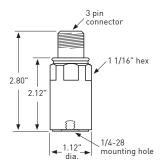
## Wilcoxon Research



The output of the PC420AIS series is proportional to acceleration vibration. An output of 4 mA indicates a level of 0 g or no vibration present. A full-scale reading of 20 mA indicates that the maximum range(Peak or RMS) of vibration is present. The Peak output units provide a computed equivalent peak level of vibration based on the RMS. The True Peak output units have a track-and-hold circuit with fast attack and slow decay for catching transient vibration peaks.

#### **Features**

- Intrinsically Safe Certification
- Peak equivalent, True RMS, or True Peak
- Corrosion resistant
- Hermetic seal
- ESD protection
- · Overload protection
- Reverse wiring protection

### Benefits

- Choice of ouput: RMS, or Peak, permits you to choose the sensor that best fits, your industrail requirements.
- Provide continuous trending of overall machine vibration
- Can help guide maintenace

\*CSA approval: Class 1, Division 1, Groups A,B,C,D. LCIE approval: EEx ia IIC T3







# Model PC420A intrinsically safe Series Acceleration loop powered sensors (LPS™)

## Output, 4-20 mA

Full scale,20 mA	see table 1 on back
Frequency response:	
±10%	10 Hz - 1.0 kHz
±3 dB	4 Hz - 2 kHz
Repeatability	±2%
Transverse sensitivity, max	5%

### Electrical

Power requirements' (two wire loop power):	
Voltage at PC420-series sensor terminals	12 VDC min, 30 VDC max
Loop resistance <sup>1</sup> at 24 VDC, maximum	600.Ω
Turn on time, 4-20 mA loop	30 seconds
Grounding	case isolated, internally
•	shielded

### Environmental

Temperature range	-40 to 85°C
Vibration limit	250 g peak
Shock limit	2,500 g peak
Sealing	hermetic
· ·	

### **Physical**

Sensing element design	PZT ceramic / shear
Weight	162 grams
Case material	316L stainless steel
Mounting	1/4 - 28 tapped hole
Output connector	2 pin, MIL-C-5015 style
Mating connector	R6 type
Recommended cabling	J9T2A

Connector pin	Function
Shell	ground
Α	+ positive
В	– negative
	Shell A

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

RL(max resistance) =  $\underline{\text{Vdc power - } 12 \text{ V}}$ 

wer - 12 V 20 mA

Тур		
DC supply voltage	RL (max resistance) <sup>2</sup>	RL (minimum wattage capability) <sup>3</sup>
20VDC	400.Ω	1/4 Watt
24VDC	600.Ω	1/2 Watt
26VDC	700.Ω	1/2 Watt

<sup>&</sup>lt;sup>2</sup> Lower resistance is allowed, greater than 10. recommended.

Accessories supplied: SF6 mounting stud (International customers specify mounting requirements); calibration data (level 2).

Tel: 301 330 8811 Fax: 301 330 8873 Email: sensors@wilcoxon.com

Wilcoxon Research Inc

www.meggitt.com



<sup>&</sup>lt;sup>3</sup> Minimum RL wattage determined by: (0.0004 x RL)

<sup>&</sup>lt;sup>4</sup>The following are recommended barrier strips: MTL7087, MTL7187, or MTL787S for Class I DivisionI locations.

Table 1: PC420Axx-yy-IS Model number selection

xx (4-20 mA output type)	yy (4-20 mA full scale)
R = RMS output, acceleration	05 = 5 g
P = Equivalent peak ouput, acceleration	10 = 10 g
TP = True peak output, acceleration	20 = 20 g