

Universal In-Line Amplifiers

Models **UBP, UV, UV-10, U3W, And U2W**

COMPATIBLE WITH ANY STRAIN GAGE SENSOR

USER PROGRAMMABLE

NEMA-4 & IP-66 WATER RESISTANCE

SELECTABLE EXCITATION VOLTAGES



Applications

Applications that may require an in-line amplifier:

1. In some applications, a transducer must be located in a hostile environment or one which is some distance from the display. If the environment at the sensing site is subject to high temperatures, humidity, or corrosive conditions, it may be necessary to place the amplifier in-line and away from the transducer.
2. In-Line Amplifiers can be shipped from stock for quick delivery.
3. Can be used with miniature transducers or when space is limited.
4. An In-Line Amplifier may be more accessible than the transducer itself, therefore potentiometer adjustments which are located in the amplifier are more convenient.

The SENSOTEC Universal In-Line Amplifier is a highly serviceable, user-programmable unit which meets NEMA-4 and IP-66 ratings for water resistance.

The SENSOTEC Universal In-Line Amplifier is housed in a rugged plastic package, which is connected between the transducer and a readout instrument. The amplifier supplies a highly regulated bridge excitation voltage for the transducer and converts the millivolt signal of the transducer to 0-5, 0-10 VDC or 4-20 mA. The In-Line features include three selectable excitation voltages, programmable gain setting, a wide adjustment range on zero and a buffered solid state shunt cal for quick calibration.

Advantages

Using SENSOTEC's In-Line Amplifier with a strain gage transducer has many advantages:

1. Signal-to-noise ratio is increased.
2. Effects of voltage drops in excitation sources are eliminated.
3. Signals can be sent to the data systems from low-impedance sources.

MODEL UV, UV-10

Connect with power pack or vehicle battery power for field use. This amplifier has a high degree of regulation to accept battery voltage changes plus transient protection. It can drive loads of up to 5 milliamperes at full output. Model UV provides ± 5 VDC output, Model UV-10 provides ± 10 VDC output. New optional metal cable glands are now available.

MODEL U3W, U2W

Model U3W provides 4-20 mA (3-wire) output, and is ideal for applications requiring long signal transmission with minimal signal loss. The U3W is inherently protected against incorrect wiring. Maximum load resistance is 1000 ohms. Model U2W provides 4-20 mA (2-wire) output. New optional metal cable glands are now available.

MODEL UBP

Connect ± 15 VDC power input to get non-floating output. Model UBP is used when both positive and negative output (± 5 VDC) or positive only output (0-5VDC) are required.

NEW METAL CASE OPTION

New optional metal case and electrical connections for all universal in-line amplifiers (2 1/2" high x 5" long x 3" wide).

1-888-282-9891

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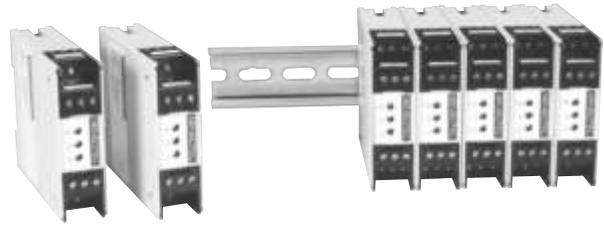
DIN Rail Mount In-Line Amplifiers

Models DV-05, DA-05, DV-10, DLD-VH, DLD-CH

CONVENIENT DIN RAIL MOUNT

FOR STRAIN GAGE TRANSDUCERS AND AC LVDTs

RFI, ESD PROTECTED



These In-line Amplifiers feature DIN Rail Mount enclosures with front accessible electrical connections and adjustments. Amplifiers are available for Strain Gage Transducers and AC Type LVDTs with outputs in both VDC and milliamps.

The STRAIN GAGE TRANSDUCER AMPLIFIER provides a selectable, regulated DC excitation voltage for the strain gage bridge. The transducer millivolt output signal is amplified to a high level, 0-5 or 0-10 VDC, with a frequency response of DC to 5000 Hz. Calibration and set up are made easy with a "relay buffered" shunt calibration circuit that allows span adjustment without applying a known input to the strain gage transducer. All models include RFI and ESD protection.

For Strain Gage Transducers

	Model DV-05 0±5 VDC output (3-wire) with 11-28 VDC power Order Code BE151	Model DA-05 4-20mA output (3-wire) with 13-28 VDC power Order Code BE153	Model DV-10* 0±10VDC output (3-wire) with 15-28 VDC power Order Code BE155
Current Draw	60mA	60mA	60mA
Bridge Excitation (@ 30mA)	3 or 5 VDC	3 or 5 VDC	5.4 or 9 VDC
Frequency Response	DC - 5000Hz		
Zero Adjustment Range	DV-05 & DA-05: ±60% coarse & ±10% fine DV-10: ±30% coarse & ±5% fine		
Span Adjustment Range:	DV-05 & DA-05: Switch selectable 0.5 to 13.3 mV/V, ±20% fine adjustment DV-10: Switch selectable 1.75 to 13.3 mV/V, -8 to +20 fine adjustment		
Operating Temperature:	-20° to 180°F		
Linearity:	±0.01%		
Mounting:	35mm DIN Rail		
Dimensions	0.9" wide x 4.3" deep x 2.9" high 22.5mm wide x 110mm deep x 75mm high		

For AC LVDTs

	Model DLD-VH 0±5 or 0±10 VDC output with 18-36 VDC power Order Code BE152	Model DLD-CH 4-20mA output with 18-36 VDC power Order Code BE154
Power Requirements.....	18-36VDC @ 150mA max.	
LVDT Excitation:.....	3 volts RMS @ 5 KHz	
Outputs.....	DLD-VH: 0±5 or 0±10VDC, field selectable DLD-CH: 4-20mA	
Frequency Response.....	DC to 300 Hz	
Zero Adjustment Range:.....	±100% coarse & ±20% fine	
Span Or Gain Adjustment.....	±10% fine adjustment over input range form 0.1 to 15 VRMS	
Linearity.....	±0.05% F.S.	
Operating Temperature.....	-20° to 140°F	
Mounting.....	35mm DIN Rail	
Dimensions.....	0.9" wide x 4.3" deep by 2.9" high 22.5mm wide x 110mm deep x 75mm high	
Power Supply Isolation.....	500V	

* Bridge excitation is 5.4 or 9.0 VDC @ 30mA

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