

SP-2041

Two Wire Frequency - to - Analog
Transmitter



Description

The SP-2041 is a field adjustable two wire transmitter that outputs an analog current signal directly proportional to its input frequency. The transmitter enables flowmeters which produce a frequency output corresponding to a measured flow rate to communicate with instrumentation requiring a 4-20 mA or 10-50 mA input signal. The frequency range can be adjusted in the field by repositioning jumpers on the circuit board. The sensitivity of the SP-2041 is set to a 30 mV level to filter out unwanted RFI/EMI interference while still allowing low level input signals.

Features

- Field Adjustable Input Ranges
- Two-Wire Device
- Loop Powered 12 to 35 VDC Operation
- 4-20 mA or 10-50 mA Output

Ordering

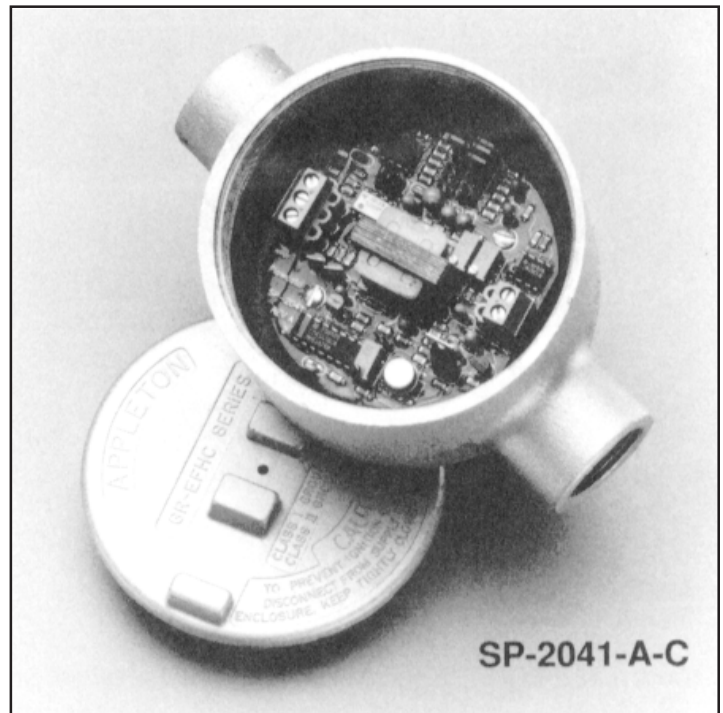
Part Number — **SP-2041-X-X**

Output

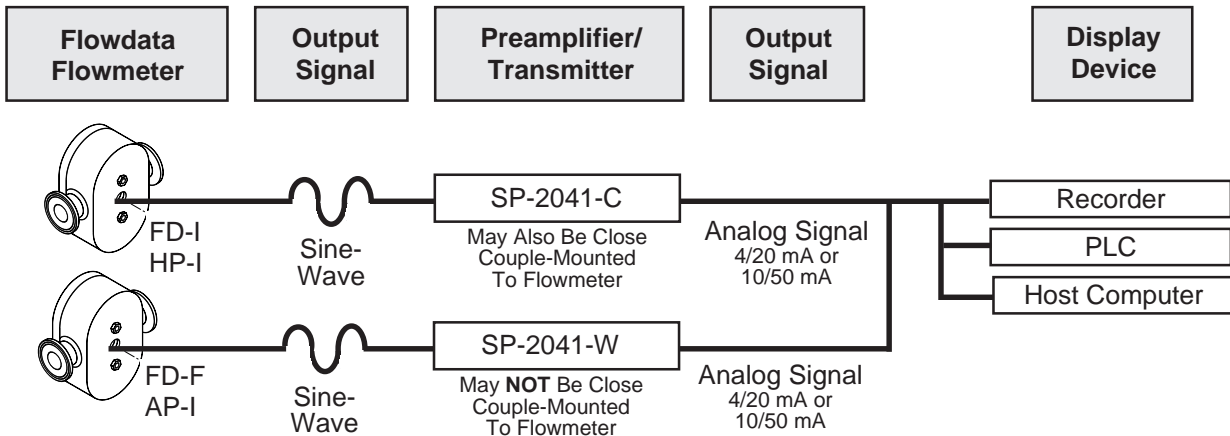
- A - 4-20 mA (Standard)
- B - 10-50 mA

Enclosure

- C - Explosion-proof Condulet (Standard)
- W - Water-proof Enclosure
- N - No Enclosure (OEM option)



