SIGNAL ISOLATOR, DUAL OUTPUT -

REPEATER POWER SUPPLY, 4 ~ 20 mA, FOR 2-WIRE TRANSMITTER WITH 1 OR 2 4~20 mA OUTPUTS REPEATER POWER SUPPLY, 0/4 ~ 20 mA, FOR CURRENT SOURCE WITH 1 OR 2 0/4~20 mA OUTPUTS



• Three port isolation between input, outputs and power supply

BP4S

- Provides two outputs from one 4 to 20 mA transmitter or one 0/4~20 mA current source
- Line fault detection feature provides alarm facilities
- Transfer accuracy <0.1% of span
- 17~35 V DC / 85~265 V AC/DC power supply
- T section DIN Rail mounting
- Input protection option

BP4SI is an independently powered isolator which provides both a fully isolated DC supply for energising a 2-wire transmitter while also transferring the transmitter current to two separate isolated output circuits driving loads upto1 k Ω . The input can also be a 0/4~20 mA current source. Line fault detection feature (also isolated) is provided by an open collector which can be used to activate an alarm. When the input cable is broken, no current flows into terminal 8/10 and the line fault detection (LFD) output is OFF. When a current greater than 1 mA flows in the input, then LFD output is ON. Power supply required is 17~35 V DC / 85~265 V AC/DC. An input protection option is also provided.

SPECIFICATIONS All specifications at ambient of 25 °C, unless specified otherwise

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No. of input channels Input channel	One 2-wire transmitter supply, 4~20 mA OR	Supplying a transmitter A=0*	180 mA maximum at 20 V DC with a 20 mA signal 130 mA maximum at 35 V DC with a 20 mA signal
	4~20 mA current source OR 0~20 mA current source	From a current source A=0*	150 mA maximum at 20 V DC with a 20 mA signal 105 mA maximum at 35 V DC
No. of output channels	Тwo	For C = 1*	with a 20 mA signal < 5 VA
Input/output signal	4~20 mA OR 0~20 mA If 0~20 mA input is ordered, it will work for 4~20 mA. However, the power requirement is higher.	Transfer accuracy at 25 °C for both outputs 4~20 mA 0~20 mA	< ± 0.1% of span Better than 16 μA Better than 20 μA
Load resistance, each output	0 ~ 1 kΩ	Line fault detection (LFD)	Isolated transistor open collector
Isolation between input, output 1, output 2 and power supply	1500 V DC/AC RMS, 1 minute	output LFD characteristics Input current < 0.2 mA	output Transistor OFF
Voltage available for transmitter Voltage drop across input from current source		Input current > 1 mA	Max permitted voltage : 26 V DC Max OFF leakage current : 150 µA Transistor ON Max permitted input current : 50 mA
Without protection With protection	1.5 V maximum 3.0 V maximum	Temperature coefficient of accuracy	Max ON voltage : 1V < 0.02% of span / °C
Input protection Against overvoltage Against overcurrent	30 V DC maximum 50 mA maximum	Common mode rejection ratio	150 dB typical
Power supply	a) 85~265 V AC/DC, 50/60 Hz OR	Ambient temperature limits	-20 °C to +55 °C (operating) -40 °C to +80 °C (storage)
Power consumption For C = 0*	b) 17~35 V DC	Humidity	5 ~ 95% RH, non-condensing
Supplying a transmitter A=1*	140 mA maximum at 20 V DC with a 20 mA signal 100 mA maximum at 35 V DC with a 20 mA signal	Enclosure Material Dimensions C=0* C=1* Mounting	ABS plastic 75(H) x 45(W) x 110(D) mm 75(H) x 55(W) x 110(D) mm Snap on for 35 mm DIN rail to DIN
From a current source A=1*	115 mA maximum at 20 V DC with a 20 mA signal 80 mA maximum at 35 V DC with a 20 mA signal	Terminals Weight Protection	46277 Accomodate 2.5 mm ² conductors < 250 grams IP 20

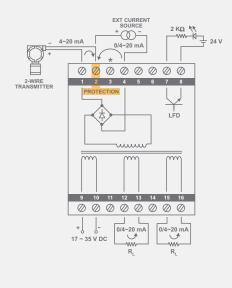
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CONNECTION DIAGRAM

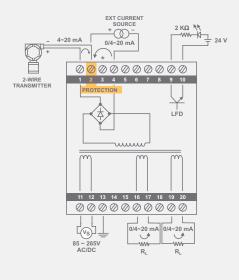
Supply voltage : 17~35 V DC

 + - Use terminal 3 (input protection absent) instead of terminal 2 for lower input voltage drop



 + - Use terminal 3 (input protection absent) instead of terminal 2 for lower input voltage drop

Supply voltage : 85~265 V AC/DC



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BP4SI