

Electronic High-Pressure Transducer

UPA6

Industrial Pressure Transmitter for very high Pressure
Linearity error 0.5% f.s. (0.25% f. s. on request)

Features

The high-pressure transmitter type UPA6 has been especially designed for applications with highest demand on precision and reliability. UPA6 series is based on a compensated strain gauge, bonded onto a stainless steel diaphragm.

Due to the rugged stainless steel housing usage under extreme conditions and in IS-required areas is no problem.

Measuring ranges

0...2500 bar 0...6000 bar nominal pressure ranges

Applications

Hydraulic circuits
Water jet torching
Chemical and petrochemical industry

Technical Data

Input pressure range			
Nominal pressure gauge [bar]	2500	4000	6000
Overpressure [bar]	3300	5200	7500
Burst pressure [bar]	4400	6800	9500
Output signal / Supply	2-wire: 4 ... 20 mA / VS = 10 ... 30 VDC 3-wire: 0 ... 10 V / VS = 14 ... 36 VDC		
Standard			
Option 3-wire (on request)			
Accuracy		IEC 60770 1	BFSL
standard:		≤ ± 0.50 % FSO	≤ ± 0.25 % FSO
option:		≤ ± 0.25 % FSO	≤ ± 0.125 % FSO
Permissible load	current 2-wire: Rmax = [(UB - UB min) / 0,02] Ω voltage 3-wire: Rmin = 10 kΩ current 3-wire: Rmax = 500 Ω		
Influence effects	supply: 0.05 % FSO / 10 V load: 0.05 % FSO / kΩ		
Long term stability	≤ ± 0.2 % FSO / year		
Response time	< 2.5 ms		
Adjustability	Via a front sided potentiometer is an adjustment of the offset possible within the range of ± 3 % of the nominal pressure range, without an influence of characteristic curve and accuracy.		
Calibration (only with MIL / Bendix plug)	≤ ± 0.25 % FSO 80 % FSO calibration (e.g. for 4 ... 20 mA / 2-wire: signal = 0.8*16 mA + 4 mA = 16.8 mA)		
Thermal effects (Offset and Span)	Thermal error ≤ ± 0.2 % FSO / 10 K in compensated range -20 ... 85 °C		
Permissible temperatures	medium: electronics / environment: storage:		
	-40 ... 100 °C -25 ... 85 °C -40 ... 85 °C		
Electrical protection	Short-circuit protection Reverse polarity protection Electromagnetic compatibility		
	permanent no damage, but also no function emission and immunity according to EN 61326		
Mechanical stability	Vibration Shock		
	10 g RMS (20 ... 2000 Hz) 100 g / 11 msec		
Materials	Pressure port / diaphragm Housing Seals (media wetted) Media wetted parts		
	stainless steel 1.4548 (17-4 PH) Standard: stainless steel 1.4301 none (welded version) pressure port, diaphragm		
Miscellaneous	Insulation strength / resistance Current consumption		
	standard: insulation strength 100 MW @ 35 V 2-wire signal output current: max. 50 mA 3-wire signal output voltage: max. 15 mA		
Weight	approx. 260 g		
Installation position	any		
CE-conformity	EMC Directive: 2004/108/EC Pressure Equipment Directive: 97/23/EC (module A) 2		



