

DESCRIPTION

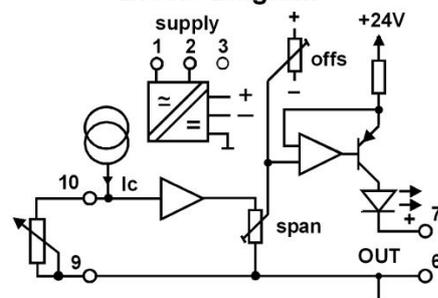
The BRT143 is primarily resistance or slide-wire transmitter designed for 2 or 3-wire resistance input with a standard process signal output. The resistance change is detected by applying a constant current to the field device which will result in a change of voltage on change of resistance. Two current ranges are available to suit the magnitude of resistance change. For resistances up to 100Ω, a fixed 20mA current source is supplied as the excitation. For resistances above 100Ω, a current excitation is supplied of a value to develop 2V across the input resistance at maximum value. Final calibration is trimmed using the front accessible 'offs' and 'span' 15-turn trim adjustments. Lead breakage will cause the output to increase to maximum. The output signal level is indicated by LED on the front giving clear indication of module function, presence of signal and output loop closed (for current outputs only). RF and power transients protection is also standard as with all BASI modules. Various power supply choices are available ranging from 240Vac down to 8Vdc, all provide power isolation. Sensor input and output can be isolated by selecting option 8.



General Specifications

Size:	52 W x 70 H x 110 D (mm).
Housing material:	ABS.
Mounting:	DIN-Rail, gear plate.
Termination:	Screw terminals on front.
Protection class:	IP40.
Weight:	0.300 kg.
Calibration accuracy:	0.1% of span.
Front 'OFFS' adjust:	±20% typical.
Front 'SPAN' adjust:	±20% typical.
Combined linearity and drift error:	0.5% of span.
Temperature effect:	0.01% per °C.
Input span:	2Ω up to 50kΩ.
Operating temperature:	0 - 60°C.
Storage temperature:	-20...+70°C.
Output loop drive:	20mA into 0 - 900Ω. 50mA into 0 - 360Ω.
Output load change effect:	less than 0.2% up to max. load
Input/output isolation:	None as standard, or >2kv rms with option 8.
Power requirements:	3W.
Power supply isolation:	2kVrms.
Electromagnetic compatibility:	Complies with CE and AS/NZS

Block Diagram



For input / output combinations refer to TYPE NO. DESIGNATION overleaf.

TYPE NO. DESIGNATION
Power Supply:

- 1 = 90-280Vac 50/60Hz (65-280Vdc). *) 5 = 8 - 60Vdc.
 *) 3 = 16-48Vac 50/60Hz (10-60Vdc) *) 9 = Other specify.

Input:
0 - 100% OFFSET

- | | | |
|----------------|------------------------|----------------|
| 01 = 0 - 2Ω. | 11 = 0 - 5kΩ. | 20 = 50Ω span |
| 02 = 0 - 5Ω. | 12 = 0 - 10kΩ. | 21 = 100Ω span |
| 03 = 0 - 10Ω. | 13 = 0 - 20kΩ. | 22 = 200Ω span |
| 04 = 0 - 20Ω. | 14 = 0 - 30kΩ. | 23 = 500Ω span |
| 05 = 0 - 50Ω. | 15 = 0 - 40kΩ. | 24 = 1kΩ span |
| 06 = 0 - 100Ω. | 16 = 0 - 50kΩ. | 25 = 2kΩ span |
| 07 = 0 - 200Ω. | *) 19 = Other specify. | 26 = 5kΩ span |
| 08 = 0 - 500Ω. | | 27 = 10kΩ span |
| 09 = 0 - 1kΩ. | | 28 = 20kΩ span |
| 10 = 0 - 2kΩ. | | 29 = 50kΩ span |

Output:

- | | |
|--------------------------|---------------------------|
| 1 = 0 - 5V (50kΩ min). | 6 = 10 - 50mA (360Ω max). |
| 2 = 0 - 10V (100kΩ min). | 7 = 0 - 10mA (1.8kΩ max). |
| 3 = 0 - 20mA (900Ω max). | 8 = 1 - 5V (50kΩ min). |
| 4 = 4 - 20mA (900Ω max). | *) 9 = Other specify. |
| 5 = 0 - 50mA (360Ω max). | |

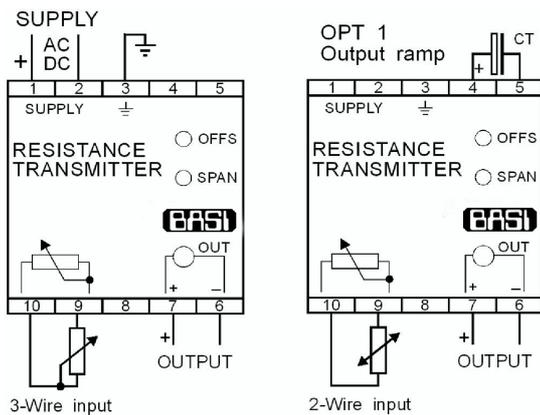
Action:

- 1 = Direct.
 2 = Reverse.

Options:

- 0 = None.
 *) 1 = Output ramp.
 *) 8 = Input output isolation >2kVrms.
 *) 9 = Other specify.

*) = Price Extra.

Connections


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