

Rosemount 3095 MultiVariableTM Mass Flow Transmitter and Flowmeters

THE PROVEN LEADER IN MULTIVARIABLE MASS FLOW MEASUREMENT

- 1.0% Mass Flow rate accuracy over 10:1 Flow Range
- Ten year stability under actual process conditions
- Unprecedented reliability backed by a limited 12-year warranty
- Four variables in one device
- “Real-Time” fully-compensated Mass Flow
- CoplanarTM platform enables DP Flowmeters



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Rosemount 3095M Selection Guide



Rosemount 3095M Mass Flow Transmitter

See ordering information on page 3.

- Measures differential pressure, static pressure, and process temperature to dynamically calculate fully compensated mass flow
- Up to $\pm 1.0\%$ mass flow accuracy over a 10:1 flow turndown
- Ultra for Flow performance provides a 10-year stability and 12-year limited warranty
- Available with HART or FOUNDATION Fieldbus Protocols



Rosemount 3095MFA Annubar Flowmeter

See ordering information on page 21.

- Annubar flowmeters reduce permanent pressure loss by creating less blockage in the pipe
- Ideal for large line size installations when cost, size, and weight of the flowmeter are concerns



Rosemount 3095MFC Compact Orifice Flowmeter

See ordering information on page 41.

- Compact Conditioning flowmeters reduce straight piping requirements to 2D upstream and 2D downstream from a flow disturbance
- Simple installation of Compact flowmeters between any existing raised-face flanges



Rosemount 3095MFP Integral Orifice Flowmeter

See ordering information on page 52.

- Precision honed pipe section for increased accuracy in small line sizes
- Self-centering plate design prevents alignment errors that magnify measurement inaccuracies in small line sizes

Rosemount 3095M MultiVariable Mass Flow Transmitter

Table 1. Rosemount 3095M Multivariable Mass Flow Transmitter Ordering Information

★ The Standard offering represents the most common options. The starred options (★) should be selected for best delivery.

The Expanded offering is subject to additional delivery lead time.

		— Not available	
		3095MA	3095MV
Model	Product Description		
Standard		Standard	Standard
3095M	MultiVariable Mass Flow Transmitter	★	★
Output			
Standard		Standard	Standard
A	4–20 mA with Digital Signal Based on HART Protocol	★	—
V	FOUNDATION™ fieldbus Protocol	—	★
Differential Pressure Ranges			
Standard		Standard	Standard
1 ⁽¹⁾	0–0,5 to 0–25 inH ₂ O (0–1,25 to 0–62,2 mbar)	★	★
2	0–2,5 to 0–250 inH ₂ O (0–6,22 to 0–623 mbar)	★	★
3	0–10 to 0–1000 inH ₂ O (0–25 mbar to 0–2,49 bar)	★	★
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 0,03–250bar)	★	★
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 ⁽²⁾	316L SST	Silicone	★
B ⁽²⁾	Alloy C-276	Silicone	★
J ⁽²⁾⁽³⁾	316L SST	Inert	★
K ⁽²⁾⁽³⁾	Alloy C-276	Inert	★
Expanded			
F	Gold-Plated 316L SST	Silicone	
D ⁽⁴⁾	Tantalum	Silicone	
L ⁽⁴⁾	Tantalum	Inert	
Flange Style		Material	
A ⁽²⁾	Coplanar	CS	★
B ⁽²⁾	Coplanar	SST	★
C ⁽²⁾	Coplanar	Alloy C-276	★
J	DIN Compliant Traditional Flange, SST 10 mm Adapter/Manifold Bolting	SST, 1/16 — 20 Bolting	★
0	None		★
Drain/Vent Material			
Standard		Standard	Standard
A	SST	★	★
C ⁽²⁾	Alloy C-276	★	★
0	None	★	★
O-ring			
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	★	★

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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	½–14 NPT	★	★
B	Polyurethane-Covered Aluminum	M20 × 1.5 (CM20)	★	★
J	SST	½–14 NPT	★	★
K	SST	M20 × 1.5 (CM20)	★	★
Expanded				
D	Polyurethane-Covered Aluminum	PG 13.5		
M	SST	PG 13.5		
Terminal Block				
Standard			Standard	Standard
A	Standard		★	★
B	With Integral Transient Protection		★	★
Display				
Standard			Standard	Standard
0	None		★	★
1	LCD Display		★	★
Bracket				
Standard			Standard	Standard
0	None (Required for Option Codes 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		★	★
Bolts				
Standard			Standard	Standard
0	CS bolts		★	★
1	Austenitic 316 SST Bolts		★	★
N	None		★	★
Product Certifications				
Standard			Standard	Standard
0	None		★	★
A	FM Explosion-proof		★	★
J	FM Intrinsically Safe, Division 2		★	★
B	FM Explosion-proof, Dust Ignition-proof, Intrinsically Safe, Division 2 (Combination of A and J)		★	★
V	FM FISCO Intrinsically Safe; for FOUNDATION fieldbus protocol only		—	★
K	CSA Intrinsically Safe, Division 2		★	★
C	CSA Explosion-proof, Dust Ignition-proof, Division 2		★	★
D	CSA Explosion-proof, Dust Ignition-proof, Intrinsically Safe, Division 2 (Combination of C and K)		★	★
W	CSA FISCO Intrinsically Safe; for FOUNDATION fieldbus protocol only		—	★
H	ATEX Flameproof		★	★
F	ATEX Intrinsic Safety		★	★
G	ATEX Type n		★	★
P	ATEX Dust		★	★
L	ATEX Flameproof, Intrinsic Safety, Type n, Dust (Combination of F, G, H, and P)		★	★

