

Rosemount 3095 MultiVariable™ Transmitter with MODBUS® Protocol



CE

The Proven Leader in MultiVariable Measurement

- Industry leading performance with $\pm 0.05\%$ of DP reading accuracy
- Ten year stability under actual process conditions
- Unprecedented reliability backed by a limited 12-year warranty
- Four outputs from one device including Mass Flow and advanced data logging
- Easy integration with MODBUS protocol
- Coplanar™ platform enables DP Flowmeters

Rosemount 3095 Product Overview



Industry leading performance with $\pm 0.05\%$ of DP reading accuracy

Enabled by superior sensor technology and engineered for optimal flow performance, the 3095FB delivers unprecedented reference accuracy with up to 100:1 rangeability. Superior performance results in increased measurement accuracy.

Ten year stability of 0.25%

Through aggressive testing, the 3095FB has proven its ability to maintain unprecedented performance under the most demanding conditions. Superior transmitter stability decreases calibration frequency for reduced maintenance and operation costs.

Unprecedented reliability backed by a limited 12-year warranty

Further enhance installation practices with the most reliable platform supported by a 12-year warranty.

Four outputs from one device

The advanced MultiVariable device measures three process variables simultaneously with optional calculated mass flow and advanced data logging capabilities. One device installation means reduced process penetrations, reduced inventory, and reduced installations costs.

Easily integrated with MODBUS communications

Designed for easy integration with Supervisory Control and Data Acquisition units (SCADA), Distributed Control Systems (DCS), Flow Computers or Programmable Logic Controllers (PLC) and capable of multi-dropping up to 32 transmitters on one RS-485 bus. Easy integration reduces engineering and installation costs.

Coplanar platform enables DP flowmeters

The flexible coplanar platform allows integration with the complete offering of Rosemount primary elements for any flow application. The solution arrives factory calibrated, pressure-tested, and ready to install right out of the box. Only Rosemount has a scalable coplanar transmitter design to reduce engineering and inventory costs.

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Ordering information

Table 1. Rosemount 3095F MultiVariable Transmitter Ordering Information

		— Not available		
		3095FB	3095FC	
Code	Product Description			
Standard		Standard	Standard	
3095F	MultiVariable Transmitter	★	★	
Code	Output			
Standard		Standard	Standard	
B	Process Variable Measurement: Modbus RS-485	★	—	
C	Process Variable Measurement: Mass Flow and Data Logging, Modbus RS-485	—	★	
Code	Differential Pressure Ranges			
Standard		Standard	Standard	
2	0–2.5 to 0–250 inH ₂ O (0–6,23 to 623 mbar)	★	★	
3	0–10 to 0–1000 inH ₂ O (0–25 mbar to 0–2,5 mbar)	★	★	
Code	Static Pressure Ranges			
Standard		Standard	Standard	
3	0.5–8 to 0.5–800 psia (0,03–0,552 to 0,03–55,2 bar)	★	★	
4	0.5–36.26 to 0.5–3626 psia (0,03–2,5 to 0,03–250 bar)	★	★	
C	0–8 to 0–800 psig (0–0,552 to 0–55,2 bar)	★	★	
D	0–36.26 to 0–3626 psig (0–2,5 to 0–250 bar)	★	★	
Isolator Material		Fill Fluid		
Standard			Standard	Standard
A	316L SST	Silicone	★	★
B ⁽¹⁾	Alloy C-276	Silicone	★	★
J ⁽²⁾	316L SST	Inert	★	★
K ⁽¹⁾⁽²⁾	Alloy C-276	Inert	★	★
Expanded				
F	Gold-Plated 316L SST	Silicone		
D ⁽³⁾	Tantalum	Silicone		—
L ⁽³⁾	Tantalum	Inert		—
Flange Style		Material		
Standard			Standard	Standard
A	Coplanar	CS	★	★
B	Coplanar	SST	★	★
C	Coplanar	Alloy C-276 ⁽¹⁾	★	★
J	DIN Compliant Traditional Flange, SST 10 mm Adapter/Manifold Bolting	SST, ⁷ / ₁₆ - 20 Bolting	★	★
0	None		★	★
Drain/Vent Material				
Standard			Standard	Standard
A	SST		★	★
C ⁽¹⁾	Alloy C-276		★	★
0	None		★	★

Table 1. Rosemount 3095F MultiVariable Transmitter Ordering Information

			— Not available	
			3095FB	3095FC
O-ring				
Standard			Standard	Standard
1	Glass-filled PTFE		★	★
Process Temperature Input				
Standard			Standard	Standard
0	Fixed Process temperature (No Cable)		★	★
1	RTD Input with 12 ft. (3,66 m) of Shielded Cable		★	—
2	RTD Input with 24 ft. (7,32 m) of Shielded Cable		★	—
7	RTD Input with 75 ft. (22,86 m) of Shielded Cable		★	—
3	RTD Input with 12 ft. (3,66 m) of Armored, Shielded Cable		★	—
4	RTD Input with 24 ft. (7,32 m) of Armored, Shielded Cable		★	—
8	RTD Input with 75 ft. (22,86 m) of Armored, Shielded Cable		★	—
A	RTD Input with 12 ft. (3,66 m) of ATEX/IECEx Flameproof Cable		★	—
B	RTD Input with 24 ft. (7,32 m) of ATEX/IECEx Flameproof Cable		★	—
C	RTD Input with 75 ft. (22,86 m) of ATEX/IECEx Flameproof Cable		★	—
Code	Transmitter Housing Material	Conduit		
Standard			Standard	Standard
A	Polyurethane-covered Aluminum	1/2–14 NPT	★	★
B	Polyurethane-covered Aluminum	M20 x 1.5 (CM20)	★	★
E	Polyurethane-covered Aluminum	3/4–14 NPT	—	★
J	SST	1/2–14 NPT	★	—
K	SST	M20 x 1.5 (CM20)	★	—
Code	Terminal Block			
Standard			Standard	Standard
A	Standard		★	—
B	With Integral Transient Protection		★	★
C	CE MARK/ Compliant with EMC - Transient Protection Included		★	—
Code	Display			
Standard			Standard	Standard
0	None		★	★
1	LCD Display		★	★
Code	Bracket			
Standard			Standard	Standard
0	None (required for option code S3 or S5)		★	★
1	Coplanar SST Flange Bracket for 2-in. Pipe or Panel Mount, SST Bolts		★	★
2	Traditional Flange Bracket for 2-in. Pipe Mounting, CS Bolts		★	★
3	Traditional Flange Bracket for Panel Mounting, CS Bolts		★	★
5	Traditional Flange Bracket for 2-in. Pipe Mounting, 300 Series, SST Bolts		★	★
6	Traditional Flange Bracket for Panel Mounting, 300 Series, SST Bolts		★	★
8	SST Traditional Flange Bracket for 2-in. Pipe Mounting, 300 Series, SST Bolts		★	★
9	SST Traditional Flange Flat Bracket for 2-in. Pipe Mounting, 300 Series, SST Bolts		★	★

