

Technical details

Input data									
Measuring ranges	bar	16	25	40	60	100	250	400	600
Overload pressures	bar	32	50	80	120	200	500	800	1000
Burst pressure	bar	125	125	200	300	500	1250	2000	2000
Mechanical connection	G 1/4 A ISO 1179-2, plug								
Tightening torque, recommended	20 Nm								
Parts in contact with the fluid	Mech. connection: stainless steel Seal: FKM								
Output data									
Output signal	CANopen Safety								
Accuracy acc. to DIN 16086, terminal based	$\leq \pm 0.5$ % FS typ. $\leq \pm 1.0$ % FS max.								
Accuracy at minimum value setting (B.F.S.L)	$\leq \pm 0.25$ % FS typ. $\leq \pm 0.5$ % FS max.								
Temperature compensation, zero point	$\leq \pm 0.015$ % FS / °C typ. $\leq \pm 0.025$ % FS / °C max.								
Temperature compensation, over range	$\leq \pm 0.015$ % FS / °C typ. $\leq \pm 0.025$ % FS / °C max.								
Non-linearity acc. to DIN 16086, terminal based	$\leq \pm 0.3$ % FS max.								
Hysteresis	$\leq \pm 0.4$ % FS max.								
Repeatability	$\leq \pm 0.1$ % FS								
Rise time	≤ 3 ms plus cycle time from the CAN bus								
Long-term drift	$\leq \pm 0.3$ % FS typ. / year								
Environmental conditions									
Compensated temperature range	-25 .. +85 °C								
Operating temperature range ¹⁾	-40 .. +100 °C / -25 .. +100 °C								
Storage temperature range	-40 .. +100 °C								
Fluid temperature range ¹⁾	-40 .. +125 °C / -25 .. +125 °C								
CE mark	EN 61000-6-1 / -2 / -3 / -4								
Vibration resistance acc. to DIN EN 60068-2-6 at 10 .. 500 Hz	≤ 25 g								
Shock resistance acc. to DIN EN 60068-2-27	100 g / 6 ms / half-sine 500 g / 1 ms / half-sine								
Protection class acc. to DIN EN 60529 ²⁾	IP 67								
Safety-related data									
Performance Level									
Based on	DIN EN ISO 13849-1:2016-06								
-PL	d								
Architecture	Category 2								
Safety Integrity Level									
Based on	DIN EN 61508:2011-02								
SIL	2								
CANopen Safety									
Communication profile	CiA DS 301 V4.2.0								
Device profile	CiA DSP 404 V2.1.0								
Safety-relevant communication	EN 50325-5								
Transmission services SRDO	Measured values 16/32 bit, status cyclical								
Baud rates	10 kbit .. 1 Mbit acc. to DS305 V3.0.0								
Other data									
Supply voltage	9 .. 35 V DC								
Residual ripple of supply voltage	≤ 5 %								
Current consumption	≤ 25 mA								
Life expectancy	> 10 million load cycles (0 .. 100 % FS)								
Weight	~ 45 g								

Note: Reverse polarity protection of the supply voltage, overvoltage, override and short circuit protection are provided.

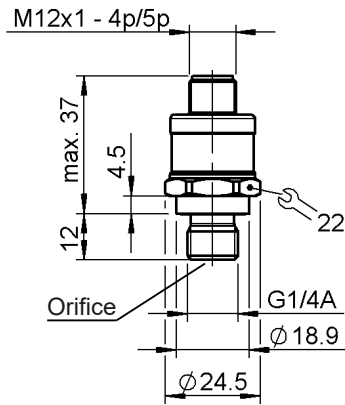
FS (Full Scale) = relative to complete measuring range

B.F.S.L. = Best Fit Straight Line

¹⁾ In the standard up to -25°C with FKM seal, -40 °C on request

²⁾ With mounted mating connector in corresponding protection type

Dimensions



Pin connections

M12x1, 5 pole	Pin	Output signal: F1X	
		Signal	Description
	1	Housing	Shield/housing
	2	+U _B	Supply +
	3	0 V	Supply -
	4	CAN_H	Bus line dominant high
	5	CAN_L	Bus line dominant low

Order details OEM

Pressure transmitter HPT 1000 Functional Safety has been specially developed for OEM customers and is available for minimum order quantities of 500 pcs. per type.
For detailed specification, please do not hesitate to contact our HYDAC ELECTRONIC Sales department.

Note

The information in this brochure relates to the operating conditions and applications described.
For applications or operating conditions not described, please contact the relevant technical department.
Subject to technical modifications.

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