | 20.94 | 12.84 | 12.83 | 18.50 | 3.13 | 1102 |
| 16 (400) DIN - PN10, SO / RF | 8705 _ _ _ 160CD | 23.88 | 23.90 | 23.68 | 23.77 | 23.80 | | 22.24 | 20.94 | 12.84 | 12.83 | 18.98 | 3.13 | 318 |
| 16 (400) DIN - PN16, SO / RF | 8705 _ _ _ 160CE | 23.88 | 23.90 | 23.68 | 23.77 | 23.80 | | 22.83 | 20.94 | 12.84 | 12.83 | 19.28 | 3.13 | 354 |
| 16 (400) DIN - PN25, SO / RF | 8705 _ _ _ 160CF | 26.13 | | 25.93 | 26.02 | 26.05 | | 24.41 | 20.94 | 12.84 | 12.83 | 19.88 | 3.13 | 581 |
| 16 (400) DIN - PN40, SO / RF | 8705 _ _ _ 160CH | 26.13 | | 25.93 | 26.02 | 26.05 | | 25.98 | 20.94 | 12.84 | 12.83 | 21.06 | 3.13 | 696 |
| 16 (400) AS2129 TABLE D, SO / RF | 8705 _ _ _ 160CK | 23.88 | | 23.68 | 23.77 | 23.80 | | 22.83 | 20.94 | 12.84 | 12.83 | 19.25 | 3.13 | 283 |
| 16 (400) AS2129 TABLE E, SO / RF | 8705 _ _ _ 160CL | 23.88 | | 23.68 | 23.77 | 23.80 | | 22.83 | 20.94 | 12.84 | 12.83 | 19.25 | 3.13 | 327 |
| 16 (400) JIS B2200- 10K, SO / RF | 8705 _ _ _ 160CP | 23.88 | | 23.68 | 23.77 | 23.80 | | 22.05 | 20.94 | 12.84 | 12.83 | 18.70 | 2.00 | 296 |
| 16 (400) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 160CR | 26.13 | | 25.93 | 26.02 | 26.05 | | 23.82 | 20.94 | 12.84 | 12.83 | 19.49 | 2.00 | 561 |
| 16 (400) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 160CT | 29.24 | | 29.04 | 29.14 | | | 25.39 | 20.94 | 12.84 | 12.83 | 20.28 | 2.00 | 961 |
| 16 (400) AS4087 PN16, SO / RF | 8705 _ _ _ 160CU | 23.88 | | 23.68 | 23.77 | 23.80 | | 22.83 | 20.94 | 12.84 | 12.83 | 19.25 | 3.13 | 262 |
| 16 (400) AS4087 PN21, SO / RF | 8705 _ _ _ 160CW | 23.88 | | 23.68 | 23.77 | 23.80 | | 24.02 | 20.94 | 12.84 | 12.83 | 20.31 | 3.13 | 387 |
| 16 (400) AS4087 PN35, SO / RF | 8705 _ _ _ 160CY | 26.13 | | 25.93 | 26.02 | 26.05 | | 24.02 | 20.94 | 12.84 | 12.83 | 19.02 | 3.13 | 631 |
| 18 (450) ASME - 150 , SO / RF | 8705 _ _ _ 180C1 | 26.85 | | 26.65 | 26.74 | 26.77 | | 25.00 | 23.46 | 14.1 | 14.09 | 21 | 3.13 | 451 |
| 18 (450) ASME - 300 , SO / RF | 8705 _ _ _ 180C3 | 29.97 | | 29.77 | 29.86 | 29.89 | | 28.00 | 23.46 | 14.1 | 14.09 | 21 | 3.13 | 907 |
| 18 (450) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 180C6 | 32.72 | | | | | | 29.25 | 23.46 | 14.1 | 14.09 | 21 | 3.13 | 1407 |
| 18 (450) DIN - PN10, SO / RF | 8705 _ _ _ 180CD | 26.85 | | 26.65 | 26.74 | 26.77 | | 24.21 | 23.46 | 14.1 | 14.09 | 20.94 | 3.13 | 381 |
| 18 (450) DIN - PN16, SO / RF | 8705 _ _ _ 180CE | 26.85 | | 26.65 | 26.74 | 26.77 | | 25.20 | 23.46 | 14.1 | 14.09 | 21.65 | 3.13 | 434 |
| 18 (450) DIN - PN25, SO / RF | 8705 _ _ _ 180CF | 29.97 | | 29.77 | 29.86 | 29.89 | | 26.38 | 23.46 | 14.1 | 14.09 | 21.85 | 3.13 | 744 |
| 18 (450) DIN - PN40, SO / RF | 8705 _ _ _ 180CH | 29.97 | | 29.77 | 29.86 | 29.89 | | 26.97 | 23.46 | 14.1 | 14.09 | 22.05 | 3.13 | 817 |
| 18 (450) AS2129 TABLE D, SO / RF | 8705 _ _ _ 180CK | 26.85 | | 26.65 | 26.74 | 26.77 | | 25.20 | 23.46 | 14.1 | 14.09 | 20.94 | 3.13 | 356 |
| 18 (450) AS2129 TABLE E, SO / RF | 8705 _ _ _ 180CL | 26.85 | | 26.65 | 26.74 | 26.77 | | 25.20 | 23.46 | 14.1 | 14.09 | 21.73 | 3.13 | 414 |
| 18 (450) JIS B2200- 10K, SO / RF | 8705 _ _ _ 180CP | 26.85 | | 26.65 | 26.74 | 26.77 | | 24.41 | 23.46 | 14.1 | 14.09 | 20.87 | 3.13 | 373 |
| 18 (450) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 180CR | 29.97 | | 29.77 | 29.86 | 29.89 | | 26.57 | 23.46 | 14.1 | 14.09 | 22.05 | 3.13 | 751 |
| 18 (450) AS4087 PN16, SO / RF | 8705 _ _ _ 180CU | 26.85 | | 26.65 | 26.74 | 26.77 | | 25.20 | 23.46 | 14.1 | 14.09 | 21.73 | 3.13 | 323 |
| 18 (450) AS4087 PN21, SO / RF | 8705 _ _ _ 180CW | 26.85 | | 26.65 | 26.74 | 26.77 | | 26.57 | 23.46 | 14.1 | 14.09 | 22.48 | 3.13 | 453 |
| 18 (450) AS4087 PN35, SO / RF | 8705 _ _ _ 180CY | 29.97 | | 29.77 | 29.86 | 29.89 | | 26.57 | 23.46 | 14.1 | 14.09 | 20.98 | 3.13 | 917 |
| 20 (500) ASME - 150 , SO / RF | 8705 _ _ _ 200C1 | 29.78 | | 29.58 | 29.67 | 29.70 | | 27.50 | 25.48 | 15.11 | 15.1 | 23 | 3.13 | 569 |
| 20 (500) ASME - 300 , SO / RF | 8705 _ _ _ 200C3 | 33.04 | | 32.84 | 32.93 | 32.96 | | 30.50 | 25.48 | 15.11 | 15.1 | 23 | 3.13 | 1127 |
| 20 (500) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 200C6 | 36.85 | | | | | | 32.00 | 25.48 | 15.11 | 15.1 | 23 | 3.13 | 1824 |
| 20 (500) DIN - PN10, SO / RF | 8705 _ _ _ 200CD | 29.78 | | 29.58 | 29.67 | 29.70 | | 26.38 | 25.48 | 15.11 | 15.1 | 23.03 | 3.13 | 473 |
| 20 (500) DIN - PN16, SO / RF | 8705 _ _ _ 200CE | 29.78 | | 29.58 | 29.67 | 29.70 | | 28.15 | 25.48 | 15.11 | 15.1 | 24.02 | 3.13 | 567 |
| 20 (500) DIN - PN25, SO / RF | 8705 _ _ _ 200CF | 33.04 | | 32.84 | 32.93 | 32.96 | | 28.74 | 25.48 | 15.11 | 15.1 | 24.21 | 3.13 | 932 |
| 20 (500) DIN - PN40, SO / RF | 8705 _ _ _ 200CH | 33.04 | | 32.84 | 32.93 | 32.96 | | 29.72 | 25.48 | 15.11 | 15.1 | 24.21 | 3.13 | 1013 |
| 20 (500) AS2129 TABLE D, SO / RF | 8705 _ _ _ 200CK | 29.78 | | 29.58 | 29.67 | 29.70 | | 27.76 | 25.48 | 15.11 | 15.1 | 23.98 | 3.13 | 471 |
| 20 (500) AS2129 TABLE E, SO / RF | 8705 _ _ _ 200CL | 29.78 | | 29.58 | 29.67 | 29.70 | | 27.76 | 25.48 | 15.11 | 15.1 | 23.98 | 3.13 | 528 |
| 20 (500) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 200CP | 29.78 | | 29.58 | 29.67 | 29.70 | | 26.57 | 25.48 | 15.11 | 15.1 | 23.03 | 3.13 | 453 |
| 20 (500) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 200CR | 33.04 | | 32.84 | 32.93 | 32.96 | | 28.74 | 25.48 | 15.11 | 15.1 | 24.21 | 3.13 | 919 |
| 20 (500) AS4087 PN16, SO / RF | 8705 _ _ _ 200CU | 29.78 | | 29.58 | 29.67 | 29.70 | | 27.76 | 25.48 | 15.11 | 15.1 | 23.98 | 3.13 | 453 |
| 20 (500) AS4087 PN21, SO / RF | 8705 _ _ _ 200CW | 29.78 | | 29.58 | 29.67 | 29.70 | | 28.94 | 25.48 | 15.11 | 15.1 | 24.96 | 3.13 | 627 |
| 20 (500) AS4087 PN35, SO / RF | 8705 _ _ _ 200CY | 33.04 | | 32.84 | 32.93 | 32.96 | | 28.94 | 25.48 | 15.11 | 15.1 | 23.5 | 3.13 | 1074 |

**Table 40: 8705-M Flanged sensor 24 in. to 36 in. slip-on flanges—low pressure (P ≤ Class 300)—Inches**

| SIZE, DESCRIPTION | MODEL NUMBER 5 | OVERALL LENGTH | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (lbs.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | | | STYLE A | STYLE B | | | |
| 24 (600) ASME - 150 , SO / RF | 8705 _ _ _ 240C1 | 35.75 | | 35.55 | 35.64 | 35.67 | | 32.00 | 30.03 | 17.39 | 17.38 | 27.25 | 3.13 | 828 |
| 24 (600) ASME - 300 , SO / RF | 8705 _ _ _ 240C3 | 39.38 | | 39.18 | 39.27 | 39.30 | | 36.00 | 30.03 | 17.39 | 17.38 | 27.25 | 3.13 | 1729 |
| 24 (600) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 240C6 | 41.35 | | | | | | 37.00 | 30.03 | 17.39 | 17.38 | 27.25 | 3.13 | 2690 |
| 24 (600) DIN - PN10, SO / RF | 8705 _ _ _ 240CD | 35.75 | | 35.55 | 35.64 | 35.67 | | 30.71 | 30.03 | 17.39 | 17.38 | 26.97 | 3.13 | 661 |
| 24 (600) DIN - PN16, SO / RF | 8705 _ _ _ 240CE | 35.75 | | 35.55 | 35.64 | 35.67 | | 33.07 | 30.03 | 17.39 | 17.38 | 28.54 | 3.13 | 832 |
| 24 (600) DIN - PN25, SO / RF | 8705 _ _ _ 240CF | 39.38 | | 39.18 | 39.27 | 39.30 | | 33.27 | 30.03 | 17.39 | 17.38 | 28.35 | 3.13 | 1352 |
| 24 (600) DIN - PN40, SO / RF | 8705 _ _ _ 240CH | 39.38 | | 39.18 | 39.27 | 39.30 | | 35.04 | 30.03 | 17.39 | 17.38 | 28.94 | 3.13 | 1628 |
| 24 (600) AS2129 TABLE D, SO / RF | 8705 _ _ _ 240CK | 35.75 | | 35.55 | 35.64 | 35.67 | | 32.48 | 30.03 | 17.39 | 17.38 | 28.35 | 3.13 | 692 |
| 24 (600) AS2129 TABLE E, SO / RF | 8705 _ _ _ 240CL | 35.75 | | 35.55 | 35.64 | 35.67 | | 32.48 | 30.03 | 17.39 | 17.38 | 28.23 | 3.13 | 814 |
| 24 (600) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 240CP | 35.75 | | 35.55 | 35.64 | 35.67 | | 31.30 | 30.03 | 17.39 | 17.38 | 27.17 | 3.13 | 659 |
| 24 (600) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 240CR | 39.38 | | 39.18 | 39.27 | 39.30 | | 33.27 | 30.03 | 17.39 | 17.38 | 28.35 | 3.13 | 1353 |
| 24 (600) AS4087 PN16, SO / RF | 8705 _ _ _ 240CU | 35.75 | | 35.55 | 35.64 | 35.67 | | 32.48 | 30.03 | 17.39 | 17.38 | 28.35 | 3.13 | 709 |
| 24 (600) AS4087 PN21, SO / RF | 8705 _ _ _ 240CW | 39.38 | | 39.18 | 39.27 | 39.30 | | 33.46 | 30.03 | 17.39 | 17.38 | 29.09 | 3.13 | 1293 |
| 24 (600) AS4087 PN35, SO / RF | 8705 _ _ _ 240CY | 39.38 | | 39.18 | 39.27 | 39.30 | | 33.46 | 30.03 | 17.39 | 17.38 | 27.52 | 3.13 | 1528 |
| 30 (750) AWWA CLASS D, SO / FF | 8705 _ _ _ 300C1 | 37.00 | | 36.80 | 36.89 | 37.04 | | 38.75 | 35.50 | 20.13 | 20.11 | 33.75 | 3.13 | 897 |
| 30 (750) MSS SP44 - 150 , SO / RF | 8705 _ _ _ 300C2 | 41.56 | | 41.36 | 41.45 | 41.48 | | 38.75 | 35.50 | 20.13 | 20.11 | 33.75 | 3.13 | 1561 |
| 30 (750) MSS SP44 - 300 , SO / RF | 8705 _ _ _ 300C3 | 47.25 | | 47.05 | 47.14 | 47.17 | | 43.00 | 35.50 | 20.13 | 20.11 | 33.75 | 3.13 | 2950 |
| 30 (750) AS2129 TABLE D, SO / RF | 8705 _ _ _ 300CK | 37.00 | | 36.80 | 36.89 | 37.04 | | 39.17 | 35.50 | 20.13 | 20.11 | 34.96 | 3.13 | 1036 |
| 30 (750) AS2129 TABLE E, SO / RF | 8705 _ _ _ 300CL | 41.56 | | 41.36 | 41.45 | 41.48 | | 39.17 | 35.50 | 20.13 | 20.11 | 33.75 | 3.13 | 1275 |
| 30 (750) AS4087 PN16, SO / RF | 8705 _ _ _ 300CU | 37.00 | | 36.80 | 36.89 | 36.92 | | 39.17 | 35.50 | 20.13 | 20.11 | 34.96 | 3.13 | 1083 |
| 30 (750) AS4087 PN21, SO / RF | 8705 _ _ _ 300CW | 41.56 | | 41.36 | 41.45 | 41.48 | | 39.96 | 35.50 | 20.13 | 20.11 | 3.00 | 3.13 | 1071 |
| 30 (750) AS4087 PN35, SO / RF | 8705 _ _ _ 300CY | 47.25 | | 47.05 | 47.14 | 47.17 | | 39.96 | 35.50 | 20.13 | 20.11 | 35.35 | 3.13 | 2452 |
| 36 (900) AWWA CLASS D, SO / FF | 8705 _ _ _ 360C1 | 40.63 | | 40.43 | 40.52 | 40.67 | | 46.00 | 43.37 | 24.00 | 24.05 | 40.25 | 3.13 | 1267 |
| 36 (900) MSS SP44 - 150 , SO / RF | 8705 _ _ _ 360C2 | 47.25 | | 47.05 | 47.14 | 47.17 | | 46.00 | 43.37 | 24.00 | 24.05 | 40.25 | 3.13 | 2550 |
| 36 (900) MSS SP44 - 300 , SO / RF | 8705 _ _ _ 360C3 | 53.17 | | 52.97 | 53.06 | 53.09 | | 50.00 | 43.37 | 24.00 | 24.05 | 40.25 | 3.38 | 4584 |
| 36 (900) AS2129 TABLE D, SO / RF | 8705 _ _ _ 360CK | 40.63 | | 40.43 | 40.52 | 40.67 | | 46.26 | 43.37 | 24.00 | 24.05 | 41.34 | 3.13 | 1515 |
| 36 (900) AS2129 TABLE E, SO / RF | 8705 _ _ _ 360CL | 47.25 | | 47.05 | 47.14 | 47.17 | | 46.26 | 43.37 | 24.00 | 24.05 | 41.34 | 3.13 | 2105 |
| 36 (900) AS4087 PN16, SO / RF | 8705 _ _ _ 360CU | 40.63 | | 40.43 | 40.52 | 40.55 | | 46.26 | 43.37 | 24.00 | 24.05 | 41.34 | 3.13 | 1559 |
| 36 (900) AS4087 PN21, SO / RF | 8705 _ _ _ 360CW | 47.25 | | 47.05 | 47.14 | 47.17 | | 46.65 | 43.37 | 24.00 | 24.05 | 41.73 | 3.13 | 2060 |
| 36 (900) AS4087 PN35, SO / RF | 8705 _ _ _ 360CY | 53.17 | | 52.97 | 53.06 | 53.09 | | 46.65 | 43.37 | 24.00 | 24.05 | 40.55 | 3.38 | 3700 |

**Table 41: 8705-M Flanged sensor DN 80 mm to 150 mm slip-on flanges—low pressure (P ≤ Class 300)—Millimeters**

| SIZE, DESCRIPTION | MODEL NUMBER [5] | OVERALL LENGTH | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | | | STYLE A | STYLE B | | | |
| 3 (80) ASME - 150 , SO / RF | 8705 _ _ _ 030C1 | 200 | 200 | 197 | 199 | 200 | 199 | 190 | 183 | 148 | 152 | 127 | 43 | 15 |
| 3 (80) ASME - 300 , SO / RF | 8705 _ _ _ 030C3 | 219 | 219 | 216 | 219 | 219 | 218 | 209 | 183 | 148 | 152 | 127 | 43 | 19 |
| 3 (80) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 030C6 | 315 | 315 | 312 | 315 | 315 | | 209 | 183 | 148 | 152 | 127 | 43 | 24 |
| 3 (80) DIN - PN40, SO / RF | 8705 _ _ _ 030CH | 200 | 200 | 197 | 199 | 200 | 200 | 200 | 183 | 148 | 152 | 138 | 43 | 17 |
| 3 (80) AS2129 TABLE D, SO / RF | 8705 _ _ _ 030CK | 200 | | 197 | 199 | 200 | | 185 | 183 | 148 | 152 | 122 | 43 | 11 |
| 3 (80) AS2129 TABLE E, SO / RF | 8705 _ _ _ 030CL | 200 | | 197 | 199 | 200 | | 185 | 183 | 148 | 152 | 122 | 43 | 11 |
| 3 (80) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 030CP | 200 | | 197 | 199 | 200 | | 185 | 183 | 148 | 152 | 126 | 43 | 13 |
| 3 (80) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 030CR | 200 | | 197 | 199 | 200 | | 200 | 183 | 148 | 152 | 132 | 43 | 16 |
| 3 (80) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 030CT | 315 | | 312 | 315 | 315 | | 210 | 183 | 148 | 152 | 140 | 43 | 24 |
| 3 (80) AS4087 PN16, SO / RF | 8705 _ _ _ 030CU | 200 | | 197 | 199 | 200 | | 185 | 183 | 148 | 152 | 122 | 43 | 9 |
| 3 (80) AS4087 PN21, SO / RF | 8705 _ _ _ 030CW | 200 | | 197 | 199 | 200 | | 205 | 183 | 148 | 152 | 141 | 43 | 25 |
| 3 (80) AS4087 PN35, SO / RF | 8705 _ _ _ 030CY | 200 | | 197 | 199 | 200 | | 205 | 183 | 148 | 152 | 141 | 43 | 49 |
| 4 (100) ASME - 150 , SO / RF | 8705 _ _ _ 040C1 | 250 | 250 | 246 | 249 | 250 | 250 | 229 | 201 | 157 | 160 | 157 | 43 | 20 |
| 4 (100) ASME - 300 , SO / RF | 8705 _ _ _ 040C3 | 276 | 276 | 273 | 275 | 276 | 276 | 254 | 201 | 157 | 160 | 157 | 43 | 29 |
| 4 (100) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 040C6 | 326 | 326 | 323 | 325 | 326 | | 273 | 201 | 157 | 160 | 157 | 43 | 42 |
| 4 (100) DIN - PN16, SO / RF | 8705 _ _ _ 040CE | 250 | 249 | 246 | 249 | 249 | 249 | 220 | 201 | 157 | 160 | 158 | 43 | 19 |
| 4 (100) DIN - PN40, SO / RF | 8705 _ _ _ 040CH | 250 | 249 | 246 | 249 | 249 | 249 | 235 | 201 | 157 | 160 | 162 | 43 | 22 |
| 4 (100) AS2129 TABLE D, SO / RF | 8705 _ _ _ 040CK | 250 | 250 | 246 | 249 | 250 | | 215 | 201 | 157 | 160 | 154 | 43 | 14 |
| 4 (100) AS2129 TABLE E, SO / RF | 8705 _ _ _ 040CL | 250 | 250 | 246 | 249 | 250 | | 215 | 201 | 157 | 160 | 154 | 43 | 15 |
| 4 (100) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 040CP | 250 | | 246 | 249 | 250 | | 210 | 201 | 157 | 160 | 151 | 43 | 16 |
| 4 (100) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 040CR | 250 | | 246 | 249 | 250 | | 225 | 201 | 157 | 160 | 160 | 43 | 20 |
| 4 (100) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 040CT | 326 | | 323 | 325 | 326 | | 250 | 201 | 157 | 160 | 165 | 43 | 34 |
| 4 (100) AS4087 PN16, SO / RF | 8705 _ _ _ 040CU | 250 | | 246 | 249 | 250 | | 215 | 201 | 157 | 160 | 154 | 43 | 13 |
| 4 (100) AS4087 PN21, SO / RF | 8705 _ _ _ 040CW | 250 | | 246 | 249 | 250 | | 230 | 201 | 157 | 160 | 167 | 43 | 31 |
| 4 (100) AS4087 PN35, SO / RF | 8705 _ _ _ 040CY | 250 | | 246 | 249 | 250 | | 230 | 201 | 157 | 160 | 167 | 43 | 54 |
| 5 (125) ASME - 150 , SO / RF | 8705 _ _ _ 050C1 | 249 | | 247 | | | | 254 | 244 | 178 | 182 | 186 | 43 | 24 |
| 5 (125) ASME - 300 , SO / RF | 8705 _ _ _ 050C3 | 278 | | 276 | | | | 279 | 244 | 178 | 182 | 186 | 43 | 40 |
| 5 (125) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 050C6 | 327 | | 325 | | | | 330 | 244 | 178 | 182 | 186 | 43 | 71 |
| 5 (125) DIN - PN16, SO / RF | 8705 _ _ _ 050CE | 249 | | 241 | | | | 250 | 244 | 178 | 182 | 188 | 43 | 25 |
| 5 (125) DIN - PN40, SO / RF | 8705 _ _ _ 050CH | 249 | | 247 | | | | 270 | 244 | 178 | 182 | 188 | 43 | 29 |
| 5 (125) AS2129 TABLE D, SO / RF | 8705 _ _ _ 050CK | 249 | | 247 | | | | 255 | 244 | 178 | 182 | 186 | 43 | 20 |
| 5 (125) AS2129 TABLE E, SO / RF | 8705 _ _ _ 050CL | 249 | | 247 | | | | 255 | 244 | 178 | 182 | 186 | 43 | 20 |
| 5 (125) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 050CP | 249 | | 247 | | | | 250 | 244 | 178 | 182 | 182 | 43 | 22 |
| 5 (125) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 050CR | 249 | | 247 | | | | 270 | 244 | 178 | 182 | 195 | 43 | 29 |
| 5 (125) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 050CT | 278 | | 276 | | | | 300 | 244 | 178 | 182 | 200 | 43 | 51 |
| 6 (150) ASME - 150 , SO / RF | 8705 _ _ _ 060C1 | 300 | 298 | 295 | 297 | 298 | 300 | 279 | 253 | 185 | 187 | 216 | 43 | 31 |
| 6 (150) ASME - 300 , SO / RF | 8705 _ _ _ 060C3 | 332 | 331 | 327 | 330 | 330 | 332 | 318 | 253 | 185 | 187 | 216 | 43 | 53 |
| 6 (150) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 060C6 | 361 | 360 | 357 | 359 | 360 | | 356 | 253 | 185 | 187 | 216 | 43 | 81 |
| 6 (150) DIN - PN16, SO / RF | 8705 _ _ _ 060CE | 300 | 298 | 295 | 297 | 298 | 300 | 285 | 253 | 185 | 187 | 212 | 43 | 31 |
| 6 (150) DIN - PN25, SO / RF | 8705 _ _ _ 060CF | 300 | 300 | 296 | 299 | 299 | 301 | 300 | 253 | 185 | 187 | 218 | 43 | 38 |
| 6 (150) DIN - PN40, SO / RF | 8705 _ _ _ 060CH | 332 | 331 | 327 | 330 | 330 | 332 | 300 | 253 | 185 | 187 | 218 | 43 | 43 |
| 6 (150) AS2129 TABLE D, SO / RF | 8705 _ _ _ 060CK | 300 | | 295 | 297 | 298 | | 280 | 253 | 185 | 187 | 211 | 43 | 24 |
| 6 (150) AS2129 TABLE E, SO / RF | 8705 _ _ _ 060CL | 300 | | 295 | 297 | 298 | | 280 | 253 | 185 | 187 | 207 | 43 | 26 |
| 6 (150) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 060CP | 300 | | 295 | 297 | 298 | | 280 | 253 | 185 | 187 | 212 | 43 | 29 |
| 6 (150) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 060CR | 300 | | 295 | 297 | 298 | | 305 | 253 | 185 | 187 | 230 | 43 | 37 |
| 6 (150) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 060CT | 361 | | 357 | 359 | 360 | | 355 | 253 | 185 | 187 | 240 | 43 | 73 |
| 6 (150) AS4087 PN16, SO / RF | 8705 _ _ _ 060CU | 300 | | 295 | 297 | 298 | | 280 | 253 | 185 | 187 | 211 | 43 | 21 |
| 6 (150) AS4087 PN21, SO / RF | 8705 _ _ _ 060CW | 300 | | 295 | 297 | 298 | | 305 | 253 | 185 | 187 | 232 | 43 | 45 |
| 6 (150) AS4087 PN35, SO / RF | 8705 _ _ _ 060CY | 300 | | 295 | 297 | 298 | | 305 | 253 | 185 | 187 | 232 | 43 | 84 |