Table 1. Rosemount 3095F MultiVariable Transmitter Ordering Information

		— Not available	
		3095FB	3095FC
Code	Bolts		
Standard		Standard	Standard
0	CS bolts	★	★
1	Austenitic 316 SST bolts	★	★
N	None	★	★
Code	Approvals		
Standard		Standard	Standard
0	None	★	★
A	FM Explosion-proof, Dust Ignition-proof	★	—
C	CSA Explosion-proof, Dust Ignition-proof, Division 2	★	—
M	CSA Explosion-proof (United States and Canada)	—	★
H	ATEX Flameproof	★	★
P	ATEX Dust	★	—
7	IECEX Flameproof	★	—
8	IECEX Dust	★	—
Code	Engineered Measurement Solution		
Standard		Standard	Standard
N	Direct Process Variable Measurement: <i>MODBUS</i> (Required for 3095FB)	★	—
C	Mass Flow with Process Variable Measurement & Data Logging: <i>MODBUS</i> (Required for 3095FC)	—	★

Options (Include with selected model number)

Configuration			
Standard		Standard	Standard
C1 ⁽⁴⁾	Custom Configuration (Requires Completed Configuration Data Sheet)	★	★
Process Adapter			
Standard		Standard	Standard
DF ⁽⁵⁾	1/2-14 NPT Process Adapter, Type Determined by Selected Flange Material: Plated CS, SST, Cast C-276	★	★
Material Traceability Certification			
Standard		Standard	Standard
Q8	Material Traceability Certification per EN 10204 3.1	★	★
Calibration Certificate			
Standard		Standard	Standard
Q4	Calibration Data Sheet	★	★
Pressure Testing			
Standard		Standard	Standard
P1	Hydrostatic Testing with Certificate	★	★
Cleaning			
Standard		Standard	Standard
P2	Cleaning for Special Services	★	★

Table 1. Rosemount 3095F MultiVariable Transmitter Ordering Information

		— Not available	
		3095FB	3095FC
Integral Manifold			
Standard		Standard	Standard
S3 ⁽⁶⁾	Assemble to Rosemount 405 Compact Orifice	★	—
S5 ⁽⁶⁾	Assemble to 305 Integral Manifold	★	★
Primary Element			
Standard		Standard	Standard
S4 ⁽⁶⁾⁽⁷⁾	Assemble to Rosemount 485 or Rosemount 1195	★	—
Communication Board			
Standard		Standard	Standard
A1	Additional RS-232 Communication Board	—	★
Power Options			
Standard		Standard	Standard
A2	12 Vdc System with Batteries	—	★
A3	Mast with Solar Panel Assembly and 12 Vdc Batteries	—	★
Performance Class			
Standard		Standard	Standard
U3 ⁽⁸⁾	Ultra for Flow: 0.05% DP Reading Accuracy, Up to 100:1 Rangedown, 10 Yr Stability, 12 Yr Warranty	★	—
Typical Model Number: 3095F B 2 3 A B A 1 1 A B 0 1 0 A N			

- (1) Materials of Construction comply with metallurgical requirements highlighted within NACE MR0175/ISO 15156 for sour oil field production environments. Environmental limits apply to certain materials. Consult latest standard for details. Selected materials also conform to NACE MR0103 for sour refining environments.
- (2) Only available with C or D Gage Sensor Modules.
- (3) Not available with Absolute / Gage Pressure Ranges C or D.
- (4) 3095FC only allows all English or all Metric units.
- (5) Not available with S4 option.
- (6) “Assemble-to” items are specified separately and require a completed model number.
- (7) With a primary element installed, the maximum operating pressure will be the lesser of either the transmitter or the primary element.
- (8) Ultra for Flow (Option U3) applicable for 3095FB DP ranges 2 and 3 with SST isolator material and silicone fill fluid only.

Specifications

Functional Specifications

Service

3095FB

- Gas, Liquid, or Steam
- DP, P, and T with MODBUS output

3095FC

- AGA 8 Natural Gas, AGA 3 Orifice Plates
- Consult factory for other fluid and primary element combinations
- DP, P, T, mass flow, and API compliant data log with MODBUS output

Differential Sensor

Limits

- Range 2: -250 to 250 inH₂O (-623 to 623 bar)
- Range 3: -1000 to 1000 inH₂O (-2,49 to 2,49 bar)

Absolute Sensor

Limits

- Range 3: 0.5 to 800 psia (0,03 to 55,2 bar)
- Range 4: 0.5 to 3,626 psia (0,03 to 250 bar)

Gage Sensor

Limits

- Range C: 0 to 800 psig (0 to 55,2 bar)
- Range D: 0 to 3,626 psig (0 to 250 bar)

Over Pressure Limit

0.5 psia (0,03 bar) to two times the absolute pressure sensor range up to a maximum of 3,626 psia (250 bar).

Static Pressure Limit

Operates within specifications between static line pressures of 0.5 psia (0,03 bar) and the URL of the absolute pressure sensor.

Power

3095FB

- Quiescent supply current 10 mA typical. Transmitting supply current not to exceed 100 mA.
- External power supply required
- Transmitter: operates on terminal voltage of 7.5 - 30 Vdc

3095FC

- Transmitter: operates on terminal voltage of 8 - 28 Vdc
- Input current: 5mA nominal, 9.5 mA at 100% duty cycle (battery charging not included)
- Internal battery: rechargeable, Nominal 6.2 Vdc (2.5 Amp/hr)
- Maximum power consumption: 19 watts
- Solar panel input: nominal 8 V to 200 mA
- Solar panel output: 2 watts, 9 V nominal
- External charging input: 12 Vdc max (8 - 10 Vdc nominal)

RS-485 Signal Wiring

2-wire half-duplex RS-485 MODBUS with 8 data bits, 1 stop bit, and no parity

Bus Terminations

Standard RS-485 bus terminations required per EIA-485.

Failure Mode Alarm

If self-diagnostics detect a gross transmitter failure, non-latched status bits are set in the transmitter alarm registers.

