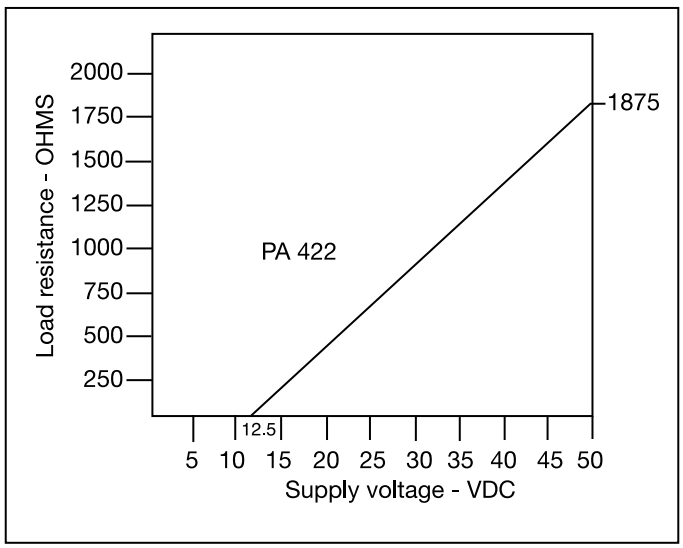
COX INSTRUMENTS
FLOW MEASUREMENT

Proven Performance for Over 50 Years

COX PA422 Analog Amplifier

DESCRIPTION

The analog amplifier provides a 4 to 20 mA output signal proportional to the process flow rate to allow for interface with data acquisition devices. This model is explosion-proof and has Factory Mutual or CSA approval. Direct and remote meter mounting are available.



Specifications	
Input Signal	From pickup coil of turbine flowmeter. 20 mV to 10 V, 10 to 2000 pps
Output Signal	4 to 20 mA dc, two-wire system (power is supplied over signal wires)
Input-output Relationship	The output current is 4 mA at an input frequency of 0 pps and increases linearly with input frequency
Adjustability	Unit is field adjustable to provide full scale output of 20mA for any input frequency between 50 and 2000 pps
Operating Temperature	-40° to +185°F (-40° to +85°C)
Supply Voltage	Supply voltage requirements depend on total external loop resistance. Refer to graph.
Accuracy	±0.25% of span
Repeatability	±0.1% of span
Drift	(over six month period): Maximum of ±0.1% of reference span
Hysteresis	0.05% of span
Ambient Temperature Effect	Maximum error in percent of span for 100°F (55°C) change in ambient temperature: Zero (4 mA dc): ±0.25% Span (20 mA dc): ±1.0%
Relative Humidity Effect	No effect with housing cover and seals properly in place
Supply Voltage Effect	±0.1% of span for a power supply voltage change from 12.5 to 40 V dc
Housing	NEMA 4 cast aluminum, explosion proof housing meets IP65
Mass	1 kg (2.2 lbs) approximate

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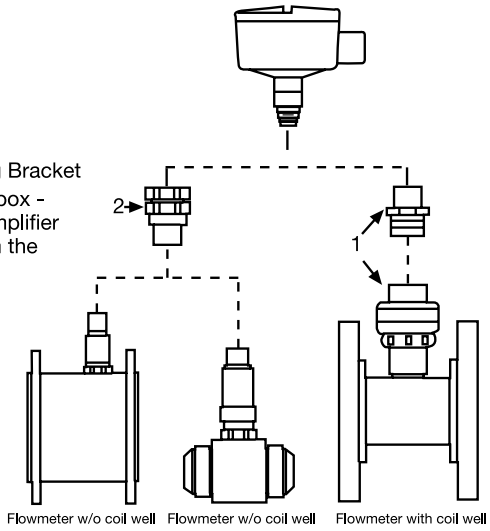
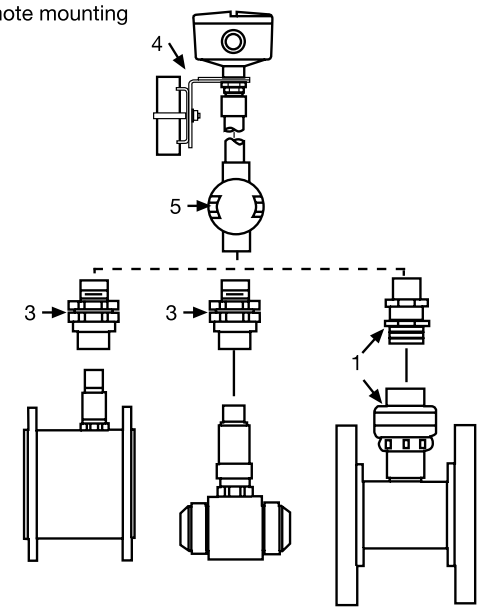
Mounting Kits
(Assembly Options)

1. A2019ZP Mounting Kit
2. A2053WR Connector
3. A2053WJ Connector
4. A2021BZ Remote Mounting Bracket
5. A2020EX Remote junction box - used when a remote pre-amplifier is more than three feet from the turbine meter.

Mounting directly
to turbine flowmeter



Remote mounting



Dimensions

Values of dimensions A and B for the following flowmeter line size codes

	1/2	3/4	1	1-1/2	2	3	4	6	8	10	12
Dimension A	8.8 224	8.9 226	8.9 226	9.1 231	9.7 246	9.9 252	10.4 264	11.5 292	12.5 318	13.6 345	14.6 371
Dimension B	7.1 180	7.2 183	7.2 183	7.4 188	8.0 203	8.2 208	8.7 221	9.8 249	10.8 274	11.9 302	12.9 328

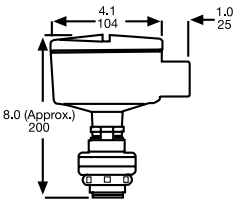
Note: Inches are the top dimension, millimeters the bottom $\frac{(in)}{(mm)}$

ORDERING OPTIONS

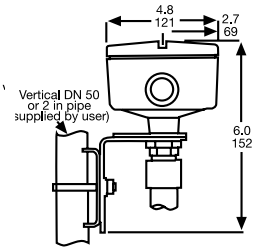
For easy ordering, select the appropriate item number from the information below:

For example:	Model	Electrical Classification
	PA422	FD

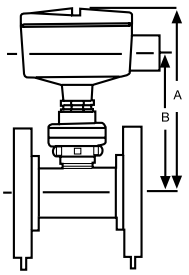
Your order would therefore be PA422-FD



Flowmeter mounting kit



Surface or pipe mounting kit



Model
PA422

Electrical Classification

FD Factory Mutual Research approved for hazardous locations. Explosion-proof for Class I, Division 1, Groups B, C and D. Dust ignition-proof for Class II, Division 1, Groups E, F and G. Non-incendive resistive for Class 1, Division 2, Groups A, B, C and D. Enclosure NEMA 4. (Certification CS-E/FD-A).

CD CSA approved for hazardous locations. Explosion-proof for Class I, Division I, Groups B, C and D; Class II, Division I, Groups E, F and G; Class III; Class I, Division 2, Groups A, B, C and D. Enclosure NEMA 4. (Certification CS-E/CD-A).

For more information, contact COX Instruments or your local COX Instruments representative.

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