**Table 42: 8705-M Flanged sensor DN 200 mm to 300 mm slip-on flanges—low pressure (P ≤ Class 300)—Millimeters**

| SIZE, DESCRIPTION | MODEL NUMBER ⚠5 | OVERALL LENGTH | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | | | STYLE A | STYLE B | | | |
| 8 (200) ASME - 150 , SO / RF | 8705 _ _ _ 080C1 | 350 | 348 | 344 | 346 | 347 | 350 | 342.90 | 303 | 210 | 211 | 270 | 43 | 48 |
| 8 (200) ASME - 300 , SO / RF | 8705 _ _ _ 080C3 | 396 | 395 | 392 | 394 | 395 | 396 | 381.00 | 303 | 210 | 211 | 270 | 43 | 83 |
| 8 (200) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 080C6 | 425 | 423 | 420 | 422 | 423 | | 419.10 | 303 | 210 | 211 | 270 | 43 | 123 |
| 8 (200) DIN - PN10, SO / RF | 8705 _ _ _ 080CD | 350 | 348 | 344 | 346 | 347 | 350 | 340.11 | 303 | 210 | 211 | 268 | 43 | 44 |
| 8 (200) DIN - PN16, SO / RF | 8705 _ _ _ 080CE | 350 | 348 | 344 | 346 | 347 | 350 | 340.11 | 303 | 210 | 211 | 268 | 43 | 43 |
| 8 (200) DIN - PN25, SO / RF | 8705 _ _ _ 080CF | 350 | 348 | 344 | 346 | 347 | 350 | 359.92 | 303 | 210 | 211 | 278 | 43 | 54 |
| 8 (200) DIN - PN40, SO / RF | 8705 _ _ _ 080CH | 396 | 395 | 392 | 394 | 395 | 396 | 374.90 | 303 | 210 | 211 | 285 | 43 | 72 |
| 8 (200) AS2129 TABLE D, SO / RF | 8705 _ _ _ 080CK | 350 | | 344 | 346 | 347 | | 335.03 | 303 | 210 | 211 | 268 | 43 | 35 |
| 8 (200) AS2129 TABLE E, SO / RF | 8705 _ _ _ 080CL | 350 | | 344 | 346 | 347 | | 335.03 | 303 | 210 | 211 | 264 | 43 | 39 |
| 8 (200) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 080CP | 353 | | 344 | 346 | 347 | | 330.00 | 303 | 210 | 211 | 262 | 43 | 37 |
| 8 (200) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 080CR | 396 | | 392 | 394 | 395 | | 350.00 | 303 | 210 | 211 | 275 | 43 | 61 |
| 8 (200) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 080CT | 425 | | 420 | 422 | 423 | | 405.00 | 303 | 210 | 211 | 290 | 43 | 105 |
| 8 (200) AS4087 PN16, SO / RF | 8705 _ _ _ 080CU | 350 | | 344 | 346 | 347 | | 335.00 | 303 | 210 | 211 | 268 | 43 | 33 |
| 8 (200) AS4087 PN21, SO / RF | 8705 _ _ _ 080CW | 350 | | 344 | 346 | 347 | | 370.00 | 303 | 210 | 211 | 296 | 43 | 62 |
| 8 (200) AS4087 PN35, SO / RF | 8705 _ _ _ 080CY | 396 | | 392 | 394 | 395 | | 370.00 | 303 | 210 | 211 | 260 | 43 | 109 |
| 10 (250) ASME - 150 , SO / RF | 8705 _ _ _ 100C1 | 381 | 377 | 372 | 374 | 375 | 381 | 406.40 | 372 | 246 | 246 | 324 | 51 | 69 |
| 10 (250) ASME - 300 , SO / RF | 8705 _ _ _ 100C3 | 435 | 434 | 428 | 431 | 431 | 435 | 444.50 | 372 | 246 | 246 | 324 | 51 | 120.9 |
| 10 (250) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 100C6 | 496 | 497 | 491 | 494 | 494 | | 508.00 | 372 | 246 | 246 | 324 | 51 | 209.6 |
| 10 (250) DIN - PN10, SO / RF | 8705 _ _ _ 100CD | 381 | 377 | 372 | 374 | 375 | 381 | 394.97 | 372 | 246 | 246 | 320 | 51 | 61.0 |
| 10 (250) DIN - PN16, SO / RF | 8705 _ _ _ 100CE | 381 | 377 | 372 | 374 | 375 | 381 | 404.88 | 372 | 246 | 246 | 320 | 51 | 62.7 |
| 10 (250) DIN - PN25, SO / RF | 8705 _ _ _ 100CF | 381 | 377 | 372 | 374 | 375 | 381 | 424.94 | 372 | 246 | 246 | 335 | 51 | 78.9 |
| 10 (250) DIN - PN40, SO / RF | 8705 _ _ _ 100CH | 435 | | 428 | 431 | 431 | 435 | 450.09 | 372 | 246 | 246 | 345 | 51 | 110.7 |
| 10 (250) AS2129 TABLE D, SO / RF | 8705 _ _ _ 100CK | 381 | | 372 | 374 | 375 | | 404.88 | 372 | 246 | 246 | 328 | 51 | 55.5 |
| 10 (250) AS2129 TABLE E, SO / RF | 8705 _ _ _ 100CL | 381 | | 372 | 374 | 375 | | 404.88 | 372 | 246 | 246 | 328 | 51 | 62.0 |
| 10 (250) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 100CP | 381 | | 372 | 374 | 375 | | 400.00 | 372 | 246 | 246 | 324 | 43 | 58.5 |
| 10 (250) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 100CR | 435 | | 428 | 431 | 431 | | 430.00 | 372 | 246 | 246 | 345 | 43 | 98.7 |
| 10 (250) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 100CT | 496 | | 491 | 494 | | | 475.00 | 372 | 246 | 246 | 355 | 43 | 173.5 |
| 10 (250) AS4087 PN16, SO / RF | 8705 _ _ _ 100CU | 381 | | 372 | 374 | 375 | | 405.00 | 372 | 246 | 246 | 328 | 51 | 43.7 |
| 10 (250) AS4087 PN21, SO / RF | 8705 _ _ _ 100CW | 381 | | 372 | 374 | 375 | | 430.00 | 372 | 246 | 246 | 349 | 51 | 80.0 |
| 10 (250) AS4087 PN35, SO / RF | 8705 _ _ _ 100CY | 435 | | 428 | 431 | 431 | | 430.00 | 372 | 246 | 246 | 311 | 51 | 135.7 |
| 12 (300) ASME - 150 , SO / RF | 8705 _ _ _ 120C1 | 458 | 455 | 449 | 452 | 452 | 457 | 482.60 | 427 | 274 | 273 | 381 | 51 | 104.9 |
| 12 (300) ASME - 300 , SO / RF | 8705 _ _ _ 120C3 | 512 | 508 | 503 | 505 | 506 | 512 | 520.70 | 427 | 274 | 273 | 381 | 51 | 175.3 |
| 12 (300) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 120C6 | 561 | 561 | 556 | 558 | 559 | | 558.80 | 427 | 274 | 273 | 381 | 51 | 282.7 |
| 12 (300) DIN - PN10, SO / RF | 8705 _ _ _ 120CD | 458 | 455 | 449 | 452 | 452 | 457 | 445.01 | 427 | 274 | 273 | 370 | 51 | 80.9 |
| 12 (300) DIN - PN16, SO / RF | 8705 _ _ _ 120CE | 458 | 455 | 449 | 452 | 452 | 457 | 459.99 | 427 | 274 | 273 | 378 | 51 | 87.1 |
| 12 (300) DIN - PN25, SO / RF | 8705 _ _ _ 120CF | 458 | 455 | 449 | 452 | 452 | 457 | 484.89 | 427 | 274 | 273 | 395 | 51 | 109.8 |
| 12 (300) DIN - PN40, SO / RF | 8705 _ _ _ 120CH | 512 | | 503 | 505 | 506 | 512 | 515.11 | 427 | 274 | 273 | 410 | 51 | 159.4 |
| 12 (300) AS2129 TABLE D, SO / RF | 8705 _ _ _ 120CK | 458 | | 449 | 452 | 452 | | 454.91 | 427 | 274 | 273 | 378 | 51 | 78.0 |
| 12 (300) AS2129 TABLE E, SO / RF | 8705 _ _ _ 120CL | 458 | | 449 | 452 | 452 | | 454.91 | 427 | 274 | 273 | 374 | 51 | 84.0 |
| 12 (300) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 120CP | 458 | | 449 | 452 | 452 | | 445.00 | 427 | 274 | 273 | 368 | 51 | 75.4 |
| 12 (300) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 120CR | 512 | | 503 | 505 | 506 | | 480.00 | 427 | 274 | 273 | 395 | 51 | 129.1 |
| 12 (300) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 120CT | 561 | | 556 | 558 | 553 | | 540.00 | 427 | 274 | 273 | 410 | 80 | 247.6 |
| 12 (300) AS4087 PN16, SO / RF | 8705 _ _ _ 120CU | 458 | | 449 | 452 | 452 | | 455.00 | 427 | 274 | 273 | 378 | 51 | 62.5 |
| 12 (300) AS4087 PN21, SO / RF | 8705 _ _ _ 120CW | 458 | | 449 | 452 | 452 | | 490.00 | 427 | 274 | 273 | 406 | 51 | 102.2 |
| 12 (300) AS4087 PN35, SO / RF | 8705 _ _ _ 120CY | 512 | | 503 | 505 | 506 | | 490.00 | 427 | 274 | 273 | 362 | 51 | 167.8 |

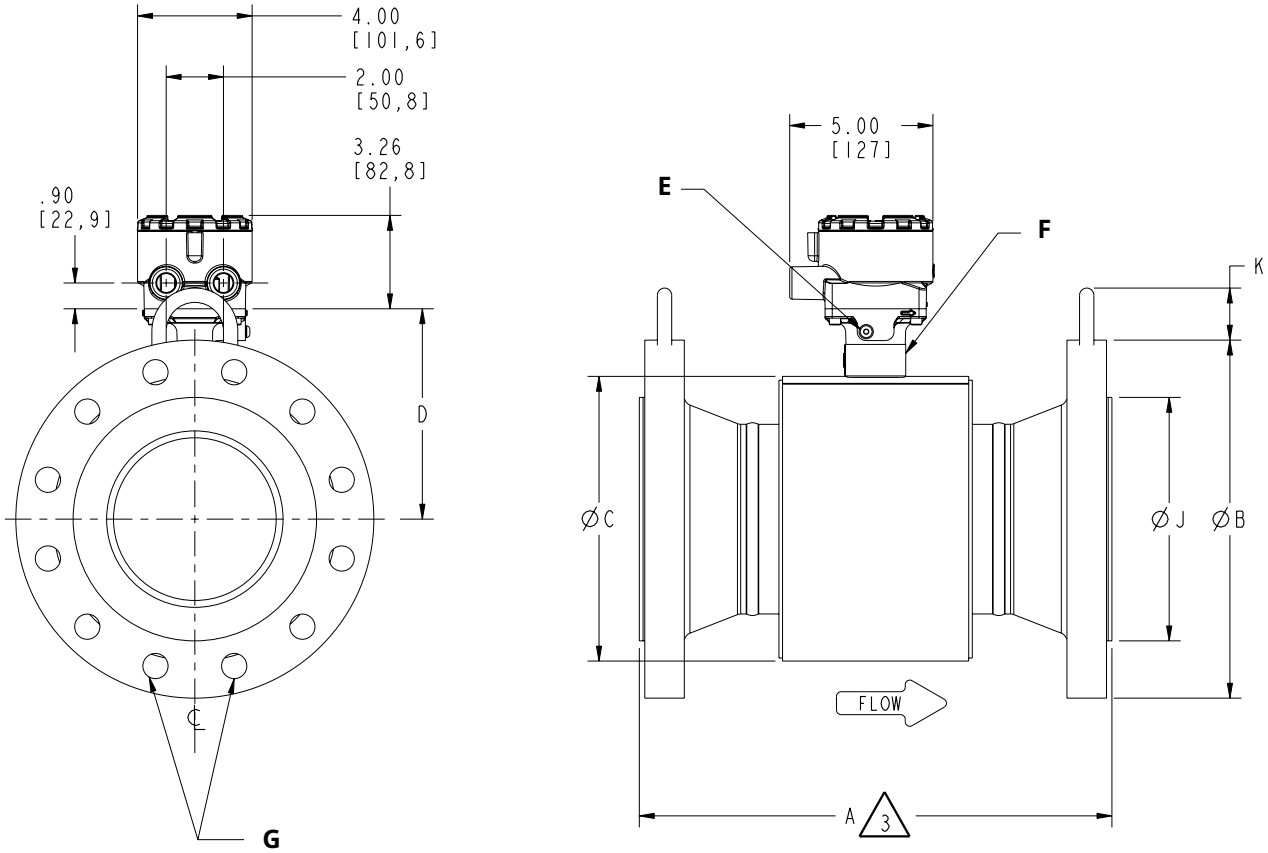
**Table 43: 8705-M Flanged sensor DN 350 mm to 500 mm slip-on flanges—low pressure (P ≤ Class 300)—Millimeters**

| SIZE, DESCRIPTION | MODEL NUMBER 5 | OVERALL LENGTH | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | | | STYLE A | STYLE B | | | |
| 14 (350) ASME - 150 , SO / RF | 8705 _ _ _ 140C1 | 531 | 532 | 526 | 528 | 529 | 533 | 533 | 481 | 300 | 300 | 413 | 51 | 136 |
| 14 (350) ASME - 300 , SO / RF | 8705 _ _ _ 140C3 | 588 | 589 | 583 | 586 | 586 | | 584 | 481 | 300 | 300 | 413 | 51 | 234 |
| 14 (350) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 140C6 | 654 | | | | | | 603 | 481 | 300 | 300 | 413 | 51 | 351 |
| 14 (350) DIN - PN10, SO / RF | 8705 _ _ _ 140CD | 531 | 532 | 526 | 528 | 529 | 533 | 505 | 481 | 300 | 300 | 430 | 51 | 114 |
| 14 (350) DIN - PN16, SO / RF | 8705 _ _ _ 140CE | 531 | | 526 | 528 | 529 | 533 | 520 | 481 | 300 | 300 | 438 | 51 | 125 |
| 14 (350) DIN - PN25, SO / RF | 8705 _ _ _ 140CF | 531 | | 526 | 528 | 529 | | 555 | 481 | 300 | 300 | 450 | 51 | 163 |
| 14 (350) DIN - PN40, SO / RF | 8705 _ _ _ 140CH | 588 | | 583 | 586 | 586 | | 580 | 481 | 300 | 300 | 465 | 51 | 218 |
| 14 (350) AS2129 TABLE D, SO / RF | 8705 _ _ _ 140CK | 531 | | 526 | 528 | 529 | | 525 | 481 | 300 | 300 | 438 | 51 | 104 |
| 14 (350) AS2129 TABLE E, SO / RF | 8705 _ _ _ 140CL | 531 | | 526 | 528 | 529 | | 525 | 481 | 300 | 300 | 438 | 51 | 116 |
| 14 (350) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 140CP | 531 | | 526 | 528 | 529 | | 490 | 481 | 300 | 300 | 413 | 51 | 100 |
| 14 (350) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 140CR | 588 | | 583 | 586 | 586 | | 540 | 481 | 300 | 300 | 440 | 51 | 175 |
| 14 (350) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 140CT | 654 | | 649 | 651 | | | 585 | 481 | 300 | 300 | 455 | 51 | 318 |
| 14 (350) AS4087 PN16, SO / RF | 8705 _ _ _ 140CU | 531 | | 526 | 528 | 529 | | 525 | 481 | 300 | 300 | 438 | 51 | 99 |
| 14 (350) AS4087 PN21, SO / RF | 8705 _ _ _ 140CW | 531 | | 526 | 528 | 529 | | 550 | 481 | 300 | 300 | 459 | 51 | 133 |
| 14 (350) AS4087 PN35, SO / RF | 8705 _ _ _ 140CY | 588 | | 583 | 586 | 586 | | 550 | 481 | 300 | 300 | 419 | 51 | 226 |
| 16 (400) ASME - 150 , SO / RF | 8705 _ _ _ 160C1 | 607 | 607 | 601 | 604 | 604 | | 597 | 532 | 326 | 326 | 470 | 80 | 176 |
| 16 (400) ASME - 300 , SO / RF | 8705 _ _ _ 160C3 | 664 | | 659 | 661 | 662 | | 648 | 532 | 326 | 326 | 470 | 80 | 320 |
| 16 (400) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 160C6 | 743 | | | | | | 686 | 532 | 326 | 326 | 470 | 80 | 500 |
| 16 (400) DIN - PN10, SO / RF | 8705 _ _ _ 160CD | 607 | 607 | 601 | 604 | 604 | | 565 | 532 | 326 | 326 | 482 | 80 | 144 |
| 16 (400) DIN - PN16, SO / RF | 8705 _ _ _ 160CE | 607 | 607 | 601 | 604 | 604 | | 580 | 532 | 326 | 326 | 490 | 80 | 161 |
| 16 (400) DIN - PN25, SO / RF | 8705 _ _ _ 160CF | 664 | | 659 | 661 | 662 | | 620 | 532 | 326 | 326 | 505 | 80 | 264 |
| 16 (400) DIN - PN40, SO / RF | 8705 _ _ _ 160CH | 664 | | 659 | 661 | 662 | | 660 | 532 | 326 | 326 | 535 | 80 | 316 |
| 16 (400) AS2129 TABLE D, SO / RF | 8705 _ _ _ 160CK | 607 | | 601 | 604 | 604 | | 580 | 532 | 326 | 326 | 489 | 80 | 129 |
| 16 (400) AS2129 TABLE E, SO / RF | 8705 _ _ _ 160CL | 607 | | 601 | 604 | 604 | | 580 | 532 | 326 | 326 | 489 | 80 | 148 |
| 16 (400) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 160CP | 607 | | 601 | 604 | 604 | | 560 | 532 | 326 | 326 | 475 | 51 | 134 |
| 16 (400) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 160CR | 664 | | 659 | 661 | 662 | | 605 | 532 | 326 | 326 | 495 | 51 | 254 |
| 16 (400) JIS B2200 - 40K, SO / RF | 8705 _ _ _ 160CT | 743 | | 738 | 740 | | | 645 | 532 | 326 | 326 | 515 | 51 | 436 |
| 16 (400) AS4087 PN16, SO / RF | 8705 _ _ _ 160CU | 607 | | 601 | 604 | 604 | | 580 | 532 | 326 | 326 | 489 | 80 | 119 |
| 16 (400) AS4087 PN21, SO / RF | 8705 _ _ _ 160CW | 607 | | 601 | 604 | 604 | | 610 | 532 | 326 | 326 | 516 | 80 | 175 |
| 16 (400) AS4087 PN35, SO / RF | 8705 _ _ _ 160CY | 664 | | 659 | 661 | 662 | | 610 | 532 | 326 | 326 | 483 | 80 | 286 |
| 18 (450) ASME - 150 , SO / RF | 8705 _ _ _ 180C1 | 682 | | 677 | 679 | 680 | | 635 | 596 | 358 | 358 | 533 | 80 | 205 |
| 18 (450) ASME - 300 , SO / RF | 8705 _ _ _ 180C3 | 761 | | 756 | 758 | 759 | | 711 | 596 | 358 | 358 | 533 | 80 | 411 |
| 18 (450) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 180C6 | 831 | | | | | | 743 | 596 | 358 | 358 | 533 | 80 | 638 |
| 18 (450) DIN - PN10, SO / RF | 8705 _ _ _ 180CD | 682 | | 677 | 679 | 680 | | 615 | 596 | 358 | 358 | 532 | 80 | 173 |
| 18 (450) DIN - PN16, SO / RF | 8705 _ _ _ 180CE | 682 | | 677 | 679 | 680 | | 640 | 596 | 358 | 358 | 550 | 80 | 197 |
| 18 (450) DIN - PN25, SO / RF | 8705 _ _ _ 180CF | 761 | | 756 | 758 | 759 | | 670 | 596 | 358 | 358 | 555 | 80 | 338 |
| 18 (450) DIN - PN40, SO / RF | 8705 _ _ _ 180CH | 761 | | 756 | 758 | 759 | | 685 | 596 | 358 | 358 | 560 | 80 | 371 |
| 18 (450) AS2129 TABLE D, SO / RF | 8705 _ _ _ 180CK | 682 | | 677 | 679 | 680 | | 640 | 596 | 358 | 358 | 532 | 80 | 161 |
| 18 (450) AS2129 TABLE E, SO / RF | 8705 _ _ _ 180CL | 682 | | 677 | 679 | 680 | | 640 | 596 | 358 | 358 | 552 | 80 | 188 |
| 18 (450) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 180CP | 682 | | 677 | 679 | 680 | | 620 | 596 | 358 | 358 | 530 | 80 | 169 |
| 18 (450) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 180CR | 761 | | 756 | 758 | 759 | | 675 | 596 | 358 | 358 | 560 | 80 | 340 |
| 18 (450) AS4087 PN16, SO / RF | 8705 _ _ _ 180CU | 682 | | 677 | 679 | 680 | | 640 | 596 | 358 | 358 | 552 | 80 | 146 |
| 18 (450) AS4087 PN21, SO / RF | 8705 _ _ _ 180CW | 682 | | 677 | 679 | 680 | | 675 | 596 | 358 | 358 | 571 | 80 | 205 |
| 18 (450) AS4087 PN35, SO / RF | 8705 _ _ _ 180CY | 761 | | 756 | 758 | 759 | | 675 | 596 | 358 | 358 | 533 | 80 | 416 |
| 20 (500) ASME - 150 , SO / RF | 8705 _ _ _ 200C1 | 756 | | 751 | 754 | 754 | | 699 | 647 | 384 | 384 | 584 | 80 | 258 |
| 20 (500) ASME - 300 , SO / RF | 8705 _ _ _ 200C3 | 839 | | 834 | 836 | 837 | | 775 | 647 | 384 | 384 | 584 | 80 | 511 |
| 20 (500) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 200C6 | 936 | | | | | | 813 | 647 | 384 | 384 | 584 | 80 | 827 |
| 20 (500) DIN - PN10, SO / RF | 8705 _ _ _ 200CD | 756 | | 751 | 754 | 754 | | 670 | 647 | 384 | 384 | 585 | 80 | 215 |
| 20 (500) DIN - PN16, SO / RF | 8705 _ _ _ 200CE | 756 | | 751 | 754 | 754 | | 715 | 647 | 384 | 384 | 610 | 80 | 257 |
| 20 (500) DIN - PN25, SO / RF | 8705 _ _ _ 200CF | 839 | | 834 | 836 | 837 | | 730 | 647 | 384 | 384 | 615 | 80 | 423 |
| 20 (500) DIN - PN40, SO / RF | 8705 _ _ _ 200CH | 839 | | 834 | 836 | 837 | | 754 | 647 | 384 | 384 | 615 | 80 | 459 |
| 20 (500) AS2129 TABLE D, SO / RF | 8705 _ _ _ 200CK | 756 | | 751 | 754 | 754 | | 705 | 647 | 384 | 384 | 609 | 80 | 214 |
| 20 (500) AS2129 TABLE E, SO / RF | 8705 _ _ _ 200CL | 756 | | 751 | 754 | 754 | | 705 | 647 | 384 | 384 | 609 | 80 | 239 |
| 20 (500) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 200CP | 756 | | 751 | 754 | 754 | | 675 | 647 | 384 | 384 | 585 | 80 | 206 |
| 20 (500) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 200CR | 839 | | 834 | 836 | 837 | | 730 | 647 | 384 | 384 | 615 | 80 | 417 |
| 20 (500) AS4087 PN16, SO / RF | 8705 _ _ _ 200CU | 756 | | 751 | 754 | 754 | | 705 | 647 | 384 | 384 | 609 | 80 | 205 |
| 20 (500) AS4087 PN21, SO / RF | 8705 _ _ _ 200CW | 756 | | 751 | 754 | 754 | | 735 | 647 | 384 | 384 | 634 | 80 | 285 |
| 20 (500) AS4087 PN35, SO / RF | 8705 _ _ _ 200CY | 839 | | 834 | 836 | 837 | | 735 | 647 | 384 | 384 | 597 | 80 | 487 |