Humidity Limits

3095FB

- 0 – 100% relative humidity

3095FC

- 0 – 95%, non condensing

Communications

PC-Based User Interface Software

Baud Rate: 3095FB - 1200 to 9600 User selectable
3095FC - 600 to 19.2K User selectable

Host: 3095FB - RS485 (MODBUS)

3095FC - RS485 (MODBUS) or RS-232 Direct Connect

User Interface Software and Hardware Requirements:

3095FB

- IBM-compatible PC
- 10 MB of available hard drive space
- Microsoft® Windows® 98 or higher operating system
- CD-ROM drive
- 32 MB of RAM

3095FC

- IBM-compatible PC
- 1 MB of RAM
- Pentium-grade processor: 233 MHz or faster
- Microsoft Windows 98 or higher operating system
- CD-ROM drive

Temperature Limits

Process (at transmitter isolator flange for atmospheric pressures and above):

3095FB

- With standard Silicon Fill Sensor: -40 to 250 °F (-40 to 121 °C)
- Inert Fill Sensor: 0 to 185 °F (-18 to 85 °C).
- Process temperatures above 185 °F (85 °C) requires derating the ambient limits by a 1.5:1 ratio.

3095FC

- With standard Silicon Fill Sensor: -40 to 212 °F (-40 to 100 °C)
- Inert Fill Sensor: 0 to 185 °F (-18 to 85 °C).
- Process temperatures above 185 °F (85 °C) requires derating the ambient limits by a 1.5:1 ratio.

Ambient:**3095FB**

- With Standard Silicon Fill Sensor:
-40 to 185 °F (-40 to 85 °C)
- With LCD Display⁽¹⁾: -40 to 175 °F (-40 to 80 °C)

3095FC

- -40 to 167 °F (-40 to 75 °C)
- With LCD Display: -4 to 167 °F (-20 to 75 °C)

Storage:**3095FB**

- -50 to 212 °F (-46 to 100 °C)
 - With LCD Display: -40 to 185 °F (-40 to 85 °C)
- 3095FC**
- -50 to 185 °F (-46 to 85 °C)
 - With LCD Display: -40 to 185 °F (-40 to 85 °C)

(1) LCD Display may not be readable and LCD updates will be slow at temperatures below -4 °F (-20 °C).

Turn-on Time

Process variables will be within specifications less than 4 seconds after power is applied to transmitter.

Damping (3095FB only)

Response to step input change can be user-selectable from 0.1 to 30 seconds for one time constant. This is in addition to sensor response time of 0.2 seconds.

Filtering (3095FC only)

Response to step input change can be filtered by user entered percentage of add value to be used.

(Last Value X Entered %) + [New Value X (100 - Entered %)] = Filtered Value

Real Time Clock (3095FC only)

- Year / month / day / hour / minute / second
- Battery backed

Performance Specifications

(Zero-based spans, reference conditions, silicone oil fill, 316 SST isolating diaphragms, and digital trim values equal to the span end points.)

Specification Conformance

The Rosemount 3095 maintains a specification conformance of measured variables to at least 3σ.

Differential Pressure**Range 2**

0–2.5 to 0–250 inH₂O (0-6,23 to 623 mbar)
(100:1 rangeability is allowed)

Range 3

0–10 to 0–1000 inH₂O (0-25 mbar to 0-2,5 bar)
(100:1 rangeability is allowed)

Accuracy (including Linearity, Hysteresis, Repeatability)

Range 2-3: 3095FB Ultra for Flow (Option U3)⁽¹⁾

- ±0.05% of DP reading up to 3:1 DP turndown from URL
- For DP turndowns up to 100:1 from URL

$$\text{Accuracy} = \pm \left[0.05 + 0.0145 \left(\frac{\text{URL}}{\text{DP Reading}} \right) \right] \% \text{ of DP Reading}$$

Range 2-3: 3095FB and 3095FC

- ±0.075% of span for spans from 1:1 to 10:1 URL
- For spans less than 10:1 rangedown

$$\text{Accuracy} = \pm \left[0.025 + 0.005 \left(\frac{\text{URL}}{\text{Span}} \right) \right] \% \text{ of span}$$

Ambient Temperature Effect per 50 °F (28 °C)

Range 2-3: 3095FB Ultra for Flow (Option U3)⁽¹⁾

- ±0.130% of DP reading up to 3:1 DP turndown URL
- ±[0.05 + 0.0345 (URL/DP Reading)]% of DP Reading up to 100:1 DP turndown from URL

Range 2-3: 3095FB and 3095FC

- ±(0.025% URL + 0.125% span) spans from 1:1 to 30:1
- ±(0.035% URL - 0.175% span) spans from 30:1 to 100:1

Static Pressure Effects

- Zero error = ±0.05% of URL per 1000 psi (68,95 bar)
- Span error = ±0.20% of DP Reading per 1000 psi (68,95 bar)

Stability

Range 2-3: 3095FB Ultra for Flow (Option U3)⁽¹⁾

- ±0.25% of URL for 10 years for ±50 °F (28 °C) temperature changes, and up to 1000 psi (68,95 bar) line pressure

Range 2-3: 3095FB and 3095FC

- ±0.125% of URL for five years for ±50 °F (28 °C) ambient temperature changes, and up to 1000 psi (68,95 bar) line pressure.

Absolute/Gage Pressure**Absolute (100:1 rangeability allowed)****Range 3**

0.5–8 to 0.5–800 psia (0,03-0,552 to 0,03-55,2 bar)

Range 4

0.5–36.26 to 0.5–3,626 psia (0,03-2,5 to 0,03-250 bar)

Gage (100:1 rangeability allowed)**Range C**

0–8 to 0–800 psig (0-0,552 to 0-55,2 bar)

Range D

0–36.26 to 0–3,626 psig (0-2,5 to 0-250 bar)

Ambient Temperature Effect per 50 °F (28 °C)

- ±(0.05% URL + 0.125% of span) spans from 1:1 to 30:1
- ±(0.06% URL - 0.175% of span) spans from 30:1 to 100:1

(1) Ultra for Flow (Option U3) applicable for 3095FB DP ranges 2 and 3 with SST isolator material and silicone fill fluid only.

Stability

±0.125% of URL for five years for ±50 °F (28 °C) ambient temperature changes.

