

## Pressure transducer with integrated electronics

RE 30266/01.04 1/4  
Replaces: 12.00

Type HM 16

Series 1X



H6694

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### Features

- Conversion of the measured values into electrical signals for use in SYDFEE and SYDFEC systems (Systems with integrated electronics)
- 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
	A = Further details in clear text Connection cable (length 0.5 m) for the SYDFEE and SYDFEC systems
	C13 = 3-pin plug M12x1 with connection cable for the SYDFEE and SYDFEC systems

## 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 <sup>3</sup>
Output variables		
Output signal	$U$	0.5 to 5 VDC
Balancing error:		
– Zero point		< 0.15 % <sup>1)</sup>
– End value		< 0.3 % <sup>1)</sup>
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 % <sup>1)</sup> (limit point adjustment)
Hysteresis		< 0.1 % <sup>1)</sup>
Repeatability		< 0.05 % <sup>1)</sup>
Adjustment time (10 to 90 %)	$t$	< 1 ms
Long term drift (1 year) under reference conditions		< 0.2 % <sup>1)</sup>
Ambient conditions		
Nominal temperature range	$\vartheta$	– 20 to + 80 °C
Limiting temperature range	$\vartheta$	– 40 to + 85 °C
Storage temperature range	$\vartheta$	– 40 to + 125 °C
Medium temperature range	$\vartheta$	– 40 to + 90 °C
Mechanical data		
Pressure connection		G1/4 external thread to DIN 3852 form E (pressure channel with a $\varnothing = 0.6$ 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 mm <sup>2</sup> (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 mechanical loading see RE 30 266-U (declaration regarding environmental compatibility).

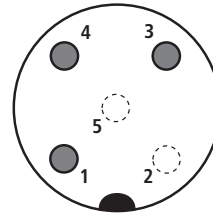
## Connection allocation

### C13 plug (with connection cable)

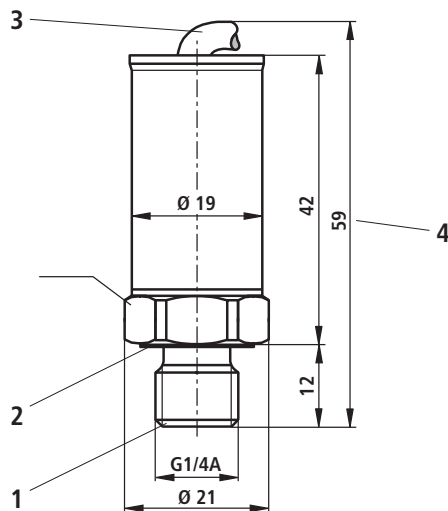
(3-pin M12 plug; viewed on the contact side)

- 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 M12 plug); 0.5 m long
- 4 Minimum installation length

## Notes

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