

I/A Series® Pulse DC Magnetic Flowmeters: 8000A Series Wafer Body, 9300A, 9200A, 9100A Series Flanged Body Flowtubes, and IMT25 Series Intelligent Magnetic Flow Transmitters



A Magnetic Flowmeter consisting of a flowtube, signal cable, and Transmitter measures flow rate of conductive liquids (usually water based) and transmits a proportional electrical signal.

Refer to Product Specifications sheet PSS 1-6F2 A (8000A Series), 1-6F4 A (9300A Series), 1-6F9A (9100A Series) 1-6F10A (9200A Series), 1-6F5 A (IMT25) for complete description and specifications.

- 8000A – Wafer Design Flowtubes
 - ✓ Available in 15 to 150 mm (1/16 to 6 in.) sizes
 - ✓ Ceramic and Retained PFA liner options
 - ✓ Sanitary design 25 to 80 mm (1/2 to 3 in.)
- 9300A – Compact Lay Length Flanged Design Flowtubes
 - ✓ Available in 25 to 400 mm (1/2 to 16 in.) sizes
 - ✓ PTFE or PFA Liner
 - ✓ Meets ISO/CD Standard 13359
- I/A Series Intelligent Transmitter (IMT25)
 - ✓ Digital, analog, pulse output signals
 - ✓ Relay outputs for alarms (IMT25 only)
- Remote Communications
 - ✓ Transmitters can be interrogated or configured via Hand-Held Terminal, PC, or I/A Series Workstation
- 9200A – Large Flanged Flowtubes for General Process Industries
 - ✓ Available in 15 to 2000 mm (1/2–78 in.)
 - ✓ Neoprene, EPDM, PTFE, Ebonite and Linatex Liners
 - ✓ Built in grounding (reference) electrodes standard, no need for grounding rings
 - ✓ Meets ISO lengths for applicable sizes
- 9100A – Flanged Flowtubes for the Municipal Water and Water & Waste
 - ✓ Available in 25 to 2000 mm (1-78 in.)
 - ✓ Ebonite liner
 - ✓ Available with Din, ANSI, AWWA flanges

Functional Specifications

Minimum Conductivity of Process Fluid: 5 µhm/cm (5µS/cm)

Ambient Temperature Limits:

8000A/9300A: -40 and 70°C (-40 and 158°F)
 IMT25: -30 and 70°C (-22 and 158°F)

Process Temperature Limits(Remote Mounted Transmitter):

8000A (Ceramic): -40 and 204°C (-40 and 400°F).
 Maximum allowable step change in temperature is an increase of 125°C (225°F) and a decrease of 75°C (135°F)
 8000A/9300A (PFA): -40 and 180°C (-40 and 250°F)
 1/2" - 6", 8" - 12"

Process Temperature Limits:

8000A (Ceramic): Full vacuum and 740 psi @ 100°F (1/16 to 2 in.) Full vacuum and 675 psi @ 100°F (3 to 6 in.)

8000A/9300A (PFA): Full vacuum and 740 psi @ 100°F
 For 9300A PTFE and Polyurethane refer to PSS 1-6F4 A

Process Temperature Limits:

9200A: -20 and 180°C (-4 and +356°F) with ptf liner: -20 and +100°C (-4 and +212°F) with EPDM^(a) Liner: -10 and +70°C (14 and 158°F) with Neoprene Liner: 0 and 70°C (32 and 158°F) with Ebonite Liner: 0 and +70°C (32 and 158°F) with Linatex Rubber Liner: -40 and +70°C (-40 and +158°F)

Process Pressure Limits:

9200A with ptf Liner: Limits are No Vacuum and Flange Rating; but not exceeding 40 bar guage (580psig) with EPDM, Neoprene, Ebonite, or Linatex Liner: Full Vacuum and Flange Rating

Process Temperature Limits:

9100A Ebonite liner: 0 and 70° (32 and 158°F)

Process Pressure Limits:

