Analog Load-Cell Transmitter TRW

- Low cost and small size
- 10 V excitation voltage
- 1 mV/V minimum input range
- Minimum 120 Ω load cell resistance
- 3-wire current or voltage output
- High protection class – IP67

With its IP67 cast aluminum enclosure, the TRW analog load-cell transmitter has been specially designed to be used in harsh industrial environments. This model can power a single 120...350 Ω load cell with 10 V bridge excitation voltage. TRW accepts 1, 2, or 3 mV/V input signal and generates a standard linear output signal that can be safely sent over long distances to remote indicators, data loggers, or controllers. ZERO and SPAN adjustments can be performed by the means of built-in potentiometers. TRW is low-priced and can withstand considerable electromagnetic disturbances. It can be a preferable low-cost solution for general-purpose process weighting as well as tension measurement applications.

Technical specifications

Input

Input	
Input type	single load cell
Input impedance	10 GΩ
Load cell resistance	120...350 Ω
Input sensitivity	1, 2, or 3 mV/V
Bridge excitation voltage	10 VDC ± 0.05%
Full-scale input range	10, 20, or 30 mV
ZERO and SPAN adjustment	min. ± 10%
Analog filter	low-pass, fixed (≈ 10 Hz)

Output

Output		
Output signal	4(0)...20 mA	0…10 V
Minimum output load	-	1 MΩ
Maximum output load	750 Ω at 24V/20 mA	-
Output-error signal (NC)	open collector, 36V/20mA	open collector, 36V/20mA
Current limit	24...44 mA	max. 42 ± 6 mA

Accuracy

Accuracy	
Measurement error	0.15% from span
Temperature drift	0.01% from span for 1 °C

Power supply

Power supply	
Supply voltage	15...35 VDC
Admissible variations	10% p-p at 50 Hz

Operating conditions

Operating conditions	
Ambient temperature	-20...60 °C
Ambient humidity	0...95 %RH

Design and materials

Design and materials	
Case material	aluminum
Mounting	free [1]
Wiring	screw terminals, 2 PG7 glands
Dimensions	77x82x58 mm (w/o glands)
Weight	max. 210 g
Protection class	IP67

[1] Radial, axial, and DIN-rail mounting accessories can be ordered separately (see 'Accessories').

Ordering code   TRW - G6.G11

Code	Feature or option	Code values
G6	Input	**OL1** - 1 mV/V, **OL2** - 2 mV/V, **OL3** - 3 mV/V
G11	Output signal	**E** - 0…20 mA, **F** - 4…20 mA, **K** - 0…10 V, **Z** - other (specify!)