

# HAZARDOUS LOCATIONS

## INTRINSICALLY SAFE PRESSURE TRANSMITTER K1 SERIES



ASHCROFT



### DESCRIPTION

The **Ashcroft K1 Series** intrinsically safe pressure transmitter is exceptionally stable and is virtually unaffected by shock, vibration, or orientation. Performance is directly traceable to NIST standards, and a calibration certificate is available for each unit upon request. These intrinsically safe (IS) transmitters are ideal for monitoring pressures in explosive atmospheres with barrier.

### FEATURES

- **Class I, Division 1, Groups C, D; Class II, Division 1, Group G; Class III**
- **Nonincendive for Class I, Division 2, Groups A, B, C, and D**
- **0.5% accuracy, all ranges**
- **4-20 mA, loop powered**
- **Ranges from 100-3000 psig (690-20,685 kPa)**



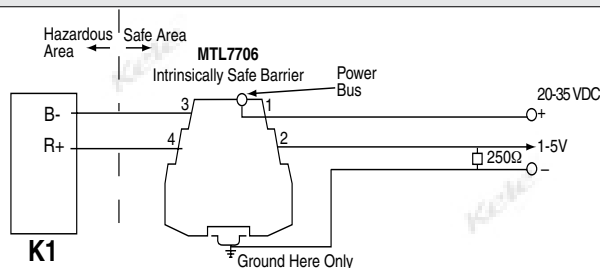
### SPECIFICATIONS

<b>Supply Voltage</b>	10-36 VDC	<b>Response Time</b>	5 ms
<b>Accuracy</b>	±0.5% full scale	<b>Construction</b>	304 stainless steel case
<b>Output Signal</b>	4-20 mA @ 650Ω	<b>Process Connection</b>	1/8" BNPT male 316 stainless steel
<b>Entity Parameters</b>	V <sub>max</sub> =30V, I <sub>max</sub> =100mA, P <sub>o</sub> =1 W, C <sub>i</sub> =50nf, L <sub>i</sub> =0μh	<b>Diaphragm Material</b>	17-4 PH stainless steel
<b>Thermal Effect</b>	±0.03 full scale/°F zero and span	<b>Zero Span Adjust</b>	Field adjustable ±10%
<b>Overpressure Limits (F.S.)</b>		<b>Dimensions</b>	4" L x 5/8" dia (10.2 x 1.6 cm)
<b>15-2000:</b>	200% (proof), 800% (burst)	<b>Area</b>	Intrinsically safe Class I, Division 1, Groups C, D; Class II, Division 1, Groups G; Class III
<b>3000-5000:</b>	150% (proof), 300% (burst)	<b>Weight</b>	0.65 lb (0.29 Kg)
<b>7500-20,000:</b>	120% (proof), 150% (burst)	<b>Approvals</b>	UL File #E152893, FM
<b>Temperature Compensation</b>	-20° to 160°F (-29° to 71°C)	<b>Warranty</b>	1 year
<b>Operating Temperature</b>	-20° to 180°F (-29° to 82°C)		

8

HAZARDOUS LOCATIONS

### WIRING



**CAUTION:** Intrinsically safe devices require the use of an intrinsic safety barrier when applied in hazardous locations. Provide wiring and grounding strictly in accordance with manufacturer's instructions. When a K1 Series transmitter is combined with the Model MTL7706 intrinsic safety barrier, total cable capacitance between the two must be limited to 0.12 μF. Total cable inductance must be limited to 4.0 mH (equivalent to 2700'/823m maximum Belden™ #8760 18/2 shielded twisted pair cable 0.18 μH/FT, 44 pF/FT).

### ORDERING INFORMATION

MODEL	DESCRIPTION
K15M0142F2100X	4-20 mA intrinsically safe pressure transmitter 0-100 psig (690 kPa)
K15M0142F2200X	4-20 mA intrinsically safe pressure transmitter 0-200 psig (1379 kPa)
K15M0142F2500X	4-20 mA intrinsically safe pressure transmitter 0-500 psig (3448 kPa)
K15M0142F21KX	4-20 mA intrinsically safe pressure transmitter 0-1000 psig (6895 kPa)
K15M0142F23KX	4-20 mA intrinsically safe pressure transmitter 0-3000 psig (20,685 kPa)

### RELATED PRODUCTS

250R-3-1	250 OHM 3 WATT 1% Resistor Long Leads
DCP-1.5-W	Power supply, 24 VAC IN to 24 VDC OUT
DCPA-1.2	Power supply, 120 VAC IN to 24 VAC/24 VDC OUT
MTL7706+	Intrinsic safety barrier, 4-20 mA two-wire transmitters
PT	1/4" pigtail syphon with fittings