Rosemount 3095 MultiVariable

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T	ATEX FISCO Intrinsic Safety; for FOUNDATION fieldbus protocol only	—	★
6	ATEX FISCO, Intrinsic Safety, Flameproof, Type n, Dust Combination of F, G, H, P and T	—	★
7	IECEX Flameproof	★	★
4	IECEX Intrinsic Safety	★	★
5	IECEX Type n	—	★
8	IECEX Dust	★	★
9	IECEX Flameproof, Dust, Intrinsic Safe	★	★
Y	IECEX FISCO Intrinsic Safety; for FOUNDATION fieldbus protocol only	—	★
E	INMETRO Flameproof	★	★
2	China Intrinsic Safety	★	—
3	China Flameproof	★	★
R	TIIS Flameproof	—	★
Engineered Measurement Solution (EMS)			
Standard		Standard	Standard
B ⁽⁵⁾	Fully Compensated Mass Flow and Measured Variables (DP, P, and T) with HART or FOUNDATION fieldbus.	★	★
V ⁽⁶⁾	Direct Process Variable Measurement (DP, P, and T) Only (No Mass Flow Variable) with FOUNDATION fieldbus.	—	★

Options (Include with selected model number)

Custom Configuration			
Standard		Standard	Standard
C2	Custom Flow Configuration (Requires completed Configuration Data Sheet)	★	★
Process Adapter			
Standard		Standard	Standard
DF ⁽⁷⁾	1/2-14 NPT Process Adapter, Material Type Determined by Selected Flange Material: Plated CS, SST, Cast C-276	★	★
Remote Seal			
Standard		Standard	Standard
S1	One Remote Seal	★	★
S2	Two Remote Seal	★	★
Integral Manifold			
Standard		Standard	Standard
S3	Assemble to Rosemount 405 Compact Orifice	★	★
S5 ⁽⁸⁾	Assemble to Rosemount 305 Integral Manifold	★	★
S6 ⁽⁸⁾	Assemble to Rosemount 304 Manifold or Connection System	★	★
Cleaning			
Expanded			
P2	Cleaning for Special Services		
Material Traceability Certification			
Standard		Standard	Standard
Q8 ⁽⁹⁾	Material Inspection Certificate per EN 10204 3.1B	★	★
Calibration Certificate			
Standard		Standard	Standard
Q4	Inspection Certificate for Calibration Data	★	★
Pressure Testing			
Expanded			
P1	Hydrostatic Testing with Certificate		
Primary Element			
Standard		Standard	Standard
S4 ⁽⁸⁾⁽¹⁰⁾	Assemble to Rosemount 485 or Rosemount 1195	★	★
Surface Finish Certification			
Standard		Standard	Standard
Q16	Surface Finish Certification for sanitary remote seals	★	★
Performance Class			
Standard		Standard	Standard
U3 ⁽¹¹⁾	Ultra for Flow: 0.05% DP Reading Accuracy, Up to 100:1 Rangedown, 10 Yr Stability, 12 Yr Warranty	★	★

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PlantWeb Control Functionality			
Standard		Standard	Standard
A01 ⁽¹²⁾	Advanced Control Suite: PID, arith, signal char, integ, etc.; requires FOUNDATION fieldbus	—	★
PlantWeb Diagnostic Functionality			
Standard		Standard	Standard
D01	Cleaning for Special Services	—	★
Typical Model Number 3095M A 2 3 A A A 1 3 A B 0 1 1 0 B			

- (1) Available only with 3 or C sensor modules and "A" 316L SST/silicone, Isolator/Fill Fluid option.
- (2) 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.
- (3) Only available with C or D Gage Sensor Modules.
- (4) Not available with Absolute / Gage Pressure Ranges C or D.
- (5) Requires Rosemount 3095 Engineering Software Assistant to configure mass flow.
- (6) Not available with HART output.
- (7) Not available with assembly to Rosemount 1195 Integral Orifice Option Code S4.
- (8) "Assemble-to" items are specified separately and require a completed model number.
- (9) This option is available for the sensor module housing, Coplanar and Coplanar flange adapters.
- (10) With a primary element installed, the maximum operating pressure will be the lesser of either the transmitter or the primary element.
- (11) Ultra for Flow applicable for HART protocol, DP ranges 2 and 3 with SST isolator material and silicone fill fluid options only.
- (12) Function Blocks include: Arithmetic, Integrator, Analog Output, Signal Characterizer, Control Selector, and Output Selector.

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