9100A with Ebonite Liner: Full Vacuum and Flange Rating

Flow Rates:		Flow Units	Minimum & Maximum Upper Range Values	
mm	in		8000A	9300A, 9200A, 9100A
1.6	1/16	Lpm gpm	0.11 and 1.1 0.03 and 0.3	
3	1/8	Lpm gpm	0.26 and 4.92 0.07 and 1.3	
6	1/4	Lpm gpm	0.68 and 13.6 0.18 and 3.6	
15	1/2	Lpm gpm	3.8 and 76 1 and 20	3.8 and 76 1 and 20
25	1	Lpm gpm	13.2 and 265 3.5 and 70	13.2 and 265 3.5 and 70
40	1-1/2	Lpm gpm	34.1 and 644 9.0 and 170	34.1 and 644 9.0 and 170

50	2	Lpm gpm	49 and 946 13 and 250	49 and 946 13 and 250
80	3	Lpm gpm	117 and 2366 31 and 625	117 and 2366 31 and 625
100	4	Lpm gpm	208 and 4164 55 and 1100	208 and 4164 55 and 1100
150	6	Lpm gpm	426 and 9236 122 and 2440	426 and 9236 122 and 2440
200	8	Lpm gpm		965 and 19303 255 and 5100
250	10	Lpm gpm		1552 and 31037 410 and 8200
300	12	Lpm gpm		2215 and 44285 585 and 11700
350	14	Lpm gpm		2763 and 55260 730 and 14600
400	16	Lpm gpm		3634 and 72670 960 and 19200
450	18	Lpm gpm		4668 and 93350 1200 and 24000
500	20	Lpm gpm		5668 and 113400 1500 and 30000
600	24	Lpm gpm		8168 and 163400 2150 and 43000
700	28	Lpm gpm		11500 and 230000 3000 and 60000
	30	Lpm gpm		-- 3400 and 68000
800	32	Lpm gpm		15000 and 300000 3900 and 78000
900	36	Lpm gpm		19170 and 383400 5000 and 100000
1000	40	Lpm gpm		23340 and 466800 6200 and 124000
	42	Lpm gpm		-- 6800 and 136000
	44	Lpm gpm		-- 7500 and 150000
1200	48	Lpm gpm		34170 and 683500 9000 and 180000
1400	54	Lpm gpm		46680 and 933500 12000 and 240000
	60	Lpm gpm		-- 14000 and 280000
1600	66	Lpm gpm		66680 and 133400 175000 and 350000
1800	72	Lpm		80020 and 1600000
		gpm		21000 and 420000
2000	78	Lpm gpm		93350 and 1867000 25000 and 500000

Performance Specifications

Accuracy - Pulse and Digital Output:

8000A	9300A	System Accuracy
1/2 - 6 in (15 - 150mm)	1/2 - 6 in (25 - 150 mm)	±0.25% of Reading ±0.005 ft/s (±0.0015 m/s)
1/16 - 1/4 in (1.16 - 6 mm)	8 - 16 in (200 - 400 mm)	±0.50% of Reading ±0.010 ft/s (±0.00305 m/s)

IMT 25 Transmitters:

Electrical Outputs:

- 4 to 20 mA current, digital, pulse
- 2 relays outputs for alarms (IMT25 only)

Electrical Classification: FM, CSA, CENELEC certified versions available for ordinary location and hazardous locations. Refer to Foxboro for complete specifications and availability

Display Options: 32 alphanumeric character, 2-line, back-lighted LCD display. Indicate ± total, net total, net inventory total & ±mn; rate in desired engineering units.

Optional Features

Grounding (Protective) Rings: Two grounding (protective) rings are required, one on each end of flowube, if mating piping is nonmetallic or lined metallic piping.

Signal Cable: Part Number R0101ZS (if ordered feet) or Part Number B4017TE (if ordered in meters). Maximum length 300 m (1000 ft).

Physical Specifications

Enclosure Classification: Meets the requirements of IEC IP66 and provides the environmental protection of NEMA Type 4X

Enclosure Finish: High-build epoxy paint

Lining Material:

Ceramic: 1.6 to 150 mm (1/16 to 6 in) sizes.

PTFE: 15 to 600 mm (1/2 to 16 in) sizes.