**Table 44: 8705-M Flanged sensor DN 600 mm to 900 mm slip-on flanges—low pressure (P ≤ Class 300)—Millimeters**

| SIZE, DESCRIPTION | MODEL NUMBER 5 | OVERALL LENGTH | | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | DIM "A" PFA | | | STYLE A | STYLE B | | | |
| 24 (600) ASME - 150 , SO / RF | 8705 _ _ _ 240C1 | 908 | | 903 | 905 | 906 | | 813 | 763 | 442 | 441 | 692 | 80 | 375 |
| 24 (600) ASME - 300 , SO / RF | 8705 _ _ _ 240C3 | 1000 | | 995 | 997 | 998 | | 914 | 763 | 442 | 441 | 692 | 80 | 784 |
| 24 (600) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 240C6 | 1050 | | | | | | 940 | 763 | 442 | 441 | 692 | 80 | 1220 |
| 24 (600) DIN - PN10, SO / RF | 8705 _ _ _ 240CD | 908 | | 903 | 905 | 906 | | 780 | 763 | 442 | 441 | 685 | 80 | 300 |
| 24 (600) DIN - PN16, SO / RF | 8705 _ _ _ 240CE | 908 | | 903 | 905 | 906 | | 840 | 763 | 442 | 441 | 725 | 80 | 377 |
| 24 (600) DIN - PN25, SO / RF | 8705 _ _ _ 240CF | 1000 | | 995 | 997 | 998 | | 845 | 763 | 442 | 441 | 720 | 80 | 613 |
| 24 (600) DIN - PN40, SO / RF | 8705 _ _ _ 240CH | 1000 | | 995 | 997 | 998 | | 890 | 763 | 442 | 441 | 735 | 80 | 738 |
| 24 (600) AS2129 TABLE D, SO / RF | 8705 _ _ _ 240CK | 908 | | 903 | 905 | 906 | | 825 | 763 | 442 | 441 | 720 | 80 | 314.2 |
| 24 (600) AS2129 TABLE E, SO / RF | 8705 _ _ _ 240CL | 908 | | 903 | 905 | 906 | | 825 | 763 | 442 | 441 | 717 | 80 | 369.6 |
| 24 (600) JIS B2200 - 10K, SO / RF | 8705 _ _ _ 240CP | 908 | | 903 | 905 | 906 | | 795 | 763 | 442 | 441 | 690 | 80 | 299.1 |
| 24 (600) JIS B2200 - 20K, SO / RF | 8705 _ _ _ 240CR | 1000 | | 995 | 997 | 998 | | 845 | 763 | 442 | 441 | 720 | 80 | 613.9 |
| 24 (600) AS4087 PN16, SO / RF | 8705 _ _ _ 240CU | 908 | | 903 | 905 | 906 | | 825 | 763 | 442 | 441 | 720 | 80 | 321.6 |
| 24 (600) AS4087 PN21, SO / RF | 8705 _ _ _ 240CW | 1000 | | 995 | 997 | 998 | | 850 | 763 | 442 | 441 | 739 | 80 | 586.5 |
| 24 (600) AS4087 PN35, SO / RF | 8705 _ _ _ 240CY | 1000 | | 995 | 997 | 998 | | 850 | 763 | 442 | 441 | 699 | 80 | 693.2 |
| 30 (750) AWWA CLASS D, SO / FF | 8705 _ _ _ 300C1 | 940 | | 935 | 937 | 941 | | 984 | 902 | 511 | 511 | 857 | 80 | 407.0 |
| 30 (750) MSS SP44 - 150 , SO / RF | 8705 _ _ _ 300C2 | 1056 | | 1050 | 1053 | 1053 | | 984 | 902 | 511 | 511 | 857 | 80 | 708.3 |
| 30 (750) MSS SP44 - 300 , SO / RF | 8705 _ _ _ 300C3 | 1200 | | 1195 | 1197 | 1198 | | 1092 | 902 | 511 | 511 | 857 | 80 | 1338.4 |
| 30 (750) AS2129 TABLE D, SO / RF | 8705 _ _ _ 300CK | 940 | | 935 | 937 | 941 | | 995 | 902 | 511 | 511 | 888 | 80 | 470.4 |
| 30 (750) AS2129 TABLE E, SO / RF | 8705 _ _ _ 300CL | 1056 | | 1050 | 1053 | 1053 | | 995 | 902 | 511 | 511 | 857 | 80 | 578.4 |
| 30 (750) AS4087 PN16, SO / RF | 8705 _ _ _ 300CU | 940 | | 935 | 937 | 938 | | 995 | 902 | 511 | 511 | 888 | 80 | 491.5 |
| 30 (750) AS4087 PN21, SO / RF | 8705 _ _ _ 300CW | 1056 | | 1050 | 1053 | 1053 | | 1015 | 902 | 511 | 511 | 76 | 80 | 485.8 |
| 30 (750) AS4087 PN35, SO / RF | 8705 _ _ _ 300CY | 1200 | | 1195 | 1197 | 1198 | | 1015 | 902 | 511 | 511 | 898 | 80 | 1112.4 |
| 36 (900) AWWA CLASS D, SO / FF | 8705 _ _ _ 360C1 | 1032 | | 1027 | 1029 | 1033 | | 1168 | 1102 | 610 | 611 | 1022 | 80 | 574.9 |
| 36 (900) MSS SP44 - 150 , SO / RF | 8705 _ _ _ 360C2 | 1200 | | 1195 | 1197 | 1198 | | 1168 | 1102 | 610 | 611 | 1022 | 80 | 1156.9 |
| 36 (900) MSS SP44 - 300 , SO / RF | 8705 _ _ _ 360C3 | 1351 | | 1345 | 1348 | 1348 | | 1270 | 1102 | 610 | 611 | 1022 | 86 | 2079.3 |
| 36 (900) AS2129 TABLE D, SO / RF | 8705 _ _ _ 360CK | 1032 | | 1027 | 1029 | 1033 | | 1175 | 1102 | 610 | 611 | 1050 | 80 | 687.3 |
| 36 (900) AS2129 TABLE E, SO / RF | 8705 _ _ _ 360CL | 1200 | | 1195 | 1197 | 1198 | | 1175 | 1102 | 610 | 611 | 1050 | 80 | 955.1 |
| 36 (900) AS4087 PN16, SO / RF | 8705 _ _ _ 360CU | 1032 | | 1027 | 1029 | 1030 | | 1175 | 1102 | 610 | 611 | 1050 | 80 | 707.3 |
| 36 (900) AS4087 PN21, SO / RF | 8705 _ _ _ 360CW | 1200 | | 1195 | 1197 | 1198 | | 1185 | 1102 | 610 | 611 | 1060 | 80 | 934.8 |
| 36 (900) AS4087 PN35, SO / RF | 8705 _ _ _ 360CY | 1351 | | 1345 | 1348 | 1348 | | 1185 | 1102 | 610 | 611 | 1030 | 86 | 1678.7 |

**Figure 17: 8705-M Flanged sensor ½ in. to 36 in. (DN 15 mm to 900 mm) weld neck flanges—(P ≤ Class 600 derated)**




Dimensions are in inches [millimeters].

**E** See Figure 15.

**F** Nameplate

**G** Flange bolts to straddle center line

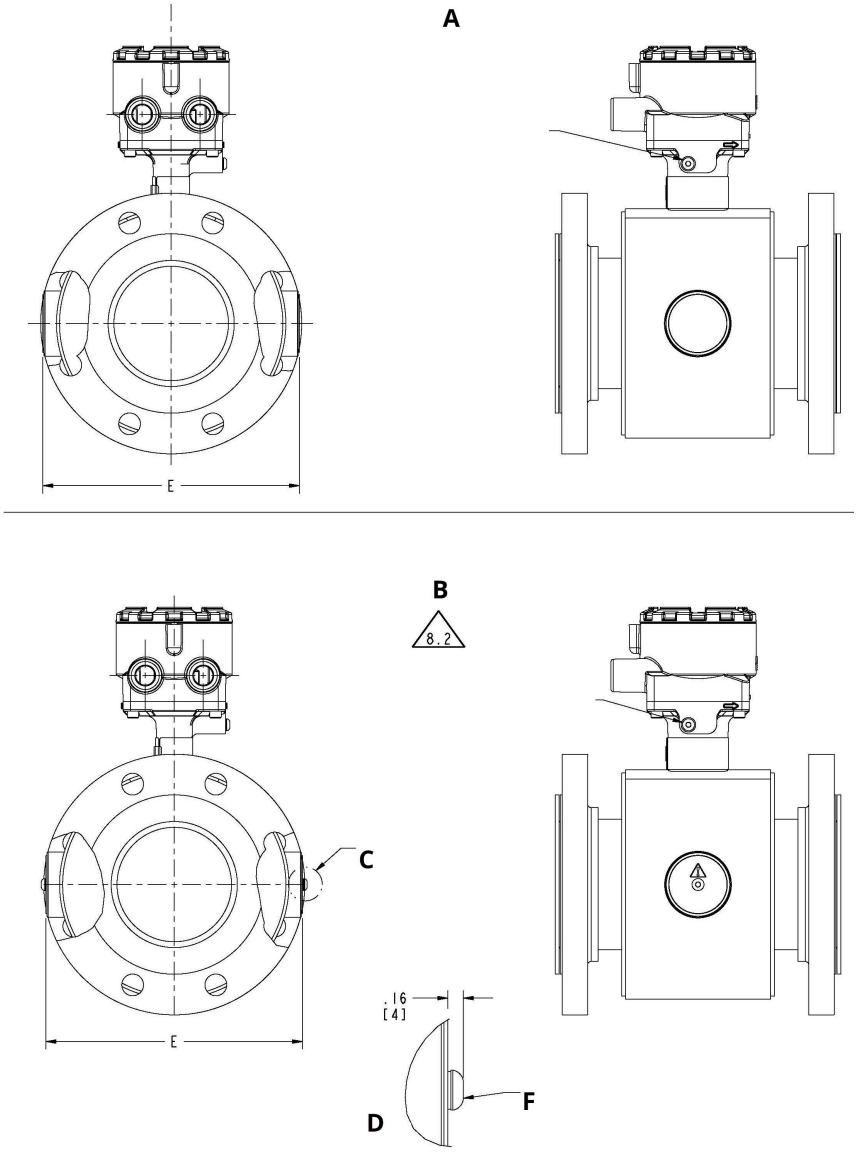
**Table 45: 8705-M Flanged sensor ½ in. to 36 in. weld neck flanges—low pressure (P ≤ Class 600 derated)—Inches**

| SIZE, DESCRIPTION | MODEL NUMBER ⚠5 | OVERALL LENGTH | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (lbs.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DIM "A" PTFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | | | STYLE A | STYLE B | | | |
| 0.5 (15) ASME - 150 , WN / RF | 8705 _ _ _ 005D1 | 10.32 | | | | 3.50 | 4.50 | 4.41 | 4.61 | 1.38 | | 10 |
| 0.5 (15) ASME - 300 , WN / RF | 8705 _ _ _ 005D3 | 10.34 | | | | 3.75 | 4.50 | 4.41 | 4.61 | 1.38 | | 11 |
| 1 (25) ASME - 150 , WN / RF | 8705 _ _ _ 010D1 | 11.17 | 11.08 | 11.14 | 11.17 | 4.25 | 4.50 | 4.41 | 4.61 | 2.00 | | 13 |
| 1 (25) ASME - 300 , WN / RF | 8705 _ _ _ 010D3 | 11.17 | 11.08 | 11.14 | 11.17 | 4.88 | 4.50 | 4.41 | 4.61 | 2.00 | | 16 |
| 1 (25) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 010D6 | 11.68 | | | | 4.88 | 4.50 | 4.41 | 4.61 | 2.00 | | 17 |
| 1.5 (40) ASME - 150 , WN / RF | 8705 _ _ _ 015D1 | 11.08 | 11.01 | 11.07 | 11.08 | 5.00 | 5.21 | 4.82 | 4.97 | 2.88 | | 19 |
| 1.5 (40) ASME - 300 , WN / RF | 8705 _ _ _ 015D3 | 11.08 | 11.01 | 11.07 | 11.08 | 6.12 | 5.21 | 4.82 | 4.97 | 2.88 | | 24 |
| 1.5 (40) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 015D6 | 11.76 | | | | 6.12 | 5.21 | 4.82 | 4.97 | 2.50 | | 26 |
| 2 (50) ASME - 150 , WN / RF | 8705 _ _ _ 020D1 | 11.20 | 11.13 | 11.19 | 11.20 | 6.00 | 5.21 | 4.82 | 4.97 | 3.62 | | 24 |
| 2 (50) ASME - 300 , WN / RF | 8705 _ _ _ 020D3 | 11.20 | 11.13 | 11.19 | 11.20 | 6.50 | 5.21 | 4.82 | 4.97 | 3.62 | | 28 |
| 2 (50) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 020D6 | 12.04 | | | | 6.50 | 5.21 | 4.82 | 4.97 | 3.25 | | 32 |
| 3 (80) ASME - 150 , WN / RF | 8705 _ _ _ 030D1 | 12.17 | 12.06 | 12.12 | 12.18 | 7.50 | 7.21 | 5.82 | 5.97 | 5.00 | 1.70 | 43 |
| 3 (80) ASME - 300 , WN / RF | 8705 _ _ _ 030D3 | 12.17 | 12.06 | 12.12 | 12.18 | 8.25 | 7.21 | 5.82 | 5.97 | 5.00 | 1.70 | 53 |
| 3 (80) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 030D6 | 13.03 | | | | 8.25 | 7.21 | 5.82 | 5.97 | 4.63 | 1.70 | 59 |
| 4 (100) ASME - 150 , WN / RF | 8705 _ _ _ 040D1 | 13.94 | 13.81 | 13.87 | 13.96 | 9.00 | 7.91 | 6.17 | 6.32 | 6.19 | 1.70 | 60 |
| 4 (100) ASME - 300 , WN / RF | 8705 _ _ _ 040D3 | 13.94 | 13.81 | 13.87 | 13.96 | 10.00 | 7.91 | 6.17 | 6.32 | 6.19 | 1.70 | 81 |
| 4 (100) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 040D6 | 15.84 | | | | 10.75 | 7.91 | 6.17 | 6.32 | 5.81 | 1.70 | 109 |
| 6 (150) ASME - 150 , WN / RF | 8705 _ _ _ 060D1 | 16.66 | 16.48 | 16.54 | 16.60 | 11.00 | 9.98 | 7.30 | 7.35 | 8.50 | 1.70 | 100 |
| 6 (150) ASME - 300 , WN / RF | 8705 _ _ _ 060D3 | 16.66 | 16.48 | 16.54 | 16.60 | 12.50 | 9.98 | 7.30 | 7.35 | 8.50 | 1.70 | 142 |
| 6 (150) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 060D6 | 19.05 | | | | 14.00 | 9.98 | 7.30 | 7.35 | 8.00 | 1.70 | 231 |
| 8 (200) ASME - 150 , WN / RF | 8705 _ _ _ 080D1 | 19.22 | 19.03 | 19.09 | 19.15 | 13.50 | 11.92 | 8.27 | 8.32 | 10.62 | 1.70 | 160 |
| 8 (200) ASME - 300 , WN / RF | 8705 _ _ _ 080D3 | 19.22 | 19.03 | 19.09 | 19.15 | 15.00 | 11.92 | 8.27 | 8.32 | 10.62 | 1.70 | 220 |
| 8 (200) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 080D6 | 22.15 | | | | 16.50 | 11.92 | 8.27 | 8.32 | 10.00 | 1.70 | 362 |
| 10 (250) ASME - 150 , WN / RF | 8705 _ _ _ 100D1 | 19.95 | 19.68 | 19.74 | 19.80 | 16.00 | 14.64 | 9.69 | 9.68 | 12.75 | 2.00 | 230 |
| 10 (250) ASME - 300 , WN / RF | 8705 _ _ _ 100D3 | 19.95 | 19.68 | 19.74 | 19.80 | 17.50 | 14.64 | 9.69 | 9.68 | 12.75 | 2.00 | 320 |
| 10 (250) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 100D6 | 23.68 | | | | 20.00 | 14.64 | 9.69 | 9.68 | 12.00 | 2.00 | 583 |
| 12 (300) ASME - 150 , WN / RF | 8705 _ _ _ 120D1 | 23.83 | 23.49 | 23.55 | 23.61 | 19.00 | 16.50 | 10.77 | 10.61 | 15.00 | 2.00 | 349 |
| 12 (300) ASME - 300 , WN / RF | 8705 _ _ _ 120D3 | 23.83 | 23.49 | 23.55 | 23.61 | 20.50 | 16.50 | 10.77 | 10.61 | 15.00 | 2.00 | 464 |
| 12 (300) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 120D6 | 26.93 | | | | 22.00 | 16.50 | 10.77 | 10.61 | 14.00 | 2.00 | 758 |
| 14 (350) ASME - 150 , WN / RF | 8705 _ _ _ 140D1 | 27.20 | 27.00 | 27.06 | 27.12 | 21.00 | 18.92 | 11.83 | 11.82 | 16.25 | 2.00 | 452 |
| 14 (350) ASME - 300 , WN / RF | 8705 _ _ _ 140D3 | 27.20 | 27.00 | 27.06 | 27.12 | 23.00 | 18.92 | 11.83 | 11.82 | 16.25 | 2.00 | 661 |
| 14 (350) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 140D6 | 30.29 | | | | 23.75 | 18.92 | 11.83 | 11.82 | 15.25 | 2.00 | 938 |
| 16 (400) ASME - 150 , WN / RF | 8705 _ _ _ 160D1 | 29.78 | 29.58 | 29.64 | 29.70 | 23.50 | 20.94 | 12.84 | 12.83 | 18.50 | 3.13 | 487 |
| 16 (400) ASME - 300 , WN / RF | 8705 _ _ _ 160D3 | 29.78 | 29.58 | 29.64 | 29.70 | 25.50 | 20.94 | 12.84 | 12.83 | 18.50 | 3.13 | 853 |
| 16 (400) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 160D6 | 33.57 | | | | 27.00 | 20.94 | 12.84 | 12.83 | 17.50 | 3.13 | 1274 |
| 18 (450) ASME - 150 , WN / RF | 8705 _ _ _ 180D1 | 31.97 | 31.77 | 31.83 | 31.89 | 25.00 | 23.46 | 14.10 | 14.09 | 21.00 | 3.13 | 679 |
| 18 (450) ASME - 300 , WN / RF | 8705 _ _ _ 180D3 | 31.97 | 31.77 | 31.83 | 31.89 | 28.00 | 23.46 | 14.10 | 14.09 | 21.00 | 3.13 | 1094 |
| 18 (450) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 180D6 | 35.23 | | | | 29.25 | 23.46 | 14.10 | 14.09 | 20.00 | 3.13 | 1531 |
| 20 (500) ASME - 150 , WN / RF | 8705 _ _ _ 200D1 | 34.76 | 34.56 | 34.62 | 34.68 | 27.50 | 25.48 | 15.11 | 15.10 | 23.00 | 3.13 | 722 |
| 20 (500) ASME - 300 , WN / RF | 8705 _ _ _ 200D3 | 34.76 | 34.56 | 34.62 | 34.68 | 30.50 | 25.48 | 15.11 | 15.10 | 23.00 | 3.13 | 1337 |
| 20 (500) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 200D6 | 38.26 | | | | 32.00 | 25.48 | 15.11 | 15.10 | 22.00 | 3.13 | 1892 |
| 24 (600) ASME - 150 , WN / RF | 8705 _ _ _ 240D1 | 38.30 | 38.10 | 38.16 | 38.22 | 32.00 | 30.03 | 17.39 | 17.38 | 27.25 | 3.13 | 1118 |
| 24 (600) ASME - 300 , WN / RF | 8705 _ _ _ 240D3 | 38.30 | 38.10 | 38.16 | 38.22 | 36.00 | 30.03 | 17.39 | 17.38 | 27.25 | 3.13 | 1964 |
| 24 (600) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 240D6 | 42.33 | | | | 37.00 | 30.03 | 17.39 | 17.38 | 26.00 | 3.13 | 2838 |
| 30 (750) ASME - 150 , WN / RF | 8705 _ _ _ 300D2 | 41.56 | 41.36 | 41.45 | 41.48 | 38.75 | 35.50 | 20.13 | 20.11 | 33.75 | 3.13 | 1679 |
| 30 (750) ASME - 300 , WN / RF | 8705 _ _ _ 300D3 | 47.16 | 46.96 | 47.02 | 47.08 | 43.00 | 35.50 | 20.13 | 20.11 | 33.75 | 3.13 | 3166 |
| 36 (900) ASME - 150 , WN / RF | 8705 _ _ _ 360D2 | 47.25 | 47.05 | 47.14 | 47.17 | 46.00 | 43.37 | 24.00 | 24.05 | 40.25 | 3.13 | 2728 |
| 36 (900) ASME - 300 , WN / RF | 8705 _ _ _ 360D3 | 53.16 | 52.96 | 53.02 | 53.08 | 50.00 | 43.37 | 24.00 | 24.05 | 40.25 | 3.38 | 4723 |

