

Data Sheet

KM46 High Pressure Transducer

FEATURES

- Pressure ranges from 30,000 to 72,000 psi
- Process connections geared for high pressure applications
- Stainless steel & Titanium construction
- High reliability

TYPICAL USES

- Water jet based cutting & cleaning
- High pressure chemical & petrochemical applications
- Pressure burst testing



KM46
Transducer



SPECIFICATIONS

Reference Temperature: 72°F ±2°F (21°C ±1°C)

Accuracy Class: ±1.00% of span*
*incl. nonlinearity, hysteresis, repeatability, zero-offset and final-offset

Non Linearity: BFSL ±0.30% of span

Accuracy (TEB): ±2.0 % of span from -4°F to 185°F (-20°C to 85°C)
Total Error Band Accuracy: includes the combined effects of non-linearity (Terminal Point Method), hysteresis, non-repeatability, temperature and zero offset and span setting errors

Stability: ≤ ±0.20% of span/year

ENVIRONMENTAL SPECIFICATIONS

Humidity Effects: 0 to 100% R.H., no effect

MIN/MAX TEMPERATURE LIMITS

Storage	Process	Operating	Compensated
-40°F to 257°F (-40°C to +125°C)	-40°F to 257°F (-40°C to +125°C)	-40°F to 221°F (-40°C to +105°C)	-4°F to 185°F (-20°C to +85°C)

KEY BENEFITS

- High pressure measuring capacity
- Broad temperature capability
- Up to IP69K Ingress rating

FUNCTIONAL SPECIFICATIONS

Vibration Effects: 20gs, according to DIN EN 60068-2-6

Shock Effects: 50gs, according to DIN-EN 60068-2-27

Drop Test: Withstands for 1 meter on concrete

Response Time: < 2 msec

Position Effect: < ±0.01% span

Overpressure (F.S.):	Range	Proof	Burst
	30,000 to 36,000 psi	150% F.S.	180% F.S.
	60,000 to 72,000 psi	120% F.S.	150% F.S.
	2,000 to 2,500 bar	150% F.S.	180% F.S.
	4,000 to 5,000 bar	120% F.S.	150% F.S.

ELECTRICAL SPECIFICATIONS

Insulation Breakdown Voltage: 50 Vdc

Insulation Resistance: >100 megohms at 100 Vdc

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OUTPUT SIGNALS AVAILABLE		
Voltage Output	Excitation	Supply Current
0-10 Vdc, 3 wire	12-32 Vdc	10mA
1-5V Vdc, 3 wire	8-32 Vdc	10mA
Current Output		
4-20mA	10-32V DC	
SPECIFICATIONS		
Rating	Electrical Connections	
IP67	M12 4-Pin & Shielded Cable (IP69K option-cable only)	
IP65	EN 175301-803 Forms A & C (DIN 43650 A & C)	

WETTED MATERIAL			
Titanium			
NON-WETTED MATERIAL			
304 Stainless Steel			
APPROVALS			
CE Declarations of conformity 2014/30/EU, 2014/68/EU			
PRESSURE RANGE TABLE			
Range	Code	Range	Code
30,000 psi	30000#	2,000 bar	2000br
36,000 psi	36000#	2,500 bar	2500br
60,000 psi	60000#	4,000 bar	4000br
72,000 psi	72000#	5,000 bar	5000br

Consult factory for other ranges.

ORDERING CODE	Example:	KM46	F16	42	DC	60000#	-	XNH
Model		KM46						
KM46 - KM46 Series, 2.0% Total Error Band (-20°C to 85°C)		KM46						
Pressure Connection Size			F16					
F16 - M16 x 1.5 Female			F16					
M18 - M18 x 1.5 Male								
F09 - 9/16-18 UNF 2B Female								
Output Signal				42				
10 - 0-10 Vdc				42				
15 - 1-5 Vdc								
42 - 4-20mA				42				
Electrical Termination								
EN175301-803 Form C (DIN 43650, Form C)								
DC - No mating connector					DC			
N1 - Mating connector, no cable								
N2 - Mating connector, 3 feet of cable								
N9 - Mating connector with customer specified length								
EN 175301-803 Form A (DIN 43650, Form A)								
DN - No mating connector								
D0 - Mating connector, no cable								
D2 - Mating connector, 3 feet of cable								
D1 - Mating connector with customer specified length								
M12 4-Pin								
EW - No mating connector								
E0 - Mating connector, no cable								
E2 - Mating connector, 3 feet of cable								
E1 - Mating connector with customer specified length								
Pigtail - Shielded cable with PVC jacket and 24 AWG leads								
F2 - With 3 feet of cable length								
F3 - With 10 feet of cable length								
P1 - Customer specified length								
Pressure Ranges (see range table on page 2)								
60000# - 60,000 psi						60000#		
-								
-								
Options (if including an option(s) must include an "X")								X__
NH - SS tag								NH
NN - Paper tag								

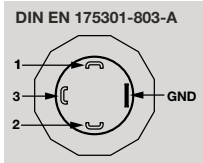
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DIMENSIONS in [] are millimeters

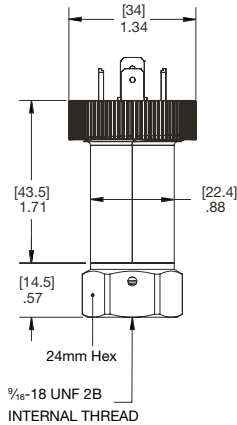
For reference only, consult Ashcroft for specific dimensional drawings

