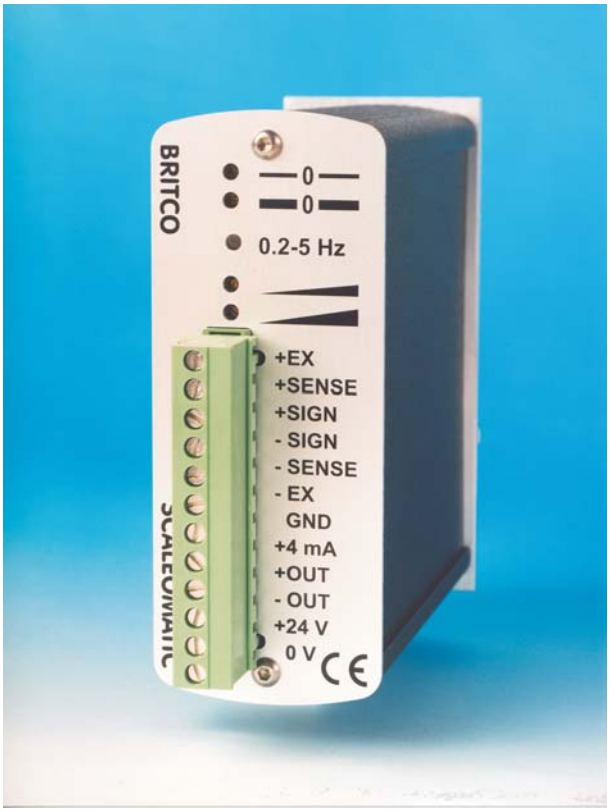
SCALEOMATIC®

CE

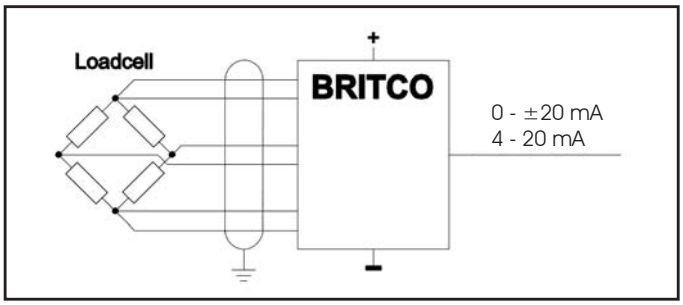
BRITCO

Load cell Amplifier

with analog output 0/4 - 20 mA



- Complete conversion from load cell to standard current output
- High performance amplifier with 10 VDC (Alt. 5 VDC) load cell excitation
- Can supply 6 load cells (350 ohm)
- 0/4 - 20 mA bipolar current output
- Output can easy be converted to 0 - ±10 V with a 500 ohm resistor
- 24 VDC power supply
- Compact shielded case



BRITCO is used for conversion of signals from resistive bridge coupled load cells to 0-±20 mA analog or 4-20 mA (Jumper terminal 4-5) current output. The module includes load cell excitation, low drift amplifier, +4 mA signal, bipolar output and potentiometers for zero, gain and bandwidth adjust. Load cell excitation is normally 10 VDC but the module can also be delivered with 5 VDC. The module can zero out ±8 mV tare signals. To zero out higher signals an low drift resistor can be placed between -SENSE (Pin 8) and +INPUT (Pin 10). On delivery trimmed for 0-2 mV/V = 4-20 mA.

BRITCO is powered by 24 VDC and is well suited for connection to modern PLC-systems, process computers etc. If BRITCO is used it is possible to get the load cell signal directly in to the control system without a separate instrument, making a low cost installation. For systems without analog inputs or if the accuracy of the analog input is to low, the **SCALEOMATIC**® load cell/weight module LCT-1 and LCT-2 can be used. LCT-1 is a digital load cell transmitter with an built in 16-bit A/D-converter and RS232/RS485 communication interface and LCT-2 is a digital weight module for fieldbus.

BRITCO is simple to use since all adjustments are made by potentiometers on the front panel. The small shielded case with mounting clip for DIN-rail makes it easy to mount the module together with small PLC-systems.