**Table 46: 8705-M Flanged sensor DN 15 mm to 900 mm weld neck flanges—low pressure (P ≤ Class 600 derated)—Millimeters**

| SIZE, DESCRIPTION | MODEL NUMBER 5 | OVERALL LENGTH | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DIM "A" PTFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | | | STYLE A | STYLE B | | | |
| 0.5 (15) ASME - 150 , WN / RF | 8705 _ _ _ 005D1 | 262 | | | | 88 | 114 | 112 | 117 | 35 | | 4 |
| 0.5 (15) ASME - 300 , WN / RF | 8705 _ _ _ 005D3 | 263 | | | | 95 | 114 | 112 | 117 | 35 | | 5 |
| 1 (25) ASME - 150 , WN / RF | 8705 _ _ _ 010D1 | 284 | 281 | 283 | 284 | 108 | 114 | 112 | 117 | 51 | | 6 |
| 1 (25) ASME - 300 , WN / RF | 8705 _ _ _ 010D3 | 284 | 281 | 283 | 284 | 124 | 114 | 112 | 117 | 51 | | 7 |
| 1 (25) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 010D6 | 297 | | | | 124 | 114 | 112 | 117 | 51 | | 8 |
| 1.5 (40) ASME - 150 , WN / RF | 8705 _ _ _ 015D1 | 281 | 280 | 281 | 281 | 127 | 132 | 122 | 126 | 73 | | 8 |
| 1.5 (40) ASME - 300 , WN / RF | 8705 _ _ _ 015D3 | 281 | 280 | 281 | 281 | 155 | 132 | 122 | 126 | 73 | | 11 |
| 1.5 (40) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 015D6 | 299 | | | | 155 | 132 | 122 | 126 | 64 | | 12 |
| 2 (50) ASME - 150 , WN / RF | 8705 _ _ _ 020D1 | 285 | 283 | 284 | 284 | 152 | 132 | 122 | 126 | 92 | | 11 |
| 2 (50) ASME - 300 , WN / RF | 8705 _ _ _ 020D3 | 285 | 283 | 284 | 284 | 165 | 132 | 122 | 126 | 92 | | 13 |
| 2 (50) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 020D6 | 306 | | | | 165 | 132 | 122 | 126 | 83 | | 14 |
| 3 (80) ASME - 150 , WN / RF | 8705 _ _ _ 030D1 | 309 | 306 | 308 | 309 | 191 | 183 | 148 | 152 | 127 | 43 | 20 |
| 3 (80) ASME - 300 , WN / RF | 8705 _ _ _ 030D3 | 309 | 306 | 308 | 309 | 210 | 183 | 148 | 152 | 127 | 43 | 24 |
| 3 (80) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 030D6 | 331 | | | | 210 | 183 | 148 | 152 | 117 | 43 | 27 |
| 4 (100) ASME - 150 , WN / RF | 8705 _ _ _ 040D1 | 354 | 351 | 352 | 355 | 229 | 201 | 157 | 160 | 157 | 43 | 27 |
| 4 (100) ASME - 300 , WN / RF | 8705 _ _ _ 040D3 | 354 | 351 | 352 | 355 | 254 | 201 | 157 | 160 | 157 | 43 | 37 |
| 4 (100) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 040D6 | 402 | | | | 273 | 201 | 157 | 160 | 148 | 43 | 49 |
| 6 (150) ASME - 150 , WN / RF | 8705 _ _ _ 060D1 | 423 | 419 | 420 | 422 | 279 | 253 | 185 | 187 | 216 | 43 | 45 |
| 6 (150) ASME - 300 , WN / RF | 8705 _ _ _ 060D3 | 423 | 419 | 420 | 422 | 318 | 253 | 185 | 187 | 216 | 43 | 64 |
| 6 (150) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 060D6 | 484 | | | | 356 | 253 | 185 | 187 | 203 | 43 | 105 |
| 8 (200) ASME - 150 , WN / RF | 8705 _ _ _ 080D1 | 488 | 483 | 485 | 486 | 343 | 303 | 210 | 211 | 270 | 43 | 73 |
| 8 (200) ASME - 300 , WN / RF | 8705 _ _ _ 080D3 | 488 | 483 | 485 | 486 | 381 | 303 | 210 | 211 | 270 | 43 | 100 |
| 8 (200) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 080D6 | 563 | | | | 419 | 303 | 210 | 211 | 254 | 43 | 164 |
| 10 (250) ASME - 150 , WN / RF | 8705 _ _ _ 100D1 | 507 | 500 | 501 | 503 | 406 | 372 | 246 | 246 | 324 | 51 | 104 |
| 10 (250) ASME - 300 , WN / RF | 8705 _ _ _ 100D3 | 507 | 500 | 501 | 503 | 445 | 372 | 246 | 246 | 324 | 51 | 145 |
| 10 (250) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 100D6 | 601 | | | | 508 | 372 | 246 | 246 | 305 | 51 | 265 |
| 12 (300) ASME - 150 , WN / RF | 8705 _ _ _ 120D1 | 605 | 597 | 598 | 600 | 483 | 419 | 274 | 269 | 381 | 51 | 158 |
| 12 (300) ASME - 300 , WN / RF | 8705 _ _ _ 120D3 | 605 | 597 | 598 | 600 | 521 | 419 | 274 | 269 | 381 | 51 | 211 |
| 12 (300) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 120D6 | 684 | | | | 559 | 419 | 274 | 269 | 356 | 51 | 344 |
| 14 (350) ASME - 150 , WN / RF | 8705 _ _ _ 140D1 | 691 | 686 | 687 | 689 | 533 | 481 | 300 | 300 | 413 | 51 | 205 |
| 14 (350) ASME - 300 , WN / RF | 8705 _ _ _ 140D3 | 691 | 686 | 687 | 689 | 584 | 481 | 300 | 300 | 413 | 51 | 300 |
| 14 (350) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 140D6 | 769 | | | | 603 | 481 | 300 | 300 | 387 | 51 | 426 |
| 16 (400) ASME - 150 , WN / RF | 8705 _ _ _ 160D1 | 757 | 751 | 753 | 754 | 597 | 532 | 326 | 326 | 470 | 80 | 221 |
| 16 (400) ASME - 300 , WN / RF | 8705 _ _ _ 160D3 | 757 | 751 | 753 | 754 | 648 | 532 | 326 | 326 | 470 | 80 | 387 |
| 16 (400) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 160D6 | 853 | | | | 686 | 532 | 326 | 326 | 445 | 80 | 578 |
| 18 (450) ASME - 150 , WN / RF | 8705 _ _ _ 180D1 | 812 | 807 | 808 | 810 | 635 | 596 | 358 | 358 | 533 | 80 | 308 |
| 18 (450) ASME - 300 , WN / RF | 8705 _ _ _ 180D3 | 812 | 807 | 808 | 810 | 711 | 596 | 358 | 358 | 533 | 80 | 496 |
| 18 (450) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 180D6 | 895 | | | | 743 | 596 | 358 | 358 | 508 | 80 | 694 |
| 20 (500) ASME - 150 , WN / RF | 8705 _ _ _ 200D1 | 883 | 878 | 879 | 881 | 699 | 647 | 384 | 384 | 584 | 80 | 327 |
| 20 (500) ASME - 300 , WN / RF | 8705 _ _ _ 200D3 | 883 | 878 | 879 | 881 | 775 | 647 | 384 | 384 | 584 | 80 | 606 |
| 20 (500) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 200D6 | 972 | | | | 813 | 647 | 384 | 384 | 559 | 80 | 858 |
| 24 (600) ASME - 150 , WN / RF | 8705 _ _ _ 240D1 | 973 | 968 | 969 | 971 | 813 | 763 | 442 | 441 | 692 | 80 | 507 |
| 24 (600) ASME - 300 , WN / RF | 8705 _ _ _ 240D3 | 973 | 968 | 969 | 971 | 914 | 763 | 442 | 441 | 692 | 80 | 891 |
| 24 (600) ASME - 600 DERAT., WN / RF | 8705 _ _ _ 240D6 | 1075 | | | | 940 | 763 | 442 | 441 | 660 | 80 | 1287 |
| 30 (750) ASME - 150 , WN / RF | 8705 _ _ _ 300D2 | 1056 | 1050 | 1053 | 1053 | 984 | 902 | 511 | 511 | 857 | 80 | 761 |
| 30 (750) ASME - 300 , WN / RF | 8705 _ _ _ 300D3 | 1198 | 1193 | 1194 | 1196 | 1092 | 902 | 511 | 511 | 857 | 80 | 1436 |
| 36 (900) ASME - 150 , WN / RF | 8705 _ _ _ 360D2 | 1200 | 1195 | 1197 | 1198 | 1168 | 1102 | 610 | 611 | 1022 | 80 | 1237 |
| 36 (900) ASME - 300 , WN / RF | 8705 _ _ _ 360D3 | 1350 | 1345 | 1347 | 1348 | 1270 | 1102 | 610 | 611 | 1022 | 86 | 2143 |

**Figure 18: 8705-M Flanged sensor ½ in. to 36 in. (DN 15 mm to 900 mm) M2/M4 coil housing (P ≤ Class 600 derated)**




Dimensions are in inches [millimeters].

*A. With M2 option*
*B. With M4 option*
*C. See D.*
*D. 2x, M4 option only*
*E. Dimensions (see Table 47)*
*F. Threaded drain hole*

**Table 47: Body with Electrode Access (M2)**

| Size: in. (mm), all flanges | Body width with M2, Dimension *E* (inch) 8.1 | Body width with M2 Dimension *E* (mm) 8.1 |
|---|---|---|
| 0.5 (15) | 5.22 | 133 |

**Table 47: Body with Electrode Access (M2) *(continued)***

| Size: in. (mm), all flanges | Body width with M2, Dimension *E* (inch) 8.1 | Body width with M2 Dimension *E* (mm) 8.1 |
|---|---|---|
| 1 (25) | 5.70 | 145 |
| 1.5 (40) | 5.88 | 149 |
| 2 (50) | 6.36 | 161 |
| 2.5 (60) | 6.86 | 174 |
| 3 (80) | 7.88 | 200 |
| 4 (100) | 8.88 | 226 |
| 5 (125) | 9.71 | 247 |
| 6 (150) | 10.62 | 270 |
| 8 (200) | 12.62 | 321 |
| 10 (250) | 15.53 | 394 |
| 12 (300) | 17.53 | 445 |
| 14 (350) | 20.68 | 525 |
| 16 (400) | 22.68 | 576 |
| 18 (450) | 24.68 | 627 |
| 20 (500) | 26.68 | 678 |
| 24 (600) | 30.68 | 779 |
| 30 (750) | 36.68 | 932 |
| 36 (900) | 44.18 | 1122 |

- 8.2 – When venting the electrode compartment, the vent and recovery piping diameter must not be smaller than the M6 cover threading to avoid building pressure inside the electrode compartment.
- 8.1 – When M4 option is selected, add .32 in. (8 mm) to M2 Dimension *E* (body width dimension).

## 8705-M High pressure dimensions

The following notes apply to Figure 19 and Table 49 through Table 54:

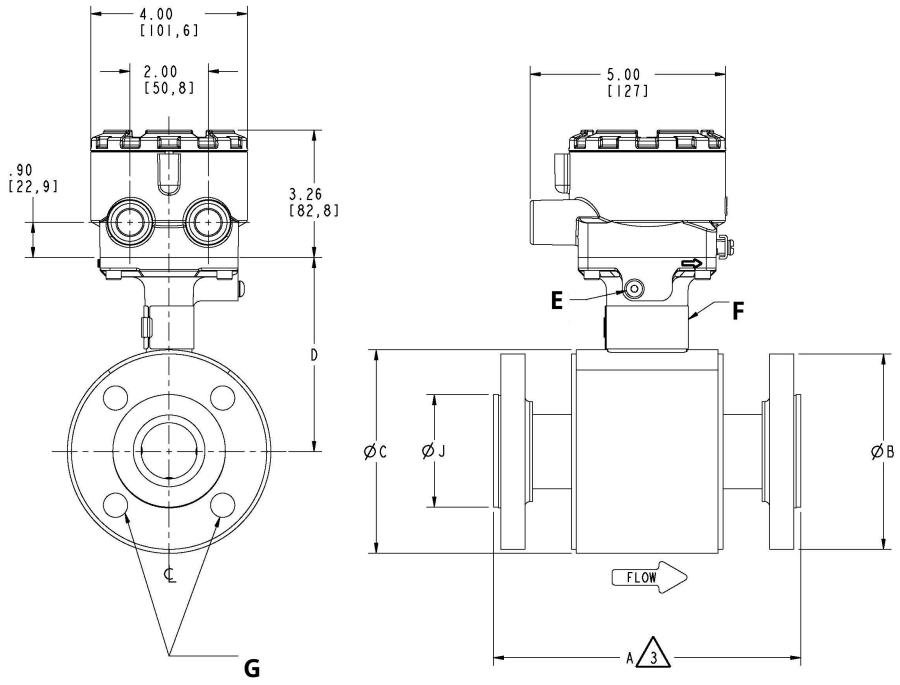
- 1 – For brevity, the model number list only contains the codes for carbon steel flanges. 304 and 306 stainless steel flanges are dimensionally identical to carbon steel. Use Table 48 to find the carbon steel code that corresponds to each stainless steel code.

**Table 48: Steel Codes**

| Stainless steel codes | Carbon steel codes |
|---|---|
| S, P | C |
| T, R | D |
| G, H | F |
| K, L | J |

- 2.1 – Optional relief valve assembly is 1.75 in. (44.5 mm).

**Figure 19: 8705-M Flanged Sensor ½ in. to 24 in. (DN 15 mm to 600 mm) slip-on flange - high pressure (P ≤ Class 900)**




Dimensions are in inches [millimeters].

**E** See Figure 20.

**F** Nameplate

**G** Flange bolts to straddle center line

**Figure 20: M1 Housing Option Detail**

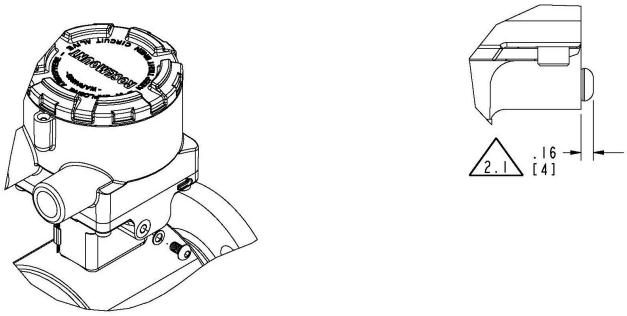


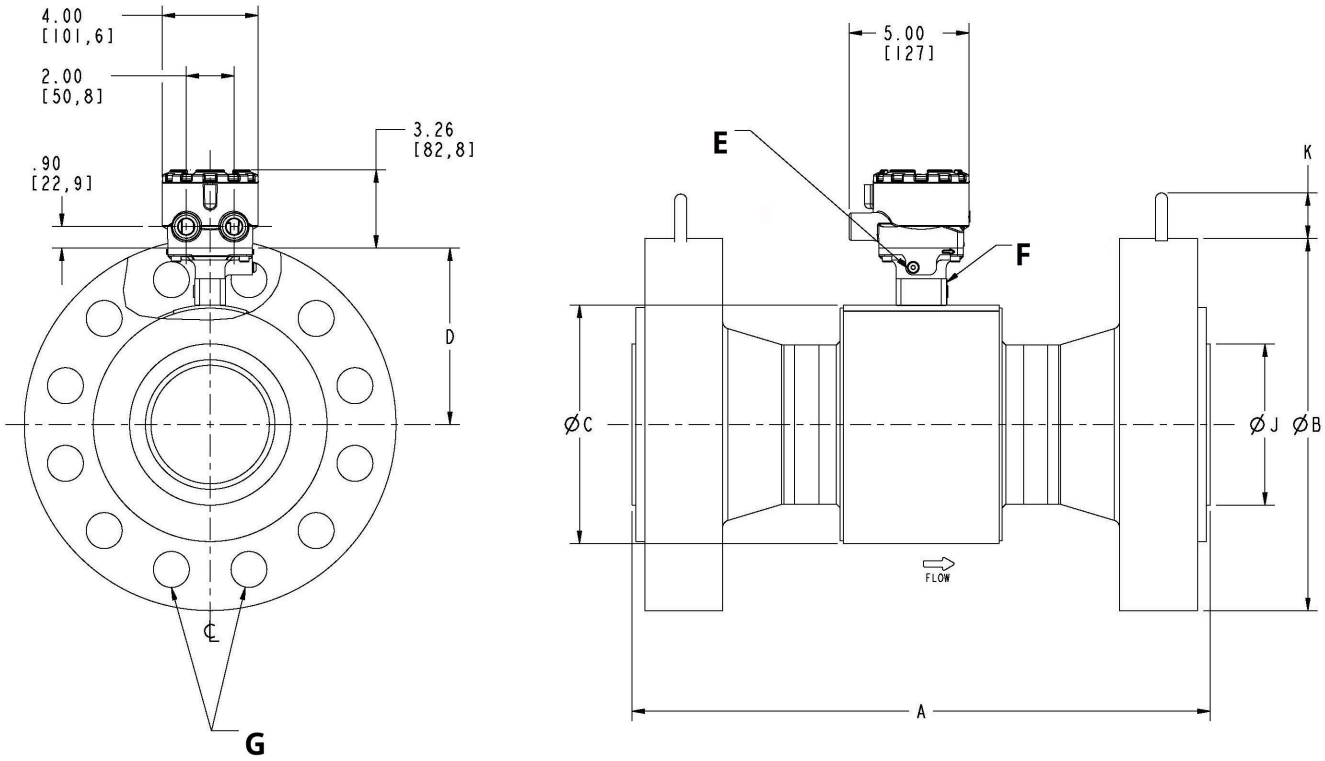
**Table 49: 8705-M Flanged Sensor ½ in. to 24 in. slip-on flange—high pressure (P ≤ Class 900)—Inches**

| SIZE, DESCRIPTION | MODEL NUMBER [1] | OVERALL LENGTH | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (lbs.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | | | STYLE A | STYLE B | | | |
| 0.5 (15) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 005C6 | 8.38 | 8.38 | 8.38 | 8.48 | 8.38 | 3.75 | 4.50 | 4.41 | 4.61 | 1.38 | | 10 |
| 0.5 (15) ASME - 600 FULL, SO / RF | 8705 _ _ _ 005C7 | | 8.38 | 8.25 | 8.25 | 8.25 | 3.75 | 4.50 | 4.41 | 4.61 | 1.38 | | 10 |
| 1 (25) ASME - 900 , SO / RTJ | 8705 _ _ _ 010_9 | | | 9.53 | 9.53 | 9.53 | 5.88 | 4.50 | 4.41 | 4.61 | 1.51 | 1.70 | 24 |
| 1 (25) ASME - 600 FULL, SO / RF | 8705 _ _ _ 010C7 | | | 8.53 | 8.53 | 8.53 | 4.88 | 4.50 | 4.41 | 4.61 | 1.63 | | 15 |
| 1 (25) ASME - 900 , SO / RF | 8705 _ _ _ 010C9 | | | 9.49 | 9.49 | 9.49 | 5.88 | 4.50 | 4.41 | 4.61 | 1.63 | 1.70 | 24 |
| 1.5 (40) ASME - 600 FULL, SO / RF | 8705 _ _ _ 015C7 | | | 8.42 | 8.42 | 8.42 | 6.12 | 5.21 | 4.82 | 4.97 | 2.50 | | 23 |
| 1.5 (40) ASME - 900 , SO / RF | 8705 _ _ _ 015C9 | | | 9.49 | 9.49 | 9.49 | 7.00 | 5.21 | 4.82 | 4.97 | 2.50 | 1.70 | 34 |
| 2 (50) ASME - 600 FULL, SO / RF | 8705 _ _ _ 020C7 | | | 8.57 | 8.57 | 8.57 | 6.50 | 5.21 | 4.82 | 4.97 | 3.25 | | 27 |
| 2 (50) ASME - 900 , SO / RF | 8705 _ _ _ 020C9 | | | 10.23 | 10.23 | 10.23 | 8.50 | 5.21 | 4.82 | 4.97 | 3.25 | 1.70 | 57 |
| 2.5 (65) ASME - 600 FULL, SO / RF | 8705 _ _ _ 025C7 | | | 8.61 | | | 7.50 | 6.31 | 5.37 | 5.52 | 3.75 | | 41 |
| 2.5 (65) ASME - 900 , SO / RF | 8705 _ _ _ 025C9 | | | 10.23 | | | 9.62 | 6.31 | 5.37 | 5.52 | 3.75 | 1.70 | 82 |
| 3 (65) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 030_7 | | | 12.19 | 12.19 | 12.19 | 8.25 | 7.21 | 5.82 | 5.97 | 4.00 | | 53 |
| 3 (65) ASME - 900 , SO / RTJ | 8705 _ _ _ 030_9 | | | 12.82 | 12.82 | 12.82 | 9.50 | 7.21 | 5.82 | 5.97 | 3.94 | | 75 |
| 3 (80) ASME - 600 FULL, SO / RF | 8705 _ _ _ 030C7 | | | 12.16 | 12.16 | 12.16 | 8.25 | 7.21 | 5.82 | 5.97 | 4.63 | 1.70 | 53 |
| 3 (80) ASME - 900 , SO / RF | 8705 _ _ _ 030C9 | | | 12.79 | 12.79 | 12.79 | 9.50 | 7.21 | 5.82 | 5.97 | 4.63 | 1.70 | 74 |
| 4 (80) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 040_7 | | | 12.60 | 12.60 | 12.60 | 10.75 | 7.91 | 6.17 | 6.32 | 4.94 | 1.70 | 92 |
| 4 (80) ASME - 900 , SO / RTJ | 8705 _ _ _ 040_9 | | | 13.89 | 13.89 | 13.89 | 11.50 | 7.91 | 6.17 | 6.32 | 4.94 | 2.00 | 123 |
| 4 (100) ASME - 600 FULL, SO / RF | 8705 _ _ _ 040C7 | | | 12.56 | 12.56 | 12.56 | 10.75 | 7.91 | 6.17 | 6.32 | 5.81 | 1.70 | 93 |
| 4 (100) ASME - 900 , SO / RF | 8705 _ _ _ 040C9 | | | 13.86 | 13.86 | 13.86 | 11.50 | 7.91 | 6.17 | 6.32 | 5.81 | 2.00 | 123 |
| 5 (125) ASME - 600 FULL, SO / RF | 8705 _ _ _ 050C7 | | | 12.81 | | | 13.00 | 9.61 | 7.02 | 7.17 | 6.91 | 1.70 | 156 |
| 5 (125) ASME - 900 , SO / RF | 8705 _ _ _ 050C9 | | | 13.86 | | | 13.75 | 9.61 | 7.02 | 7.17 | 6.91 | 1.70 | 201 |
| 6 (125) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 060_7 | | | 15.57 | 15.57 | 15.57 | 14.00 | 9.98 | 7.30 | 7.35 | 7.12 | 1.70 | 193 |
| 6 (200) ASME - 900 , SO / RTJ | 8705 _ _ _ 060_9 | | | 17.58 | 17.58 | 17.58 | 15.00 | 9.98 | 7.30 | 7.35 | 7.12 | 2.00 | 254 |
| 6 (150) ASME - 600 FULL, SO / RF | 8705 _ _ _ 060C7 | | | 13.92 | 13.92 | 13.92 | 14.00 | 9.98 | 7.30 | 7.35 | 8.00 | 1.70 | 189 |
| 6 (150) ASME - 900 , SO / RF | 8705 _ _ _ 060C9 | | | 17.55 | 17.55 | 17.55 | 15.00 | 9.98 | 7.30 | 7.35 | 8.00 | 2.00 | 254 |
| 8 (150) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 080_7 | | | 17.58 | 17.58 | 17.58 | 16.50 | 11.92 | 8.27 | 8.32 | 9.37 | 1.70 | 298 |
| 8 (150) ASME - 900 , SO / RTJ | 8705 _ _ _ 080_9 | | | 20.61 | 20.61 | 20.61 | 18.50 | 11.92 | 8.27 | 8.32 | 9.13 | 3.13 | 446 |
| 8 (200) ASME - 600 FULL, SO / RF | 8705 _ _ _ 080C7 | | | 16.44 | 16.44 | 16.44 | 16.50 | 11.92 | 8.27 | 8.32 | 10.00 | 1.70 | 292 |
| 8 (200) ASME - 900 , SO / RF | 8705 _ _ _ 080C9 | | | 20.58 | 20.58 | 20.58 | 18.50 | 11.92 | 8.27 | 8.32 | 10.00 | 3.13 | 444 |
| 10 (200) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 100_7 | | | 19.08 | 19.08 | 19.08 | 20.00 | 14.64 | 9.69 | 9.68 | 11.50 | 2.00 | 480 |
| 10 (200) ASME - 900 , SO / RTJ | 8705 _ _ _ 100_9 | | | 21.57 | 21.57 | 21.57 | 21.50 | 14.64 | 9.69 | 9.68 | 11.25 | 3.13 | 655 |
| 10 (250) ASME - 600 FULL, SO / RF | 8705 _ _ _ 100C7 | | | 19.05 | 19.05 | 19.05 | 20.00 | 14.64 | 9.69 | 9.68 | 12.00 | 2.00 | 476 |
| 10 (250) ASME - 900 , SO / RF | 8705 _ _ _ 100C9 | | | 21.54 | 21.54 | 21.54 | 21.50 | 14.64 | 9.69 | 9.68 | 12.00 | 3.13 | 650 |
| 12 (250) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 120_7 | | | 21.78 | 21.78 | 21.78 | 22.00 | 16.80 | 10.77 | 10.76 | 13.75 | 2.00 | 636 |
| 12 (250) ASME - 900 , SO / RTJ | 8705 _ _ _ 120_9 | | | 25.18 | 25.18 | 25.18 | 24.00 | 16.80 | 10.77 | 10.76 | 13.50 | 3.13 | 914 |
| 12 (300) ASME - 600 FULL, SO / RF | 8705 _ _ _ 120C7 | | | 21.75 | 21.75 | 21.75 | 22.00 | 16.80 | 10.77 | 10.76 | 14.00 | 2.00 | 620 |
| 12 (300) ASME - 900 , SO / RF | 8705 _ _ _ 120C9 | | | 25.15 | 25.15 | 25.15 | 24.00 | 16.80 | 10.77 | 10.76 | 14.00 | 3.13 | 907 |
| 14 (300) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 140_7 | | | 25.44 | 25.44 | 25.44 | 23.75 | 18.92 | 11.83 | 11.82 | 15.00 | 2.00 | 780 |
| 14 (350) ASME - 600 FULL, SO / RF | 8705 _ _ _ 140C7 | | | 25.41 | 25.41 | 25.41 | 23.75 | 18.92 | 11.83 | 11.82 | 15.25 | 2.00 | 771 |
| 16 (350) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 160_7 | | | 28.94 | 28.94 | 28.94 | 27.00 | 20.94 | 12.84 | 12.83 | 17.00 | 3.13 | 1108 |
| 16 (400) ASME - 600 FULL, SO / RF | 8705 _ _ _ 160C7 | | | 28.91 | 28.91 | 28.91 | 27.00 | 20.94 | 12.84 | 12.83 | 17.50 | 3.13 | 1100 |
| 18 (400) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 180_7 | | | 32.42 | 32.42 | 32.42 | 29.25 | 23.46 | 14.10 | 14.09 | 19.38 | 3.13 | 1415 |
| 18 (450) ASME - 600 FULL, SO / RF | 8705 _ _ _ 180C7 | | | 32.39 | 32.39 | 32.39 | 29.25 | 23.46 | 14.10 | 14.09 | 20.00 | 3.13 | 1405 |
| 20 (450) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 200_7 | | | 36.55 | 36.55 | 36.55 | 32.00 | 25.48 | 15.11 | 15.10 | 21.00 | 3.13 | 1839 |
| 20 (500) ASME - 600 FULL, SO / RF | 8705 _ _ _ 200C7 | | | 36.52 | 36.52 | 36.52 | 32.00 | 25.48 | 15.11 | 15.10 | 22.00 | 3.13 | 1822 |
| 24 (500) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 240_7 | | | 41.05 | 41.05 | 41.05 | 37.00 | 30.03 | 17.39 | 17.38 | 25.00 | 3.13 | 2724 |
| 24 (600) ASME - 600 FULL, SO / RF | 8705 _ _ _ 240C7 | | | 41.02 | 41.02 | 41.02 | 37.00 | 30.03 | 17.39 | 17.38 | 26.00 | 3.13 | 2692 |

