

# Pressure Sensor - SMO31H2

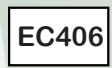


Eurosensor

- 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.



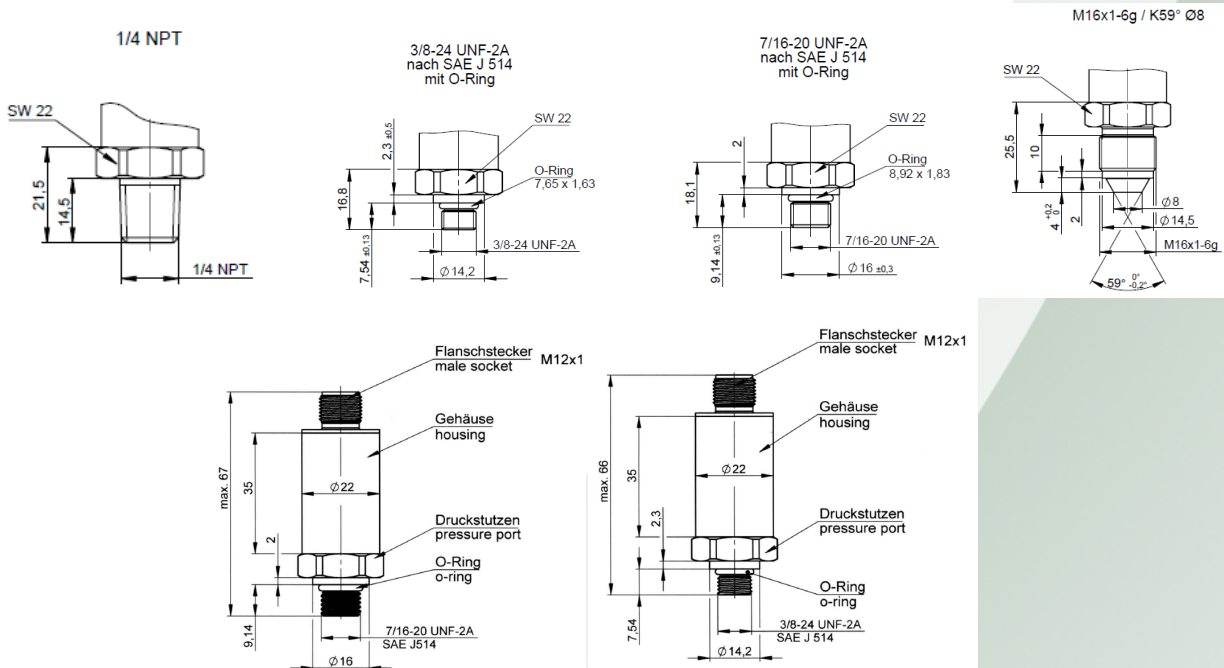
## Specification

Performance		
<b>Accuracy @ RT</b>	% 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)
<b>Non-linearity</b>	% of the range ≤ 0.30	
<b>Repeatability</b>	% of the range ≤ 0.20	
<b>Stability/year</b>	% of the range ≤ 0.20	
<b>Response time</b>	(10..90%) t(ms)1	
<b>Overrange pressure</b>	up to 2x rated pressure	
<b>Burst pressure</b>	up to 5x rated pressure	
<b>Pressure cycles</b>	> 10 million	

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

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

## Dimensions in mm



## Ordering Information

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

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

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



Series	Port Configuration	Pressure Range	Pressure Unit	Output Signal	Electrical Interface
SMO31H2	<b>M16</b> - M16x1 male up to 1000 bar (EC79 is limited to 700 bar)	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
	<b>B</b> - 1/4 NPT max. 500 bar				
	<b>D</b> - 7/16" - 20 UNF 2A Male up to 1000 bar (EC79 bis limited to 700 bar)				
	<b>N</b> - 3/8"-24 UNF2A up to 1000 bar (EC79 is limited to 700 bar)				

Custom options available on request

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

## 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 -