DIN EN 175301-803-A Electrical Connection

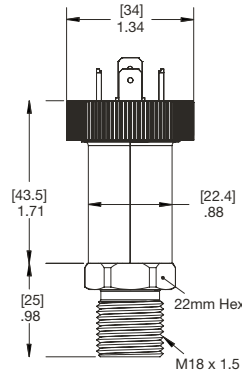


Electrical Configuration			
2 - Wire		3 - Wire	
1: UB +	Red	1: UB +	Red
2: Out	Black	2: UB -	Black
3: nc	White	3: Out	White
4: nc	Green	4: nc	Green

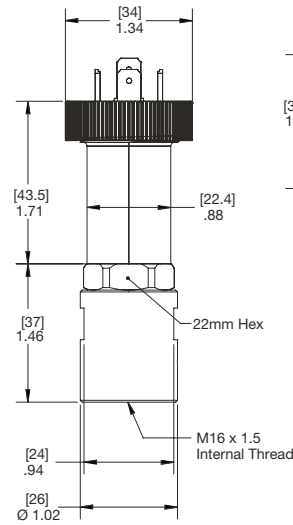
F09 Fitting Shown



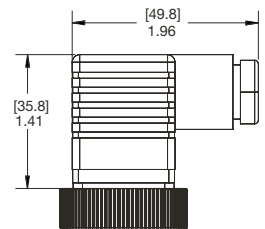
M18 Fitting Shown



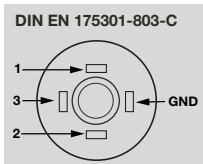
F16 Fitting Shown



Optional Mate

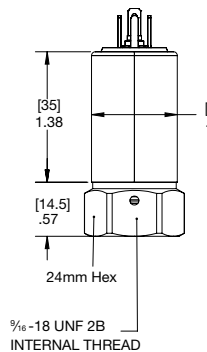


DIN EN 175301-803-C Electrical Connection

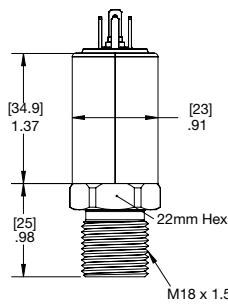


Electrical Configuration			
2 - Wire		3 - Wire	
1: UB +	Red	1: UB +	Red
2: Out	Black	2: UB -	Black
3: nc	White	3: Out	White
4: nc	Green	4: nc	Green

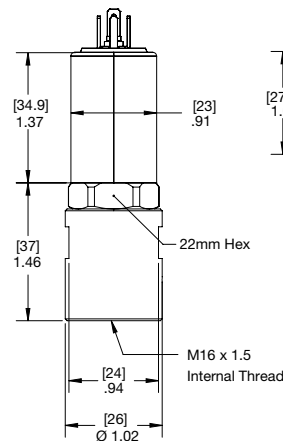
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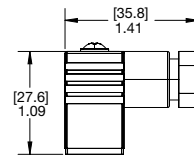
M18 Fitting Shown



F16 Fitting Shown



Optional Mate



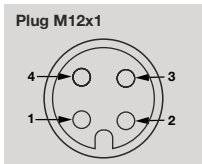
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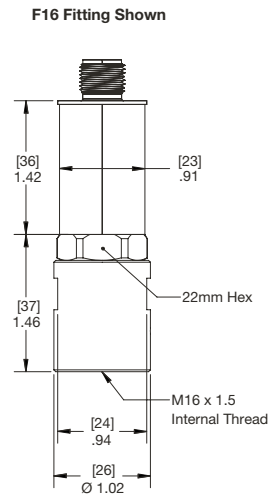
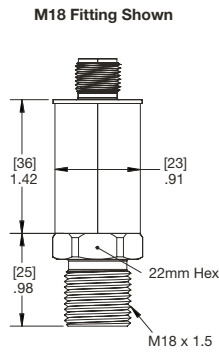
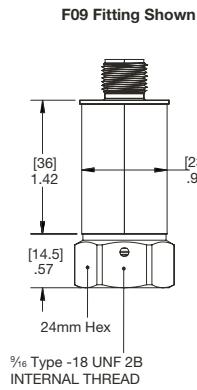
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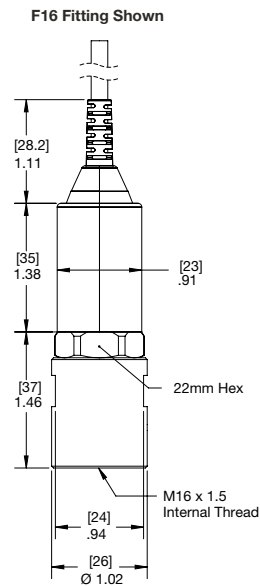
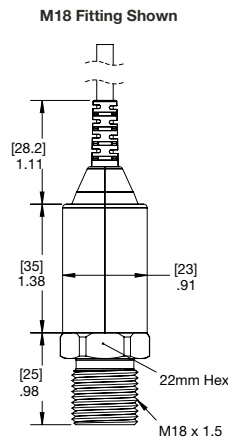
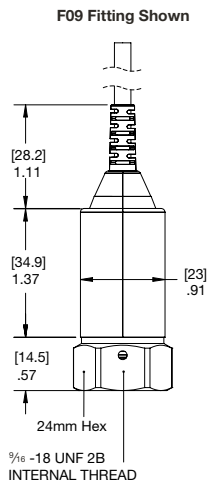
DIN EN M12 x 1 Plug Electrical Connection



Electrical Configuration			
2 - Wire		3 - Wire	
1: UB +	Red	1: UB +	Red
2: nc	Green	4: nc	Green
3: Out	Black	2: UB -	Black
4: nc	White	3: Out	White



Cable Electrical Connection



Electrical Configuration			
2 - Wire		3 - Wire	
1: UB +	Red	1: UB +	Red
2: Out	Black	2: UB -	Black
3: nc	White	3: Out	White