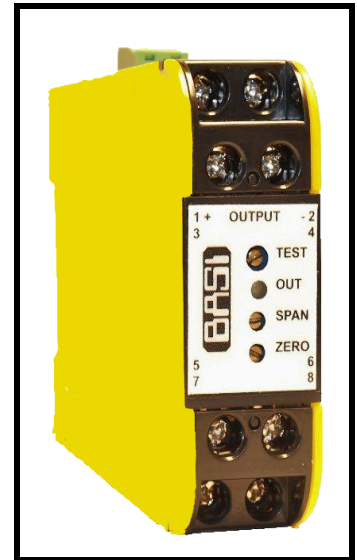


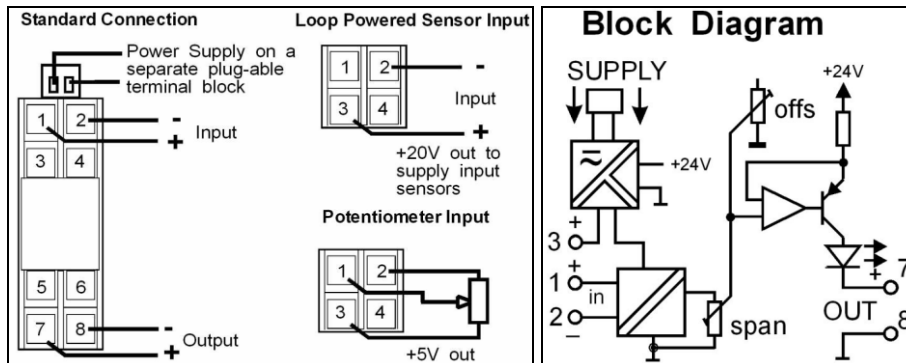
DESCRIPTION

The BSI289 is a isolating transmitter designed for factory set input output combinations providing true 3-way galvanic isolation up to 2000V rms. The wide range ac/dc power supply is magnetically coupled to both the input and the output circuit section separately, achieving power/input/output isolation. Input signals are transferred optically to the output stage. The standard Signal Isolator will accept DC voltage or current input signals directly (0.1V up to 2kV, 1mA up to 10A). Final calibration is trimmed using the front accessible ZERO and SPAN 15-turn trim adjustments. The output signal level is indicated by a green LED on front of the module, giving a clear indication of module function, signal presence and loop condition for current outputs. Reverse or direct action are factory configured. Special requirements for input/output response time variation can be accommodated by optional "customised response" or "output ramp" models.



General Specifications

Size:	23.5W x 71.5H x 109D (mm).
Mounting:	Clip for 35mm DIN-Rail.
Housing material:	ABS.
Connection:	Screw terminals.
Weight:	120 g.
Protection class:	IP40.
Input:	see overleaf.
Output:	Programmable - see table overleaf.
Accuracy error:	<0.1%.
Linearity error:	<0.1%.
Long term drift:	<0.10%.
Ambient operating range:	-10...+60°C.
Temperature drift error:	0.01% per °C.
Supply voltage:	85-265Vac 50/60Hz (90-280Vdc) 16-42Vac 50/60Hz (10-60Vdc) .
Output drive:	10mA into 0 - 2kΩ, 20mA into 0 - 1kΩ.
Response time:	Programmable - see table 2 overleaf.
Input impedance:	Current 51 Ω 2M7 Ω (10V/5V range). 560k Ω (2V/1V range). 140kΩ (250-1000mV ranges). 30kΩ (40-200mV ranges).
Front Zero adjust:	+20/ -10% typical.
Front Span adjust:	±25% typical.
Noise immunity:	130dB CMRR.
Supply/Input/Output Isolation:	>2kV r.m.s.
Auxiliary Output:	20Vdc with 22mA drive (Suitable for 2-wire transmitter supply).
Electromagnetic compatibility:	Complies with EN 50081-1, EN 50082-2, EN 61010-1



Connections

When externally sourced signals are used terminal 1 is the positive input. When a 2-wire field transmitter is used, terminal 3 is a 20V power supply used to supply the loop current.

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

TYPE NO. DESIGNATION

Power Supply:

1 = 85-265Vac 50/60Hz (90-280Vdc) 2 = 16-42Vac 50/60Hz (10-60Vdc) .

Input :

- | | |
|------------------|--|
| 01 = 0 – 100mV. | *) 19 = Other. (Specify 100Vdc or 100mA max). |
| 02 = 0 – 200mV. | *) 21 = DC voltage up to 2000Vdc. |
| 03 = 0 – 500mV. | *) 22 = DC millivolt, <100mVdc. |
| 04 = 0 – 1V. | *) 23 = DC voltage, bipolar 10mV to ±2kV. |
| 05 = 0 – 2V. | *) 24 = DC current input 10A max. |
| 06 = 0 – 5V. | *) 42 = Potentiometer 3W, 5V reference on terminal 3 |
| 07 = 0 – 10V. | *) 43 = Watermark Soil Moisture SMS009. |
| 08 = 0 – 100V. | *) 61 = Adder, 2 inputs 4 - 20mA floating. |
| 09 = 1 – 5V. | *) 62 = Subtractor, 2 inputs 4 - 20mA floating. |
| 11 = 0 – 1mA. | *) 64 = MIN selector, 2 inputs 4-20mA signal. |
| 12 = 0 – 5mA. | *) 65 = MAX selector, 2 inputs 4-20mA signal. |
| 13 = 0 – 10mA. | *) 66 = Triple input adder (3x 4-20mA floating). |
| 14 = 0 – 20mA. | *) 67 = Quad input adder (4x 4-20mA floating). |
| 15 = 0 – 50mA. | *) 99 = Other. |
| # 16 = 4 – 20mA. | |
| 17 = 10 – 50mA. | |

Specify calibration details for all optional inputs.

Output:

0 = Table 5 (4-20mA default). *) Z = Other specify

Action:

1 = Direct. 2 = Reverse.

Options:

- 0 = None.
- *) 1 = Customised response specify.
- *) 2 = Output ramp.
- *) 3 = Extended range on SPAN and ZERO trim pots. (Specify).
- *) Z = Other (Specify).
- *) = Price Extra.
- # = Terminal 3 is 20Vdc with 22mA drive suitable for 2-wire transmitter.

Response time selection

Disabled by options 1 and 2

	LK1/6	LK1/7
5ms		
50ms	X	
500ms		X

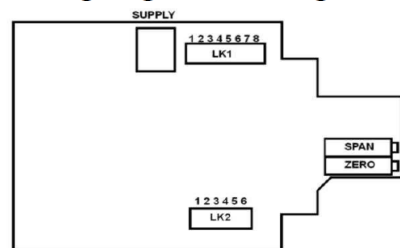
Output Table 5

Output	LK2					
	1	2	3	4	5	6
4-20mA	X		X			
0-20mA		X				
0-10mA				X		
0-5V		X				X
1-5V	X		X			X
0-10V		X			X	

To change ranges

1. Unplug supply plug.
2. Remove terminal covers.
3. Slightly depress lid to base clips and withdraw from housing.
4. Set coding plugs as required.
5. Reassemble unit and connect power.
6. Adjust SPAN and ZERO pots to recalibrate.
7. Change the label information to the new input/output values.

Coding Plug Location Diagram



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