**Table 50: 8705-M Flanged Sensor DN 15 mm to 600 mm slip-on flange—high pressure (P ≤ Class 900)—Millimeters**

| SIZE, DESCRIPTION | MODEL NUMBER ⚠1 | OVERALL LENGTH | | | | | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA | | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DIM "A" PTFE | DIM "A" ETFE | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | | | STYLE A | STYLE B | | | |
| 0.5 (15) ASME - 600 DERAT., SO / RF | 8705 _ _ _ 005C6 | 213 | 213 | 213 | 215 | 213 | 95 | 114 | 112 | 117 | 35 | | 5 |
| 0.5 (15) ASME - 600 FULL, SO / RF | 8705 _ _ _ 005C7 | | 213 | 209 | 209 | 209 | 95 | 114 | 112 | 117 | 35 | | 5 |
| 1 (25) ASME - 900 , SO / RTJ | 8705 _ _ _ 010_9 | | | 242 | 242 | 242 | 149 | 114 | 112 | 117 | 38 | 43 | 11 |
| 1 (25) ASME - 600 FULL, SO / RF | 8705 _ _ _ 010C7 | | | 217 | 217 | 217 | 124 | 114 | 112 | 117 | 41 | | 7 |
| 1 (25) ASME - 900 , SO / RF | 8705 _ _ _ 010C9 | | | 241 | 241 | 241 | 149 | 114 | 112 | 117 | 41 | 43 | 11 |
| 1.5 (40) ASME - 600 FULL, SO / RF | 8705 _ _ _ 015C7 | | | 214 | 214 | 214 | 155 | 132 | 122 | 126 | 64 | | 11 |
| 1.5 (40) ASME - 900 , SO / RF | 8705 _ _ _ 015C9 | | | 241 | 241 | 241 | 178 | 132 | 122 | 126 | 64 | 43 | 16 |
| 2 (50) ASME - 600 FULL, SO / RF | 8705 _ _ _ 020C7 | | | 218 | 218 | 218 | 165 | 132 | 122 | 126 | 83 | | 12 |
| 2 (50) ASME - 900 , SO / RF | 8705 _ _ _ 020C9 | | | 260 | 260 | 260 | 216 | 132 | 122 | 126 | 83 | 43 | 26 |
| 2.5 (65) ASME - 600 FULL, SO / RF | 8705 _ _ _ 025C7 | | | 219 | | | 191 | 160 | 136 | 140 | 95 | | 19 |
| 2.5 (65) ASME - 900 , SO / RF | 8705 _ _ _ 025C9 | | | 260 | | | 244 | 160 | 136 | 140 | 95 | 43 | 37 |
| 3 (65) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 030_7 | | | 310 | 310 | 310 | 210 | 183 | 148 | 152 | 102 | | 24 |
| 3 (65) ASME - 900 , SO / RTJ | 8705 _ _ _ 030_9 | | | 326 | 326 | 326 | 241 | 183 | 148 | 152 | 100 | | 34 |
| 3 (80) ASME - 600 FULL, SO / RF | 8705 _ _ _ 030C7 | | | 309 | 309 | 309 | 210 | 183 | 148 | 152 | 118 | 43 | 24 |
| 3 (80) ASME - 900 , SO / RF | 8705 _ _ _ 030C9 | | | 325 | 325 | 325 | 241 | 183 | 148 | 152 | 118 | 43 | 34 |
| 4 (80) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 040_7 | | | 320 | 320 | 320 | 273 | 201 | 157 | 160 | 125 | 43 | 42 |
| 4 (80) ASME - 900 , SO / RTJ | 8705 _ _ _ 040_9 | | | 353 | 353 | 353 | 292 | 201 | 157 | 160 | 125 | 51 | 56 |
| 4 (100) ASME - 600 FULL, SO / RF | 8705 _ _ _ 040C7 | | | 319 | 319 | 319 | 273 | 201 | 157 | 160 | 148 | 43 | 42 |
| 4 (100) ASME - 900 , SO / RF | 8705 _ _ _ 040C9 | | | 352 | 352 | 352 | 292 | 201 | 157 | 160 | 148 | 51 | 56 |
| 5 (125) ASME - 600 FULL, SO / RF | 8705 _ _ _ 050C7 | | | 325 | | | 330 | 244 | 178 | 182 | 176 | 43 | 71 |
| 5 (125) ASME - 900 , SO / RF | 8705 _ _ _ 050C9 | | | 352 | | | 349 | 244 | 178 | 182 | 176 | 43 | 91 |
| 6 (125) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 060_7 | | | 396 | 396 | 396 | 356 | 253 | 185 | 187 | 181 | 43 | 87 |
| 6 (200) ASME - 900 , SO / RTJ | 8705 _ _ _ 060_9 | | | 447 | 447 | 447 | 381 | 253 | 185 | 187 | 181 | 51 | 115 |
| 6 (150) ASME - 600 FULL, SO / RF | 8705 _ _ _ 060C7 | | | 353 | 353 | 353 | 356 | 253 | 185 | 187 | 203 | 43 | 86 |
| 6 (150) ASME - 900 , SO / RF | 8705 _ _ _ 060C9 | | | 446 | 446 | 446 | 381 | 253 | 185 | 187 | 203 | 51 | 115 |
| 8 (150) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 080_7 | | | 447 | 447 | 447 | 419 | 303 | 210 | 211 | 238 | 43 | 135 |
| 8 (150) ASME - 900 , SO / RTJ | 8705 _ _ _ 080_9 | | | 523 | 523 | 523 | 470 | 303 | 210 | 211 | 232 | 80 | 202 |
| 8 (200) ASME - 600 FULL, SO / RF | 8705 _ _ _ 080C7 | | | 417 | 417 | 417 | 419 | 303 | 210 | 211 | 254 | 43 | 132 |
| 8 (200) ASME - 900 , SO / RF | 8705 _ _ _ 080C9 | | | 523 | 523 | 523 | 470 | 303 | 210 | 211 | 254 | 80 | 202 |
| 10 (200) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 100_7 | | | 485 | 485 | 485 | 508 | 372 | 246 | 246 | 292 | 51 | 218 |
| 10 (200) ASME - 900 , SO / RTJ | 8705 _ _ _ 100_9 | | | 548 | 548 | 548 | 546 | 372 | 246 | 246 | 286 | 80 | 297 |
| 10 (250) ASME - 600 FULL, SO / RF | 8705 _ _ _ 100C7 | | | 484 | 484 | 484 | 508 | 372 | 246 | 246 | 305 | 51 | 216 |
| 10 (250) ASME - 900 , SO / RF | 8705 _ _ _ 100C9 | | | 547 | 547 | 547 | 546 | 372 | 246 | 246 | 305 | 80 | 295 |
| 12 (250) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 120_7 | | | 553 | 553 | 553 | 559 | 427 | 274 | 273 | 349 | 51 | 288 |
| 12 (250) ASME - 900 , SO / RTJ | 8705 _ _ _ 120_9 | | | 640 | 640 | 640 | 610 | 427 | 274 | 273 | 343 | 80 | 415 |
| 12 (300) ASME - 600 FULL, SO / RF | 8705 _ _ _ 120C7 | | | 552 | 552 | 552 | 559 | 427 | 274 | 273 | 356 | 51 | 281 |
| 12 (300) ASME - 900 , SO / RF | 8705 _ _ _ 120C9 | | | 639 | 639 | 639 | 610 | 427 | 274 | 273 | 356 | 80 | 412 |
| 14 (300) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 140_7 | | | 646 | 646 | 646 | 603 | 481 | 300 | 300 | 381 | 51 | 354 |
| 14 (350) ASME - 600 FULL, SO / RF | 8705 _ _ _ 140C7 | | | 645 | 645 | 645 | 603 | 481 | 300 | 300 | 387 | 51 | 350 |
| 16 (350) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 160_7 | | | 735 | 735 | 735 | 686 | 532 | 326 | 326 | 432 | 80 | 503 |
| 16 (400) ASME - 600 FULL, SO / RF | 8705 _ _ _ 160C7 | | | 734 | 734 | 734 | 686 | 532 | 326 | 326 | 445 | 80 | 499 |
| 18 (400) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 180_7 | | | 823 | 823 | 823 | 743 | 596 | 358 | 358 | 492 | 80 | 642 |
| 18 (450) ASME - 600 FULL, SO / RF | 8705 _ _ _ 180C7 | | | 823 | 823 | 823 | 743 | 596 | 358 | 358 | 508 | 80 | 637 |
| 20 (450) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 200_7 | | | 928 | 928 | 928 | 813 | 647 | 384 | 384 | 533 | 80 | 834 |
| 20 (500) ASME - 600 FULL, SO / RF | 8705 _ _ _ 200C7 | | | 928 | 928 | 928 | 813 | 647 | 384 | 384 | 559 | 80 | 826 |
| 24 (500) ASME - 600 FULL, SO / RTJ | 8705 _ _ _ 240_7 | | | 1043 | 1043 | 1043 | 940 | 763 | 442 | 441 | 635 | 80 | 1236 |
| 24 (600) ASME - 600 FULL, SO / RF | 8705 _ _ _ 240C7 | | | 1042 | 1042 | 1042 | 940 | 763 | 442 | 441 | 660 | 80 | 1221 |

**Figure 21: 8705-M Flanged Sensor 1 in. to 24 in. (DN 25 mm to 600 mm) weld neck flange—(P ≤ Class 2500)**




Dimensions are in inches [millimeters].

**E** See Figure 20.

**F** Nameplate

**G** Flange bolts to straddle center line

**Table 51: 8705-M Flanged Sensor 1 in. to 5 in. weld neck flange—high pressure (P ≤ Class 2500)—Inches**

| SIZE, DESCRIPTION | MODEL NUMBER [1] | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA STYLE A | DIM "D" CL to TA STYLE B | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (lbs.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 (25) ASME - 600 FULL, WN / RF | 8705 _ _ _ 010D7 | 11.54 | 11.54 | 11.54 | 4.88 | 4.50 | 4.41 | 4.61 | 2.00 | | 17 |
| 1 (25) ASME - 900 , WN / RF | 8705 _ _ _ 010D9 | 12.51 | 12.51 | 12.51 | 5.88 | 4.50 | 4.41 | 4.61 | 2.00 | 1.70 | 25 |
| 1 (25) ASME -1500 , WN / RF | 8705 _ _ _ 010DM | 12.87 | 12.87 | 12.87 | 5.88 | 4.50 | 4.41 | 4.61 | 1.63 | 1.70 | 25 |
| 1 (25) ASME -2500 , WN / RF | 8705 _ _ _ 010DN | 14.29 | 14.29 | 14.29 | 6.25 | 4.50 | 4.41 | 4.61 | 1.63 | 1.70 | 34 |
| 1 (25) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 010J7 | 11.57 | 11.57 | 11.57 | 4.88 | 4.50 | 4.41 | 4.61 | 1.31 | | 17 |
| 1 (25) ASME - 900 , WN / RTJ | 8705 _ _ _ 010J9 | 12.54 | 12.54 | 12.54 | 5.88 | 4.50 | 4.41 | 4.61 | 1.31 | 1.70 | 26 |
| 1 (25) ASME -1500 , WN / RTJ | 8705 _ _ _ 010JM | 12.90 | 12.90 | 12.90 | 5.88 | 4.50 | 4.41 | 4.61 | 1.26 | 1.70 | 26 |
| 1.5 (40) ASME - 600 FULL, WN / RF | 8705 _ _ _ 015D7 | 11.56 | 11.56 | 11.56 | 6.12 | 5.21 | 4.82 | 4.97 | 2.50 | | 26 |
| 1.5 (40) ASME - 900 , WN / RF | 8705 _ _ _ 015D9 | 12.65 | 12.65 | 12.65 | 7.00 | 5.21 | 4.82 | 4.97 | 2.50 | 1.70 | 38 |
| 1.5 (40) ASME -1500 , WN / RF | 8705 _ _ _ 015DM | 13.09 | 13.09 | 13.09 | 7.00 | 5.21 | 4.82 | 4.97 | 2.50 | 1.70 | 39 |
| 1.5 (40) ASME -2500 , WN / RF | 8705 _ _ _ 015DN | 15.51 | 15.51 | 15.51 | 8.00 | 5.21 | 4.82 | 4.97 | 2.38 | 1.70 | 66 |
| 1.5 (40) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 015J7 | 11.59 | 11.59 | 11.59 | 6.12 | 5.21 | 4.82 | 4.97 | 2.00 | | 27 |
| 1.5 (40) ASME - 900 , WN / RTJ | 8705 _ _ _ 015J9 | 12.68 | 12.68 | 12.68 | 7.00 | 5.21 | 4.82 | 4.97 | 2.00 | 1.70 | 38 |
| 1.5 (40) ASME -1500 , WN / RTJ | 8705 _ _ _ 015JM | 13.12 | 13.12 | 13.12 | 7.00 | 5.21 | 4.82 | 4.97 | 1.92 | 1.70 | 39 |
| 1.5 (40) ASME -2500 , WN / RTJ | 8705 _ _ _ 015JN | 15.66 | 15.66 | 15.66 | 8.00 | 5.21 | 4.82 | 4.97 | 1.84 | 1.70 | 68 |
| 2 (50) ASME - 600 FULL, WN / RF | 8705 _ _ _ 020D7 | 11.83 | 11.83 | 11.83 | 6.50 | 5.21 | 4.82 | 4.97 | 3.25 | | 32 |
| 2 (50) ASME - 900 , WN / RF | 8705 _ _ _ 020D9 | 14.26 | 14.26 | 14.26 | 8.50 | 5.21 | 4.82 | 4.97 | 3.25 | 1.70 | 66 |
| 2 (50) ASME -1500 , WN / RF | 8705 _ _ _ 020DM | 14.82 | 14.82 | 14.82 | 8.50 | 5.21 | 4.82 | 4.97 | 3.25 | 1.70 | 69 |
| 2 (50) ASME -2500 , WN / RF | 8705 _ _ _ 020DN | 16.86 | 16.86 | 16.86 | 9.25 | 5.21 | 4.82 | 4.97 | 3.12 | 1.70 | 96 |
| 2 (50) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 020J7 | 11.99 | 11.99 | 11.99 | 6.50 | 5.21 | 4.82 | 4.97 | 2.31 | | 32 |
| 2 (50) ASME - 900 , WN / RTJ | 8705 _ _ _ 020J9 | 14.42 | 14.42 | 14.42 | 8.50 | 5.21 | 4.82 | 4.97 | 2.62 | 1.70 | 67 |
| 2 (50) ASME -1500 , WN / RTJ | 8705 _ _ _ 020JM | 14.92 | 14.92 | 14.92 | 8.50 | 5.21 | 4.82 | 4.97 | 2.34 | 1.70 | 70 |
| 2 (50) ASME -2500 , WN / RTJ | 8705 _ _ _ 020JN | 17.01 | 17.01 | 17.01 | 9.25 | 5.21 | 4.82 | 4.97 | 2.59 | 1.70 | 98 |
| 2.5 (60) ASME -1500 , WN / RF | 8705 _ _ _ 025DM | 16.80 | 16.80 | 16.80 | 9.62 | 6.31 | 5.37 | 5.52 | 3.70 | 1.70 | 93 |
| 2.5 (60) ASME -2500 , WN / RF | 8705 _ _ _ 025DN | 19.70 | 19.70 | 19.70 | 10.50 | 6.31 | 5.37 | 5.52 | 3.50 | 1.70 | 136 |
| 2.5 (60) ASME -1500 , WN / RTJ | 8705 _ _ _ 025JM | 16.91 | 16.91 | 16.91 | 9.62 | 6.31 | 5.37 | 5.52 | 3.10 | 1.70 | 88 |
| 2.5 (60) ASME -2500 , WN / RTJ | 8705 _ _ _ 025JN | 19.94 | 19.94 | 19.94 | 10.50 | 6.31 | 5.37 | 5.52 | 2.80 | 1.70 | 132 |
| 3 (80) ASME - 600 FULL, WN / RF | 8705 _ _ _ 030D7 | 12.78 | 12.78 | 12.78 | 8.25 | 7.21 | 5.82 | 5.97 | 4.63 | 1.70 | 59 |
| 3 (80) ASME - 900 , WN / RF | 8705 _ _ _ 030D9 | 14.38 | 14.38 | 14.38 | 9.50 | 7.21 | 5.82 | 5.97 | 4.63 | 1.70 | 85 |
| 3 (80) ASME -1500 , WN / RF | 8705 _ _ _ 030DM | 16.27 | 16.27 | 16.27 | 10.50 | 7.21 | 5.82 | 5.97 | 4.33 | 1.70 | 125 |
| 3 (80) ASME -2500 , WN / RF | 8705 _ _ _ 030DN | 20.42 | 20.42 | 20.42 | 12.00 | 7.21 | 5.82 | 5.97 | 4.15 | 1.70 | 211 |
| 3 (80) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 030J7 | 12.94 | 12.94 | 12.94 | 8.25 | 7.21 | 5.82 | 5.97 | 4.00 | 1.70 | 60 |
| 3 (80) ASME - 900 , WN / RTJ | 8705 _ _ _ 030J9 | 14.54 | 14.54 | 14.54 | 9.50 | 7.21 | 5.82 | 5.97 | 3.94 | 1.70 | 86 |
| 3 (80) ASME -1500 , WN / RTJ | 8705 _ _ _ 030JM | 16.42 | 16.42 | 16.42 | 10.50 | 7.21 | 5.82 | 5.97 | 3.97 | 1.70 | 127 |
| 3 (80) ASME -2500 , WN / RTJ | 8705 _ _ _ 030JN | 20.70 | 20.70 | 20.70 | 12.00 | 7.21 | 5.82 | 5.97 | 3.41 | 1.70 | 214 |
| 4 (100) ASME - 600 FULL, WN / RF | 8705 _ _ _ 040D7 | 15.57 | 15.57 | 15.57 | 10.75 | 7.91 | 6.17 | 6.32 | 5.81 | 1.70 | 108 |
| 4 (100) ASME - 900 , WN / RF | 8705 _ _ _ 040D9 | 16.81 | 16.81 | 16.81 | 11.50 | 7.91 | 6.17 | 6.32 | 5.81 | 2.00 | 140 |
| 4 (100) ASME -1500 , WN / RF | 8705 _ _ _ 040DM | 18.18 | 18.18 | 18.18 | 12.25 | 7.91 | 6.17 | 6.32 | 5.71 | 2.00 | 188 |
| 4 (100) ASME -2500 , WN / RF | 8705 _ _ _ 040DN | 23.71 | 23.71 | 23.71 | 14.00 | 7.91 | 6.17 | 6.32 | 5.54 | 2.00 | 331 |
| 4 (100) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 040J7 | 15.73 | 15.73 | 15.73 | 10.75 | 7.91 | 6.17 | 6.32 | 4.94 | 1.70 | 109 |
| 4 (100) ASME - 900 , WN / RTJ | 8705 _ _ _ 040J9 | 16.97 | 16.97 | 16.97 | 11.50 | 7.91 | 6.17 | 6.32 | 4.94 | 2.00 | 141 |
| 4 (100) ASME -1500 , WN / RTJ | 8705 _ _ _ 040JM | 18.33 | 18.33 | 18.33 | 12.25 | 7.91 | 6.17 | 6.32 | 5.54 | 2.00 | 191 |
| 4 (100) ASME -2500 , WN / RTJ | 8705 _ _ _ 040JN | 24.12 | 24.12 | 24.12 | 14.00 | 7.91 | 6.17 | 6.32 | 4.38 | 2.00 | 337 |
| 5 (120) ASME -1500 , WN / RF | 8705 _ _ _ 050DM | 22.79 | 22.79 | 22.79 | 14.75 | 9.61 | 7.02 | 7.17 | 6.35 | 2.00 | 331 |
| 5 (120) ASME -2500 , WN / RF | 8705 _ _ _ 050DN | 28.45 | 28.45 | 28.45 | 16.50 | 9.61 | 7.02 | 7.17 | 6.40 | 2.00 | 509 |
| 5 (120) ASME -1500 , WN / RTJ | 8705 _ _ _ 050JM | 22.94 | 22.94 | 22.94 | 14.75 | 9.61 | 7.02 | 7.17 | 6.20 | 2.00 | 325 |
| 5 (120) ASME -2500 , WN / RTJ | 8705 _ _ _ 050JN | 28.98 | 28.98 | 28.98 | 16.50 | 9.61 | 7.02 | 7.17 | 5.30 | 2.00 | 502 |

