FEATURES

- Converts single current input to two independently isolated current outputs
- Input current range of 4 mA to 20 mA
- User-selectable supply voltage of 115 V AC or 230 V AC
- Compatible with RTD and thermocouple sensors
- Red LED 'power on' indicator
- DIN rail mounting
- Screw-type termination for easy installation
- Maintains full three way isolation

RS PRO 4 → 20 mA Input, 2 x 4 → 20 mA Output

RS Stock No.: 466-2393

RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

Use this analogue-output signal conditioner to split a single current input into two independent isolated output signals. The analogue-to-analogue converter supports DC inputs ranging from 4 mA to 20 mA and is suitable for applications needing local operation as well as remote monitoring and control. Three-way (input/output/supply) isolation means there's no compromise on accuracy due to noise, crosstalk or unwanted ground loop currents.Part of the trusted RS PRO family of products, the conditioner is stringently tested for quality. It can handle operating temperatures of 0°C to +45°C. Robust in its construction and designed for easy on-site installation, this signal conditioner is DIN rail mountable and comes with screw-type terminals.

General Specifications

Module Type	Converter
Signal Conditioner Type	Analogue to Analogue
Input Type	Analogue
Input Range	4mA to 20mA
Output Type	Analogue
Output Range	2 x 4mA to 20mA
Linearity	Proportional to input ±0.1% of Span
Sensor Compatibility	RTD and thermocouple sensors
Response Time	<50mS – Step 0% to 65%, -3dB at 4.5KHz
Indication	Red LED
Special Features	Status Indicator
Applications	Local operation as well as remote monitoring and control

Electrical Specifications

Supply Voltage	115 V ac, 230 V ac
Power Consumption	<3VA
Termination	Screw
Isolation	600 Volts > 20Mohms
Potentiometer Input	0kohm to 10kohms

Mechanical Specifications

Mounting Type	DIN Rail
Weight	345g

Operation Environment Specifications

Operating Temperature Range	0°C to 45°C
Minimum Operating Temperature	0°C
Maximum Operating Temperature	45°C
Storage Temperature	-20°C to +60°C

Approvals

Compliance/Certifications	EN61340

SPECIFICATIONS

INPUTS:
Please note that the following are typical ranges. Other ranges available, please contact sales office.

DC Current
Standard Ranges
0 to 10mA into 100 ohms
4 to 20mA into 62 ohms
Optional Ranges
0 to 1mA into 100 ohms
0 to 10mA into 10 ohms
4 to 20mA into 10 ohms
Option: Upscale drive on loss of 4 to 20mA input signal
Other current inputs as required
Minimum current 10µA,
Maximum current 100mA

D C Voltage
Between -250 and +250 Volts DC
Minimum voltage span 5mV
Maximum voltage span 500V
Input Impedance:1MΩ greater

A C Current
0 – 1A
A C Voltage
0 – 250 V

Resistance (2 wire)
Between 0 and 20K ohms
Minimum span 5 ohms
Maximum span 20K ohms

Potentiometers (3 wire)
Between 0 and 10K ohms
Minimum span 10 ohms
Maximum span 10K ohms

Resistance Thermometers (RTDs, PT100s)
2 or 3 wire
100 or 130 ohms at 0°C
Measurable range, -200°C to +800°C
Minimum temperature span 10°C
Maximum temperature span 600°C
Input is linearised

Thermocouples
Type B, E, J, K, N, R, S & T
Temperature covered:

Type	Range	MinTemp Change
B	600 to 1800°C	400°C
E	-260 to 1000°C	65°C
J	-200 to 1200°C	80°C
K	-260 to 1370°C	100°C
N	0 to 1300°C	150°C
R	50 to 1760°C	400°C
S	80 to 1760°C	400°C
T	-260 to 400°C	100°C

Automatic cold junction compensation
Open circuit thermocouple monitoring upscale or downscale drive

OUTPUTS:
DC Current
0 to 10mA into 10 to 1500 ohms
4 to 20mA into 10 to 750 ohms
Other ranges as required
Minimum span 1mA
Maximum span 20mA

DC Voltage
The voltage output is derived from passing a mA signal through an internal resistor

0 to 1 Volt DC thru 51 ohms
0 to 10 Volt DC thru 510 ohms
1 to 5 Volt DC thru 240 ohms
Other ranges as required
Minimum span 1 Volt DC
Maximum span 10 Volt DC

Input/Output//Supply Isolation
600 Volts > 20M ohms

N.B. Each output can be of a different type and range i.e.
1 x 4 to 20mA and
1 x 1 to 5 Volts

SUPPLY:
Power Supplies
115 Volt AC ±15% 50/60 Hz
230 Volt AC ±15% 50/60 Hz

Power Required
3VA Maximum

Pilot Light
Red LED shows Power ON

GENERAL:

Linearity Error
Proportional to input ±0.1% of span

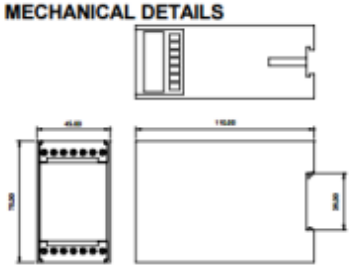
Response Time
<50mS - Step 0 to 65% -3dB at 4.5KHz

Temperature Coefficient
±0.1% of span/_10°C

Operating Storage / Temperature Range
0 to +45°C / -20 to +60°C

Weight
345 gms

MECHANICAL DETAILS



TERMINATION DETAILS

Terminal		Terminal	
1		8	Output B Active -ve / Passive +ve
2	Inputs - See below	9	Output B Active +ve
3		10	Output B Passive -ve
4	Unused	11	Unused
5	Output A Passive -ve	12	230 Volt ±15% 50/60 Hz
6	Output A Active +ve	13	115 Volt ±15% 50/60 Hz
7	Output A Active -ve / Output A Passive +ve	14	Neutral

Inputs	AC Current	AC Volts	DC mA	DC mV/V	T/Cs	2 Wire Slidewire	3 Wire Pot	Resistance Thermometer	Dual Inputs
1	~	~	-ve	-ve	-ve	0%	0%		B+
2	~	~	+ve	+ve	+ve	100%	Wiper		A+
3							100%		Common