


A new, rugged and compact transducer, the Ashcroft® KM10 is specifically designed to meet the rigors and performance requirements of the industrial marketplace.



The cost effective construction of the KM10 is ideally suited to address the demanding pressure sensing needs of the original equipment manufacturer in a multitude of applications, including:

- Off-Road Equipment
- Construction Machinery
- HVAC/Refrigeration
- Compressor Control
- Pump Monitoring
- Agricultural Implements
- Diagnostic Kits
- Engine Monitoring
- Process Automation & Control
- Hydraulic & Pneumatic Sensing
- Machine Tool

Model KM10 Pressure Transducer

The Ashcroft® KM10 pressure transducer marries a proven polysilicon thin film sensor to a high performance ASIC to provide a highly accurate, stable and durable transducer.

Calibration, by digital compensation, results in an extremely linear and repeatable instrument over a wide temperature range.

The highly stable thin film sensor of 17-4 PH stainless steel is electron beam welded to one of a wide selection of stainless steel pressure fittings to provide superior media compatibility and overpressure capability.

Contact Ashcroft Inc. to see if the Ashcroft KM10 is the right choice for your application.



NEW!



ISO 9001
REGISTERED FIRM

PERFORMANCE CHARACTERISTICS

Ref. Condition 23°C ±2° (73°F)

Accuracy Class (F.S.):

	±1%	±0.5%	
	(75 psig & below)	(100 psig & above)	
Nonlinearity B.F.S.L.	≤ 0.4%	≤ .15%	
Hysteresis	≤ .05%	≤ .05%	
Nonrepeatability	≤ .03%	≤ .03%	
Ranges:	vac/0 psig*	vac/75 psig*	0/500 psig
	vac/15 psig*	0/100 psig*	0/750 psig
	vac/30 psig*	0/200 psig*	0/1000 psig
	0/15 psig*	0/300 psig*	0/1500 psig
	0/30 psig*	vac/100 psig*	0/2000 psig
	0/50 psig*	vac/150 psig*	0/3000 psig
	0/75 psig*	vac/200 psig*	0/5000 psig
	vac/50 psig*	vac/300 psig*	0/7500 psig

*Ranges in psig, vented cable and metri-Pack termination only. Consult factory for other ranges.

Stability: ±0.25% F.S./year

Interchangeability: < .5% F.S.

Durability: Tested to 50 million cycles

ENVIRONMENTAL CHARACTERISTICS

Temperature:

Storage	-40/120°C (-40/250°F)
Operating	-40/120°C (-40/250°F)
Compensated	-30/120°C (-25/250°F)

Humidity: 0/100%R.H., no effect

Thermal Coefficients (-30/120°C):

Zero	Span
±0.01%/°C (±0.0055%/°F)	±0.01%/°C (±0.0055%/°F)

FUNCTIONAL CHARACTERISTICS

Overpressure (F.S.):

	Proof	Burst
750 psi & below	2 x range	10 x range
1500 psi	2 x range	5 x range
3000 psi	2 x range	5 x range
5000 psi	1.5 x range	5 x range
7500 psi	1.2 x range	5 x range

Vibration: Random to 1 KHz, 20 g's

Shock: 50 g's, 11 msec

Drop Test: No effect 1 meter drop on concrete

Response Time: Less than 1msec

Position Effect: Less than 0.01% F.S.

ELECTRICAL SPECIFICATIONS

Output Signal Options:

Output	Excitation	Supply Current
0.5-4.5 Vdc (ratiometric)	5 Vdc ± .5 Vdc	10mA typical
1-5 Vdc	8-32 Vdc	10mA typical

Reverse Polarity Protection: Yes

Insulation Breakdown Voltage: (Circuit to case) 150 Vac/1 min.; 500 Vac, optional

Insulation Resistance: (Circuit to Case) 100M ohm min. @50 Vdc.