**Table 52: 8705-M Flanged Sensor 6 in. to 24 in. weld neck flange—high pressure (P ≤ Class 2500)—Inches**

| SIZE, DESCRIPTION | MODEL NUMBER [1] | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA STYLE A | DIM "D" CL to TA STYLE B | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (lbs.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 (150) ASME - 600 FULL, WN / RF | 8705 _ _ _ 060D7 | 18.73 | 18.73 | 18.73 | 14.00 | 9.98 | 7.30 | 7.35 | 8.00 | 1.70 | 230 |
| 6 (150) ASME - 900 , WN / RF | 8705 _ _ _ 060D9 | 20.58 | 20.58 | 20.58 | 15.00 | 9.98 | 7.30 | 7.35 | 8.00 | 2.00 | 296 |
| 6 (150) ASME -1500 , WN / RF | 8705 _ _ _ 060DM | 23.84 | 23.84 | 23.84 | 15.50 | 9.98 | 7.30 | 7.35 | 7.70 | 2.00 | 428 |
| 6 (150) ASME -2500 , WN / RF | 8705 _ _ _ 060DN | 31.79 | 31.79 | 31.79 | 19.00 | 9.98 | 7.30 | 7.35 | 7.30 | 2.00 | 848 |
| 6 (150) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 060J7 | 18.89 | 18.89 | 18.89 | 14.00 | 9.98 | 7.30 | 7.35 | 7.12 | 1.70 | 232 |
| 6 (150) ASME - 900 , WN / RTJ | 8705 _ _ _ 060J9 | 20.74 | 20.74 | 20.74 | 15.00 | 9.98 | 7.30 | 7.35 | 7.12 | 2.00 | 299 |
| 6 (150) ASME -1500 , WN / RTJ | 8705 _ _ _ 060JM | 24.12 | 24.12 | 24.12 | 15.50 | 9.98 | 7.30 | 7.35 | 6.73 | 2.00 | 433 |
| 6 (150) ASME -2500 , WN / RTJ | 8705 _ _ _ 060JN | 32.32 | 32.32 | 32.32 | 19.00 | 9.98 | 7.30 | 7.35 | 6.66 | 2.00 | 863 |
| 8 (200) ASME - 600 FULL, WN / RF | 8705 _ _ _ 080D7 | 21.59 | 21.59 | 21.59 | 16.50 | 11.92 | 8.27 | 8.32 | 10.00 | 1.70 | 355 |
| 8 (200) ASME - 900 , WN / RF | 8705 _ _ _ 080D9 | 24.09 | 24.09 | 24.09 | 18.50 | 11.92 | 8.27 | 8.32 | 10.00 | 3.13 | 521 |
| 8 (200) ASME -1500 , WN / RF | 8705 _ _ _ 080DM | 28.70 | 28.70 | 28.70 | 19.00 | 11.92 | 8.27 | 8.32 | 9.76 | 3.13 | 755 |
| 8 (200) ASME -2500 , WN / RF | 8705 _ _ _ 080DN | 36.88 | 36.88 | 36.88 | 21.75 | 11.92 | 8.27 | 8.32 | 9.20 | 3.13 | 1352 |
| 8 (200) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 080J7 | 21.75 | 21.75 | 21.75 | 16.50 | 11.92 | 8.27 | 8.32 | 9.37 | 1.70 | 359 |
| 8 (200) ASME - 900 , WN / RTJ | 8705 _ _ _ 080J9 | 24.25 | 24.25 | 24.25 | 18.50 | 11.92 | 8.27 | 8.32 | 9.13 | 3.13 | 525 |
| 8 (200) ASME -1500 , WN / RTJ | 8705 _ _ _ 080JM | 29.11 | 29.11 | 29.11 | 19.00 | 11.92 | 8.27 | 8.32 | 8.66 | 3.13 | 767 |
| 8 (200) ASME -2500 , WN / RTJ | 8705 _ _ _ 080JN | 37.53 | 37.53 | 37.53 | 21.75 | 11.92 | 8.27 | 8.32 | 8.28 | 3.13 | 1377 |
| 10 (250) ASME - 600 FULL, WN / RF | 8705 _ _ _ 100D7 | 23.34 | 23.34 | 23.34 | 20.00 | 14.64 | 9.69 | 9.68 | 12.00 | 2.00 | 580 |
| 10 (250) ASME - 900 , WN / RF | 8705 _ _ _ 100D9 | 26.12 | 26.12 | 26.12 | 21.50 | 14.64 | 9.69 | 9.68 | 12.00 | 3.13 | 797 |
| 10 (250) ASME -1500 , WN / RF | 8705 _ _ _ 100DM | 32.03 | 32.03 | 32.03 | 23.00 | 14.64 | 9.69 | 9.68 | 11.50 | 3.13 | 1317 |
| 10 (250) ASME -2500 , WN / RF | 8705 _ _ _ 100DN | 44.95 | 44.95 | 44.95 | 26.50 | 14.64 | 9.69 | 9.68 | 10.65 | 3.13 | 2542 |
| 10 (250) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 100J7 | 23.50 | 23.50 | 23.50 | 20.00 | 14.64 | 9.69 | 9.68 | 11.50 | 2.00 | 585 |
| 10 (250) ASME - 900 , WN / RTJ | 8705 _ _ _ 100J9 | 26.28 | 26.28 | 26.28 | 21.50 | 14.64 | 9.69 | 9.68 | 11.25 | 3.13 | 803 |
| 10 (250) ASME -1500 , WN / RTJ | 8705 _ _ _ 100JM | 32.44 | 32.44 | 32.44 | 23.00 | 14.64 | 9.69 | 9.68 | 10.78 | 3.13 | 1333 |
| 10 (250) ASME -2500 , WN / RTJ | 8705 _ _ _ 100JN | 45.86 | 45.86 | 45.86 | 26.50 | 14.64 | 9.69 | 9.68 | 9.94 | 3.13 | 2597 |
| 12 (300) ASME - 600 FULL, WN / RF | 8705 _ _ _ 120D7 | 26.59 | 26.59 | 26.59 | 22.00 | 16.50 | 10.77 | 10.61 | 14.00 | 2.00 | 759 |
| 12 (300) ASME - 900 , WN / RF | 8705 _ _ _ 120D9 | 30.33 | 30.33 | 30.33 | 24.00 | 16.50 | 10.77 | 10.61 | 14.00 | 3.13 | 1112 |
| 12 (300) ASME -1500 , WN / RF | 8705 _ _ _ 120DM | 37.11 | 37.11 | 37.11 | 26.50 | 16.50 | 10.77 | 10.61 | 13.18 | 3.13 | 2032 |
| 12 (300) ASME -2500 , WN / RF | 8705 _ _ _ 120DN | 51.50 | 51.50 | 51.50 | 30.00 | 16.50 | 10.77 | 10.61 | 12.20 | 3.13 | 3860 |
| 12 (300) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 120J7 | 26.75 | 26.75 | 26.75 | 22.00 | 16.50 | 10.77 | 10.61 | 13.75 | 2.00 | 767 |
| 12 (300) ASME - 900 , WN / RTJ | 8705 _ _ _ 120J9 | 30.49 | 30.49 | 30.49 | 24.00 | 16.50 | 10.77 | 10.61 | 13.50 | 3.13 | 1120 |
| 12 (300) ASME -1500 , WN / RTJ | 8705 _ _ _ 120JM | 37.76 | 37.76 | 37.76 | 26.50 | 16.50 | 10.77 | 10.61 | 12.28 | 3.13 | 2065 |
| 12 (300) ASME -2500 , WN / RTJ | 8705 _ _ _ 120JN | 52.41 | 52.41 | 52.41 | 30.00 | 16.50 | 10.77 | 10.61 | 12.06 | 3.13 | 3938 |
| 14 (350) ASME - 600 FULL, WN / RF | 8705 _ _ _ 140D7 | 29.95 | 29.95 | 29.95 | 23.75 | 18.92 | 11.83 | 11.82 | 15.25 | 2.00 | 940 |
| 14 (350) ASME -1500 , WN / RF | 8705 _ _ _ 140DM | 40.82 | 40.82 | 40.82 | 29.50 | 18.92 | 11.83 | 11.82 | 14.06 | 3.13 | 2662 |
| 14 (350) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 140J7 | 30.11 | 30.11 | 30.11 | 23.75 | 18.92 | 11.83 | 11.82 | 15.00 | 2.00 | 951 |
| 16 (400) ASME - 600 FULL, WN / RF | 8705 _ _ _ 160D7 | 33.23 | 33.23 | 33.23 | 27.00 | 20.94 | 12.84 | 12.83 | 17.50 | 3.13 | 1277 |
| 16 (400) ASME -1500 , WN / RF | 8705 _ _ _ 160DM | 43.96 | 43.96 | 43.96 | 32.50 | 20.94 | 12.84 | 12.83 | 18.50 | 3.13 | 3485 |
| 16 (400) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 160J7 | 33.39 | 33.39 | 33.39 | 27.00 | 20.94 | 12.84 | 12.83 | 17.00 | 3.13 | 1287 |
| 18 (450) ASME - 600 FULL, WN / RF | 8705 _ _ _ 180D7 | 34.89 | 34.89 | 34.89 | 29.25 | 23.46 | 14.10 | 14.09 | 20.00 | 3.13 | 1534 |
| 18 (450) ASME -1500 , WN / RF | 8705 _ _ _ 180DM | 46.23 | 46.23 | 46.23 | 36.00 | 23.46 | 14.10 | 14.09 | 21.00 | 3.38 | 4416 |
| 18 (450) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 180J7 | 35.05 | 35.05 | 35.05 | 29.25 | 23.46 | 14.10 | 14.09 | 19.38 | 3.13 | 1545 |
| 20 (500) ASME - 600 FULL, WN / RF | 8705 _ _ _ 200D7 | 37.93 | 37.93 | 37.93 | 32.00 | 25.48 | 15.11 | 15.10 | 22.00 | 3.13 | 1895 |
| 20 (500) ASME -1500 , WN / RF | 8705 _ _ _ 200DM | 50.81 | 50.81 | 50.81 | 38.75 | 25.48 | 15.11 | 15.10 | 21.10 | 3.38 | 5479 |
| 20 (500) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 200J7 | 38.21 | 38.21 | 38.21 | 32.00 | 25.48 | 15.11 | 15.10 | 21.00 | 3.13 | 1917 |
| 24 (600) ASME - 600 FULL, WN / RF | 8705 _ _ _ 240D7 | 41.99 | 41.99 | 41.99 | 37.00 | 30.03 | 17.39 | 17.38 | 26.00 | 3.13 | 2848 |
| 24 (600) ASME -1500 , WN / RF | 8705 _ _ _ 240DM | 57.94 | 57.94 | 57.94 | 46.00 | 30.03 | 17.39 | 17.38 | 25.50 | 3.38 | 8822 |
| 24 (600) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 240J7 | 42.40 | 42.40 | 42.40 | 37.00 | 30.03 | 17.39 | 17.38 | 25.00 | 3.13 | 2890 |

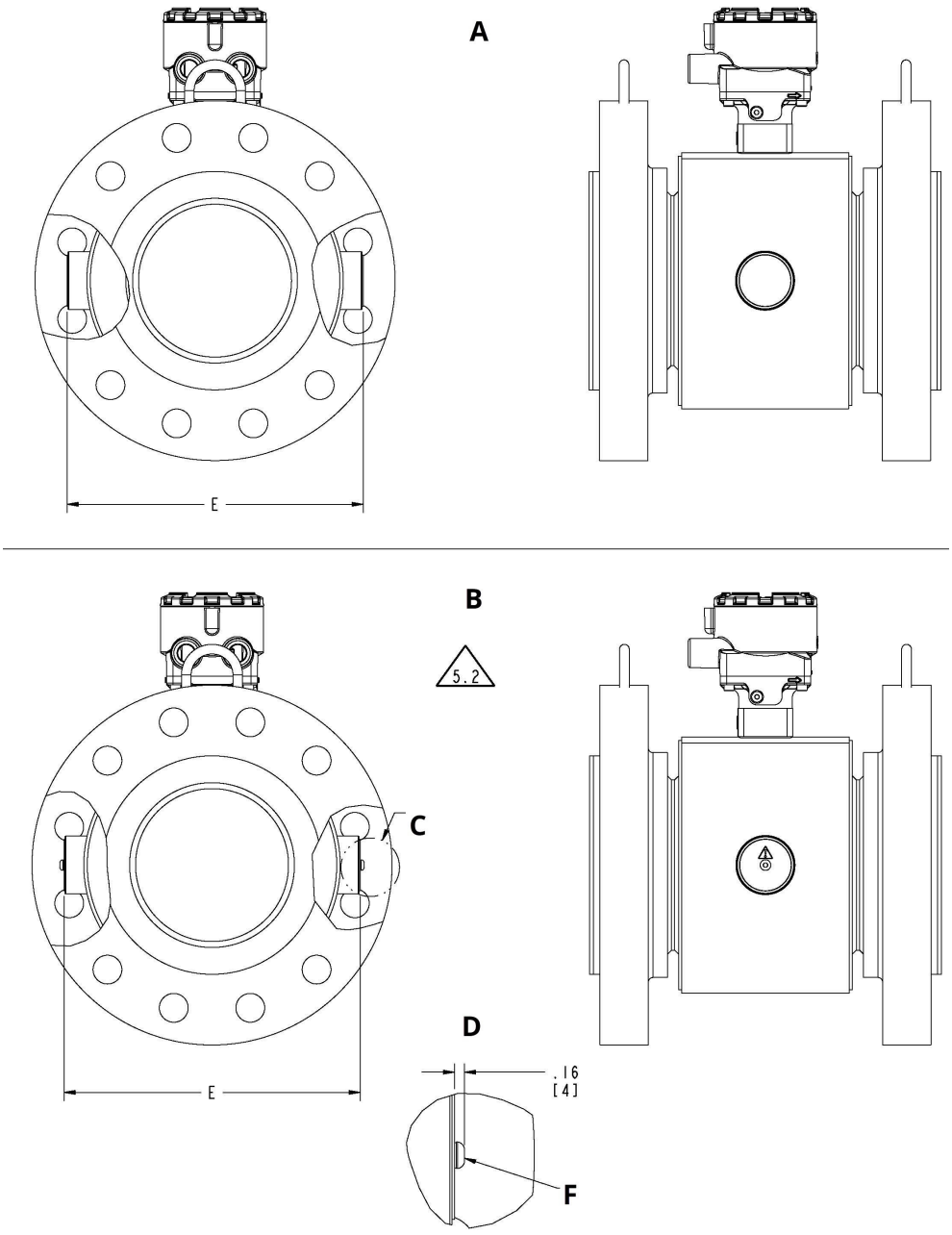
**Table 53: 8705-M Flanged Sensor DN 25 mm to 120 mm weld neck flange—high pressure (P ≤ Class 2500)—Millimeters**

| SIZE, DESCRIPTION | MODEL NUMBER [1] | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA STYLE A | DIM "D" CL to TA STYLE B | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 (25) ASME - 600 FULL, WN / RF | 8705 _ _ _ 010D7 | 293 | 293 | 293 | 124 | 114 | 112 | 117 | 51 | | 8 |
| 1 (25) ASME - 900 , WN / RF | 8705 _ _ _ 010D9 | 318 | 318 | 318 | 149 | 114 | 112 | 117 | 51 | 43 | 12 |
| 1 (25) ASME -1500 , WN / RF | 8705 _ _ _ 010DM | 327 | 327 | 327 | 149 | 114 | 112 | 117 | 41 | 43 | 11 |
| 1 (25) ASME -2500 , WN / RF | 8705 _ _ _ 010DN | 363 | 363 | 363 | 159 | 114 | 112 | 117 | 41 | 43 | 15 |
| 1 (25) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 010J7 | 294 | 294 | 294 | 124 | 114 | 112 | 117 | 33 | | 8 |
| 1 (25) ASME - 900 , WN / RTJ | 8705 _ _ _ 010J9 | 319 | 319 | 319 | 149 | 114 | 112 | 117 | 33 | 43 | 12 |
| 1 (25) ASME -1500 , WN / RTJ | 8705 _ _ _ 010JM | 328 | 328 | 328 | 149 | 114 | 112 | 117 | 32 | 43 | 12 |
| 1.5 (40) ASME - 600 FULL, WN / RF | 8705 _ _ _ 015D7 | 294 | 294 | 294 | 155 | 132 | 122 | 126 | 64 | | 12 |
| 1.5 (40) ASME - 900 , WN / RF | 8705 _ _ _ 015D9 | 321 | 321 | 321 | 178 | 132 | 122 | 126 | 64 | 43 | 17 |
| 1.5 (40) ASME -1500 , WN / RF | 8705 _ _ _ 015DM | 332 | 332 | 332 | 178 | 132 | 122 | 126 | 64 | 43 | 18 |
| 1.5 (40) ASME -2500 , WN / RF | 8705 _ _ _ 015DN | 394 | 394 | 394 | 203 | 132 | 122 | 126 | 60 | 43 | 30 |
| 1.5 (40) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 015J7 | 294 | 294 | 294 | 155 | 132 | 122 | 126 | 51 | | 12 |
| 1.5 (40) ASME - 900 , WN / RTJ | 8705 _ _ _ 015J9 | 322 | 322 | 322 | 178 | 132 | 122 | 126 | 51 | 43 | 17 |
| 1.5 (40) ASME -1500 , WN / RTJ | 8705 _ _ _ 015JM | 333 | 333 | 333 | 178 | 132 | 122 | 126 | 49 | 43 | 18 |
| 1.5 (40) ASME -2500 , WN / RTJ | 8705 _ _ _ 015JN | 398 | 398 | 398 | 203 | 132 | 122 | 126 | 47 | 43 | 31 |
| 2 (50) ASME - 600 FULL, WN / RF | 8705 _ _ _ 020D7 | 301 | 301 | 301 | 165 | 132 | 122 | 126 | 83 | | 14 |
| 2 (50) ASME - 900 , WN / RF | 8705 _ _ _ 020D9 | 362 | 362 | 362 | 216 | 132 | 122 | 126 | 83 | 43 | 30 |
| 2 (50) ASME -1500 , WN / RF | 8705 _ _ _ 020DM | 376 | 376 | 376 | 216 | 132 | 122 | 126 | 83 | 43 | 31 |
| 2 (50) ASME -2500 , WN / RF | 8705 _ _ _ 020DN | 428 | 428 | 428 | 235 | 132 | 122 | 126 | 79 | 43 | 43 |
| 2 (50) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 020J7 | 305 | 305 | 305 | 165 | 132 | 122 | 126 | 59 | | 15 |
| 2 (50) ASME - 900 , WN / RTJ | 8705 _ _ _ 020J9 | 366 | 366 | 366 | 216 | 132 | 122 | 126 | 67 | 43 | 30 |
| 2 (50) ASME -1500 , WN / RTJ | 8705 _ _ _ 020JM | 379 | 379 | 379 | 216 | 132 | 122 | 126 | 60 | 43 | 32 |
| 2 (50) ASME -2500 , WN / RTJ | 8705 _ _ _ 020JN | 432 | 432 | 432 | 235 | 132 | 122 | 126 | 66 | 43 | 44 |
| 2.5 (60) ASME -1500 , WN / RF | 8705 _ _ _ 025DM | 427 | 427 | 427 | 244 | 160 | 136 | 140 | 94 | 43 | 42 |
| 2.5 (60) ASME -2500 , WN / RF | 8705 _ _ _ 025DN | 500 | 500 | 500 | 267 | 160 | 136 | 140 | 89 | 43 | 62 |
| 2.5 (60) ASME -1500 , WN / RTJ | 8705 _ _ _ 025JM | 430 | 430 | 430 | 244 | 160 | 136 | 140 | 79 | 43 | 40 |
| 2.5 (60) ASME -2500 , WN / RTJ | 8705 _ _ _ 025JN | 506 | 506 | 506 | 267 | 160 | 136 | 140 | 71 | 43 | 60 |
| 3 (80) ASME - 600 FULL, WN / RF | 8705 _ _ _ 030D7 | 325 | 325 | 325 | 210 | 183 | 148 | 152 | 117 | 43 | 27 |
| 3 (80) ASME - 900 , WN / RF | 8705 _ _ _ 030D9 | 365 | 365 | 365 | 241 | 183 | 148 | 152 | 117 | 43 | 38 |
| 3 (80) ASME -1500 , WN / RF | 8705 _ _ _ 030DM | 413 | 413 | 413 | 267 | 183 | 148 | 152 | 110 | 43 | 57 |
| 3 (80) ASME -2500 , WN / RF | 8705 _ _ _ 030DN | 519 | 519 | 519 | 305 | 183 | 148 | 152 | 105 | 43 | 96 |
| 3 (80) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 030J7 | 329 | 329 | 329 | 210 | 183 | 148 | 152 | 102 | 43 | 27 |
| 3 (80) ASME - 900 , WN / RTJ | 8705 _ _ _ 030J9 | 369 | 369 | 369 | 241 | 183 | 148 | 152 | 100 | 43 | 39 |
| 3 (80) ASME -1500 , WN / RTJ | 8705 _ _ _ 030JM | 417 | 417 | 417 | 267 | 183 | 148 | 152 | 101 | 43 | 58 |
| 3 (80) ASME -2500 , WN / RTJ | 8705 _ _ _ 030JN | 526 | 526 | 526 | 305 | 183 | 148 | 152 | 87 | 43 | 97 |
| 4 (100) ASME - 600 FULL, WN / RF | 8705 _ _ _ 040D7 | 396 | 396 | 396 | 273 | 201 | 157 | 160 | 148 | 43 | 49 |
| 4 (100) ASME - 900 , WN / RF | 8705 _ _ _ 040D9 | 427 | 427 | 427 | 292 | 201 | 157 | 160 | 148 | 51 | 64 |
| 4 (100) ASME -1500 , WN / RF | 8705 _ _ _ 040DM | 462 | 462 | 462 | 311 | 201 | 157 | 160 | 145 | 51 | 85 |
| 4 (100) ASME -2500 , WN / RF | 8705 _ _ _ 040DN | 602 | 602 | 602 | 356 | 201 | 157 | 160 | 141 | 51 | 150 |
| 4 (100) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 040J7 | 400 | 400 | 400 | 273 | 201 | 157 | 160 | 125 | 43 | 49 |
| 4 (100) ASME - 900 , WN / RTJ | 8705 _ _ _ 040J9 | 431 | 431 | 431 | 292 | 201 | 157 | 160 | 125 | 51 | 64.1 |
| 4 (100) ASME -1500 , WN / RTJ | 8705 _ _ _ 040JM | 466 | 466 | 466 | 311 | 201 | 157 | 160 | 141 | 51 | 86.7 |
| 4 (100) ASME -2500 , WN / RTJ | 8705 _ _ _ 040JN | 613 | 613 | 613 | 356 | 201 | 157 | 160 | 111 | 51 | 153.1 |
| 5 (120) ASME -1500 , WN / RF | 8705 _ _ _ 050DM | 579 | 579 | 579 | 375 | 244 | 178 | 182 | 161 | 51 | 150.2 |
| 5 (120) ASME -2500 , WN / RF | 8705 _ _ _ 050DN | 723 | 723 | 723 | 419 | 244 | 178 | 182 | 163 | 51 | 231.0 |
| 5 (120) ASME -1500 , WN / RTJ | 8705 _ _ _ 050JM | 583 | 583 | 583 | 375 | 244 | 178 | 182 | 157 | 51 | 147.4 |
| 5 (120) ASME -2500 , WN / RTJ | 8705 _ _ _ 050JN | 736 | 736 | 736 | 419 | 244 | 178 | 182 | 135 | 51 | 227.6 |

