Loop powered sensors PCC421 series

Table 1: PCC421xx-yy-C model selection guide

xx (4-20 mA output type)	yy (4-20 mA full scale)	C (output connector)
AR = acceleration, RMS AP = acceleration, peak	05 = 5 g (49 m/sec ²) 10 = 10 g (98 m/sec ²) 20 = 20 g (196 m/sec ²)	R6 = 2 pin, MIL-C-5015
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)	M12-4 = 4 pin, M12

Wilcoxon MODEL PCC421VR-20-R6 SN: 56572 0-2.0 ips rms 4-20mA

Key features

- Choice of true RMS or calculated peak output (in acceleration or velocity units)
- Connector options: 2 pin MIL-C-5015 or 4 pin M12
- Integral cable option available (PCC423 models)
- Enables continuous trending of machine vibration
- Manufactured in an approved ISO 9001 facility

Loop positive (+) PCC421xx-yy-C Loop negative (-)

PCC421xx-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.

Wilcoxon Sensing Technologies An Amphenol Company 8435 Progress Drive Frederick, MD 21701 USA

Signal measuring circuitry

4-20 mA input card

DC power supply

12 VDC to 30 VDC

Tel: +1 (301) 330-8811 Fax: +1 (301) 330-8873 info@wilcoxon.com

buy.wilcoxon.com www.wilcoxon.com



Loop powered sensors PCC421 series

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 ¹ 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 or 4 pin M12

Accessories supplied: Mounting screw; calibration data (level 2)

Notes: ¹ Maximum loop resistance (R_1) can be calculated by: R_1 =

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

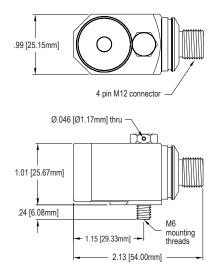
20 mA

V_{DC power} – 10 V

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

³ Minimum R_{L} wattage determined by: (0.0004 x R_{I}).

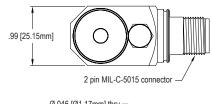
PCC421xx-yy-M12-4



COXO

SENSING TECHNOLOGIES

PCC421xx-yy-R6



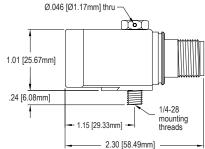


Table 2: PCC421 frequency response			
Acceleration	±10%	10 Hz - 1 kHz	
	±3 dB	1 Hz - 2 kHz	
Velocity	±10%	10 Hz - 1 kHz	
	±3 dB	3.5 Hz - 2 kHz	

MIL-C-5015 pin out (-R6 models)		
Function	Connector pin	
loop positive (+)	A	
loop negative (-)	В	
ground	shell	

M12 pin out (-M12-4 models)		
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.

Wilcoxon Sensing Technologies An Amphenol Company 8435 Progress Drive Frederick, MD 21701 USA Tel: +1 (301) 330-8811 Fax: +1 (301) 330-8873 info@wilcoxon.com

buy.wilcoxon.com www.wilcoxon.com