PFA: 15 to 400 mm (1/2 to 16 in) sizes.

Poly: 200 to 400 mm (8 to 16 in) sizes

Electrode Material: Platinum and Tantalum for ceramic flowtubes. Assorted materials for PTFE and PFA flowtubes

Mounting:

Flowtube: By process connection flanges. See How to Order.

Transmitters:

Pipe: Bracket for mounting to DN 50 or 2 in pipe.

Surface: Plate permits mounting to surface such as a wall.

Flowtube: Bolted directly to any 15 to 400 mm (1/2 to 16 in) 8000A and 9300 Series Flowtube (except sanitary)

How to Order

8000A Series Flowtube

Specify 8000A Series Flowtube:

Model Number

1.6 mm (1/16 in) Line Size (ceramic liner only).....	801SA
3 mm (1/8 in) Line Size (ceramic liner only).....	801EA
6 mm (1/4 in) Line Size (ceramic liner only).....	801QA
15 mm (1/2 in) Line Size.....	800HA
25 mm (1 in) Line Size.....	8001A
40 mm (1 1/2 in) Line Size.....	801HA
50 mm (2 in) Line Size.....	8002A
80 mm (3 in) Line Size.....	8003A
100 mm (4 in) Line Size.....	8004A
150 mm (6 in) Line Size.....	8006A

Tube Construction/End Connection

Wafer Body (Mounts between ANSI Class 150 or 300, or Metric PN 10 or PN 16 Flanges).....	.W
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Lining Material

Ceramic.....	.C
PFA (800HA to 8006A only).....	.P

Transmitter Mounting

Remote (Pipe or Surface) Mounting.....	.R
Flowtube Mounting (800HA to 8006A) to IMT25.....	.I

Electrodes

Tantalum (801SA to 801QA only) ceramic lined or Tantulum-Tungsten (800HA to 8006A) PFA lined.....	B
Conical 316 ss (8001A to 8006A) PFA lined only.....	C
Hastelloy C (800HA to 8006A) PFA lined only.....	H
Conical Hastelloy C (8001A to 8006A) PFA lined only.....	K
Platinum (801SA to 8006A) ceramic lined or platinum-iridium (800HA to 8006A) PFA lined.....	P
316 ss (800HA to 8006A) PFA lined only.....	S
Titanium (800HA to 8006A) PFA lined only.....	T

Coil Drive/Supply

Pulsed dc (From Intelligent I/A Series Magnetic Flow Transmitters).....	.J
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Housing Construction

NEMA 4X Enclosure.....	.G
Accidental Submergence (Remote Mounted Transmitter Only).....	.H

Electrical Certification

CSA, Ordinary Locations.....	.CGZ
CSA, Class 1, Division 2 Locations.....	.CNZ
European, non-sparking.....	.KNZ
FM, Ordinary Locations.....	.FGZ
FM, n, i a Connections.....	.FNA
No Certification.....	.ZZZ

Optional Selection(s)

Mounting Hardware for ANSI Class 150 Flanges.....	A
Mounting Hardware for ANSI Class 300 Flanges.....	B
Mounting Hardware Metric PN 10 Flanges.....	C
Mounting Hardware Metric PN 16 Flanges.....	D
Cable Glands (non-conduit applications).....	G

9300A Series Flowtube

Specify 9300A Series Flowtube Model Number

Nominal Flowtube Size

15 mm (1/2 in) ⁽¹⁾	930HA
25 mm (1 in)	9301A
40 mm (1 1/2 in)	931HA
50 mm (2 in)	9302A
80 mm (3 in)	9303A
100 mm (4 in)	9304A
150 mm (6 in)	9306A

Tube Construction

AISI Type 304 ss or 305 ss flowtube;	
Face-to-Face dimensions conform to ISO/DIS 13359	-SI