**Table 54: 8705-M Flanged Sensor (DN 150 mm to 600 mm) weld neck flange—high pressure (P ≤ Class 2500)—Millimeters**

| SIZE, DESCRIPTION | MODEL NUMBER [1] | DIM "A" NEOPRENE | DIM "A" LINATEX | DIM "A" POLY | FLANGE Ø DIM "B" | BODY Ø DIM "C" | DIM "D" CL to TA STYLE A | DIM "D" CL to TA STYLE B | LINER Ø ON FACE DIM "J" | LIFT RING HEIGHT DIM "K" | FLOW TUBE WEIGHT (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 (150) ASME - 600 FULL, WN / RF | 8705 _ _ _ 060D7 | 476 | 476 | 476 | 356 | 253 | 185 | 187 | 203 | 43 | 104 |
| 6 (150) ASME - 900 , WN / RF | 8705 _ _ _ 060D9 | 523 | 523 | 523 | 381 | 253 | 185 | 187 | 203 | 51 | 134 |
| 6 (150) ASME -1500 , WN / RF | 8705 _ _ _ 060DM | 605 | 605 | 605 | 394 | 253 | 185 | 187 | 196 | 51 | 194 |
| 6 (150) ASME -2500 , WN / RF | 8705 _ _ _ 060DN | 807 | 807 | 807 | 483 | 253 | 185 | 187 | 185 | 51 | 384 |
| 6 (150) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 060J7 | 480 | 480 | 480 | 356 | 253 | 185 | 187 | 181 | 43 | 105 |
| 6 (150) ASME - 900 , WN / RTJ | 8705 _ _ _ 060J9 | 527 | 527 | 527 | 381 | 253 | 185 | 187 | 181 | 51 | 135 |
| 6 (150) ASME -1500 , WN / RTJ | 8705 _ _ _ 060JM | 613 | 613 | 613 | 394 | 253 | 185 | 187 | 171 | 51 | 196 |
| 6 (150) ASME -2500 , WN / RTJ | 8705 _ _ _ 060JN | 821 | 821 | 821 | 483 | 253 | 185 | 187 | 169 | 51 | 392 |
| 8 (200) ASME - 600 FULL, WN / RF | 8705 _ _ _ 080D7 | 548 | 548 | 548 | 419 | 303 | 210 | 211 | 254 | 43 | 161 |
| 8 (200) ASME - 900 , WN / RF | 8705 _ _ _ 080D9 | 612 | 612 | 612 | 470 | 303 | 210 | 211 | 254 | 80 | 236 |
| 8 (200) ASME -1500 , WN / RF | 8705 _ _ _ 080DM | 729 | 729 | 729 | 483 | 303 | 210 | 211 | 248 | 80 | 342 |
| 8 (200) ASME -2500 , WN / RF | 8705 _ _ _ 080DN | 937 | 937 | 937 | 552 | 303 | 210 | 211 | 234 | 80 | 613 |
| 8 (200) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 080J7 | 552 | 552 | 552 | 419 | 303 | 210 | 211 | 238 | 43 | 163 |
| 8 (200) ASME - 900 , WN / RTJ | 8705 _ _ _ 080J9 | 616 | 616 | 616 | 470 | 303 | 210 | 211 | 232 | 80 | 238 |
| 8 (200) ASME -1500 , WN / RTJ | 8705 _ _ _ 080JM | 739 | 739 | 739 | 483 | 303 | 210 | 211 | 220 | 80 | 348 |
| 8 (200) ASME -2500 , WN / RTJ | 8705 _ _ _ 080JN | 953 | 953 | 953 | 552 | 303 | 210 | 211 | 210 | 80 | 625 |
| 10 (250) ASME - 600 FULL, WN / RF | 8705 _ _ _ 100D7 | 593 | 593 | 593 | 508 | 372 | 246 | 246 | 305 | 51 | 263 |
| 10 (250) ASME - 900 , WN / RF | 8705 _ _ _ 100D9 | 663 | 663 | 663 | 546 | 372 | 246 | 246 | 305 | 80 | 362 |
| 10 (250) ASME -1500 , WN / RF | 8705 _ _ _ 100DM | 813 | 813 | 813 | 584 | 372 | 246 | 246 | 292 | 80 | 597 |
| 10 (250) ASME -2500 , WN / RF | 8705 _ _ _ 100DN | 1142 | 1142 | 1142 | 673 | 372 | 246 | 246 | 271 | 80 | 1153 |
| 10 (250) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 100J7 | 597 | 597 | 597 | 508 | 372 | 246 | 246 | 292 | 51 | 265 |
| 10 (250) ASME - 900 , WN / RTJ | 8705 _ _ _ 100J9 | 668 | 668 | 668 | 546 | 372 | 246 | 246 | 286 | 80 | 364 |
| 10 (250) ASME -1500 , WN / RTJ | 8705 _ _ _ 100JM | 824 | 824 | 824 | 584 | 372 | 246 | 246 | 274 | 80 | 605 |
| 10 (250) ASME -2500 , WN / RTJ | 8705 _ _ _ 100JN | 1165 | 1165 | 1165 | 673 | 372 | 246 | 246 | 252 | 80 | 1178 |
| 12 (300) ASME - 600 FULL, WN / RF | 8705 _ _ _ 120D7 | 675 | 675 | 675 | 559 | 419 | 274 | 269 | 356 | 51 | 344 |
| 12 (300) ASME - 900 , WN / RF | 8705 _ _ _ 120D9 | 770 | 770 | 770 | 610 | 419 | 274 | 269 | 356 | 80 | 505 |
| 12 (300) ASME -1500 , WN / RF | 8705 _ _ _ 120DM | 942 | 942 | 942 | 673 | 419 | 274 | 269 | 335 | 80 | 922 |
| 12 (300) ASME -2500 , WN / RF | 8705 _ _ _ 120DN | 1308 | 1308 | 1308 | 762 | 419 | 274 | 269 | 310 | 80 | 1751 |
| 12 (300) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 120J7 | 679 | 679 | 679 | 559 | 419 | 274 | 269 | 349 | 51 | 348 |
| 12 (300) ASME - 900 , WN / RTJ | 8705 _ _ _ 120J9 | 774 | 774 | 774 | 610 | 419 | 274 | 269 | 343 | 80 | 508 |
| 12 (300) ASME -1500 , WN / RTJ | 8705 _ _ _ 120JM | 959 | 959 | 959 | 673 | 419 | 274 | 269 | 312 | 80 | 937 |
| 12 (300) ASME -2500 , WN / RTJ | 8705 _ _ _ 120JN | 1331 | 1331 | 1331 | 762 | 419 | 274 | 269 | 306 | 80 | 1786 |
| 14 (350) ASME - 600 FULL, WN / RF | 8705 _ _ _ 140D7 | 761 | 761 | 761 | 603 | 481 | 300 | 300 | 387 | 51 | 426 |
| 14 (350) ASME -1500 , WN / RF | 8705 _ _ _ 140DM | 1037 | 1037 | 1037 | 749 | 481 | 300 | 300 | 357 | 80 | 1208 |
| 14 (350) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 140J7 | 765 | 765 | 765 | 603 | 481 | 300 | 300 | 381 | 51 | 431 |
| 16 (400) ASME - 600 FULL, WN / RF | 8705 _ _ _ 160D7 | 844 | 844 | 844 | 686 | 532 | 326 | 326 | 445 | 80 | 579 |
| 16 (400) ASME -1500 , WN / RF | 8705 _ _ _ 160DM | 1116 | 1116 | 1116 | 826 | 532 | 326 | 326 | 470 | 80 | 1581 |
| 16 (400) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 160J7 | 848 | 848 | 848 | 686 | 532 | 326 | 326 | 432 | 80 | 584 |
| 18 (450) ASME - 600 FULL, WN / RF | 8705 _ _ _ 180D7 | 886 | 886 | 886 | 743 | 596 | 358 | 358 | 508 | 80 | 696 |
| 18 (450) ASME -1500 , WN / RF | 8705 _ _ _ 180DM | 1174 | 1174 | 1174 | 914 | 596 | 358 | 358 | 533 | 86 | 2003 |
| 18 (450) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 180J7 | 890 | 890 | 890 | 743 | 596 | 358 | 358 | 492 | 80 | 701 |
| 20 (500) ASME - 600 FULL, WN / RF | 8705 _ _ _ 200D7 | 963 | 963 | 963 | 813 | 647 | 384 | 384 | 559 | 80 | 860 |
| 20 (500) ASME -1500 , WN / RF | 8705 _ _ _ 200DM | 1290 | 1290 | 1290 | 984 | 647 | 384 | 384 | 536 | 86 | 2485 |
| 20 (500) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 200J7 | 971 | 971 | 971 | 813 | 647 | 384 | 384 | 533 | 80 | 870 |
| 24 (600) ASME - 600 FULL, WN / RF | 8705 _ _ _ 240D7 | 1067 | 1067 | 1067 | 940 | 763 | 442 | 441 | 660 | 80 | 1292 |
| 24 (600) ASME -1500 , WN / RF | 8705 _ _ _ 240DM | 1472 | 1472 | 1472 | 1168 | 763 | 442 | 441 | 648 | 86 | 4002 |
| 24 (600) ASME - 600 FULL, WN / RTJ | 8705 _ _ _ 240J7 | 1077 | 1077 | 1077 | 940 | 763 | 442 | 441 | 635 | 80 | 1311 |

**Figure 22: 8705-M Flanged Sensor ½ in. to 36 in. (DN 15 mm to 900 mm) M2/M4 coil housing (P ≤ Class 2500)**




Dimensions are in inches [millimeters].

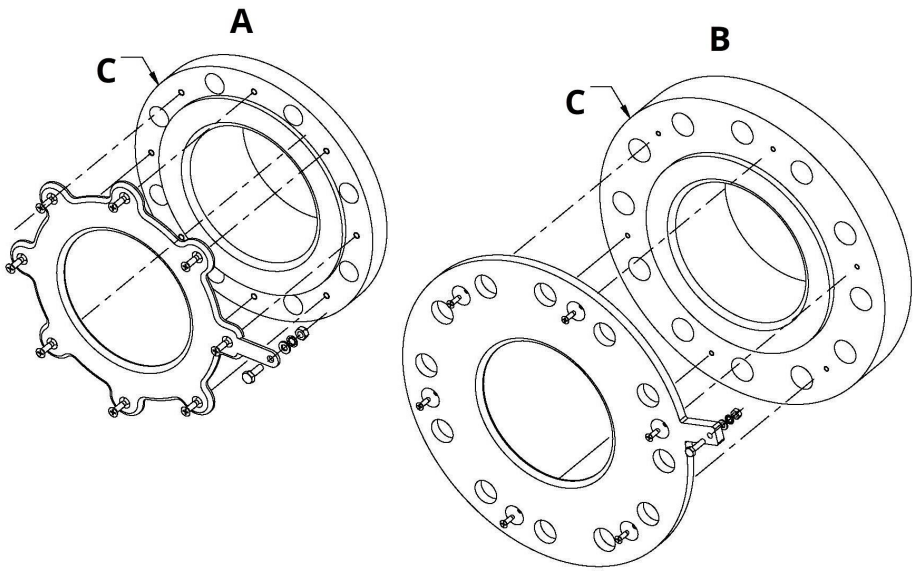
*A. With M2 option*
*B. With M4 option*
*C. See D.*
*D. Detail 2x, M4 option only*
*E. Dimensions (see Table 55)*
*F. Threaded drain hole*

**Table 55: Body width with electrode access (M2)**

| Size: in. (mm), all flanges | Body width with M2 Dimension *E* (inch) 5.1 | Body width with M2 Dimension *E* (mm) 5.1 |
|---|---|---|
| 4 (100) | 8.65 | 220 |
| 5 (125) | 9.71 | 247 |
| 6 (150) | 10.62 | 270 |
| 8 (200) | 12.62 | 321 |
| 10 (250) | 15.53 | 394 |
| 12 (300) | 17.53 | 445 |
| 14 (350) | 20.68 | 525 |
| 16 (400) | 22.68 | 576 |
| 18 (450) | 24.68 | 627 |
| 20 (500) | 26.68 | 678 |
| 24 (600) | 30.68 | 779 |
| 30 (750) | 36.68 | 932 |
| 36 (900) | 44.18 | 1122 |

- 5.2 – When venting the electrode compartment, the vent and recovery piping diameter must not be smaller than the M6 cover threading to avoid building pressure inside the electrode compartment.
- 5.1 – When M4 option is selected, add .32 in. (8 mm) to M2 Dimension *E* (body width dimension).

**Figure 23: 8705-M Flanged Sensor ½ in. to 36 in. (DN 15 mm to 900 mm) lining protectors—(P ≤ Class 900)**



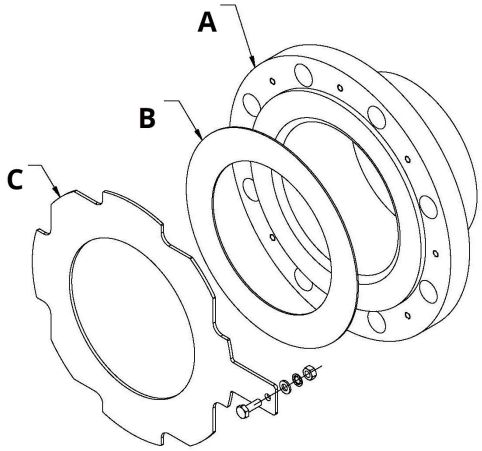

*A. Stamped*
*B. Machined*
*C. Flowtube*

**Table 56: Lining Protector Thickness**

| **Lining Protector Thickness** 9.1 | | | | |
|---|---|---|---|---|
| **Line size: in. (mm)** | **Thickness (quantity 1). Add value to Dimension *A* (overall length).** | | **Thickness (quantity 2). Add value to Dimension *A* (overall length).** | |
| | **Minimum** | **Maximum** | **Minimum** | **Maximum** |
| 0.5 (15) | 0.087 | 0.134 | 0.174 | 0.268 |
| 1 (25) | 0.084 | 0.13 | 0.168 | 0.26 |
| 1.5 (40) | 0.105 | 0.19 | 0.21 | 0.38 |
| 2 (50) | 0.105 | 0.19 | 0.21 | 0.38 |
| 2.5 (60) | 0.105 | 0.19 | 0.21 | 0.38 |
| 3 (80) | 0.105 | 0.19 | 0.21 | 0.38 |
| 4 (100) | 0.105 | 0.19 | 0.21 | 0.38 |
| 5 (125) | 0.128 | 0.19 | 0.256 | 0.38 |
| 6 (150) | 0.1 | 0.19 | 0.2 | 0.38 |
| 8 (200) | 0.09 | 0.19 | 0.18 | 0.38 |
| 10 (250) | 0.11 | 0.185 | 0.22 | 0.37 |
| 12 (300) | 0.11 | 0.185 | 0.22 | 0.37 |
| 14 (350) | 0.15 | 0.185 | 0.3 | 0.37 |
| 16 (400) | 0.15 | 0.185 | 0.3 | 0.37 |
| 18 (450) | 0.15 | 0.162 | 0.3 | 0.324 |
| 20 (500) | 0.15 | 0.162 | 0.3 | 0.324 |
| 24 (600) | 0.15 | 0.162 | 0.3 | 0.324 |
| 30 (750) | 0.285 | 0.285 | 0.57 | 0.57 |
| 36 (900) | 0.41 | 0.41 | 0.82 | 0.82 |

- 9.2 – Additional length does not include customer-supplied gasket.
- 9.1 – Actual value dependent upon flange rating and material of construction; consult factory for exact dimensions.

**Figure 24: 8705-M Flanged Sensor ½ in. to 36 in. (DN 15 mm to 900 mm) ground rings—(P ≤ Class 900)**



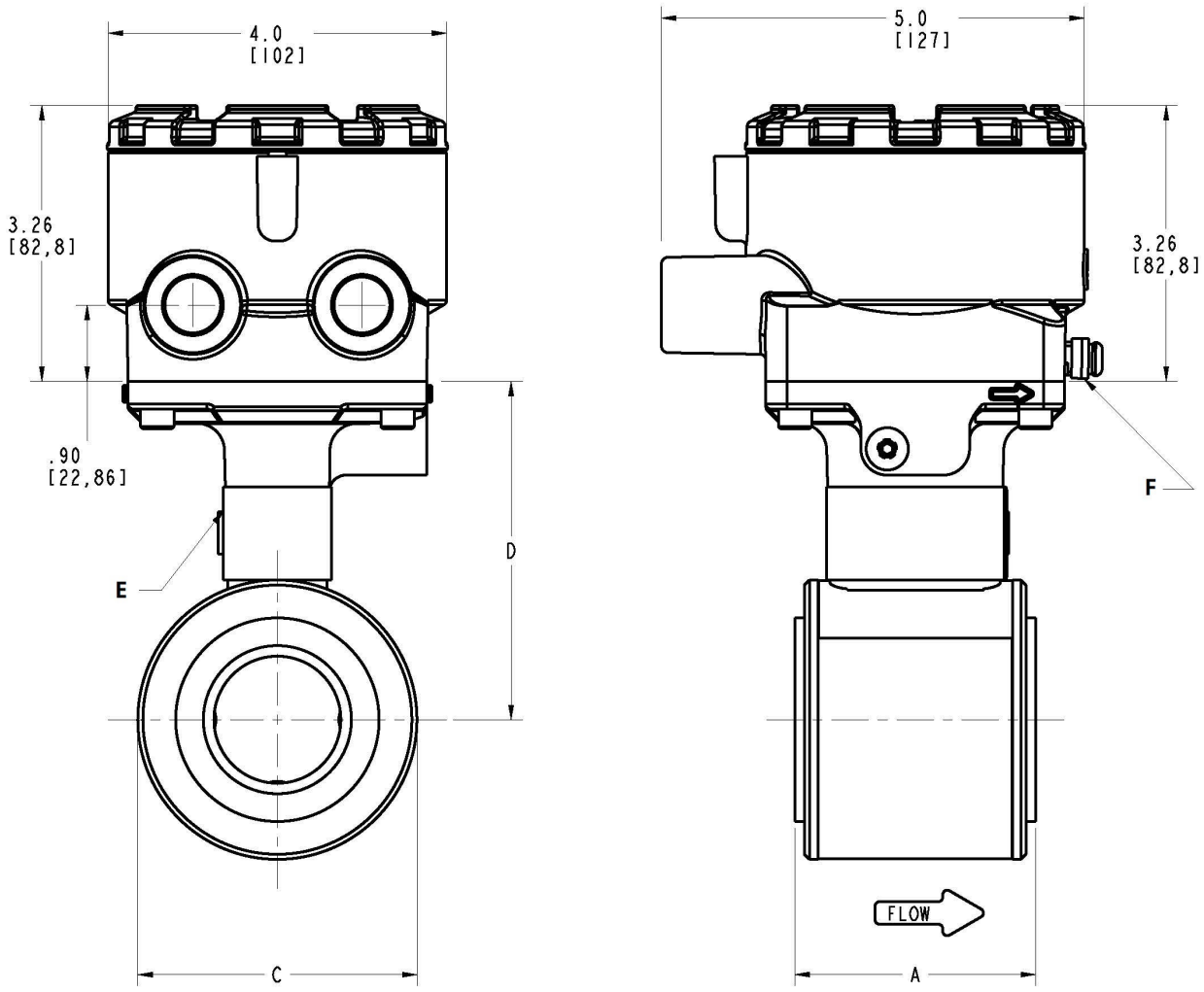

*A. Flow tube*
*B. Customer-supplied gasket*
*C. Ground ring*

**Table 57: Ground Ring Thickness**

| **Ground Ring Thickness** 9.1 9.2 | | | | |
|---|---|---|---|---|
| **Line size: in. (mm)** | **Thickness (quantity 1). Add value to Dimension *A* (overall length).** | | **Thickness (quantity 2). Add value to Dimension *A* (overall length).** | |
| | **Minimum** | **Maximum** | **Minimum** | **Maximum** |
| 0.5 (15) | 0.045 | 0.12 | 0.09 | 0.24 |
| 1 (25) | 0.045 | 0.12 | 0.09 | 0.24 |
| 1.5 (40) | 0.045 | 0.12 | 0.09 | 0.24 |
| 2 (50) | 0.045 | 0.12 | 0.09 | 0.24 |
| 2.5 (60) | 0.059 | 0.12 | 0.118 | 0.24 |
| 3 (80) | 0.045 | 0.12 | 0.09 | 0.24 |
| 4 (100) | 0.045 | 0.12 | 0.09 | 0.24 |
| 5 (125) | 0.059 | 0.12 | 0.118 | 0.24 |
| 6 (150) | 0.045 | 0.12 | 0.09 | 0.24 |
| 8 (200) | 0.045 | 0.12 | 0.09 | 0.24 |
| 10 (250) | 0.045 | 0.12 | 0.09 | 0.24 |
| 12 (300) | 0.045 | 0.12 | 0.09 | 0.24 |
| 14 (350) | 0.045 | 0.25 | 0.09 | 0.5 |
| 16 (400) | 0.045 | 0.25 | 0.09 | 0.5 |
| 18 (450) | 0.12 | 0.25 | 0.24 | 0.5 |
| 20 (500) | 0.12 | 0.25 | 0.24 | 0.5 |
| 24 (600) | 0.187 | 0.25 | 0.374 | 0.5 |
| 30 (750) | 0.187 | 0.25 | 0.374 | 0.5 |
| 36 (900) | 0.187 | 0.25 | 0.374 | 0.5 |

# 8711-M/L dimensions

**Figure 25: 8711-M/L Wafer Sensor 1½ in. to 8 in. (DN 40 mm to 200 mm) wafer—(P ≤ Class 300)**




Dimensions are in inches [millimeters].

| | |
|---|---|
| **E** | Nameplate |
| **F** | 2x Grounding clamp |

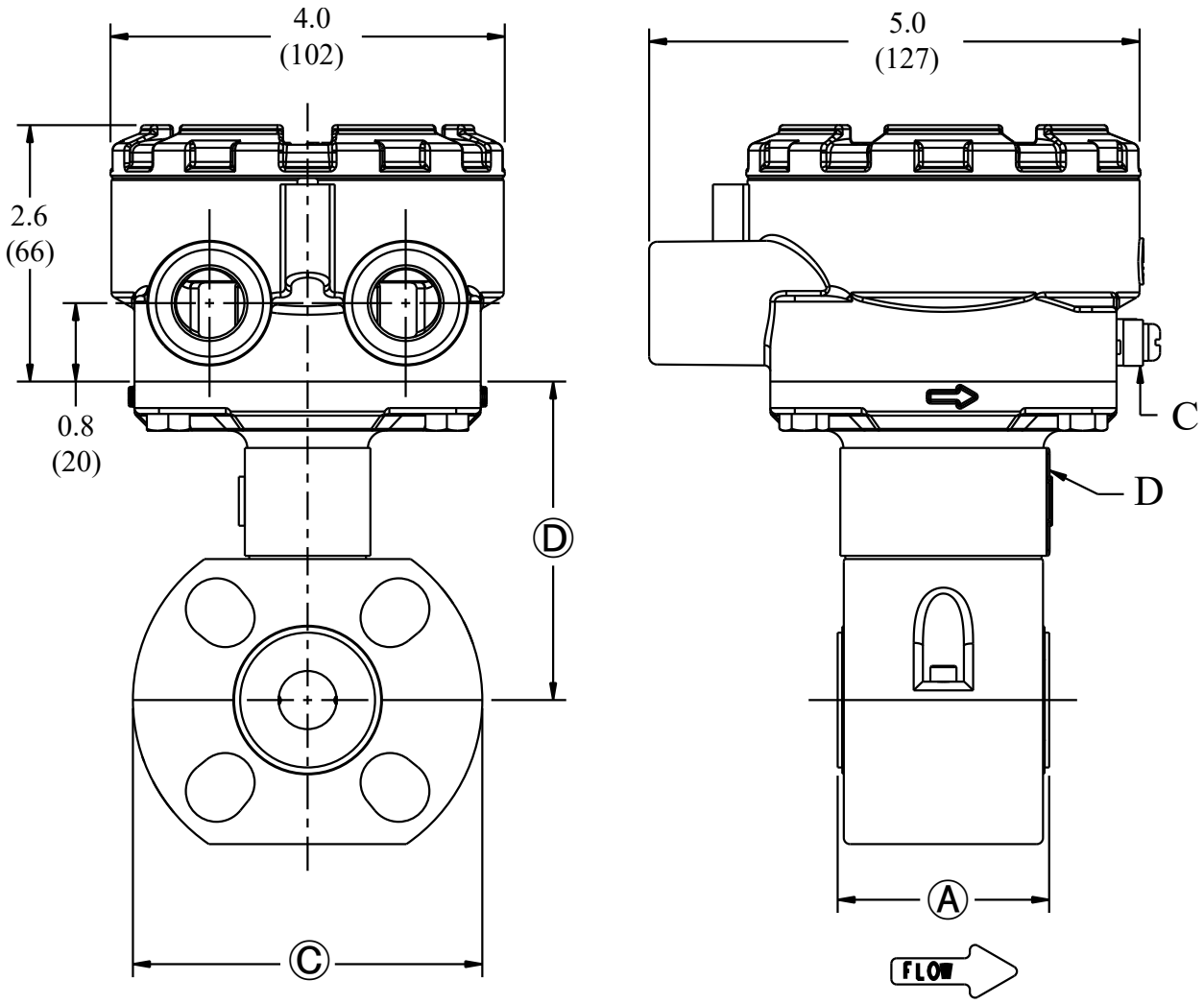
See Table 58 for Dimensions Ⓐ, Ⓒ, Ⓓ, and ØⒿ.

