

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



EC79 **EC406**

The **EPT31H2** is a high quality all stainless steel pressure transducer, intended for applications around the measurement of hydrogen. With additional EMI / RFI protection, low static and thermal errors and high resistance to shock and vibration as standard, the **EPT31H2** assures trouble free operation at temperatures up to 125° C. Its piezo resistive sensing element coupled with the latest ASIC circuitry, assures excellent accuracy, choice of high level outputs and long stability, protected within a rugged, stainless steel housing.

The **EPT31H2** high strength stainless steel construction contains no silicone oil and no internal O-rings. Measurements are available in gauge, with ranges up to 1,000 bar and are backed by a one-year warranty.

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	

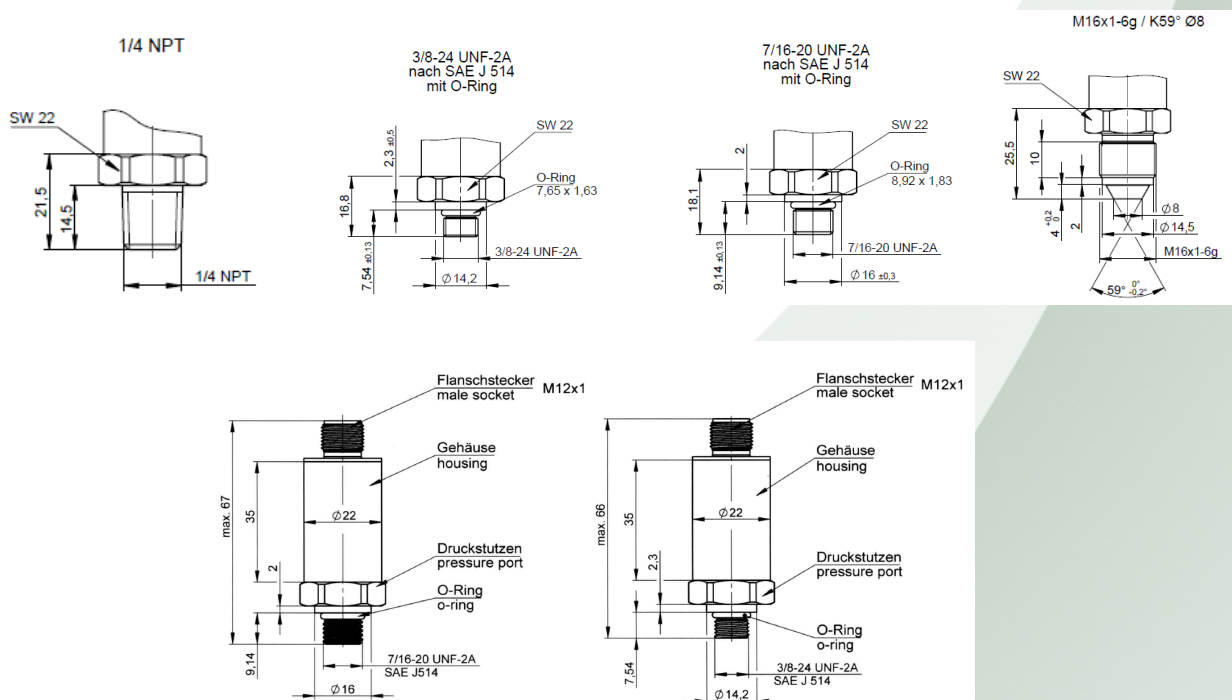
Environment

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	

Electronics

Output → Supply	0.5 - 4.5V → 5V ratiometric 4 - 20 mA → 10 - 32 VDC
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

Dimensions in mm



Ordering Information

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

Standard models: **EPT31H2-M16-44800-B-5-C** **EPT31H2-N-44800-B-5-C**
 (in stock) **EPT31H2-M16-70000-B-5-C**

Sample Code: **EPT31H2 - M16 - 01000 - B - 5 - A**



Series	Port Configuration	Pressure Range	Pressure Unit	Output Signal	Electrical Interface
EPT31H2	M16 - M16x1 male up to 1000 bar (EC79 is limited to 700 bar)	Please use code from table below	B - gauge pressure V - vacuum pressure	2 = 4..20 mA 5 = 0.5..4.5 V - (with 5V supply voltage)	A - 600 mm cable C - Packard Metripac connector F - M12x1 Round connector
	B - 1/4 NPT max. 500 bar (EC79 is limited to 500 bar)				
	D - 7/16" - 20 UNF 2A Male up to 1000 bar (EC79 bis limited to 700 bar)				
	N - 3/8"-24 UNF2A up to 700 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	25	40	50	60	100	160	250	400	600	700	1000
Order Code	00100	00160	00250	00400	00600	01000	01600	02500	04000	05000	06000	10000	16000	25000	40000	60000	70000	100000

The EPT31H2 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 +
	4..20mA	+ Supply	N/A	Current output -	N/A
 Packard Metripac	0.5 - 4.5V , 1 - 5 V , 0 - 10 V	- Supply	+ Supply	Output +	-
	4..20mA	Current output -	+ Supply	N/A	-
	I ² C	N/A	N/A	N/A	-
Cable assembly	0.5 - 4.5V , 1 - 5 V , 0 - 10 V	Red	Black	White	Green
	4..20mA	+ Supply	- Supply	Output +	-
	I ² C	+ Supply	Current output -	N/A	-
	I ² C	V+	V-	SCL	SDA