Accuracy (including Linearity, Hysteresis, Repeatability)

- ±0.075% of span for spans from 1:1 to 10:1 of URL
- For spans less than 10:1 rangedown,
Accuracy = ± $\left[0.03 + 0.0075\left(\frac{\text{URL}}{\text{Span}}\right)\right]$ % of span

Process Temperature (RTD)

Specification for process temperature is for the transmitter portion only. Sensor errors caused by the RTD are not included. The transmitter is compatible with any PT100 RTD conforming to IEC 751 Class B, which has a nominal resistance of 100 ohms at 0 °C and $\alpha = 0.00385$. Examples of compatible RTDs include the Rosemount Series 68 and 78 RTD Temperature Sensors.

Sensing Range

3095FB

- 300 to 1500 °F (-184 to 816 °C)

3095FC

- 40 to 464 °F (-40 to 240 °C)

Accuracy (including Linearity, Hysteresis, Repeatability)

- ±1.0 °F (0.56 °C) for process temperatures from -300 to 1200 °F (-184 to 649 °C)
- For process temperatures above 1200 °F (649 °C), add ±1.0 °F (0.56 °C) per 100 °F (38 °C)

Ambient Temperature Effects per 50 °F (28 °C)

3095FB

- ±0.72 °F (0.40 °C) for process temperatures from -40 to 185 °F (-40 to 85 °C)
- (±1.28 °F (0.72 °C) + 0.16% of reading) for process temperatures from 185 to 1500 °F (85 to 816 °C)

3095FC

- ±0.90 °F (0.50 °C) for process temperatures from -40 to 464 °F (-40 to 240 °C)

Stability

±1.0 °F (0.56 °C) for one year

Physical Specifications**Electrical Connections**

- ½–14 NPT, M20 x 1.5 (CM20), PG-13.5
- ¾–14 NPT (3095FC only)

RTD Process Temperature Input:

100-ohm platinum RTD per IEC-751 Class B

Process Connections

- Transmitter: ¼–18 NPT on 2¹/₈-in. centers
- RTD: RTD dependent (see ordering information)

Radiated/Conducted Transmissions

Meets requirements of IEC 61326

Process Wetted Parts

Isolating Diaphragms

- 316L SST or Alloy C-276

Drain/Vent Valves

- 316 SST or Alloy C-276

Flanges

- Plated carbon steel, 316 SST, or Cast C-276

Wetted O-rings

- Glass-Filled PTFE

Non-Wetted Parts

Electronics Housing

- Low copper aluminum

Bolts

- Plated carbon steel per ASTM A449, Grade 5; or austenitic 316 SST

Fill Fluid

- Silicone oil
- Inert oil (available for gage pressure ranges only)

Paint

- Polyurethane

O-rings

- Buna-N

Battery (3095FC only)

- Lead-acid, rechargeable

Weight

Components	Weight in lb. (kg)	
	3095FB	3095FC
3095 Transmitter	6.0 (2.7)	11.5 (5.2)
LCD Meter	0.5 (0.2)	0.6 (0.3)
SST Mounting Bracket	1.0 (0.5)	1.0 (0.5)
12 ft (3.66 m) RTD Shielded Cable	0.5 (0.2)	–
12 ft (3.66 m) RTD Armored Cable	1.1 (0.5)	–
24 ft (7.32 m) RTD Shielded Cable	1.0 (0.4)	–
24 ft (7.32 m) RTD Armored Cable	2.2 (1.0)	–
75 ft (22.86 m) RTD Shielded Cable	1.9 (0.9)	–
75 ft (22.86 m) RTD Armored Cable	7.2 (3.2)	–
12 ft (3.66 m) RTD ATEX/IECEX Cable	2.1 (0.9)	–
24 ft (7.32 m) RTD ATEX/IECEX Cable	3.0 (1.4)	–
75 ft (22.86 m) RTD ATEX/IECEX Cable	4.8 (2.2)	–
Battery / Solar panel	–	2.0 (0.9)
Battery Backup	–	1.3 (0.6)

3095FC Memory Specifications**Programmable Memory**

2 MB x 8 flash EPROM

Data Memory

512 kB SRAM

Boot Memory

128 kB flash EPROM

History Database

The history database archives measured and calculated values for on-demand viewing or saving to a file. Each point in the historical database can be configured to archive the current value, average value, totalized value, or accumulated value.

Up to 35 standard history points provided, with archiving of min/max (for today and yesterday), minute (for last 60 minutes), hourly and daily values (for last 35 days). The first 8 of these are non-configurable.

Up to 15 extended history points provided with archiving of up to 5040 entries at 1, 2, 3, 4, 5, 10, 12, 15, 20, 30, or 60 minute intervals.

Memory Logging

- 240 alarms before rollover
- 240 events before rollover

3095FC Flow Specifications

Flow Calculation:

- Computed in accordance with ANSI/API 2530-92 (AGA 3, 1992), API 14.2 (AGA 8, 1992), and API 21.1. Detail, Gross I, Gross II.

Product certifications

Approved Manufacturing Locations

Rosemount Inc. — Chanhassen, Minnesota USA

European Directive Information

The EC declaration of conformity for all applicable European directives for this product can be found on the Rosemount website at www.rosemount.com. A hard copy may be obtained by contacting our local sales office.

ATEX Directive (94/9/EC)

Emerson Process Management complies with the ATEX Directive.

European Pressure Equipment Directive (PED) (97/23/EC)

3095F_2/3,4/D Flow Transmitters — QS Certificate of Assessment - EC No. PED-H-100 Module H Conformity Assessment

All other 3095_ Transmitters/Level Controller — Sound Engineering Practice

Transmitter Attachments: Process Flange - Manifold — Sound Engineering Practice

Electro Magnetic Compatibility (EMC) (2004/108/EC)

3095F Flow Transmitters - EN61326-1:2006,
EN61326-2-3:2006

Ordinary Location Certification for Factory Mutual

As standard, the Rosemount 3095FB transmitter has been examined and tested to determine that the design meets basic electrical, mechanical, and fire protection requirements by FM, a nationally recognized testing laboratory (NRTL) as accredited by the Federal Occupational Safety and Health Administration (OSHA).

Hazardous Locations Certifications

North American Certifications

FM Approvals

- A 3095FB
Explosion Proof for Class I, Division 1, Groups B, C, and D. Dust-Ignition Proof for Class II/III, Division 1, Groups E, F, and G, hazardous locations. Factory Sealed. Provides non-incendive RTD connections for Class I, Division 2, Groups A, B, C, and D. Install per Rosemount drawing 03095-1025. Enclosure Type 4X.


