Data Sheet

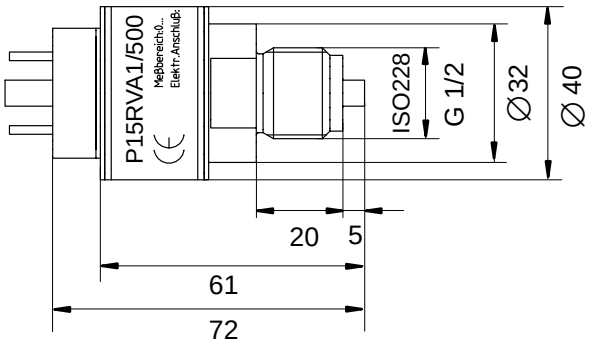
P15

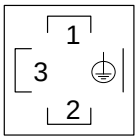
Pressure Gage Transducers for Excess Pressure

Special features

- **P15RVA1: Output 0...10 V**
- **P15RVA2: Output 4...20 mA (2-wire)**
- **Optimum price:performance ratio**
- **Highly reliable**
- **No liquid filler**
- **Withstands overloading up to 200 %**
- **Corrosion–resistant**
- **Small in size**
- **High EMC (CE mark)**

Dimensions (in mm; 1 mm= 0.03937 inches)





Cable socket not part of standard supply !

Measuring range	Order ref. 0...10 V	Order ref. 4...20 mA
0...10 bar	1-P15RVA1/10B	1-P15RVA2/10B
0...20 bar	1-P15RVA1/20B	1-P15RVA2/20B
0...50 bar	1-P15RVA1/50B	1-P15RVA2/50B
0...100 bar	1-P15RVA1/100B	1-P15RVA2/100B
0...200 bar	1-P15RVA1/200B	1-P15RVA2/200B
0...500 bar	1-P15RVA1/500B	1-P15RVA2/500B

1) Pin assigment of standard connector acc. to DIN 43650

Plug assignment[1)]	Type	
	P15RVA1	P15RVA2
1	Supply voltage 18...30 V	Supply voltage 7...30 V, Output 4...20 mA
2	Ground	Ground
3	Output 0...10 V	Not used
⏚	Shield	Shield

Specifications (in accordance with DIN 16086)

Type		**P15RVA1 / P15RVA2**					
Class of accuracy		**1**					
Mechanical input characteristics							
Excess pressure, Measuring range Initial value: ambient air pressure	bar	10	20	50	100	200	500
Fundamental resonance frequency of the membrane	kHz, c.	12	19	29	45	65	85
Overload cutoff at 23 °C [73 °F]	%	200					
Test pressure	%	200					
Destructive range	%	> 200					
Under dynamic loading Permitted pressure Permitted oscillation bandwidth (in accordance with DIN 50 100)	 % %	 70	 85	 85	 95	 95	 60
Material of parts affected by measurement medium		1.4542 stainless steel					
Dead volume	mm^3	700					
Change in dead volume	mm^3	2	2	2	0.6	0.5	0.3
Ambient conditions Rated temperature range Operating temperature range Storage temperature range	 °C [°F] °C [°F] °C [°F]	 –20...+70 [–5...+160] –25...+70 [–15...+160] –40...+85 [–40...+185]					
Maximum mean temperature if installed horizontally or hanging below i.e. air–cooling at max. ambient temperature of +60 °C [140 °F]	°C [°F]	105 [220]					
Impact resistance (type testing according to DIN IEC 68) Impact acceleration Vibration acceleration (frequency range 10...100 Hz)	 m/s^2 m/s^2	 650 150					
EMC (in accordance with IEC 801-3)	V/m	10					
Protection system (according to DIN 40050, IEC 529)		IP65					
Materials used for outer surfaces		1.4301					
Weight (with cable socket plugged in)	kg, c.	0.19					

Output characteristics		**P15RVA1**		**P15RVA2**
Output range	V	0...10 ±0.2	mA	4...20 ±0.4
Zero signal	V	0.4 ±0.3	mA	4 ±0.4
Temperature coefficient of zero signal per 10 K in rated temperature range	 %	 < ±1; typically. ±0.5	 %	 < ±1; typically. ±0.5
Temperature coefficient of output range per 10 K in rated temperature range	 %	 < ±0.5; typically. ±0.2	 %	 < ±0.5; typically. ±0.3
Characteristic curve deviation, Initial setting	%	< ±1; typically. ±0.5	%	< ±1; typically. ±0.5
Highest measurement frequency (–3 dB)	kHz	2	Hz	500
Auxiliary energy				
Supply voltage rated range	V	18...30	V	7...30
Reference voltage	V	24	V	24
Effect of supply voltage when changed from 7 V to 30 V on the zero signal ,on the characteristic value	 	 –	 % %	 0.3 0.3
Effect of supply voltage when changed from 18 V to 30 V on the zero signal ,on the characteristic value	 % %	 0.3 0.3	 	 –
Maximum load resistance	kΩ	10		–
Apparent ohmic resistance		–	kΩ	< 1.1[1)]
Maximum current consumption	mA	30	mA	100

1) Dependent on the supply voltage

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