

Electrodynamic Velocity Sensor

Mechanical velocity sensor for absolute vibration measurement of critical turbomachinery applications such as steam, gas and hydro turbines, compressors, pumps and fans to measure case vibration.

Sensor Orientation	
PR9268/01x-x00	Omni Directional
PR9268/20x-x00	Vertical, ± 60°
PR9268/30x-x00	Horizontal, ± 30°
PR9268/60x-000	Vertical, ± 30° (without lifting current) Vertical, ± 60° (with lifting current)
PR9268/70x-000	Horizontal, ± 10° (without lifting current) Horizontal, ± 30° (with lifting current)
Measuring Target	
Sensitivity	17.5 mV/mm/s
Frequency Range	14 to 1000Hz
Natural Frequency	4.5Hz ± 0.75Hz @ 20°C (68°F)
Transverse Sensitivity	< 0.1 @ 80Hz
Vibration Amplitude	± 500µm
Amplitude Linearity	< 2%
Maximum Acceleration	10g (98.1 m/s ²) continuous 20g (196.2 m/s ²) intermittent
Maximum Transverse Acceleration	2g (19.62 m/s ²)
Damping Factor	~0.6% @ 20°C (68°F)
Resistance	1723Ω ± 2%
Inductance	≤ 90 mH
Active Capacity	< 1.2 nF



Dynamic Performance (PR9268/20x-x00 & PR9268/30x-x00)	
Sensitivity	28.5 mV/mm/s (723.9 mV/in/s)
Frequency Range	4 to 1000Hz
Natural Frequency	4.5Hz ± 0.75Hz @ 20°C (68°F)
Transverse Sensitivity	0.13 (PR9268/20x-x00) @ 110Hz 0.27 (PR9268/30x-x00) @ 110Hz
Vibration Amplitude (Mechanical Limit)	± 1500µm (± 2000µm)
Amplitude Linearity	< 2%
Maximum Acceleration	10g (98.1 m/s ²) continuous 20g (196.2 m/s ²) intermittent
Maximum Transverse Acceleration	2g (19.62 m/s ²)
Damping Factor	~0.56 @ 20°C (68°F) ~0.42 @ 100°C (212°F)
Resistance	1875Ω ± 10%
Inductance	≤ 90 mH
Active Capacity	< 1.2 nF
Dynamic Performance (PR9268/60x-000 & PR9268/70x-000)	
Sensitivity	22.0 mV/mm/s ± 5% @ Pin 3, 100Ω load 16.7 mV/mm/s ± 5% @ Pin 1, 50Ω load 16.7 mV/mm/s ± 5% @ Pin 4, 20Ω load
Frequency Range	10 to 1000Hz
Natural Frequency	8Hz ± 1.5Hz @ 20°C (68°F)
Transverse Sensitivity	0.10 @ 80Hz
Vibration Amplitude (Mechanical Limit)	± 1500µm (± 2000µm)
Amplitude Linearity	< 2%
Maximum Acceleration	10g (98.1 m/s ²) continuous, 20g (196.2 m/s ²) intermittent
Maximum Transverse Acceleration	2g (19.62 m/s ²)
Damping Factor	~0.7 @ 20°C (68°F) ~0.5 @ 200°C (392°F)
Resistance	3270Ω ± 10% @ Pin 3 3770Ω ± 10% @ Pin 1
Inductance	≤ 160 mH
Active Capacity	Insignificant

Environmental, General		
Power	Self-Powered	
Operating Temperature Range	PR9268/01x-x00 PR9268/20x-x00 PR9268/30x-x00	-20 to +100°C (-4 to 212°F)
	PR9268/60x-000 PR9268/70x-000	-20 to +200°C (-4 to 392°F)
Protection Class	PR9268/20x-x00 PR9268/30x-x00	IP55
	PR9268/01x-x00 PR9268/60x-000 PR9268/70x-000	IP65
Relative Humidity	0 to 100%, Non Condensing	
Material	PR9268/20x-x00 PR9268/30x-x00	Al Mg Si Pb F 28
	PR9268/01x-x00 PR9268/60x-000 PR9268/70x-000	Stainless Steel
	Cable	PTFE, 3x 0.5mm ²
	Armor	Stainless Steel
	Harting Plug	Die Cast Aluminium
Weight	PR9268/01x-x00	280g (without cable)
	PR9268/20x-x00 PR9268/30x-x00	930g
	PR9268/60x-000 PR9268/70x-000	1050g

