

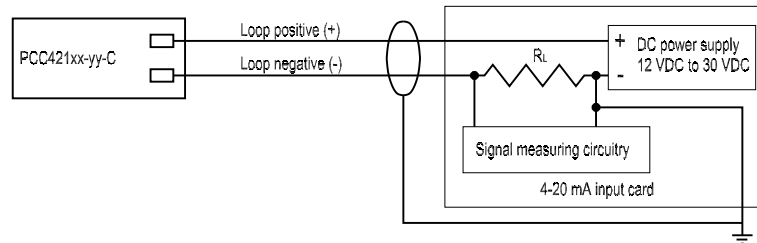
Side exit loop powered sensor

PCC421 series

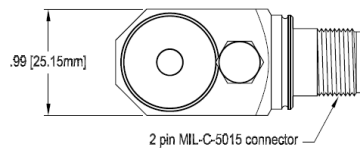
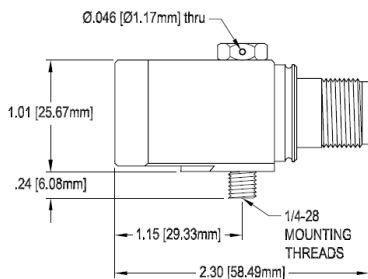


Wilcoxon's side exit PCC421 sensors provide 4-20 mA output signal proportional to the overall vibration level. An output of 4 mA indicates no vibration, meaning a level of 0 ips for velocity output models and a level of 0 g for acceleration output models. A full-scale reading of 20 mA indicates that the maximum range (RMS or peak) of vibration is present.

PCC421 wiring diagram

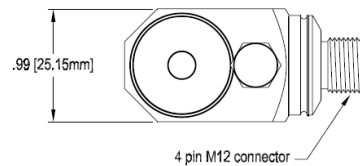
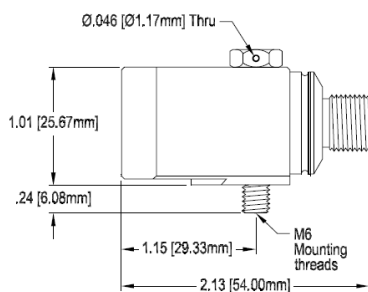


PCC421 with MIL-C-5015 connector and 1/4-28 mounting



MIL-C-5015 pin out	
Function	Connector pin
loop positive (+)	A
loop negative (-)	B
ground	shell

PCC421 with M12 connector and M6 mounting



M12 pin out	
Function	Connector pin
loop positive (+)	1
loop negative (-)	2
N/C	3
N/C	4
ground	shell

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

Key features

- Acceleration or velocity output units
- Enables continuous trending of machine vibration
- True root-mean-square (RMS) or calculated peak output
- Corrosion resistant
- Hermetically sealed
- ESD, overload and reverse wiring protection
- Connector options: MIL-C-5015 2 pin, M12 4 pin, or integral cable (model PCC423)

Certifications



Side exit loop powered sensor

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SPECIFICATIONS

Output, 4-20 mA	see table 1
Full scale, 4-20 mA, ±5%	selectable, see table 1
Frequency response, 4-20 mA	see table 2
Repeatability	±2%
Transverse sensitivity, max	5%
Power requirements (2-wire loop power): Voltage at sensor terminals	12 - 30 VDC
Loop resistance 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, shear
Weight	145 grams
Case material	stainless steel
Mounting	captive screw, 1/4-28 or M6
Output connector	2-pin, MIL-C-5015 style or 4-pin M12

Output type		
xx	AR	Acceleration - RMS
	AP	Acceleration - peak
	VR	Velocity - RMS
	VP	Velocity - peak
Full scale (acceleration output in g, velocity output in ips)		
yy	05	5 g or 0.5 ips
	10	10 g or 1.0 ips
	20	20 g or 2.0 ips
	50	5.0 ips
Output connector		
C	R6	2 pin MIL-C-5015
	M12-4	4 pin M12

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

DC supply voltage	R _L (max resistance) ²	R _L (minimum wattage capability) ³
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

Contact

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Accessories supplied:

- SF6 mounting stud (metric mounting available)
- Calibration data (level 2)

Notes: ¹ Maximum loop resistance (R_L) can be calculated by:

$$R_L = \frac{VDC - 10 V}{20 mA}$$

² Lower resistance is allowed, greater than 10 Ω recommended.

³ Minimum R_L wattage determined by: (0.0004 x R_L).

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