

# P15

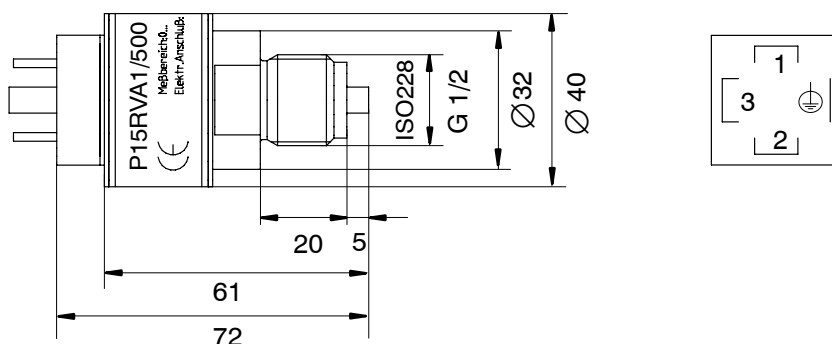
## Pressure Gage Transducers for Excess Pressure



### 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 assignment of standard connector acc. to DIN 43650

Plug assignment <sup>1)</sup>	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						
<b>Mechanical input characteristics</b>							
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	%	100					
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 <sup>3</sup>	700					
Change in dead volume	mm <sup>3</sup>	2	2	2	0.6	0.5	0.3
Ambient conditions							
Rated temperature range	°C [°F]	-20...+70 [-5...+160]					
Operating temperature range	°C [°F]	-25...+70 [-15...+160]					
Storage temperature range	°C [°F]	-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	m/s <sup>2</sup>	650					
Vibration acceleration (frequency range 10...100 Hz)	m/s <sup>2</sup>	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 signal	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
<b>Auxiliary energy</b>			
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 %
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 <sup>1)</sup>
Maximum current consumption	mA	30	mA 100

<sup>1)</sup> Dependent on the supply voltage

Modifications reserved.  
All details describe our products in general form only. They are not to be understood as a guarantee of quality or durability and do not constitute any liability whatsoever.

**Hottinger Baldwin Messtechnik GmbH**

Postfach 10 01 51, D-64201 Darmstadt, Germany  
Im Tiefen See 45, 64293 Darmstadt, Germany  
Tel.: 061 51/ 8 030; Fax: 061 51/ 8039100  
E-mail: support@hbm.com www.hbm.com



measurement with confidence