Canadian Standards Association (CSA) - Canada only

- C 3095FB
Explosion-Proof for Class I, Division 1, Groups B, C, and D. Dust-Ignition Proof for Class II/III, Division 1, Groups E, F, and G, hazardous locations. CSA enclosure Type 4X. Factory Sealed. Provides a non-incendive RTD Connection for Class I, Division 2, Groups A, B, C, and D. Suitable for use in Class I, Division 2, Groups A, B, C, and D. Install in accordance with Rosemount Drawing 03095-1024.

Canadian Standards Association (CSA) - U.S. and Canada

- M 3095FC
Explosion-Proof for Class I, Division 1, Groups C and D including optional solar panel: mast option: Suitable for use in Class I, Division 2, Groups A, B, C, D, and T3. CSA Enclosure Type 4.

European Certifications

- H ATEX Flameproof
3095FB
Certificate Number: KEMA02ATEX2320X  II 1/2 G
EEx d IIC T5 (-50°C ≤ T_{amb} ≤ 80°C)
T6 (-50°C ≤ T_{amb} ≤ 65°C)

V_{max} = 55V dc

CE 1180

Special Conditions for Safe Use (x):

The device contains a thin wall diaphragm. Installation, maintenance, and use shall take into account the environmental conditions to which the diaphragm will be subjected. The manufacturer's instructions for installation and maintenance shall be followed in detail to assure safety during its expected lifetime.

3095FC

Certificate Number: LCIE05ATEX6057X  II 2 G
EEx d IIB T5

V_{max} = 28V dc


IP66

CE 1180

Special Conditions for Safe Use (x):

Operating ambient temperature: -40°C to 75°C

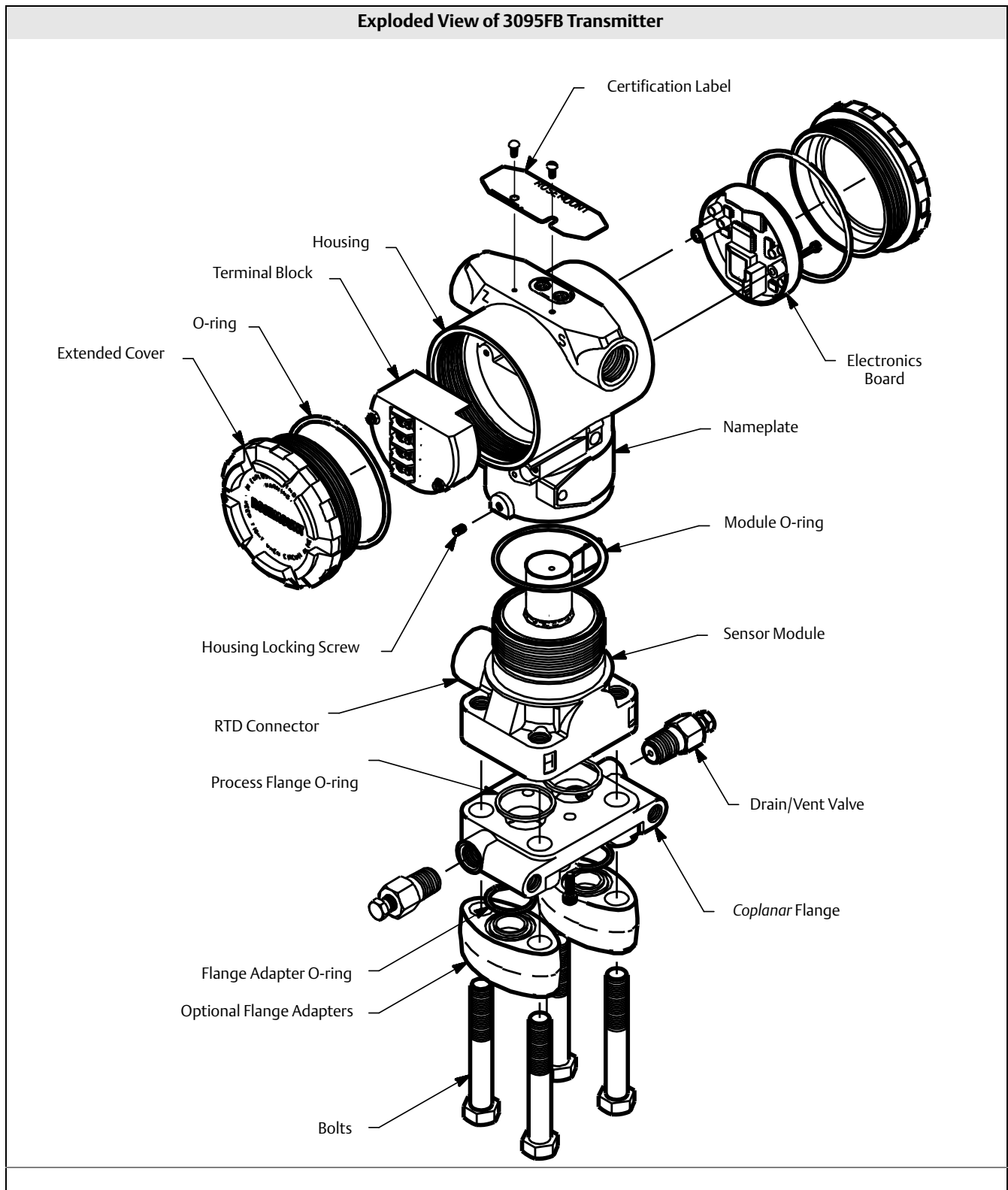
The users have to make sure that the thermal fluid transfer doesn't overheat the equipment to a temperature corresponding to the spontaneous combustion temperature of surrounding gas.

