

## KM46 High Pressure Transducer

### FEATURES

- Pressure ranges from 2000 to 5000 bar (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:	21°C ±1°C (72°F ±2°F)	
Accuracy Class:	±1 % of span* *incl. nonlinearity, hysteresis, repeatability, zero-offset and final-offset	
Non Linearity:	BFSL ±0,3 % of span	
Accuracy (TEB)	±2 % of span from -20°C to 85°C (-4°F to 185°F) 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:	≤ ±0,2 % of span/year	
Process Connection:	M16 x 1,5 Female M18 x 1,5 Male 3/16-18 UNF 2B Female	
Pressure Range:	See ordering code at page 2	
Enclosure Ratings & Electrical Connection:	IP class	Electrical connection
	IP67	M12 4-Pin & Shielded Cable (IP69K option-cable only)
	IP65	EN 175301-803 Form A & C (DIN 43650 A & C)

### WETTED MATERIAL

Titanium

### NON-WETTED MATERIAL

Stainless steel 304

### ENVIRONMENTAL SPECIFICATION

Humidity Effects: 0 to 100 % relative humidity, no effect

### MIN./MAX. TEMPERATURE LIMITS

STORAGE	PROCESS	OPERATING	COMPENSATED
-40 °C bis 125 °C (-40 °F bis 257 °F)	-40 °C bis 125 °C (-40 °F bis 257 °F)	-40 °C bis 105 °C (-40 °F bis 221 °F)	-20 °C bis 85 °C (-4 °F bis 185 °F)

### KEY BENEFITS

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

### FUNCTIONAL SPECIFICATIONS

Vibration Effects:	20 g, according to DIN EN 60068-2-6
Shock Effects:	50 g, according to DIN-EN 60068-2-27
Drop Test:	Withstands for 1 meter on concrete
Response Time:	< 2 ms
Position Effect:	< ±0.01 % span

Overpressure:	Range	Proof	Burst
	2000 to 2500 bar	150 % F.S.	180 % F.S.
	4000 to 5000 bar	120 % F.S.	150 % F.S.
	30000 to 36000 psi	150 % F.S.	180 % F.S.
	60000 to 72000 psi	120 % F.S.	150 % F.S.

### ELECTRICAL SPECIFICATION

Insulation Break-down Voltage:	50 Vdc
Insulation Resistance:	>100 MΩ at 100 Vdc

### OUTPUT SIGNALS AVAILABLE

Voltage Output	Excitation	Supply Current
0-10 Vdc, 3 wire	12-32 Vdc	10 mA
1-5 Vdc, 3 wire	8-32 Vdc	10 mA
Current Output		
4-20 mA	10-32 Vdc	