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Technical data

Signal conversion

Accuracy	±0.1 %
Load cell excitation	+10 VDC (Alt. +5 VDC) med sense
Load cell current	Max 200 mA
Insignal	0.25 - 3.00 mV/V for 20 mA output
Nonlinearity	Max 0.02%
Temperature drift:	
Load cell excitation	Max 25 ppm/ºC
Amplifier	Max 0.15 µV/ºC
Zero	Max 25 ppm/ºC
Gain	Max 25 ppm/ºC
Zero range	±0.8 mV/V
Bandwith	0.2 - 5 Hz
Insignal range	+2.0 - +7.5 V
Output	0 - ±20 mA (Bipolar) alt. 4 - 20 mA
Load	0 - 500 Ω

Power Supply

Voltage	24 VDC (18 - 30 VDC including ripple)
Ripple	Max 3 Vp-p
Current	0.05 A (Excl. load cells)

EMC

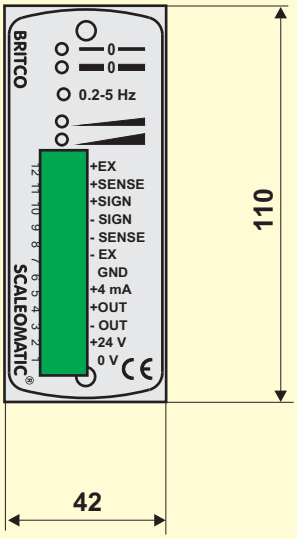
Immunitet	EN61000-6-1
	EN61000-6-2
Emission	EN61000-6-3
	EN61000-6-4

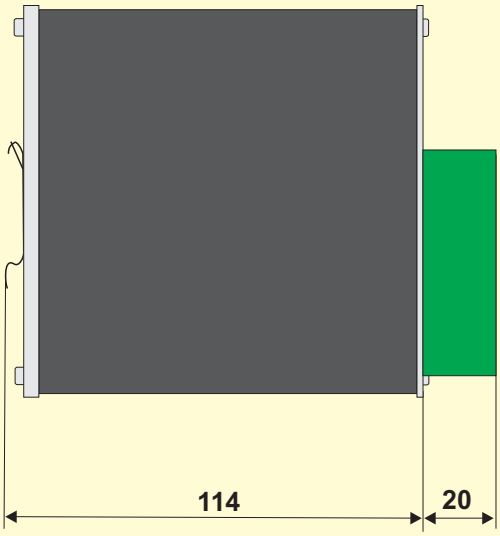
Temperature range

Operating	0 - +50 ºC
Storing	-25 - +70 ºC

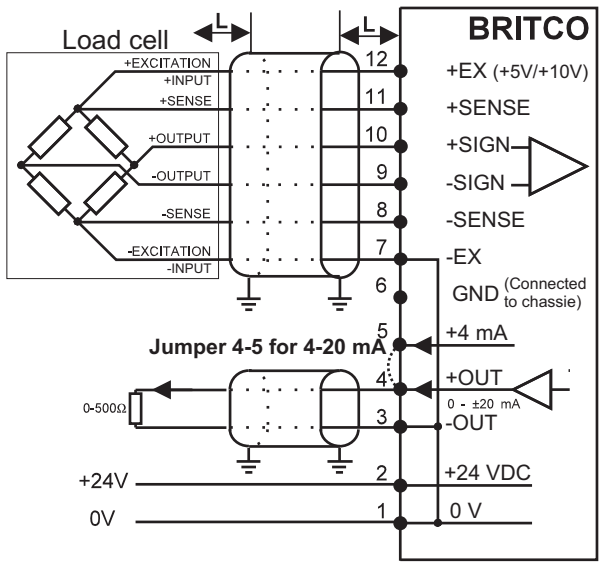
Size

With-Height-Deep	42 - 110 - 114 mm
Weight	0.35 kg





Connection



L = Unshielded wires max 50 mm
Shields to be connected to cabinet or mounting plate

Potentiometers

- ZERO FINE
- ZERO COARSE
- 0.2-5 Hz — BANDWITH
- GAIN FINE
- GAIN COARSE

Trimming

1. Adjust the output to 0 mA alt. 4 mA (Depending on if a jumper terminal 4-5 is connected) with ZERO COARSE and ZERO FINE.
2. Apply a known load and adjust the output to desired value with GAIN COARSE and GAIN FINE.
3. Remove the load and check that the output is 0 mA alt. 4 mA. If not, start again from 1.

ERDE art. no.: 101 127 (+10 V)
ERDE art. no.: 101 127-5V (+5 V)

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