Pressure transducer with integrated electronics

RE 30266/01.04 1/4
Replaces: 12.00

Type HM 16

Series 1X


H6694

Overview of contents

Features

- Conversion of the measured values into electrical signals for use in SYDFEE and SYDFEC systems (Systems with integrated electroncis)
- EMC characteristics also permit use in critical applications
- Sensor with thin film technology
- Connection cable with a 3-pin M12 plug
- Accuracy class 0.5
- Measurement range 315 bar
- G 1/4 connection thread
- Parts that are in contact with the medium are of stainless steel
- Compact design
- CE mark

Ordering details

HM 16	– 1X	/ 315	C13	– A	*

Pressure transducer with integrated electronics

Series 10 to 19 (10 to 19: unchanged technical data and connection allocation) = 1X

Measurement range 315 bar = 315

C13 = 3-pin plug M12x1 with connection cable for the SYDFEE and SYDFEC systems

A = Connection cable (length 0.5 m) for the SYDFEE and SYDFEC systems

Further details in clear text

Technical data (for applications outside these parameters, please consult us!)

Input variables		
Auxiliary power	U_B	19 to 36 VDC
Current consumption	I	4 mA
Measurement range	p_N in bar	315
Overload protection	p_{max} in bar	780
Burst pressure	p in bar	1500
Dead volume	V	approx. 200 mm^3
Output variables		
Output signal	U	0.5 to 5 VDC
Balancing error:		
– Zero point		< 0.15 % [1]
– End value		< 0.3 % [1]
Temperature co-efficients in the nominal temperature range		
– Highest TC of the zero point		< 0.2 %/ 10 K
– Highest TC of the span		< 0.2 %/ 10 K
Characteristic curve deviation		type < 0.2 % [1] (limit point adjustment)
Hysteresis		< 0.1 % [1]
Repeatability		< 0.05 % [1]
Adjustment time (10 to 90 %)	t	< 1 ms
Long term drift (1 year) under reference conditions		< 0.2 % [1]
Ambient conditions		
Nominal temperature range	ϑ	– 20 to + 80 °C
Limiting temperature range	ϑ	– 40 to + 85 °C
Storage temperature range	ϑ	– 40 to + 125 °C
Medium temperature range	ϑ	– 40 to + 90 °C
Mechanical data		
Pressure connection		G1/4 external thread to DIN 3852 form E (pressure chanel with a Ø = 0.6 mm orifice); profile seal to DIN 3869, material FKM
Tightening torque	M	15 Nm
Electrical connections		3-pin M12 plug with connection cable 3 x 0.34 mm2 (0.5 m long)
Weight	m	0.16 kg

1) Referring to the full measuring range

☞ **Note!**

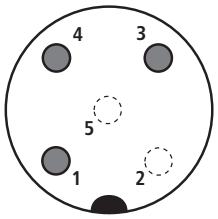
For details regarding the environmental simulation test covering EMC (electro-magnetic compatibility), climate and mechancial loading see RE 30 266-U (declaration regarding environmental compatibility).

Connection allocation

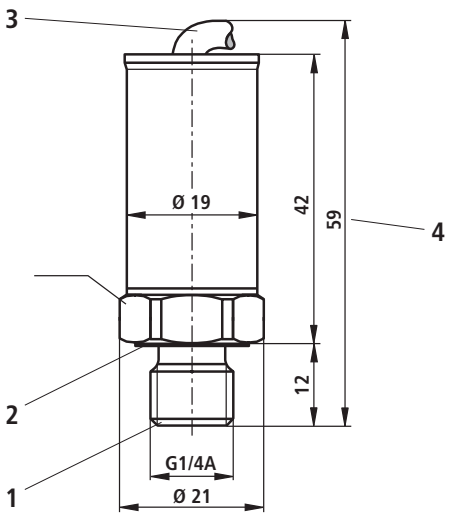
C13 plug (with connection cable)
(3-pin M12 plug; viewed on the contact side)

1 –> Supply voltage + (+ UB)
3 –> Supply voltage – (0 V)
4 –> Output signal (0.5 to 5 V)

Contacts 2 and 5 are not used.
(The connection diagram depicts a 5-pin plug)



Unit dimensions (dimensions in mm)



1 G 1/4 pressure connection to DIN 3852
2 Profile seal to DIN 3869, material FKM
(Material No. 0001 2502)
3 Connection cable (with a 3-pin M12plug); 0.5 m long
4 Minimum installation length

Notes