# IN-895B DC to DC Transmitter

DC Voltage, DC Current, or 3 Wire Pot Input to DC Voltage or DC Current 3 wire Output Transmitter.

## Features.

- Bi-Polar Inputs.
- Compact DIN Rail Mount Enclosure.
- High Accuracy.
- Low Cost.
- Easy to Install.
- Reverse Polarity Protection.
- Span and Zero Adjustments.
   (by 20 turn potentiometers) Externally Accessible.



## Ordering Information.



IN-895B 3 Wire Pot←

→Input Range.

E.g. 0~10Vdc → Output Range. E.g. 0~20 mA i.e. IN-895B 0~10Vdc to 0~20mA

→Output Range. E.g. 4~20mA

i.e. IN-895B 3 Wire Potentiometer to 4~20mA.

# Specifications.

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Input	-Voltage	Ranges Available From 10mVdc to 100Vdc.
		Minimum Input Resistance = $200k\Omega$ .
	-Current	Ranges Available From 100µAdc to 100mAdc.
		Input Resistance = $20\Omega$ .
	-Potentiometer (Pot)	3 Wire Potentiometer, Excitation = 4.0Vdc.
		Potentiometer Resistance Range $1k\Omega$ to $1M\Omega$ .
Output	-Voltage	Ranges Available From 1Vdc to 10Vdc.
		Max load = 5mA @ 24Vdc P/S.
	-Current	Ranges Available From 1mAdc to 20mAdc.
		Max Load = $800\Omega$ @ 24Vdc P/S.
	(Special Input a	and Output Ranges Available on Request.)
Accurate to		<+0.1% FSO Typical

Accurate to		<±0.1% FSO Typical.
Linearity & Repeatability		<±0.1% FSO Typical.
Ambient Drift		<±0.01%/C FSO Typical.
Power Supply		12~32VDC.
Current Draw	-Current Output	40mA @ 24VDC P/S, With 20mA Output.
	-Voltage Output	20mA @ 24VDC P/S, With 10Vdc Output. (No Load)
Supply Voltage Sensitivity		<±0.01%/V FSO.
Operating Temperature		0~70C.
Storage Temperature		-20~80C.
Operating Ambient Humidity		90%RH Max. Non-condensing.

Note 1. Specifications based on Standard Calibration Unit, unless otherwise specified.

Note 2. Due to ongoing research and development, designs, specifications, and documentation are subject to change without notification.

No liability will be accepted for errors, omissions or amendments to this specification.

# Quality Assurance Programme.

The modern technology and strict procedures of the ISO9001 Quality Assurance Programme applied during design, development, production and final inspection grant long term reliability of the instrument.

# Terminations.

#### Input

- 1 Power Supply Out (Except for Pot Inputs)
- 2 Voltage or Current Signal In

3 COM (-)

Output

- 4 Power Supply In (12~32Vdc)
- 5 Voltage or Current Signal Out
- 6 COM (-)

#### Notes:

- (1) Terminals 1 & 4 are internally connected (except for pot input models) via a reverse connection protection diode.
- (2) Power Supply Out = (Power Supply In) 0.7V (approx.)
- (3) Terminals 3 & 6 are directly internally connected.

# Examples of Input Connection.





Example of Multiple IN-895Bs Connected into Single Ended Inputs.



Graph Of Maximum Load Versus Power Supply.



Enclosure Dimensions.



# The Proper Installation & Maintenance of IN-895B.

## MOUNTING.

- (1) Mount in a clean environment in an electrical cabinet on DIN or EN rail.
- (2) Do not subject to vibration or excess temperature or humidity variations.
- (3) Avoid mounting in cabinets with power control equipment.
- (4) To maintain compliance with the EMC Directives, the IN-895B must be mounted in a fully enclosed, metal, electrical cabinet. The cabinet must be properly earthed, with appropriate input / output entry points, cabling and filtering.

## WIRING.

- (1) All cables should be good quality overall screened INSTRUMENTATION CABLE with the screen earthed at one end only.
- (2) Signal Cables should be laid a minimum distance of 300mm from any power cables.
- (3) For 2 wire current loops and 2 wire voltage signals or 2 wire current signals, Austral Standard Cables B5102ES is recommended. For 3 wire transmitters Austral Standard Cables B5103ES is recommended.
- (4) It is recommended that you do not ground current loops and use power supplies with ungrounded outputs.
- (5) Lightning arrestors should be used when there is a danger from this source.
- (6) Refer to diagrams for connection information.

## COMMISSIONING.

- (1) Once all the above conditions have been carried out and the wiring checked apply power to the IN-895B loop and allow five minutes for it to stabilize.
- (2) Take a low (approx. 10%) and high (approx. 90%) reading of the variable being measured by the otransducer supplying the signal to the IN-895B, and ensure that this agrees with the level being indicated by the PLC or indicator, etc., that the IN-895B is connected into. Adjust for any difference using the Zero & Span trimpots on the top of the IN-895B enclosure with a small screwdriver, until the two levels agree. (Clockwise to increase the output reading and anti-clockwise to decrease the output reading.)

# MAINTENANCE.

- (1) Repeat (2) of Commissioning.
- (2) Do it regularly at least once every 12 months.



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