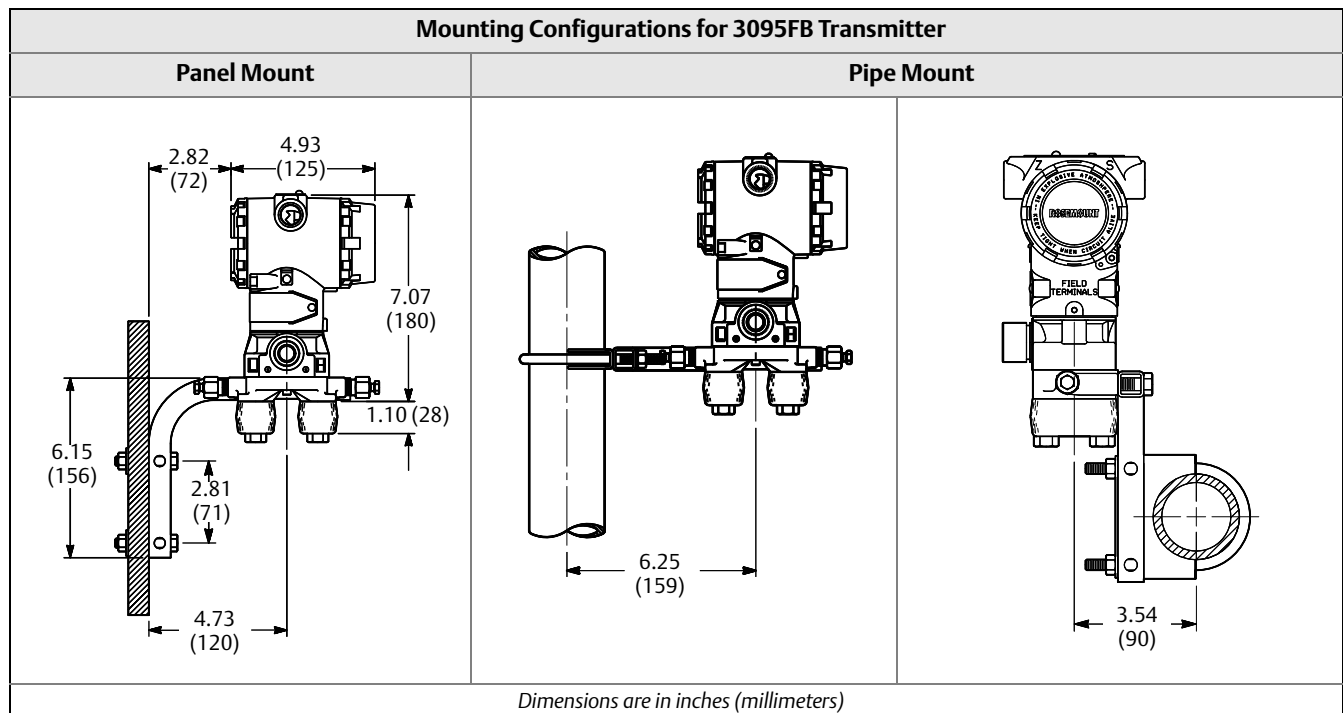
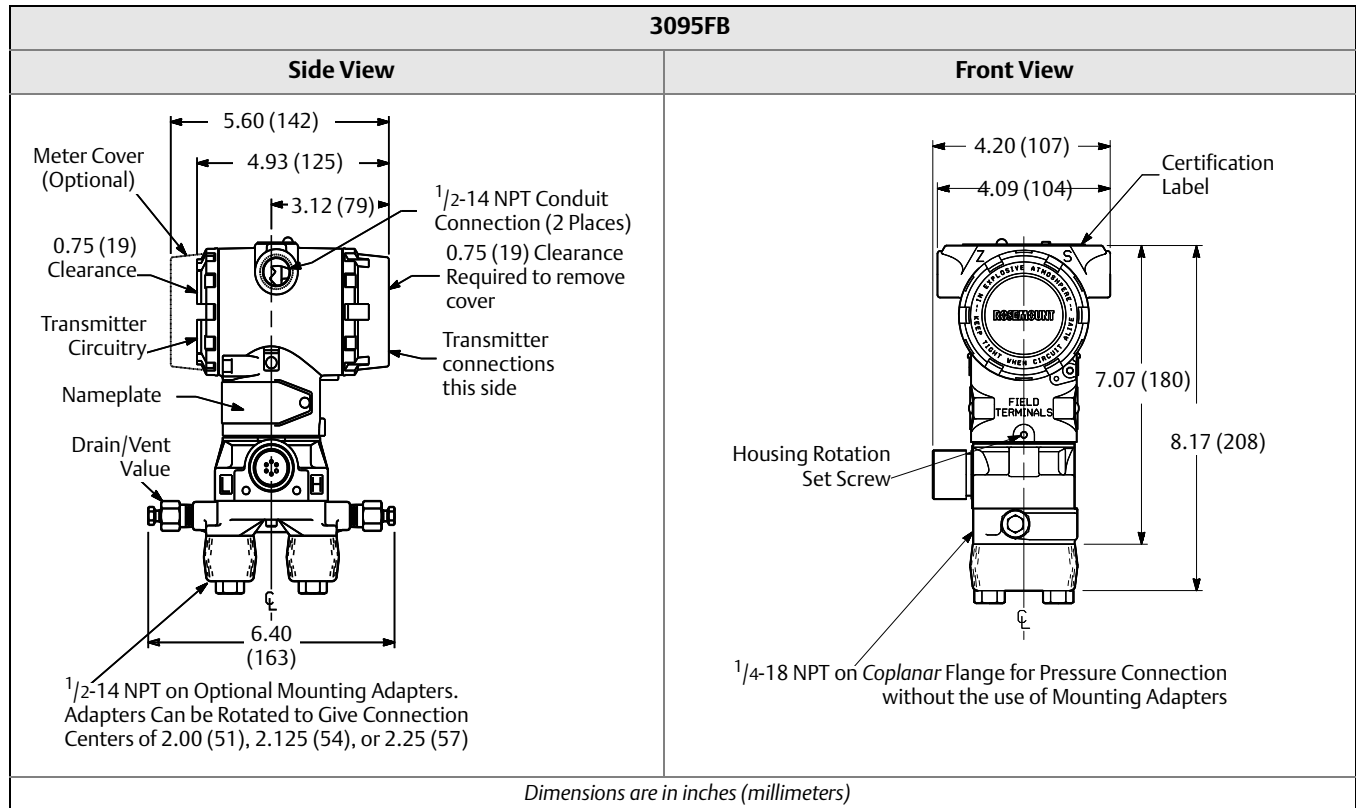
P ATEX Dust
3095FB
Certificate Number: KEMA02ATEX2321  II 1 D T90°C
Ambient Temp ($-50^{\circ}\text{C} \leq T_{\text{amb}} \leq 80^{\circ}\text{C}$)
V = 55 Vdc MAX
I = 23 mA MAX
IP66
CE 1180

