

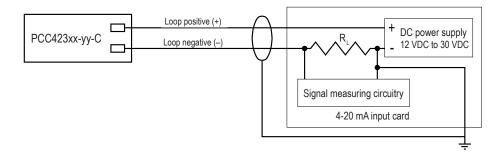
## Loop powered, integral cable sensors PCC423 series



### Table 1: PCC423xx-yy-C model selection guide

xx (4-20 mA output type)	yy (4-20 mA full scale) C (cable type)	
AR = acceleration, RMS AP = acceleration, peak	05 = 5 g (49 m/sec <sup>2</sup> ) 10 = 10 g (98 m/sec <sup>2</sup> ) 20 = 20 g (196 m/sec <sup>2</sup> )	J9T2A = shielded, twisted pair cable, high temp
VR = velocity, RMS VP = velocity, peak	05 = 0.5 ips (12.8 mm/sec) 10 = 1.0 ips (25.4 mm/sec) 20 = 2.0 ips (50.8 mm/sec) 50 = 5.0 ips (127 mm/sec)	J10 = shielded, twisted pair cable, general purpose

### PCC423xx-yy-C wiring



### Certifications

# CE

Note: Due to continuous process improvement, specifications are subject to change without notice. This document is cleared for public release.

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### **Key features**

- Choice of true RMS or calculated peak output (in acceleration or velocity units)
- Other connector options available (PCC421 models)
- Enables continuous trending of machine vibration
- Manufactured in an approved ISO 9001 facility



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### SPECIFICATIONS

Output, 4-20 mA	see Table 1 on page 1
Full scale, 4-20 mA, ±5%	selectable (see Table 1)
Frequency response, 4-20 mA	see Table 2, below
Repeatability	±2%
Transverse sensitivity, max	5%
Power requirements (2-wire loop power): Voltage at sensor terminals	12 - 30 VDC
Loop resistance <sup>1</sup> at 24 VDC, max	700 Ω
Turn on time, 4-20 mA loop	<30 seconds
Grounding	case isolated, internally shielded
Temperature range	–40° to +105°C
Vibration limit	250 g peak
Shock limit	2,500 g peak
Sealing	hermetic
Sensing element design	PZT ceramic / shear
Weight	145 grams (excluding cable)
Case material	stainless steel
Mounting⁴	1/4-28 captive screw
Cabling	J9T2A or J10 (see Table 1)

Connections	nections	
Function	Cable color	
loop positive (+)	white	
loop negative (-)	black	
ground	shield	

**Notes:** <sup>1</sup> Maximum loop resistance ( $R_L$ ) can be calculated by:

$$R_{L} = \frac{V_{DC \text{ power}} - 10 \text{ V}}{20 \text{ mA}}$$

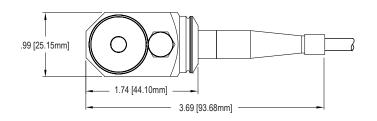
DC supply voltage	R <sub>L</sub> (max resistance) <sup>2</sup>	R <sub>⊥</sub> (minimum wattage capability) <sup>3</sup>
12 VDC	100 Ω	1/8 watt
20 VDC	500 Ω	1/4 watt
24 VDC	700 Ω	1/2 watt
26 VDC	800 Ω	1/2 watt
30 VDC	1,000 Ω	1/2 watt

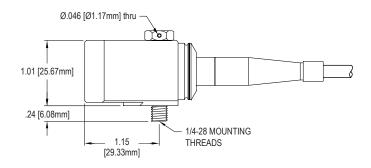
 $^{\rm 2}$  Lower resistance is allowed, greater than 10  $\Omega$  recommended.

 $^{\rm 3}$  Minimum R  $_{\rm L}$  wattage determined by: (0.0004 x R  $_{\rm l}$  ).

Accessories supplied: Mounting screw; calibration data (level 2) <sup>4</sup> M6 mounting screw available by request.

Table 2: PCC423 frequency response			
Acceleration	±10%	10 Hz - 1 kHz	
	±3 dB	1 Hz - 2 kHz	
Velocity	±10%	10 Hz - 1 kHz	
	±3 dB	3.5 Hz - 2 kHz	





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