End Connections

ANSI Class 150, Carbon Steel flange	BA
ANSI Class 150, 316 ss flange	BB
ANSI Class 300, Carbon Steel flange ⁽²⁾	BD
ANSI Class 300, 316 ss flange ⁽²⁾	BC
Metric PN 10, Carbon Steel flange	ZD
Metric PN 16, Carbon Steel flange	ZE
Metric PN 25, Carbon Steel flange ⁽²⁾	ZF
Metric PN 40, Carbon Steel flange ⁽²⁾	ZG
Metric PN 10, 316 ss flange	ZL
Metric PN 16, 316 ss flange	ZM
Metric PN 25, 316 ss flange ⁽²⁾	ZN
Metric PN 40, 316 ss flange ⁽²⁾	ZP

Lining Material

ptfe (Polytetrafluoroethylene)	-T
pfa (Perfluoroalkoxy) (9301A to 9306A only)	-P

Electrodes

Tantalum-Tungsten	B
Hastelloy C	H
Conical Hastelloy C (9301A to 9306A only)	K
Platinum-Iridium	P
316L ss	S
Conical 316L ss (9301A to 9306A only)	C
Titanium	T

Coil Drive/Supply

Pulsed dc	J
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Housing/Transmitter Mounting

NEMA 4 (ptfe)/NEMA 4X (pfa), Remote mounted transmitter	-G
Total/accidental submergence (Remote mounted transmitter) ⁽³⁾	-N
NEMA 4 (ptfe)/NEMA 4X (pfa), IMT25 or IMT25L Integrally mounted	-I

Electrical Classification

CSA, Ordinary location	K
CSA, Class I, Div. 2 ⁽⁴⁾	L
FM, Ordinary location	M
CENELEC, e, ia (environment and pipeline Zone 1)	S
FM, Class I, Div. 2, Nonincendive ⁽⁴⁾	N
European, nonincendive, Zone 2	U
No certification	Z

Options

Heyco Glands (not available with Housing -T or -I) ^(5, 6)	-G
Teflon lining protector ⁽⁷⁾	-T

Specify:

- Flow range (normal and maximum)
- Liquid composition
- Liquid conductivity
- Operating temperature (normal and maximum)
- Operating pressure (normal and maximum)

Specify other Optional Features

Specify information for instrument tag

Notes

- 1 Available with -T (ptfe) lining only
- 2 Available with -P (pfa) lining only
- 3 Sealed for accidental or continuous operation under water up to 9 m (30 ft) deep. Supplied with kit for sealing
- 4 Must be used with transmitter certified for Class I, Groups B, C, and D, Division 2 locations
- 5 For flowtubes with integrally mounted transmitter, cable glands may be specified with the transmitter options
- 6 Cable glands are assembled to flowtube junction box and are specified for nonconduit applications. (not for Electrical Classification Code L & N)
- 7 Not available with Metric Flange Connections ZD & ZE

9300A Series Flowtube

Specify 9300A Series Flowtube Model Number

Nominal Flowtube Size

200 mm (8 in).....	.9308A
250 mm (10 in).....	.9310A
300 mm (12 in).....	.9312A
450 mm (14 in).....	.9314A
400 mm (16 in).....	.9316A

Tube Construction

AISI Type 304 ss;	
Face-to-Face dimensions conform to to ISO/DIS 13359	-SI

End Connections

ANSI Class 150, Carbon Steel flange.....	BA
ANSI Class 150, 316 ss flange	BB
ANSI Class 300, Carbon Steel flange ⁽⁸⁾	BD
ANSI Class 300, 316 ss flange ⁽⁸⁾	BC
Metric PN 10, Carbon Steel flange	ZD
Metric PN 16, Carbon Steel flange	ZE
Metric PN 25, Carbon Steel flange ^(8, 9)	ZF
Metric PN 40, Carbon Steel flange ^(8, 9)	ZG
Metric PN 10, 316 ss flange ⁽²⁾	ZL
Metric PN 16, 316 ss flange ⁽²⁾	ZM
Metric PN 25, 316 ss flange ^(8, 9)	ZN
Metric PN 40, 316 ss flange ^(8, 9)	ZP

Lining Material

Polyurethane	-A
pfa (Perfluoroalkoxy) (8 inch,10 inch, 12 inch).....	-P
ptfe (Polytetrafluoroethylene).....	-T

