

Model U3W

Bridge Based Sensor In-Line Amplifier



DESCRIPTION

The Model U3W amplifier supplies a highly regulated bridge excitation voltage for the transducer and converts the millivolt signal of the transducer to a 4 mA to 20 mA three-wire current output signal. The Universal In-line features two selectable excitation voltages, programmable gain settings, a wide adjustment range on the zero, and a buffered solid-state shunt cal relay for quick calibration.

FEATURES

- Strain gage sensor amplifier
- 18 Vdc to 32 Vdc supply voltage
- NEMA 4 housing
- Selectable excitation voltages: 3 V or 5 V @ 70 mA
- 4-20 mA analog output
- Increases signal-to-noise ratio in noisy environments
- Effects of voltage drops in excitation sources are eliminated
- Signals may be sent to the data systems from low impedance sources

Model U3W

PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Number of channels	1
Case material	Plastic or painted Aluminum
Mounting	Use #6 or #8 screws

ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	-15 °C to 71 °C [5 °F to 160 °F]
Sealing	IP66 or NEMA 4

TRANSDUCER INTERFACE

Characteristic	Measure
Transducer type	Bridge-based sensor
Transducer excitation	3 Vdc or 5 Vdc @ 70 mA

AMPLIFIER CHARACTERISTICS

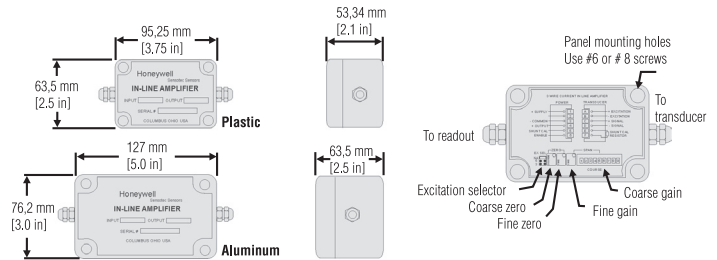
Characteristic	Measure
Supply voltage	18 Vdc to 32 Vdc
Current draw	70 mA
Frequency response (-3 dB)	dc: 7000 Hz with 350 ohm bridge dc: 5000 Hz with 5000 ohm bridge
Rise time (0 % to 90 %)	54 s with 350 ohm bridge 78 s with 5000 ohm bridge
Zero adjustment range, coarse	±70 %
Zero adjustment range, fine	±25 %
Span adjustment range	0.5 mV/V to 6.6 mV/V ±25 % fine adjustment
Linearity	0.02 % of full scale
Shunt calibration	Solid state relay on board
Signal output	4 mA to 20 mA (three-wire)
Signal-to-noise ratio	65 db
dc power supply rejection ratio	> 110 db

Not RoHS compliant

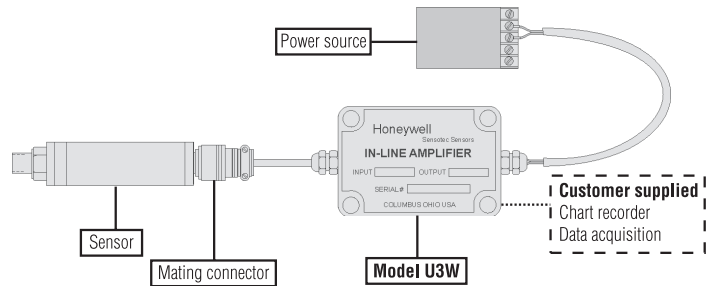
OPTION CODES

2-pole active filter	Many range/option combinations are available in our quick-ship and fast-track manufacture programs. Please see http://sensing.honeywell.com/TMsensor-ship for updated listings.	
Filter setting	1 Hz	50 Hz
	3 Hz	100 Hz
	5 Hz	300 Hz
	10 Hz	500 Hz
	20 Hz	1000 Hz
	30 Hz	

MOUNTING DIMENSIONS AND CHARACTERISTICS



TYPICAL SYSTEM DIAGRAM



Warranty. Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

For more information about Sensing and Control products, visit www.honeywell.com/sensing or call +1-815-235-6847
Email inquiries to info.sc@honeywell.com

WARNING

PERSONAL INJURY

- DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

WARNING

MISUSE OF DOCUMENTATION

- The information presented in this catalogue is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.