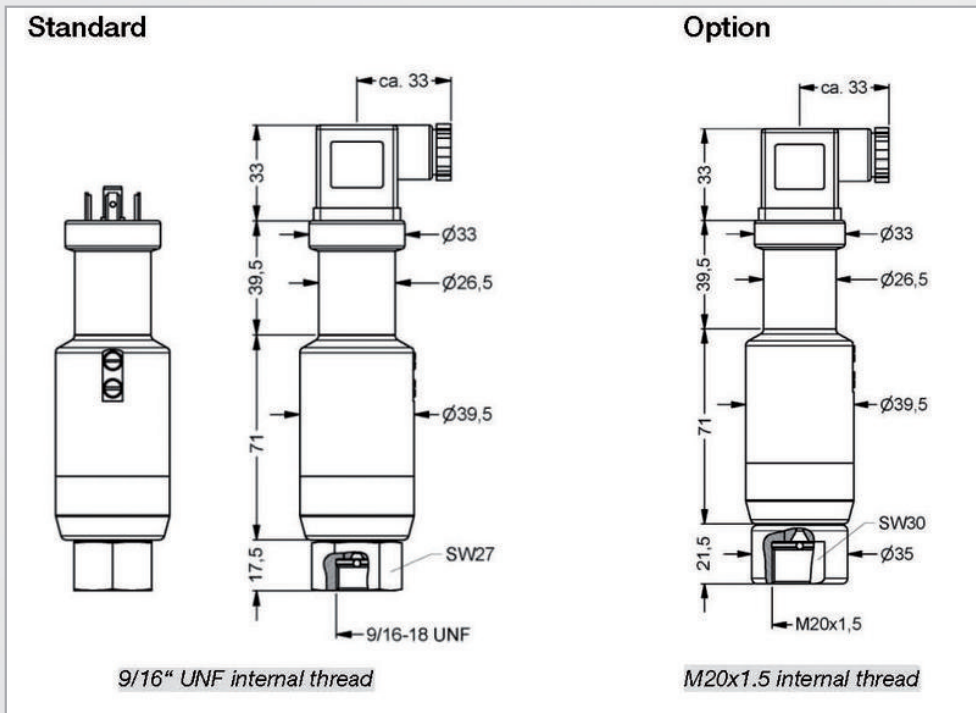
¹ accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)

² This directive is only valid for devices with maximum permissible overpressure > 200 bar

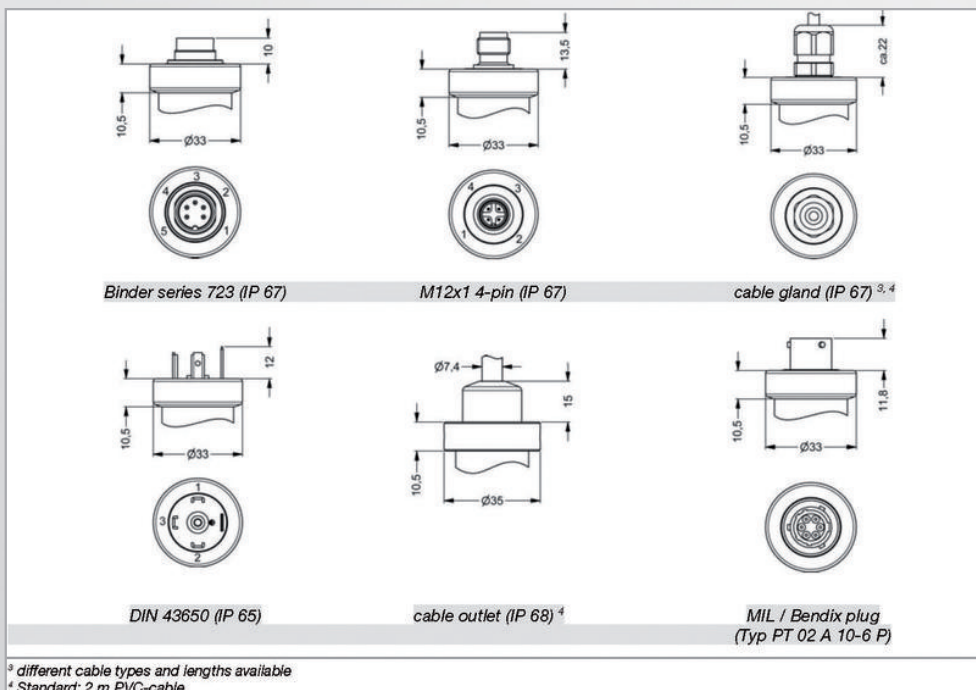
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Dimensions (mm / inch)



Electronic connections



Order Numbers

High Pressure Transmitter, DIN 43650, 4-20 mA, 9/16" UNF IG		
Art. No.	Pressure range in bar, rel.	Over pressure in bar
0438-001	2500	3000
0438-002	4000	4000
0438-003	6000	6000
Other on request		