Electrodes

Tantalum-Tungsten ⁽¹⁰⁾	B
Hastelloy C ⁽¹⁰⁾	H
Conical Hastelloy C (9301A to 9306A only) ⁽¹⁰⁾	K
Platinum-Iridium ⁽¹⁰⁾	P
316L ss.....	S
Conical 316L ss (9301A to 9306A only) ⁽¹⁰⁾	C
Titanium ⁽¹⁰⁾	T

Coil Drive/Supply

Pulsed dc J

Housing/Transmitter Mounting

NEMA 4X, Remote mounted transmitter -G
 Total/accidental submergence (Remote mounted transmitter)¹¹ -N
 NEMA 4X, Integrally mounted IMT25 and IMT25L -I

Electrical Safety

CSA, Ordinary location K
 CSA, Class I, Div. 212 L
 FM, Ordinary location M
 FM, Class I, Div. 2, Nonincendive¹² N
 European, nonincendive, Zone 2 U
 No certification Z

Options

Cable glands (not with -T or -I housing)¹³ -G
 Grounding Electrodes¹⁰ -E
 Lining protector (8 inch, 10 inch, 12 inch, 14 inch, 16 inch)^{9,10} -T

Specify:

- Flow range (normal and maximum)
- Liquid composition
- Liquid conductivity
- Operating temperature (normal and maximum)
- Operating pressure (normal and maximum)

Specify other Optional Features

Specify information for instrument tag

Notes

- 8 Available with -P (pfa) lining only
- 9 The -T option not available with metric End Connection Options
- 10 Available with pfa (-P lining) and ptfe (-T lining) only
- 11 Sealed for accidental or continuous operation under water up to 9 m (30 ft) deep. Supplied with kit for sealing
- 12 Must be used with transmitter certified for Class I, Groups B, C, and D, Division 2 locations
- 13 The cable glands provide a sealed cable entry for field wiring to the flowtube junction box, and are generally specified in non-conduit applications (not for Electrical Classification Codes L or N). For flowtubes with integrally mounted transmitters (-I or -T housing) cable glands may be specified with the transmitter options

9100A Series Magnetic Flowtubes

Specify 9100A Series Magnetic Flowtube Model Number

Nominal Flowtube Size (a)

DN Flange Size	Inch Flange Size	Model	DN Flange Size	Inch Flange Size	Model
25 mm	1 in	9101A	500 mm	20 in	9120A
40 mm	1 1/2 in	911HA	600 mm	24 in	9124A
50 mm	2 in	9102A	700 mm	28 in	9128A
65 mm	2 1/2 in	912HA	-	30 in	9130A
80 mm	3 in	9103A	800 mm	32 in	9132A
100 mm	4 in	9104A	900 mm	36 in	9136A
125 mm	5 in	9105A	1000 mm	40 in	9140A
150 mm	6 in	9106A	1050 mm	42 in	9142A
200 mm	8 in	9108A	1100 mm	44 in	9144A
250 mm	10 in	9110A	1200 mm	48 in	9148A
300 mm	12 in	9112A	1400 mm	54 in	9154A
350 mm	14 in	9114A	1500 mm	60 in	9160A
400 mm	16 in	9116A	1600 mm	66 in	9166A
450 mm	18 in	9118A	1800 mm	72 in	9172A
			2000 mm	78 in	9178A

Tube Construction

AISI Type 304 Stainless Steel Tube (304 ss) -SI

End Connections

ANSI Class 150, Carbon Steel Flange – 1 to 24 in Line Sizes CA
 AWWA C-207, Class D, Carbon Steel Flange – 28 to 78 in Line Sizes WC
 PN 6, EN 1092-1, Carbon Steel Flange – 1400 to 2000 mm Line Sizes CZ
 PN10, EN 1092-1, Carbon Steel Flange – 200 to 2000 mm Line Sizes CX
 PN 16, EN 1092-1, Carbon Steel Flange – 65 to 2000 mm Line Sizes CE or CF^(b)
 PN 40, EN 1092-1, Carbon Steel Flange – 25 to 50 mm Line Sizes CG

- (a) See “End Connection” selections further in Code to determine ANSI, AWWA, and BS (DIN) flanges applicable to each flowtube size.
- (b) For PED, please contact Invensys Foxboro.