**Table 58: 8711-M/L Wafer Sensor 1 ½ in. to 8 in. (DN 40 mm to 200 mm) wafer—(P ≤ Class 300)**

| | See Figure 25. | | | | | | |
|---|---|---|---|---|---|---|---|
| **Size, description** | **Overall length** | | **Body Ø DIM Ⓒ** | **DIM Ⓓ CL to tube adapter** | | **Liner Ø on face DIM Ⓙ** | **Sensor weight in lbs. (kg)** |
| | **DIM Ⓐ PTFE** | **DIM Ⓐ ETFE** | | **Style A** | **Style B** | | |
| 1½ (40) WAFER UP TO ASME - 300# / EN 1092-1 PN40 | 2.88 (73) | 2.73 (69) | 3.29 (84) | 4.00 (102) | 4.00 (102) | 2.42 (61) | 5 (2.3) |
| 2 (20) WAFER UP TO ASME - 300# / EN 1092-1 PN40 | 3.32 (84) | 3.26 (83) | 3.92 (99) | 4.23 (107) | 4.32 (110) | 3.05 (77) | 7 (3.2) |
| 3 (80) WAFER UP TO ASME - 300# / EN 1092-1 PN40 | 4.82 (122) | 4.62 (117) | 5.17 (131) | 4.87 (124) | 4.95 (126) | 4.41 (112) | 13 (5.9) |
| 4 (100) WAFER UP TO ASME - 300# / EN 1092-1 PN40 | 6.03 (153) | 5.83 (148) | 6.39 (162) | 5.50 (140) | 5.56 (141) | 5.80 (147) | 22 (10.0) |
| 6 (150) WAFER UP TO ASME - 300# / EN 1092-1 PN40 | 7.08 (180) | 6.87 (174) | 8.57 (218) | 6.22 (158) | 6.65 (169) | 7.86 (200) | 35 (15.9) |
| 8 (200) WAFER UP TO ASME - 300# / EN 1092-1 PN40 | 9.06 (230) | 8.86 (225) | 10.63 (270) | 7.25 (184) | 7.68 (195) | 9.86 (250) | 60 (27.2) |

## 8711-R/U dimensions

**Figure 26: 8711-R/U Wafer Sensor 0.15 in. to 1 in. (DN 4 mm to 25 mm) wafer—(P ≤ Class 300)**




Dimensions are in inches (millimeters).

| | |
|---|---|
| **C** | Grounding clamp |
| **D** | Nameplate |

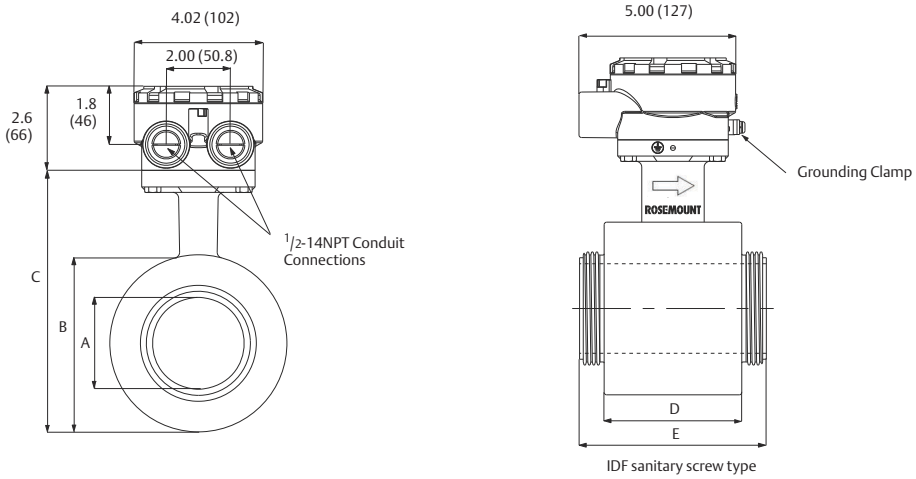
See Table 59 for Dimensions Ⓐ, Ⓒ, Ⓓ, and ØⒿ.

**Table 59: 8711-R/U variable dimensions in inches (mm)**

| | See Figure 26. | | | | | | |
|---|---|---|---|---|---|---|---|
| **Size, description** | **Overall length** | | | **Body Ø DIM Ⓒ** | **CL to UMB DIM Ⓓ** | **Liner Ø on face DIM Ⓙ** | **Sensor weight in lbs. (kg)** |
| | **DIM Ⓐ PTFE** | **DIM Ⓐ ETFE** | **DIM Ⓐ PFA** | | | | |
| 0.15 (4) WAFER UP TO ASME - 150# / EN 1092-1 PN16 | | | 2.17 (55) | 3.56 (90) | 3.25 (83) | 1.37 (35) | 4 (1.8) |
| 0.30 (8) WAFER UP TO ASME - 150# / EN 1092-1 PN16 | | | 2.17 (55) | 3.56 (90) | 3.25 (83) | 1.37 (35) | 4 (1.8) |
| ½ (15) WAFER UP TO ASME - 300# / EN 1092-1 PN40 | 2.21 (56) | 2.16 (55) | | 3.56 (90) | 3.25 (83) | 1.38 (35) | 4 (1.8) |
| 1 (25) WAFER UP TO ASME - 300# / EN 1092-1 PN40 | 2.26 (57) | 2.13 (54) | | 4.50 (114) | 3.56 (90) | 1.94 (49) | 5 (2.3) |

# 8721 dimensions

**Figure 27: 8721 Hygienic (Sanitary) Sensor ½ in. to 4 in. (15 mm to 100 mm)**

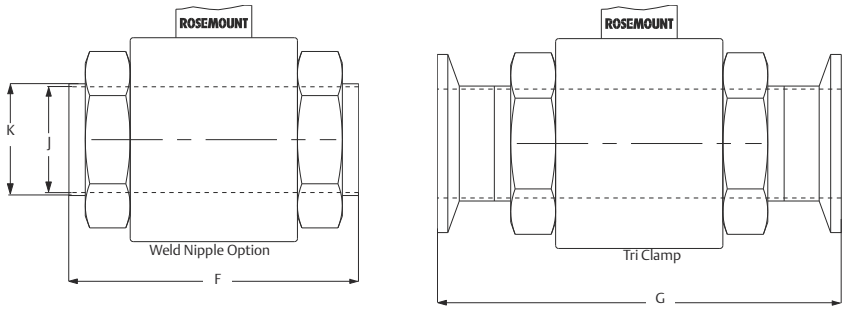



Dimensions are in inches (millimeters).

**Table 60: 8721 Hygienic (Sanitary) Sensor ½ in. to 4 in. (15 mm to 100 mm)**

| Line size | Sensor dimensions A | Body diameter B | Sensor height C | Body length D | IDF length E |
|---|---|---|---|---|---|
| | Figure 27 | Figure 27 | Figure 27 | Figure 27 | Figure 27 |
| ½ (15) | 0.62 (16) | 3.16 (80) | 5.62 (143) | 2.13 (55) | 3.66 (93) |
| 1 (25) | 0.87 (22) | 3.16 (80) | 5.62 (143) | 2.13 (54) | 3.66 (93) |
| 1½ (40) | 1.37 (35) | 3.64 (93) | 6.09 (155) | 2.40 (61) | 3.98 (101) |
| 2 (50) | 1.87 (48) | 4.22 (107) | 6.65 (169) | 2.84 (72) | 4.41 (112) |
| 2 1/2 (65) | 2.38 (60) | 4.49 (114) | 6.92 (176) | 3.58 (91) | 5.24 (133) |
| 3 (80) | 2.87 (73) | 5.44 (138) | 7.78 (198) | 4.41 (112) | 5.98 (152) |
| 4 (100) | 3.84 (98) | 6.47 (164) | 8.88 (226) | 5.20 (132) | 6.77 (172) |

**Figure 28: 8721 Hygienic (Sanitary) Sensor Weld Nipple and Tri Clamp**




Dimensions are in inches [millimeters].

**Table 61: Overall Flowtube Length for all Fittings**

| Process connection code | | A | B | C | D | E |
|---|---|---|---|---|---|---|
| **Line size code** | **Nominal line size** | **Tri-Clamp** | **IDF Sanitary screw types** | **Weld Nipple per ASTM A 270** | **DIN 11851 (Imperial)** | **DIN 11851 (Metric)** |
| 005 | 0.5 (15) | 7.86 (200) | 3.66 (93) | 5.61 (142) | 7.88 (200) | 6.77 (172) |
| 010 | 1 (25) | 7.85 (199) | 3.66 (93) | 5.61 (142) | 7.89 (200) | 7.89 (200) |
| 015 | 1.5 (40) | 8.17 (207) | 3.98 (101) | 5.92 (150) | 8.53 (217) | 8.53 (217) |
| 020 | 2 (50) | 8.60 (218) | 4.41 (112) | 6.35 (161) | 9.10 (231) | 9.10 (231) |
| 025 | 2.5 (65) | 9.43 (239) | 5.24 (133) | 7.18 (182) | 10.33 (262) | 10.33 (262) |
| 030 | 3 (80) | 10.18 (258) | 5.98 (152) | 7.93 (201) | 11.48 (291) | 11.48 (291) |
| 040 | 4 (100) | 11.70 (297) | 6.77 (172) | 9.46 (240) | 13.72 (349) | 13.72 (349) |

| Process connection code | | F | G | H | J | K |
|---|---|---|---|---|---|---|
| **Line size code** | **Nominal line size** | **DIN 11864-1 Form A** | **DIN 11864-2 Form A** | **SMS 1145** | **Cherry Burrell I-line** | **Weld Nipple per DIN 11850** |
| 005 | 0.5 (15) | N/A | N/A | N/A | N/A | 5.61 (142) |
| 010 | 1 (25) | 8.99 (228) | 8.87 (225) | 6.87 (174) | 7.17 (182) | 9.61 (244) |
| 015 | 1.5 (40) | 9.75 (248) | 9.59 (244) | 7.50 (190) | 7.80 (198) | 9.92 (252) |
| 020 | 2 (50) | 10.18 (259) | 10.02 (255) | 7.93 (201) | 8.42 (214) | 10.75 (273) |
| 025 | 2.5 (65) | 11.91 (302) | 11.55 (293) | 9.07 (230) | 9.49 (241) | 11.58 (294) |
| 030 | 3 (80) | 12.98 (330) | 12.46 (316) | 9.82 (249) | 10.37 (263) | 12.33 (313) |
| 040 | 4 (100) | 14.50 (368) | 14.14 (359) | 11.89 (302) | 12.15 (309) | 13.86 (352) |

**Figure 29: 8721 Hygienic (Sanitary) Sensor DIN 11851 (Imperial)**

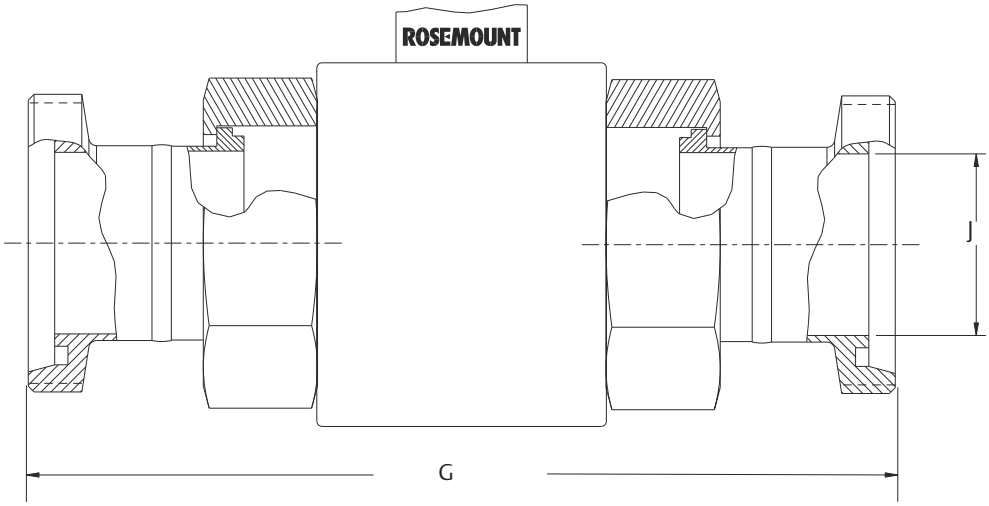



**Figure 30: 8721 Hygienic (Sanitary) Sensor DIN 11851 (Metric)**

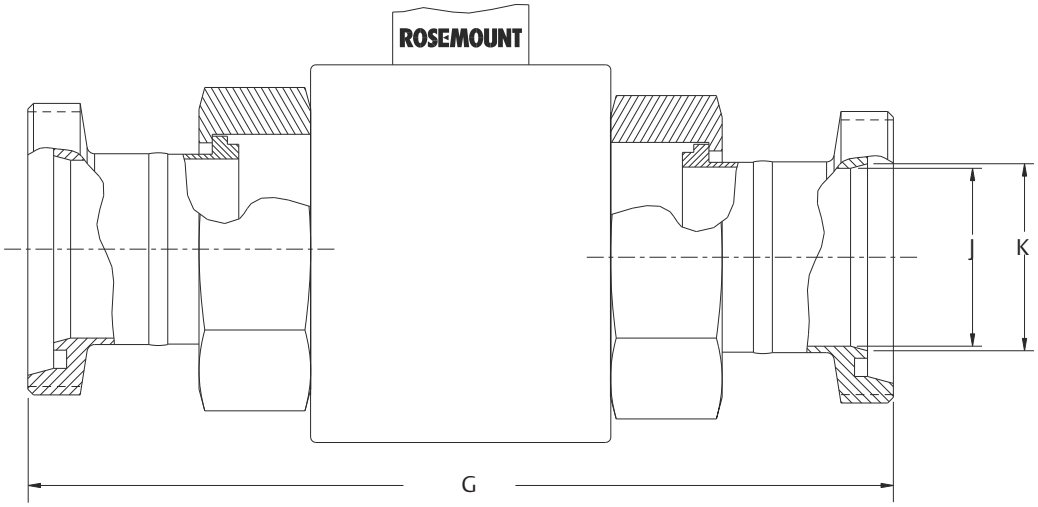



**Figure 31: 8721 Hygienic (Sanitary) Sensor DIN 11864-1**

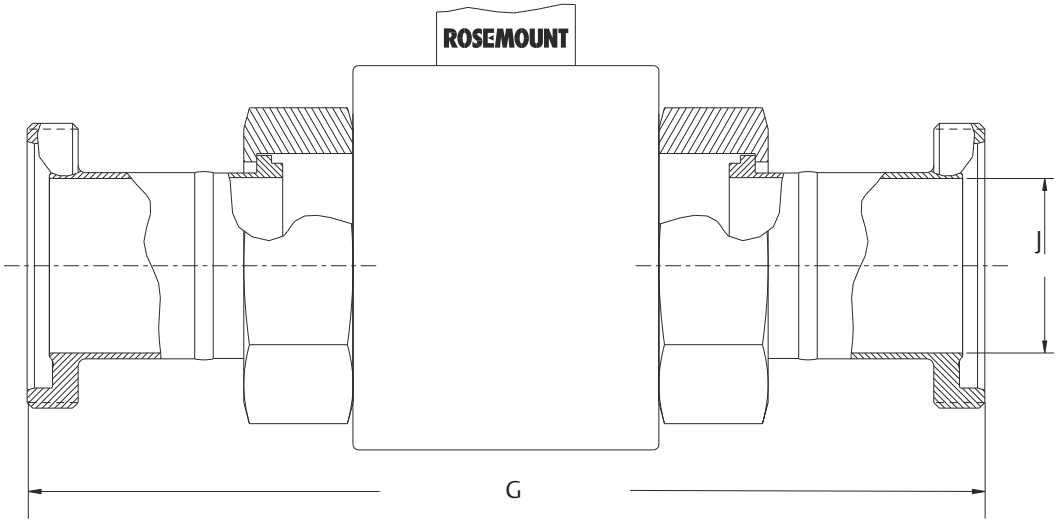


**Figure 32: 8721 Hygienic (Sanitary) Sensor DIN 11864-2**

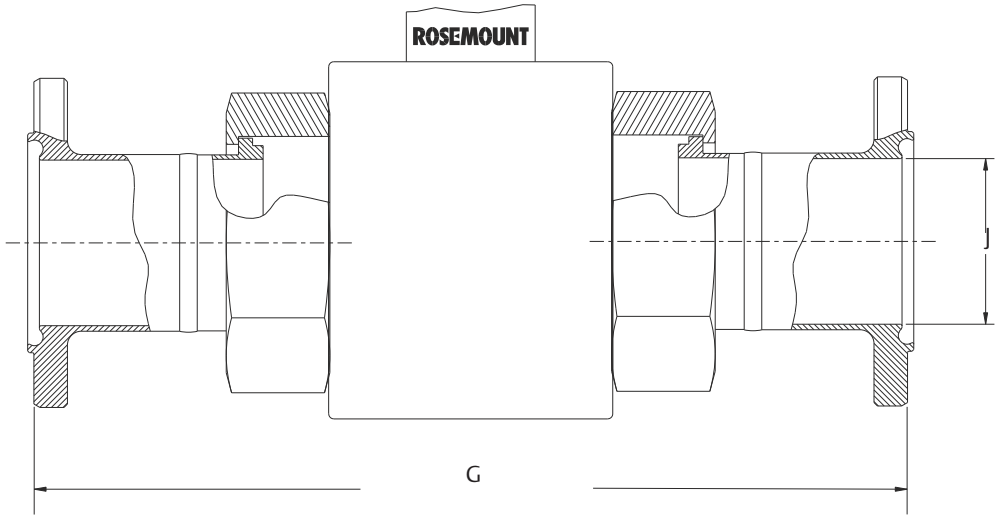



**Figure 33: 8721 Hygienic (Sanitary) Sensor SMS1145**

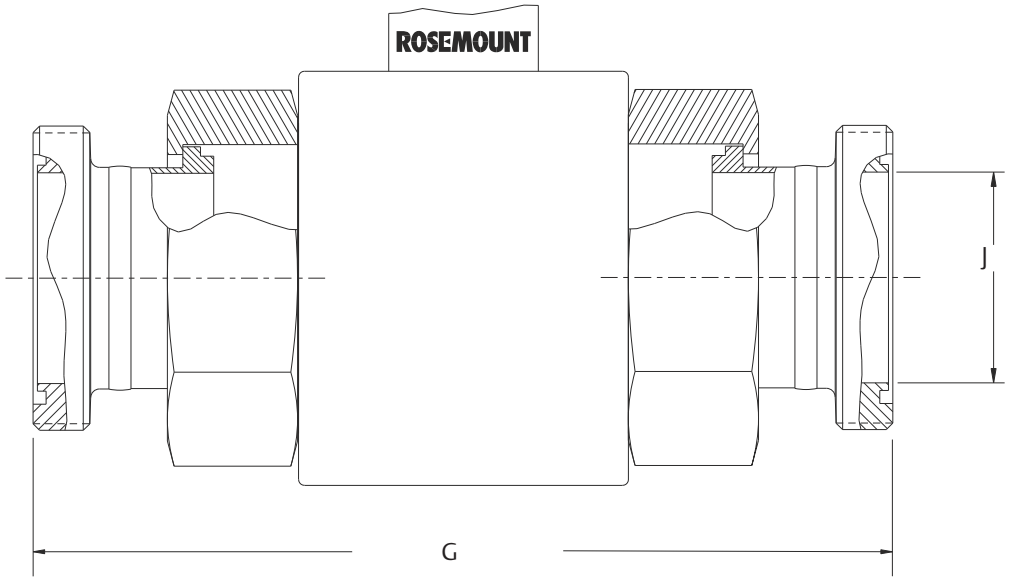
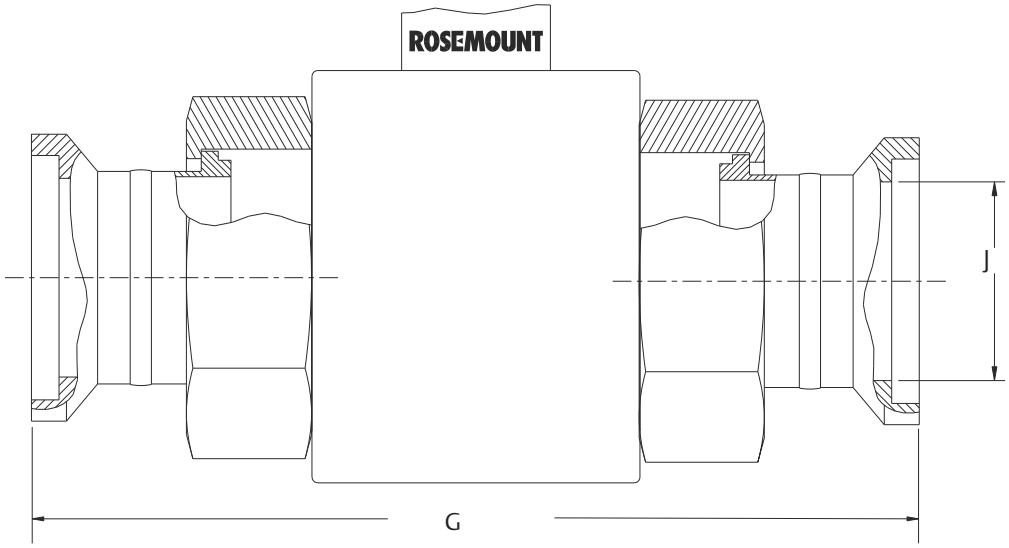
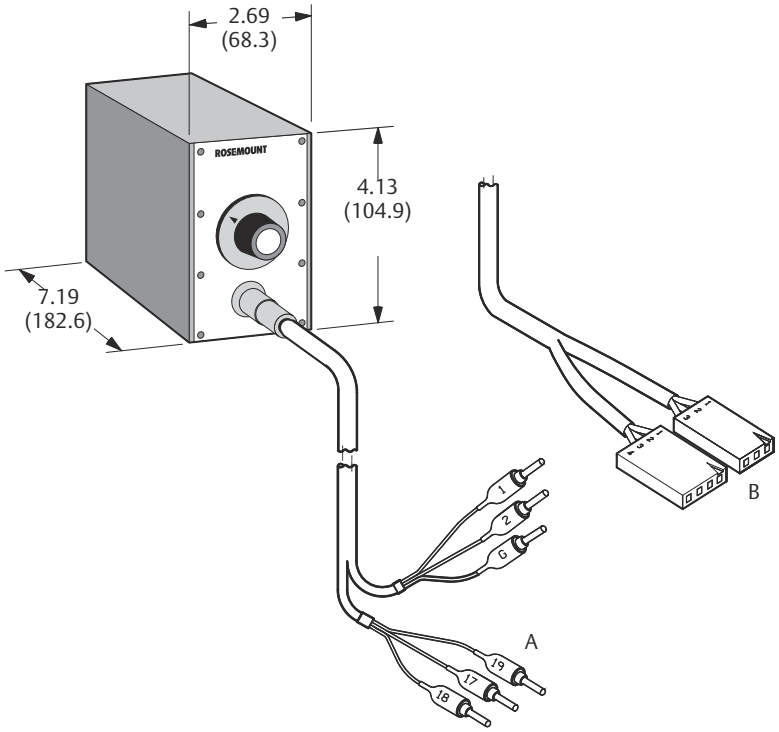


**Figure 34: 8721 Hygienic (Sanitary) Sensor Cherry Burrell I-Line**




## 8714 dimensions

**Figure 35: 8714D Magnetic Flowmeter Simulator—Calibration Standard**




Dimensions are in inches (millimeters).

*A. Rosemount 8712 Connector Type*
*B. Rosemount 8732 Connector Type*

**Note**
The Rosemount 8714D is shipped with both the 8712 and 8732 Connector Types.

00813-0100-4444
Rev. AM
March 2025

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