Compliance and Certifications

CE	2014/30/EU (EN 61326-1) 2014/34/EU 2014/65/EU (EN 63000)
ATEX	EN IEC 60079-0:2018 EN IEC 60079-11:2012
IEC-Ex	IEC 60079-0:2017 IEC 60079-11:2011
CSA	CAN/CSA-C22.2 NO. 61010-1-12 UL 61010-1
UKCA	S.I. 2016 No. 1091 S.I. 2016 No. 1107 S.I. 2016 No. 3032

Hazardous Area Approvals

Intrinsic Safety (ia) PR9268/2xx-xxx & PR9268/3xx-xxx		
ATEX	II 1G Ex ia IIC T6 Ga II 1G Ex ia IIC T4 Ga	Tamb: T6 (-20°C ≤ Tamb ≤ 68°C) T4 (-20°C ≤ Tamb ≤ 108°C)
IEC-Ex	Ex ia IIC T6 Ga Ex ia IIC T4 Ga	
Intrinsic Safety (ia) PR9268/6xx-xxx & PR9268/7xx-xxx		
ATEX	II 2G Ex ib IIC T4 Gb II 2G Ex ib IIC T3 Gb	Tamb: T4 (-20°C ≤ Tamb ≤ 125°C) T3 (-20°C ≤ Tamb ≤ 190°C)
IEC-Ex	Ex ib IIC T4 Gb Ex ib IIC T3 Gb	Tamb Connector: -40°C ≤ Tamb ≤ 100°C for T3 / T4

Ordering Information

Model No.	Measurement Type XX	Cable X	Cable End X	0	0
PR9268	01 Omni Directional	0 3m, Armored	0 Harting Plug		
	20 Vertical	1 5m, Armored	1 Open Cab. End**		
	30 Horizontal	2 8m, Armored	9 C-5015 Plug***		
	60 Vertical HT	3 10m, Armored			
	70 Horizontal HT	4 3m, Non-Armored			
		5 5m, Non-Armored			
		6 8m, Non-Armored			
		7 10m, Non-Armored			
	8 No Cable*				

* No Cable is only available, if "Omni Directional" Sensor is chosen.

** Open Cable End is not available for "HT" versions.

*** C-5015 Plug is only available, if "No Cable" is chosen.

Special Versions

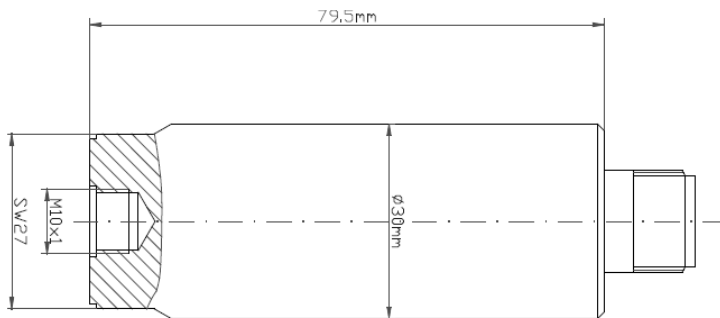
Product Description	Model Number
Cable 3x0.22mm ² (AWG 24), up to 8x10 ⁵ Gy radiation resistant	PR9268/x0x-100-RAD