Liner Material

Ebonite B

Electrodes

Hastelloy C-276 H

Coil Drive

Pulsed dc J

Housing Construction/Transmitter Mounting

Coated Carbon Steel Housing with Aluminum Terminal Box -G
 - Terminal Box has 1/2 inch Conduit Threads
 - Remote Mounted Transmitter
 Coated Carbon Steel Housing with Polyamide Terminal Box -F
 - Terminal Box has 1/2 inch NPT Conduit Threads with Cable Glands
 - Remote Mounted Transmitter
 Coated Carbon Steel Housing with Polyamide Terminal Box, M20 Conduit -V

Electrial Safety (Also see Electrical Safety Specifications section)

FM/CSA, Nonincendive Class 1, Div 2 N

Example: 9116A-CA-BHJ-GN



9200A Series Magnetic Flowtubes

Specify 9200A Series Magnetic Flowtube Model Number

Nominal Flowtube Size^(a)

DN Flange Size	Inch Flange Size	Model	DN Flange Size	Inch Flange Size	Model
15 mm	1/2 in	920HA	500 mm	20 in	9220A
25 mm	1 in	9201A	600 mm	24 in	9224A
40 mm	1-1/2 in	921HA	700 mm	28 in	9228A
50 mm	2 in	9202A	750 mm	30 in	9230A
65 mm	2-1/2 in	922HA	800 mm	32 in	9232A
80 mm	3 in	9203A	900 mm	36 in	9236A
100 mm	4 in	9204A	1000 mm	40 in	9240A
125 mm	5 in	9205A	1050 mm	42 in	9242A
150 mm	6 in	9206A	1100 mm	44 in	9244A
200 mm	8 in	9208A	1200 mm	48 in	9248A
250 mm	10 in	9210A	1400 mm	54 in	9254A
300 mm	12 in	9212A	1500 mm	60 in	9260A
350 mm	14 in	9214A	1600 mm	66 in	9266A
400 mm	16 in	9216A	1800 mm	72 in	9272A
450 mm	18 in	9218A	2000 mm	78 in	9278A

Tube Construction

ANSI Type 304 Stainless Steel Tube (304 ss) -SI

End Connections

ANSI Class 150, Carbon Steel Flange – 1/2 to 24 in Line Sizes	CA
ANSI Class 150, Stainless Steel Flange – 1/2 to 24 in Line Sizes	CB
ANSI Class 300, Carbon Steel Flange – 1/2 to 24 in Line Sizes	CD
AS4087, Class 16, Carbon Steel Flange – 15 to 1200 mm	A2
AS4087, Class 21, Carbon Steel Flange – 15 to 1200 mm	A3
AS4087, Class 35, Carbon Steel Flange – 15 to 1200 mm	A4
AWWA C-207, Class D Carbon Steel Flange – 28 to 78 in Line Sizes	WC
AS 2129, Table E, Carbon Steel Flange – 15 to 1200 mm Line Sizes	A1
EN 1092-1, PN 6, Carbon Steel Flange – 65 to 2000 mm Line Sizes	CZ
EN 1092-1, PN 6, Stainless Steel Flange – 65 to 600 mm Line Sizes	CY
EN 1092-1, PN 10, Carbon Steel Flange – 200 to 2000 mm Line Sizes	CX
EN 1092-1, PN 10, Stainless Steel Flange – 200 to 600 mm Line Sizes	CV
EN 1092-1, PN 16, Carbon Steel Flange – 65 to 1200 mm Line Sizes	CE or CF ^(b)
EN 1092-1, PN 16, Stainless Steel Flange – 65 to 600 mm Line Sizes	CM
EN 1092-1, PN 25, Carbon Steel Flange – 200 to 600 mm Line Sizes	CN
EN 1092-1, PN 25, Stainless Steel Flange - 200 to 600 mm	CP
EN 1092-1, PN 40, Carbon Steel Flange – 15 to 600 mm Line Sizes	CG

9200A Series Magnetic Flowtubes (Continued)

Liner Material

Neoprene	-N
EPDM (an Ethylene Propylene Terpolymer)	-E
ptfe – 100°C (212°F) Limit	-T
Ebonite -B	
Linatex -L	

- (a) See “End Connection” selections further in Code for ANSI, AWWA, AS, and DIN flanges applicable to each flowtube size.
- (b) For PED, please contact Invensys Foxboro.