### APPROVALS

CE Declarations of conformity 2014/30/EU, 2014/68/EU

## KM46 High Pressure Transducer

ORDERING CODE:		KM46	F16P	42	F2	2000br	X	=	NH	CD2	C4
<b>Model</b>		KM46 series, 2,0% Total Error Band (-20 °C bis 85 °C)		KM46							
<b>Pressure Connection</b>			F16								
F09	1/16"-18 UNF 2B Female										
F16	M16x1,5 Female										
M18	M18x1,5 Male										
<b>Output Signal</b>				42							
10	0-10 Vdc										
15	1-5 Vdc										
42	4-20 mA										
<b>Electrical Termination</b>		<b>EN 175301-803 Form C (DIN 43650, Form C)</b>									
DC	No mating connector										
N1	Mating connector, no cable										
N2	Mating connector, 1 m (3 ft.) of cable										
N9	Mating connector with customer specified length <i>(must be specified by customer)</i>										
		<b>EN 175301-803 Form A (DIN 43650, Form A)</b>									
DN	No mating connector										
D0	Mating connector, no cable										
D2	Mating connector, 1 m (3 ft.) of cable										
D1	Mating connector with customer specified length <i>(must be specified by customer)</i>										
<b>M12 4-Pin</b>											
EW	No mating connector										
E0	Mating connector, no cable										
E2	Mating connector, 1 m (3 ft.) of cable										
E1	Mating connector with customer specified length <i>(must be specified by customer)</i>										
<b>Pigtail - Shielded cable with PVC jacket and 24 AWG leads</b>					F2						
F2	With 1 m (3 ft.) of cable length										
F3	With 3 m (10 ft.) of cable length										
P1	Customer specified length										
<b>Pressure Ranges</b>						2000br					
2000br	2000 bar										
2500br	2500 bar										
4000br	4000 bar										
5000br	5000 bar										
30000#	30.000 psi										
36000#	36.000 psi										
60000#	60.000 psi										
72000#	72.000 psi										
<i>Consult Ashcroft for other ranges</i>											
<b>Additional Options</b>							X				
X	See following options										
<b>Case Style</b>											
IP69K	Case protection IP69K <i>(shielded cable only)</i>										
<b>Marking and Tagging</b>									NH		
NH	Stainless steel tagging, wired										
NN	Paper tagging, stucked										
<b>Material Certificate</b>										CD2	
CD2	Material certificate according to EN 10204 2.2										
<b>Test Certificate</b>											C4
C4	Individual certified calibration chart										



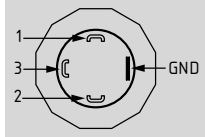
# KM46 High Pressure Transducer

## GENERAL DIMENSIONS

For reference only, consult Ashcroft for specific dimensional drawings

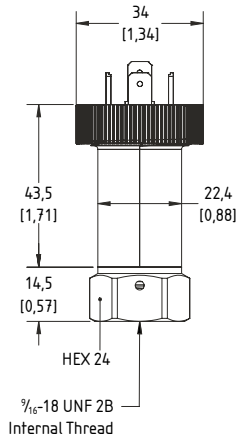
### DIN EN 175301-803-A Electrical Connection

DIN EN 175301-803-A

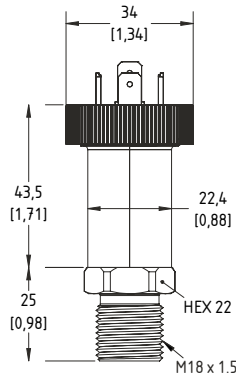


Electrical Configuration			
2 - Wire		3 - Wire	
1: UB +	Red	1: UB +	Red
2: Out	Black	2: UB -	Black
3: nc	White	3: Out	White
4: nc	Green	4: nc	Green

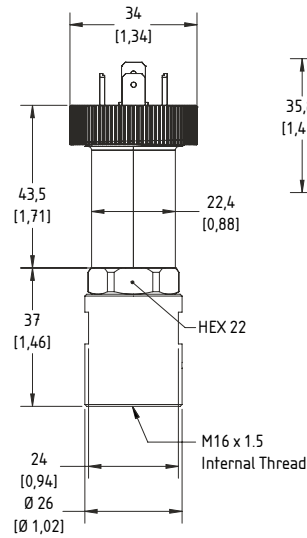
F09 Fitting Shown



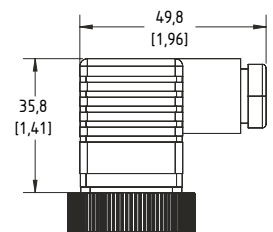
M18 Fitting Shown



F16 Fitting Shown

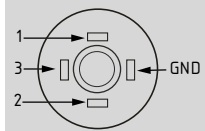


Optional Mate



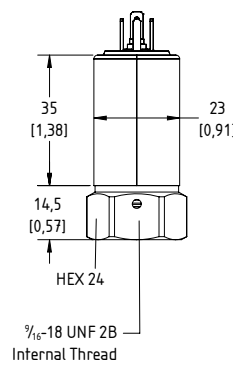
### DIN EN 175301-803-C Electrical Connection