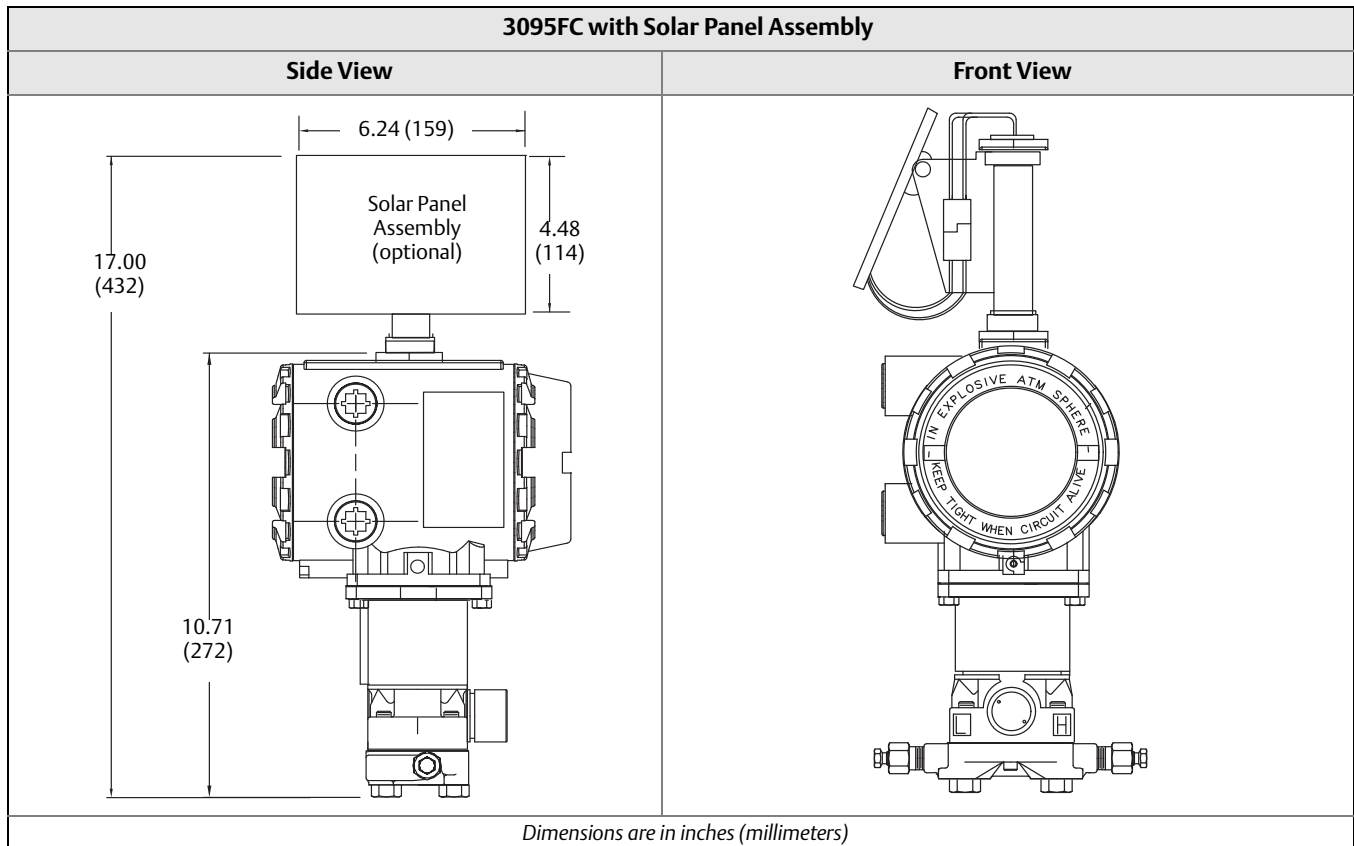
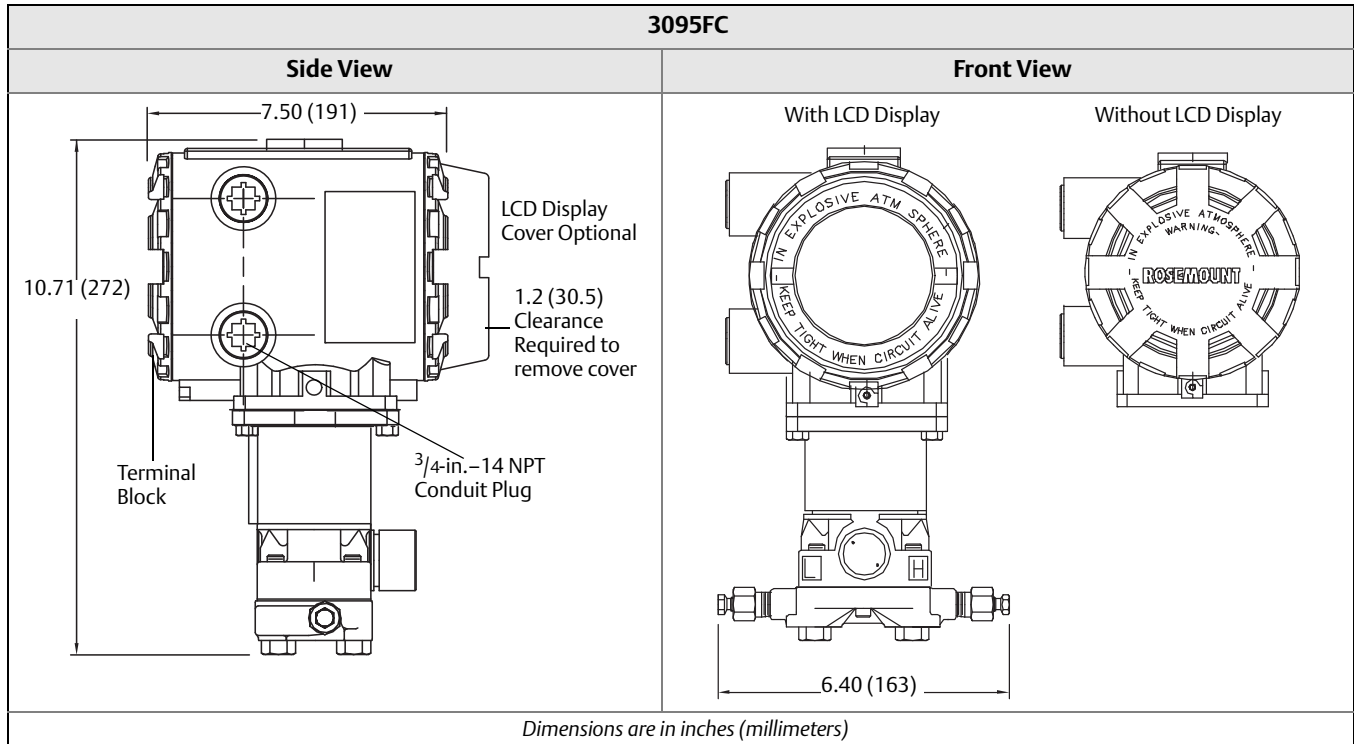
IECEX Certifications

