



# HAZARDOUS LOCATIONS

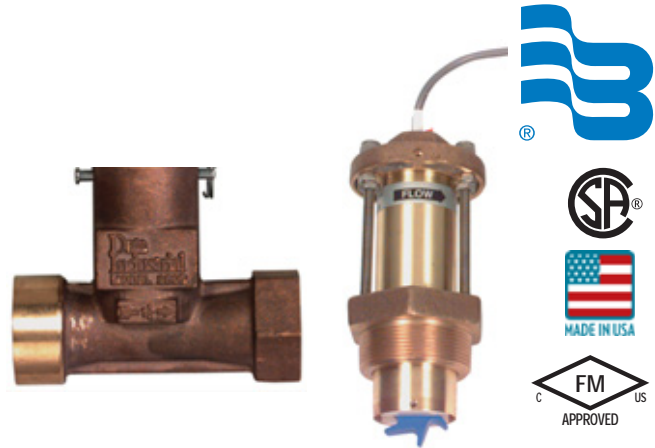
## BADGER METER INTRINSICALLY SAFE WATER FLOW SENSOR 200-IS SERIES

### DESCRIPTION

The **200-IS Series** Intrinsically Safe Water Flow Sensor is designed to monitor water flow velocity in a hazardous environment. The **200-IS Series** sensor uses a standard 4-20mA transmitter proportional to water flow in pipes from 1/2" to 36" (1.27 to 91.44 cm). The sensor is a glass-reinforced nylon impeller with an intrinsically safe rating for Class I, Division I, Groups A, B, C, D.

### FEATURES

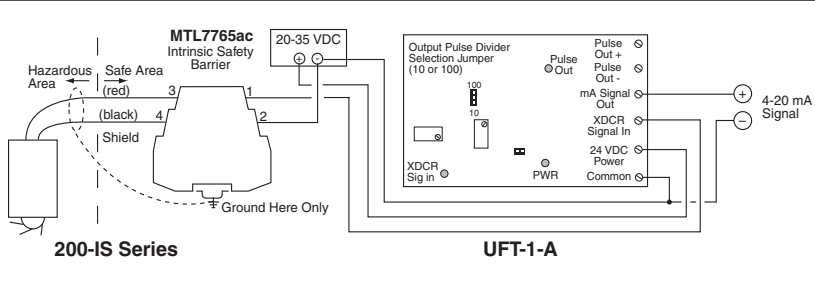
- **Class I, Division I, Groups A, B, C, D**
- **400 psig (3102 kPa) @ 221 °F (105 °C)**
- **Uses standard 4-20 mA transmitters**
- **Pipe sizes from 1/2" to 36" (1.27 to 91.44 cm)**
- **Polarity reversal protection**



### SPECIFICATIONS

<b>Accuracy</b>	±1% of full scale	<b>Approvals</b>	FM, CSA
<b>Flow Range</b>	0.5-30 ft/sec (9.1-549 m/min)	<b>Wire Type</b>	20' (6.10 cm), two wire #20 AWG in PVC jacket
<b>Maximum Pressure</b>	400 psig (2758 kPa)	<b>Transmitter</b>	<b>UFT-1-A</b> (required for operation)
<b>Maximum Temperature</b>	221 °F (105 °C)	<b>Supply Voltage</b>	24 VDC @ 60 mA
<b>Wetted Parts</b>	Impeller: Glass-reinforced nylon; Bearing: Pennion (UHMWPE); Shaft: Tugsten carbide; Ryton glass reinforced PPS	<b>Signal Output</b>	4-20 mA @ 750Ω maximum impedance
<b>Entity Parameters</b>	Vmax = 15V, Imax - 150 mA, Ci = 0.033 μF, Li = 0.91 nH	<b>Zero Span Adjust</b>	Factory calibrated
<b>Area</b>	Intrinsically safe Class I, Division 1, Groups A, B, C, D	<b>Connections</b>	Terminals
		<b>Warranty</b>	1 year

### WIRING



**CAUTION:** Intrinsic safety barrier is required when applied in hazardous locations. For the system shown left, maximum cable capacitance is 0.67 μF, and maximum cable inductance is 0.3 mH (equal to 447' (136m) Belden™ #8760 18/2 shielded cable 0.18 μH/FT, 44 pF/F).

### ORDERING INFORMATION

MODEL	SIZE	CONNECTIONS	TYPE	MAX PRESSURE psig (kPa)	WEIGHT lbs (kg)
250B-IS-(0.5, 0.75, 1, 1.25, 1.5)	1/2" to 1-1/2"	Size NPT	Inline	400 (2758)	7.0 (3.2)
228B-IS-2	2"	2" NPT	Inline	200 (1379)	7.4 (3.4)
220B-IS	2-1/2" and up	2" Saddle	Insertion	400 (2758)	4.1 (1.9)

### RELATED PRODUCTS

		PAGE
<b>DCP-1.5-W</b>	Power supply, 24 VAC IN to 24 VDC OUT	<b>837</b>
<b>DCPA-1.2</b>	Power supply, 120 VAC IN to 24 VAC/24 VDC OUT	<b>836</b>
<b>MTL7765AC</b>	Intrinsic safety barrier	
	Passive barrier for DI 200 Series flow sensors and other general-purpose 12 VAC or VDC devices	<b>4121</b>
<b>UFT-1A</b>	Universal flow transmitter, pulse and calibrated 4-20 mA output	<b>256</b>

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