



DUAL AC-CURRENT TRANSDUCER v2 BDACT242

DESCRIPTION

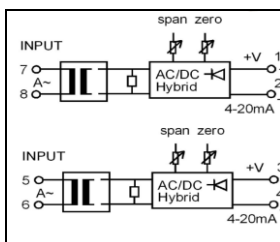
The BDACT242 provides two fully isolated AC-current transducers in one housing. Each of the 2 channels of the BDACT242 accepts AC current from current transformer or direct load current ranging from 0.5A up to 10A. Standard output is 4 - 20mA loop powered with a minimum supply voltage of 7.5V. This enables the BDACT242 to be used in 12V battery systems. Double surge protection is standard with all Series 200 loop powered transmitters to prevent failure due to spikes induced by DC switched inductive loads. Input output isolation up to 2kV is achieved through the use of an internal current transformer on each channel. Links provide a convenient means of changing the input range in the field from 0 -1 Amp to 0 - 5 Amps. Any other 2 ranges are available upon request. Final non-interacting ZERO and SPAN adjustments are accessible from the front of the module. A front mounted L.E.D. and a test socket verify module function and assist in calibration checks without disconnection of output wires.



General Specifications

Block Diagram

Size:	23.5W x 71.5H x 109D (mm)
Mounting:	Clip for 35mm DIN-Rail.
Housing material:	ABS.
Connection:	Screw terminals.
Weight:	106 g.
Accuracy class as per AS-1384-1973:	Class 0.2.
Response time:	< 500mS.
Input range:	0.5A up to 10A, 1A or 5A standard, (50, 60 or 400Hz Sine). For other waveforms refer to Signal Isolator BSI239 with r.m.s. input.
Protection class:	IP40 (IP65 use additional enclosure).
Accuracy error:	<0.2% from 10% up to 100% of range.
Linearity error:	<0.2% from 10% up to 100% of range.
Frequency dependence:	<.01%/Hz from 40 to 400Hz.
Ambient operating range:	-20...+70°C.
Temperature drift error:	<0.5% within operating range.
Supply voltage:	7.5 - 40V continuous (50V 30 seconds).
Load for 4 - 20mA output:	$RL_{max} = \frac{\text{SupplyVoltage} - 7.5V}{0.02A} [\Omega]$
Load change effect:	< 0.1% up to RL max.
Front zero adjustment:	+20% / -10%.
Front span adjustment:	±25%.
Overload continuous:	150% of rated input.
Short term (2 sec):	20 times rated input.
Input/output isolation:	2kV r.m.s. continuous.
Electromagnetic compatibility:	Complies with EN 50081-1, EN 50082-2, EN 61010-1



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

TYPE NO. DESIGNATION

Output 1: _____

1 = 4 - 20mA.

Input 1: _____

- *) 1 = 0 - 0.5A (0.008Ω).
- 2 = 0 - 1A (0.008Ω).
- *) 3 = 0 - 2A (0.008Ω).
- 4 = 0 - 5A (0.008Ω).
- *) 5 = 0 - 10A (0.004Ω).

*) 9 = Other (Specify).

Specify frequency: 50, 60 or 400Hz.

Output 2: _____

1 = 4 - 20mA.

Input 2: _____

- *) 1 = 0 - 0.5A (0.008Ω).
- 2 = 0 - 1A (0.008Ω).
- *) 3 = 0 - 2A (0.008Ω).
- 4 = 0 - 5A (0.008Ω).
- *) 5 = 0 - 10A (0.004Ω).

*) 9 = Other (Specify).

Specify frequency: 50, 60 or 400Hz.

Options: _____

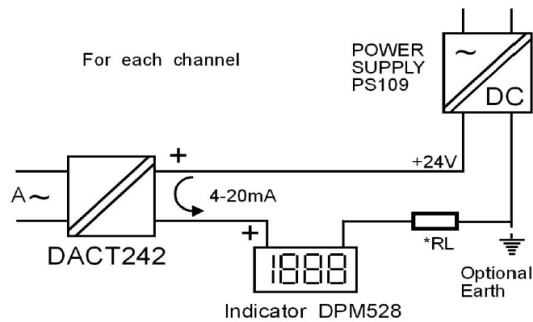
0 = None

- *) 1 = Customised response time (Specify).
- *) 9 = Other (Specify).

*) = Price Extra.

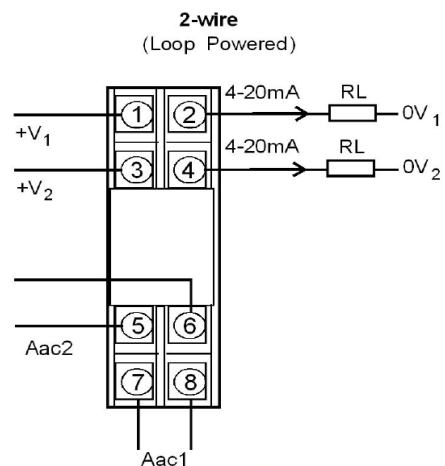
If the standard 1A or 5A input is selected, the unit can be field modified by internal jumpers from 1 to 5A or vice versa on both channels.

Wiring Example



* NOTE: RL is input load of PLC, or other process instrument.

Connection Diagram



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