

# Y92 - hydrogen pressure measurement

Article number: Y92-3.5G.B##.R/2164/7912

## Overview

- Precision pressure measurement from 0 ... 10 to 0 ... 400 bar
- Robust stainless steel housing
- Intrinsically safe version (LCIE 02 ATEX 6133X)
- Enhanced life time expectation thanks to gold coated contact diaphragm (15 µm)
- Made for hydrogen applications such as hydrogen electrolyzer, pressure monitoring of distribution network, storage station, compressor, dryer, H<sub>2</sub>-refuelling station and H<sub>2</sub>-combustion power plant
- Free from oil and grease


*Picture similar*


## Technical data

### Performance characteristics

Pressure type	Relative (gauged)
Compensated temperature range	- 40 ... 85 °C
Long term stability	≤ 0.2 % FSR/a
Max. measuring span	400 bar
Standard error of measurement (BFSL)	± 0.3 % FSR Including non-linearity, hysteresis and non-repeatability according BFSL ± 0.5 % FSR , zero point error ± 0.5 % FSR , span error
Rise time (10 ... 90 %)	≤ 3 ms
Temperature coefficient	± 0.25 % FSR/10 K , zero point ± 0.15 % FSR/10 K , measuring span

### Process conditions

Process temperature	- 40 ... 100 °C
Process pressure	Refer to section "Operating conditions"

### Process connection

Connection variants	Refer to section "Dimensional drawings"
Wetted parts material, process connection	AISI 316L (1.4404)
Wetted parts material, membrane	AISI 316L (1.4404) Gold plated 15 µm
Wetted parts material, gasket	EPDM

### Ambient conditions

Operating temperature range	- 40 ... 85 °C
Storage temperature range	- 40 ... 85 °C
Degree of protection (EN 60529)	IP 67
Shock (EN 60068-2-27)	25 falls from 1 m onto concrete floor

### Ambient conditions

Vibration (sinusoidal) (EN 60068-2-6)	1.5 mm p-p (10 ... 58 Hz), 20 g (58 Hz ... 2 kHz)
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### Output signal

Output signal	4 ... 20 mA
Load resistance	R = (Vs - 11 V)/20 mA, with current output
Insulation resistance	> 100 MΩ , 500 V DC

### Housing

Style	Compact transmitter
Overall size	Refer to section "Dimensional drawings"
Material	AISI 304 (1.4301)

### Electrical connection

Connector	M12-A, 4-pin
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### Power supply

Voltage supply range	11 ... 28 V DC
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### ATEX I M1 Ex ia I Ma

Please note	For the application in Ex zone you have to respect the conditions mentioned in the ATEX Type Examination Certificate (LCIE 02 ATEX 6133). You will find the relevant certificates and instructions at <a href="http://www.baumer.com">www.baumer.com</a>
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Maximum values for barrier selection, Ui	28 V
Maximum values for barrier selection, Ii	120 mA
Maximum values for barrier selection, Pi	800 mW
Internal capacitance, Ci	30 nF
Internal inductance, Li	0 µH

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**Technical data**
**ATEX II 1 G Ex ia IIC T5 / T6 Ga**

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**ATEX II 1 D Ex ia IIIC T80°C / T105°C Da**

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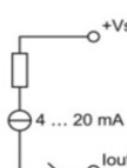
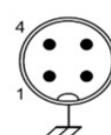
**Compliance and approvals**

EMC	EN 61000-6-2 EN 61000-6-3 EN 61326-1
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**Operating conditions**

Product designation	Article no.	Measuring range (bar)	Proof pressure (bar)	Burst pressure (bar)
Y923-5GB22.R/2164/7912	11253447	0 ... 10	20	30
Y923-5GB26.R/2164/7912	11253446	0 ... 25	50	75
Y923-5GB27.R/2164/7912	11264403	0 ... 40	80	120
Y923-5GB29.R/2164/7912	11253448	0 ... 60	120	180
Y923-5GB31.R/2164/7912	11251857	0 ... 100	200	300
Y923-5GB35.R/2164/7912	11251858	0 ... 250	500	600
Y923-5GB38.R/2164/7912	11251860	0 ... 400	600	800

**Electrical connection**

Output type	Equivalent circuit	Electrical connection	Function	Pin assignment
4 ... 20 mA (2-wire)			+Vs Iout GND Frame Ground	1 4 3 n.c. Plug thread 2

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### Electrical connection

#### Housing