Warm-up Time: Less than 25 msec

CE Mark: per EN 61326: 1997

Annex A: 1998 (A1)

PHYSICAL CHARACTERISTICS

Standard Process Connections (304SS):

1/8 NPT
R 1/4, R 3/8, G 1/4, G 3/8
M10 x 1
7/16-20 UNF-2A

1/4 NPT
3/8-24 UNF-2A
M14 x 1.5
7/16-20 UNF-2B

Diaphragm Material: 17-4 PH SS

Housing: 304SS

Electrical Termination: Three Types

- Shielded Cable
- Detachable Connector
- Flying Lead

Protection Rating: IP67
Weight: Approx. 2 oz. (60g)

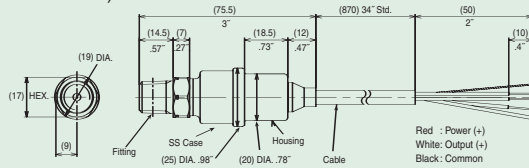
OPTIONS

- Throttle screws
- Special cleaning (for O₂)
- Non-standard pressure ranges
- Alternate process connections
- Special calibration/accuracy
- High breakdown voltage

SHIELDED CABLE TERMINATION

Dimension Drawing
(Height may vary slightly depending on process connection)

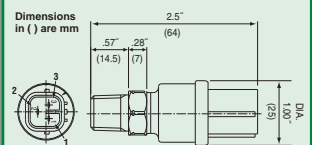
Dimensions in () are mm



Cable is shielded with aluminum polyester tape and covered with PVC jacket. Operating temperature of -30/105°C, storage temperature -40/120°C. Cable includes drain wire. Vent tube provided in ranges of 300 psi and below. Individual wires are AWG 24 with tinned copper ends. Cable is rated at 300V, and is UL 2517 listed. 3 ft. (.9mm) standard length.

SUMITOMO CONNECTOR STYLE

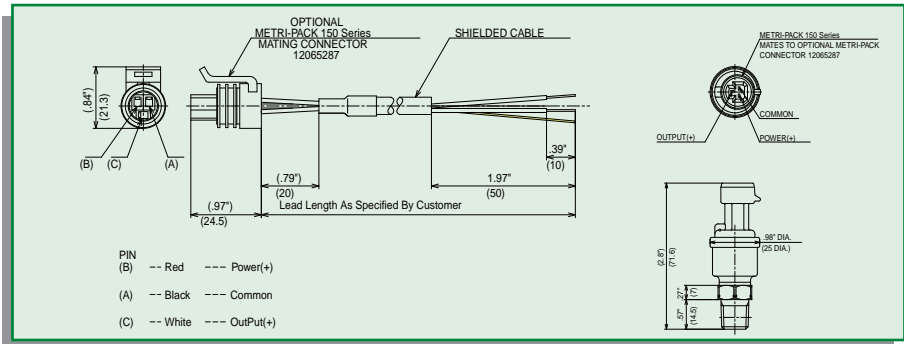
Dimension Drawing
(Height may vary slightly depending on process connection)



Mating Connector
Mates to HW090 Connector by Sumitomo Wiring Systems. Made of PBT (polybutylene terephthalate).

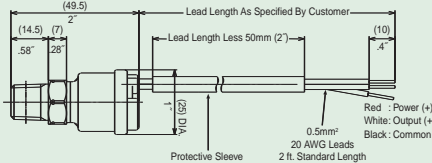
Flying Leads: 20AWG, 3 ft. (.9m) standard

PIN	Color	Function
1	Red	Supply (+)
2	White	Output (+)
3	Black	Common



FLYING LEAD STYLE

Dimension Drawing



Dimensions in () are mm

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How To Order

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Model Type (KM10)	Accuracy Class (5) 0.50% (100 psi & above) (7) 1.0% (75 psi & below)	Pressure Connection (M01) 1/8 NPT-M (M02) 1/4 NPT-M (M38) 3/8-24 UNF-2A (MEK) 7/16-20 UNF-2A (FRW) 7/16-20 UNF-2B (M10) M10 x 1 (M14) M14 x 1.5 (MR3) R 3/8 (MR2) R 1/4 (MG3) G 3/8 (MG2) G 1/4	Output Signal (15) 1-5 Vdc (RM) Ratiometric (16) 1-6 Vdc	Electrical Termination For Metri-Pack GN = no mating conn. G2 = mating conn. 3' cable G1 = mating conn. w/customer specified length For Shielded Cable (F2) 36" shielded cable, PVC sheath (P1) Other length (P9) Custom cable For Sumitomo Connector (A2) Mating connector with 36" flying leads (A1) Other length	*Pressure Range PSIG Vac./0 Vac./15 Vac./30 Vac./50 Vac./75 Vac./100 Vac./150 Vac./200 Vac./300 PSIS 0/500 0/750 0/1000 0/1500 0/2000 0/3000 0/5000 0/7500	Special Features (XTS) Throttle (X6B) Oxygen cleaning
				For Flying Lead (12) 12 inch length (24) 24 inch length (36) 36 inch length		