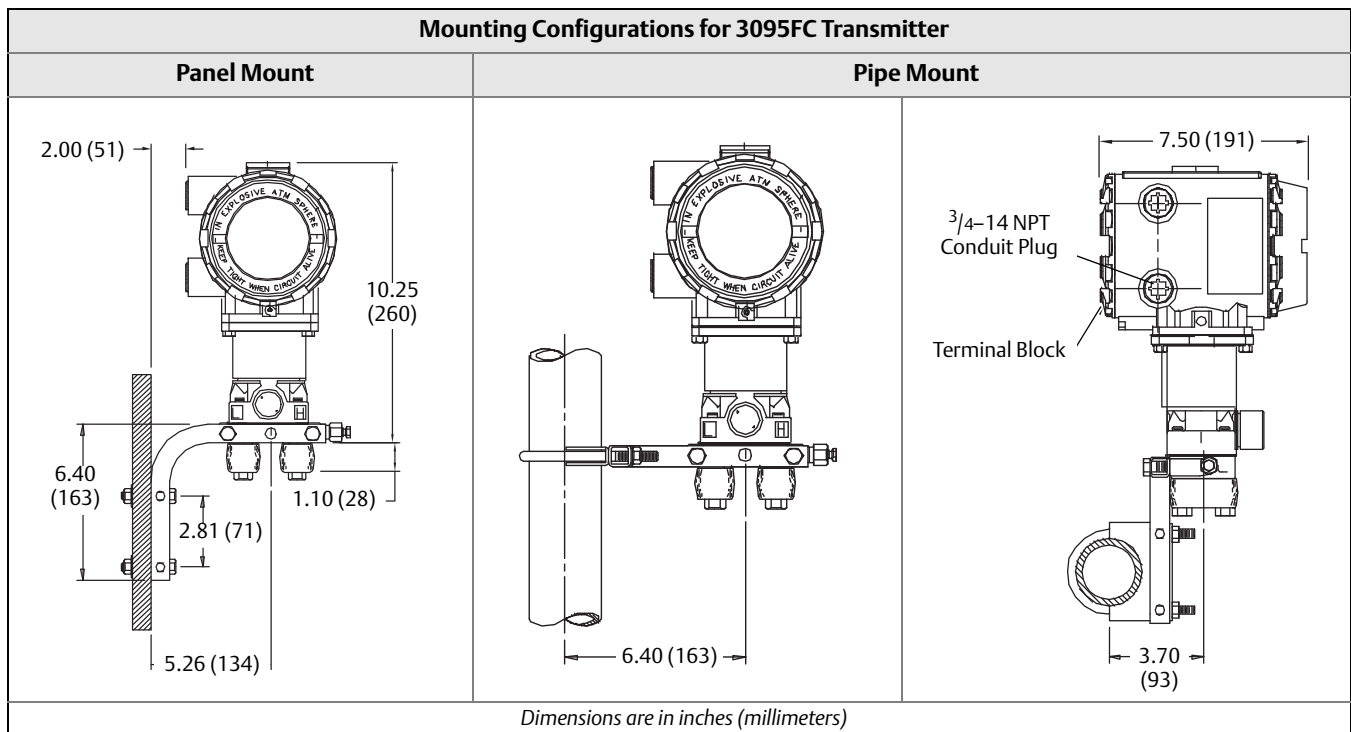
- 7 IECEx Flameproof
3095FB
Certificate Number: IECEx KEM 06.0018
Zone 0/1 Ex d IIC T6 ($-20^{\circ}\text{C} \leq T_a \leq 65^{\circ}\text{C}$)
Zone 0/1 Ex d IIC T5 ($-20^{\circ}\text{C} \leq T_a \leq 80^{\circ}\text{C}$)
 $V_{\text{max}} = 55 \text{ Vdc}$
 $I_{\text{max}} = 23 \text{ mAdc}$
- 8 IECEx Dust
3095FB
Certificate Number: IECEx KEM 06.0018
Ex tD A22 T90°C
IP66

Dimensional drawings









Options

Standard Configuration

Unless otherwise specified, the transmitter is shipped as follows:

Engineering units:	
Differential	inH ₂ O
Absolute/gage	psi
Output:	MODBUS RTU protocol signal
Flange type:	Specified model code option
Flange material:	Specified model code option
O-ring material:	Specified model code option
Drain/vent:	Specified model code option
Flow Configuration Parameters:	Factory default
Software tag:	(Blank)

Custom Configuration (Option Code C1)⁽¹⁾

If Option Code C1 is ordered, the user-specified information and standard configuration parameters are factory configured. Unspecified parameters will remain at the factory default settings.

(1) 3095FC only allows all English or all Metric units.

Tagging

Three customer tagging options are available:

- Standard SST tag is wired to the transmitter. Tag character height is 0.125 in. (3.18 mm), 85 characters maximum.
- Tag may be permanently marked on transmitter nameplate upon request. Tag character height is 0.0625 in. (1.59 mm), 65 characters maximum.

- Tag may be stored in transmitter memory. Software tag is left blank unless specified.
- Software tag is left blank unless specified.

Optional 305 Integral Manifolds

The Rosemount MultiVariable transmitters with 305R Integral Manifold are fully assembled, calibrated, and seal tested by the factory. Refer to PDS 00813-0100-4733 for additional information.

Accessories

3095 User Interface Software Packages

The User Interface software package is available with or without the converter and connecting cables. All configurations are packaged separately.

Windows 98 or higher

3095FB

- Part Number 03095-5130-0003: Windows User Interface Software—Single PC License, Converter, and Cable.
- Part Number 03095-5125-0004: Windows User Interface Software—Single PC License.
- Part Number 03095-5125-0005: Windows User Interface Software—Site License.
- Part Number 03095-5106-0002: RS-485 Converter and Cable.

3095FC

- Part Number 03095-5136-0001: Windows User Interface Software—Single PC License, and Cable.
- Part Number 03095-5135-0001: Windows User Interface Software—Single PC License.
- Part Number 03095-5135-0002: Windows User Interface Software—Site License.
- Part Number 03095-5106-0003: 10 foot (3.05 m) 9-pin Serial Cable (For direct connect method)

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