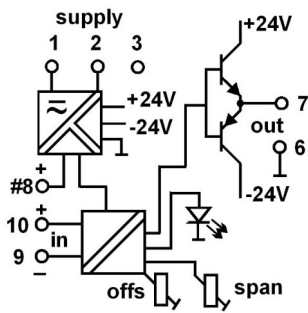


## Bipolar Signal Isolator v4 BSI134

### Block Diagram



The BSI134 produces an isolated bipolar output signal from any type of input signal. Input signals can be bipolar or uni-polar process signals such as -10 to +10V or 4 to 20mA. The output drive circuit is factory configured to provide load independent voltage or load independent bipolar current output. Maximum current drive for voltage output is 20mA at ±20V output. Applications requiring output >20mA up to 5A as is the case with hydraulic drive solenoids, can be accommodated using an external bipolar DC-power supply with a separate heat sink, carrying the drive transistors. Final calibration is trimmed using the front accessible OFFS and SPAN 15-turn trim adjustments.



### General Specifications

Size:	52 W x 70 H x 110 D (mm).
Mounting:	DIN-Rail, gear plate.
Termination:	Screw terminals on front.
Protection class:	IP40.
Weight:	0.330 kg.
Dimensions standard unit:	52 x 70 x 110mm.
Dimensions 100mA unit::	85 x 70 x 110mm.
Housing material:	ABS.
Accuracy:	0.1% of span.
Front 'OFFS' adjust:	±25% typical.
Front 'SPAN' adjust:	±25% typical.
Temperature effect:	0.02% per °C.
Operating temperature:	0...+60°C.
Output load effect:	less than 0.25% up to max. load.
Output loop drive:	±10mA into 0 - 2000Ω ±20mA into 0 - 1000Ω.
Output voltage load:	±10V into 500Ω minimum ±20V into 1kΩ minimum Short circuit duration 10 minutes max.
Input/output isolation:	2kV rms.
Line Regulation:	Less than 0.02% change for ±10% supply voltage change.
Linearity:	0.05% of span.
Repeatability:	0.05% of span.
Storage temperature:	-20 to +70°C.
Response time:	0.5 sec for 0 - 90% of step input. Faster or slower response on request.
Power requirements:	3W.
Electromagnetic compatibility:	Complies with AS/NZS 4251.1 (EN 50081.1)

### BSI134 - X XX X X XX

#### Power Supply:

- 1 = 90-280Vac 50/60Hz (65-280Vdc).
- \*) 3 = 16-48Vac 50/60Hz (10-60Vdc)
- \*) 6 = 8 - 60Vdc.
- \*) 9 = Other (Specify).

#### Input:

##### Unipolar

- \*)01 = 0 - 100mV (1MΩ)      11 = 0 - 100µA (1kΩ)
- \*)02 = 0 - 200mV (1MΩ)      12 = 0 - 1mA (220Ω)
- \*)03 = 0 - 500mV (1MΩ)      13 = 0 - 5mA (240Ω)
- 04 = 0 - 1V (1MΩ)            14 = 0 - 10mA (100Ω)
- 05 = 0 - 2V (1MΩ)            15 = 0 - 20mA (51Ω)
- 06 = 0 - 5V (1MΩ)            16 = 0 - 50mA (20Ω)
- 07 = 0 - 10V (1MΩ)           17 = 4 - 20mA (51Ω)
- 08 = 0 - 20V (1MΩ)           18 = 10 - 50mA (20Ω)
- 09 = 0 - 50V (1MΩ)
- 10 = 0 - 100V (1MΩ)      \*) 19 = Other specify

##### Bipolar

- \*)20 = ±50mV (100kΩ)          27 = ±10mA (100Ω)
- \*)21 = ±100mV (470kΩ)        30 = ±20mA (51Ω)
- \*)22 = ±200mV (1MΩ)        31 = ±50mA (20Ω)
- 23 = ±1V (100kΩ)
- 24 = ±5V (470kΩ)
- 25 = ±10V (1MΩ)                #\*) 28 = 3 wire pot 1kΩ min
- 26 = ±20V (1MΩ)                \*) 29 = Other ± specify

#### Output:

- 1 = ±1V (50Ω min)                5 = ±1mA (20kΩ max).
- 2 = ±5V (250Ω min)              6 = ±5mA (4kΩ max).
- 3 = ±10V (500Ω min)            7 = ±10mA (2kΩ max).
- 4 = ±20V (1kΩ min)              8 = ±20mA (1kΩ max).
- \*) 9 = Other specify.

#### Options:

- 0 = None.
- \*) 1 = Output ramp.
- \*) 4 = Dither for hydraulic applications.
- \*) 5 = External ratio adjust, Specify range
- \*) 6 = Zero output for loop loss (4 - 20mA input).
- \*) 8 = Customised response time (Specify).

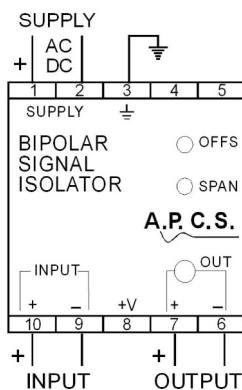
#### Output Options:

- 00 = None.
- \*) 02 = Output >20...500mA (External bipolar supply)
- \*) 03 = Output 500mA-2A External bipolar supply.
- \*) 09 = Output 2A-5A External bipolar supply.

\*) = Price Extra.

# = 2.5V reference on pin 8 FOR potentiometer input only.

### Connection



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