Electrodes(a)

AISI Type 316Ti Stainless Steel (316Ti ss)	S
Hastelloy C-276	H
Platinum-Iridium	P
Titanium T	
Tantalum	B

Coil Drive

Pulsed dc	J
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Housing Construction/Transmitter Mounting

Coated Carbon Steel Housing with Aluminum Terminal Box	-G
- Terminal Box has 1/2 inch Conduit Threads	
- Remote Mounted Transmitter	
Polyamide terminal box with 1/2 inch NPT conduit	-F
Polyamide terminal box with 1/2 inch M20 conduit	-V

Electrical Safety (Also see Electrical Safety Specifications section)

FM/CSA, Nonincendive, Class 1, Division 2	N
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Example: 9216A-SICA-NSJ-GM

- (a) Fluid reference electrode included, except for flowtubes with a ptfe liner.

IMT25 Transmitter

Specify IMT25 Transmitter Model Number

Transmitter Housing

Pipe Mounting	-P
Surface Mounting	-S
Flowtube Mounting ^(14,15)	-I

Language

English Only (Available only with HART Protocol Selection “T”)	E
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Nominal Supply Voltage and Frequency

85 to 264 V ac, 47 to 63 Hz	A
24 V dc ⁽¹⁶⁾	B

Digital Communications Protocol

FOUNDATION Fieldbus H	F				
Digital HART Protocol	T				

Integral Display/Keypad

No Display/Keypad	A				
Wide Angle LCD Display/Keypad ⁽¹⁶⁾	B				

Transmission Output Signal⁽¹⁷⁾

Internally Powered, 4-20 mA and Superimposed Digital (1200 Baud HART)	1				
Externally Powered, 4-20 mA and Superimposed Digital (1200 Baud HART)	2				

Pulse Output Signal (Field Selectable)^(17, 18)

Off	0				
On, Internally powered	1				
On, Externally powered	2				

Electrical Classification⁽¹⁹⁾

CSA, ordinary locations	K				
CSA, Class 1, Division 2, Class II, Division 2; Class III, Division 2	L				
FM, ordinary location	M				
FM, Class 1, Division 2	N				
European Zone 2, Intrinsically Safe, ib Connection ⁽²⁰⁾	S				
European, Zone 2, Nonincendive, Ex N	U				
No Certification required	Z				

Optional Selections

I/O Access Port	A				
Display/Keypad Protective Cover	B				
Dual compartment enclosure with top insertion terminal block	C				
Dual compartment enclosure with lug type terminal block	D				
Cable glands (non-conduit applications) (Not for Elec. Class -L or -N)	G				

Specify signal cable (part number R0101ZS) length, transmitter to flowtube (part number R0101ZS for feet, or part number B4017TE for meters)

Specify other Optional Features

Specify information for instrument tag

Notes

- 14 Flowtube mounted transmitter may only be used with process temperatures not exceeding 120°C (250°F)
- 15 IMT25 can only be integrally mounted to 8000A and 9300A Series Flowtubes
- 16 The 24 V dc selection requires greater than 1.5 amperes
- 17 Internal versus external power can be changed in field by switch selection
- 18 Pulse output can be configured as scaled or frequency pulse
- 19 These transmitters have been designed to meet the specified electrical safety descriptions. For status of testing laboratory approvals or certifications, contact Foxboro. Also see "Electrical Safety Specifications" section
- 20 Not available with the "-I" Flowtube Mounting selection

This product and its components are protected by one of the following U.S. patents:
4,773,275; 5,224,394; 5,773,723; 5,895,864 and others pending.