

- Up to 1000 Bar pressure range
- High strength, rugged stainless steel design
- With EC79 and EC406 approval for use with Hydrogen
- E1 automotive approved

The **SMO31H2** is a high quality all stainless steel pressure transducer, intended for applications around the measurement of hydrogen in the automotive industry. Due to the proven, robust mechanical construction and with additional EMI / RFI protection, the **SMO31H2** is predestined to be used in harsh environments. Low static and thermal errors and high resistance to shock and vibration as standard, the **SMO31H2** assures trouble free operation at temperatures up to 125° C.



EC79

EC406

Specification

Performance

Accuracy @ RT	% of the range (gauge and vacuum sensors) < 0.5 BFSL ≤ 0.125	(incl. nonlinearity, hysteresis, repeatability, zero-offset and final offset acc. to IEC 61298-2)
Non-linearity	% of the range ≤ 0.30	
Repeatability	% of the range ≤ 0.20	
Stability/year	% of the range ≤ 0.20	
Response time	(10..90%) t(ms)1	
Overrange pressure	up to 2x rated pressure	
Burst pressure	up to 5x rated pressure	
Pressure cycles	> 10 million	

Electronics

Output → Supply	0.5 - 4.5V → 5V ratiometric
Output impedance	< 100 Ω
Current consumption	< 10 mA
Reverse voltage protection	Yes
Mechanics	
Material	stainless steel
Pressure port	see select table
Electrical connection	see select table
Weight	ca. 60 g

Environment

Temperature [°C]:	
Measuring medium	-40...125
Ambience	-40...105
Storage	-40...125
Compensated range	-20...85
Temperature coefficient within the compensated range:	
Mean TC offset	% of the range ≤ 0,15 / 10K
Mean TC range	% of the range ≤ 0,15 / 10K
Shock	1000 G, 11 msec., 1/2 Sine
Vibration	25 G peak, 20 to 2000 Hz
Sealing	IP 67, optional IP69K



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Ordering Information

Standard models: **SMO31H2-M16-44800-B-5-C**
SMO31H2-M16-70000-B-5-C

(Please use the characters in the chart below to construct your product code)

Sample Code: **SMO31H2 - B - 01000 - B - 5 - A**

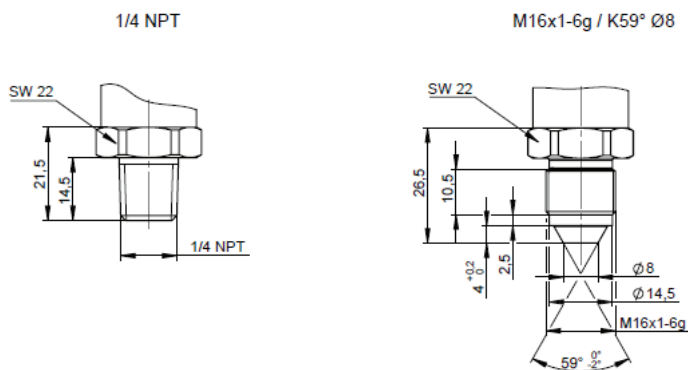
Series	Port Configuration	Pressure Range	Pressure Unit	Output Signal	Electrical Interface
SMO31H2	M16 - M16x1 male up to 1000 bar (EC79 is limited to 700 bar) B - 1/4 NPT	Please use code from table below	B - gauge pressure V - vacuum pressure	5 = 0.5..4.5 V (with 5V supply voltage)	A - 600 mm cable C - Packard Metripac connector F - M12x1 Round connector

Custom options available on request



Pressure Range	
Bar	Order Code
1.0	00100
1.6	00160
2.5	00250
4	00400
6	00600
10	01000
16	01600
20	02000
25	02500
40	04000
50	05000
60	06000
100	10000
160	16000
250	25000
400	40000
448	44800
600	60000
700	70000
1000	100000

The SMO31H2 series is backed by a 1 Year Warranty. The purchaser is responsible for compatibility of the media, functional adequacy and correct installation of the transmitter.

Dimensions



Wiring

Type	Output	PIN 1	PIN 2	PIN 3	PIN 4
 Round connector M12x1 A	0.5 - 4.5V , 1 - 5 V , 0 - 10 V	+ Supply	N/A	- Supply	Output +
 Packard Metripac	0.5 - 4.5V , 1 - 5 V , 0 - 10 V	PIN A - Supply	PIN B + Supply	PIN C Output +	-
Cable assembly	0.5 - 4.5V , 1 - 5 V , 0 - 10 V	Red + Supply	Black - Supply	White Output +	Green -

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ÉLECTRONIQUE

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