Product Accessories

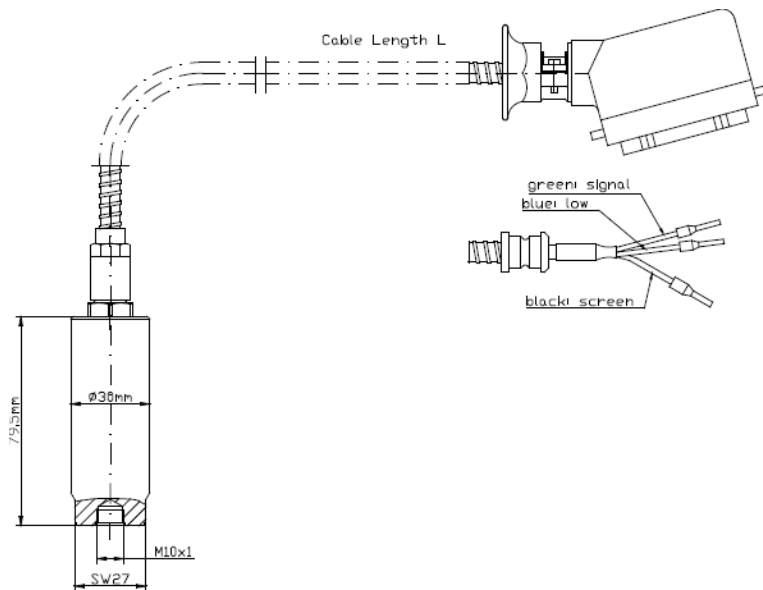
Product Description	Model Number
Extension Cable for PR9268/018-900 (see individual specsheet for details)	PR9670

Dimensions

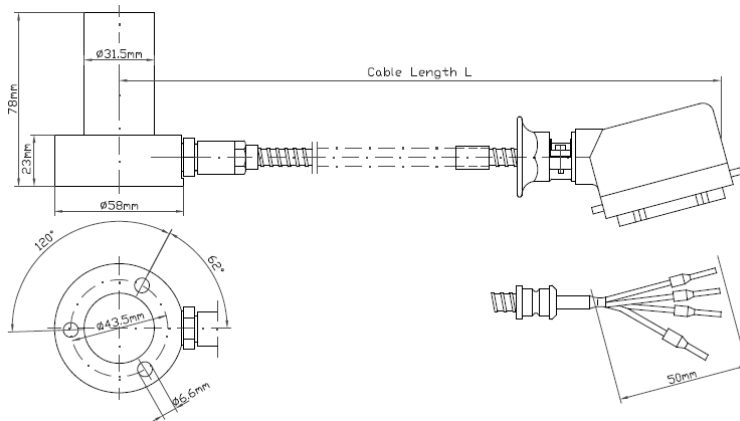
PR9268/018-900

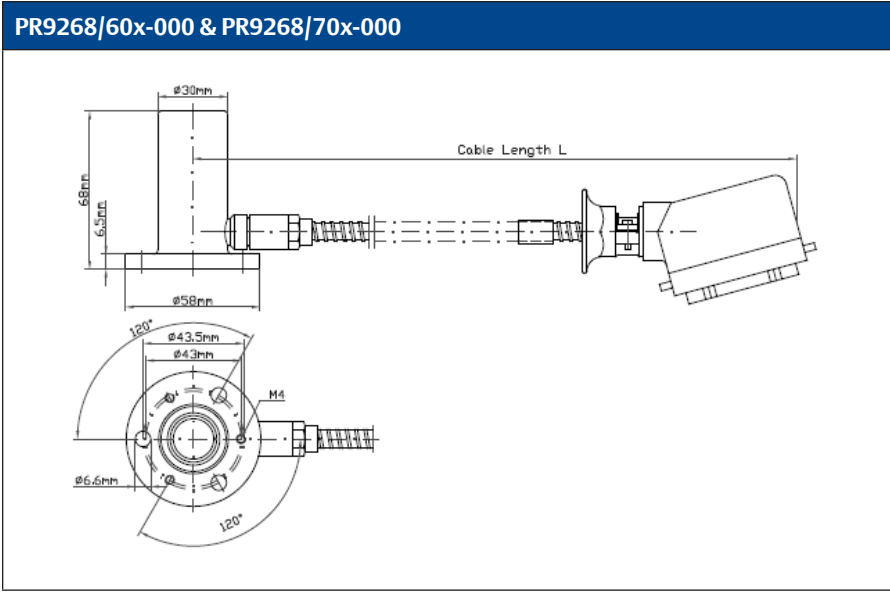


PR9268/01x-x00



PR9268/20x-x00 & PR9268/30x-x00





©2022, Emerson. All rights reserved.

The Emerson logo is a trademark and service mark of Emerson Electric Co. The AMS logo is a mark of one of the Emerson family of companies. All other marks are the property of their respective owners.

The contents of this publication are presented for informational purposes only, and while diligent efforts were made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.

Contact Us
www.emerson.com/contactus