Application



Specifications

Calibrated Span: 4.5 Hz to 4.5 KHz

Supply: Loop powered 12-35 VDC
(24 VDC nominal)

Max. load at 35 VDC is 1150 ohms
(Does not provide sensor excitation)

Input Amplitude:

Min. 30 mV peak-to-peak

Input Impedance: 1 Mohm

Compensated Temperature Range:

-20°F to 140°F (-29°C to 60°C)

Accuracy: $\pm 0.2\%$ of span at 75°F

Stability: $\pm 0.02\%$ (dampening to $\pm 0.01\%$)

Response: 0.5 sec with min. dampening
2.5 sec. with max. damp. (90% full span)

Output Ripple: 5.0 mVRMS maximum

Isolation Type: Transformer

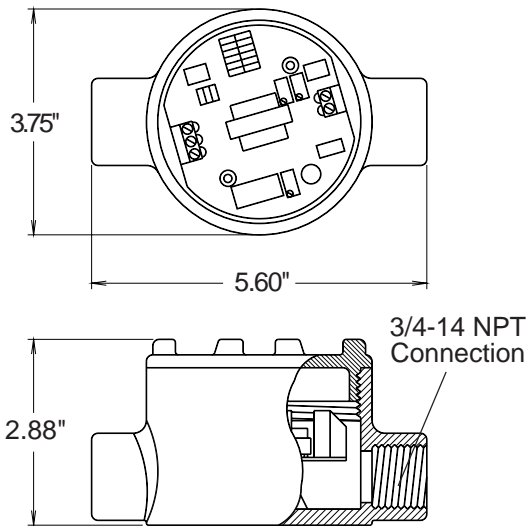
Isolation: 1500 VRMS maximum

Standard Output:

4-20 mA DC (600 ohms at 24 VDC)

10-50 mA DC (240 ohms at 24 VDC)

Enclosure Option



Explosion-proof Condulet

NEMA Type 7

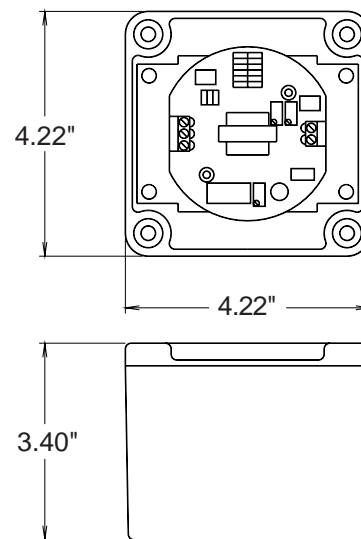
Class I, Groups B,C,D if compliant with NEC 501-4(a)(b)

Class II, Groups E,F,G if compliant with NEC 502-4(a)(b)

Class III

UL Standard 886

Enclosure Option



Water-proof Enclosure

NEMA Type 4, Type 4X, Type 12, and Type 13

Limited Warranty

For a period of not less than one (1) year nor more than two (2) years from the original date of shipment. Seller warrants that the products described in this Warranty are free from defects in workmanship and materials only. For specific Warranty periods please refer to Seller's Warranty schedule. Seller shall not be liable for any special, incidental or consequential damages. This Warranty extends to the original purchaser of the product warranted hereunder and to each transferee owner of the product during the term of the Warranty. In the event of a defect, malfunction, or failure of the product not caused by any misuse or damage to the product while in possession of the owner, the warrantor will remedy the failure or defect, within a reasonable amount of time after written notification from the owner of same. The remedy will consist of repair or replacement of the product only, at the warrantor's option. The owner must return the defective or malfunctioning component part(s) to the factory for such repair or replacement. If this product or one of its component parts is modified in any way by the owner, transferee owner, his agent or employee, this Warranty shall become null and void.

Local Representative:



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<http://www.flowdata.com>