DIN EN 175301-803-C

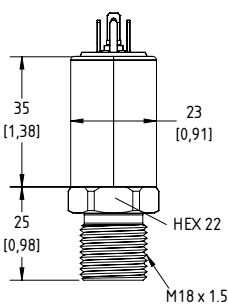


Electrical Configuration			
2 - Wire		3 - Wire	
1: UB +	Red	1: UB +	Red
2: Out	Black	2: UB -	Black
3: nc	White	3: Out	White
4: nc	Green	4: nc	Green

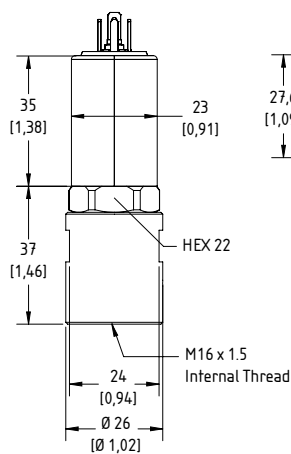
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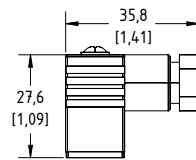
M18 Fitting Shown



F16 Fitting Shown



Optional Mate

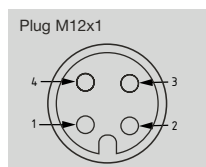


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## DIMENSIONS

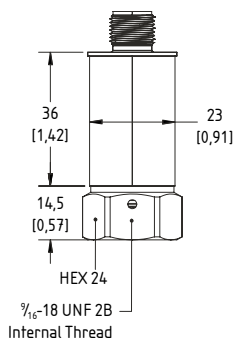
For reference only, consult Ashcroft for specific dimensional drawings

### DIN EN M12 x 1 Plug Electrical Connection

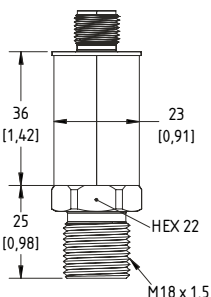


Electrical Configuration			
2 - Wire		3 - Wire	
1: UB +	Red	1: UB +	Red
2: nc	Green	4: nc	Green
3: Out	Black	2: UB -	Black
4: nc	White	3: Out	White

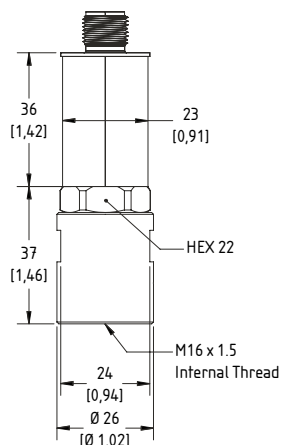
F09 Fitting Shown



M18 Fitting Shown

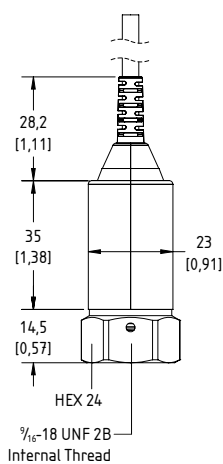


F16 Fitting Shown

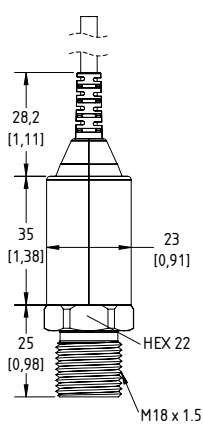


### Cable Electrical Connection

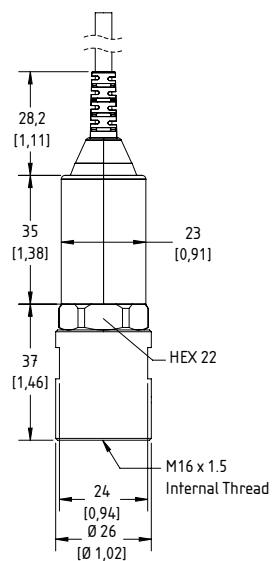
F09 Fitting Shown



M18 Fitting Shown



F16 Fitting Shown



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

