

Extensometer

FEATURES

- Strain gage based sensor
- Alloy steel construction
- 2 Bolt holes
- IP66 Hermetically sealed protection
- **Optional**
 - EEx ia IIC T4 Hazardous area approval

APPLICATIONS

- Tank weighing or level systems
- Agricultural equipment
- Rolling mill sensing
- Moment sensing
- Structural loading measurements
- Bridge structures

DESCRIPTION

The Model 178 extensometer is a load sensor designed for force measurement on any load-bearing structure. This extensometer is a complete solution for weighing, level control, stress and fatigue monitoring. The design also

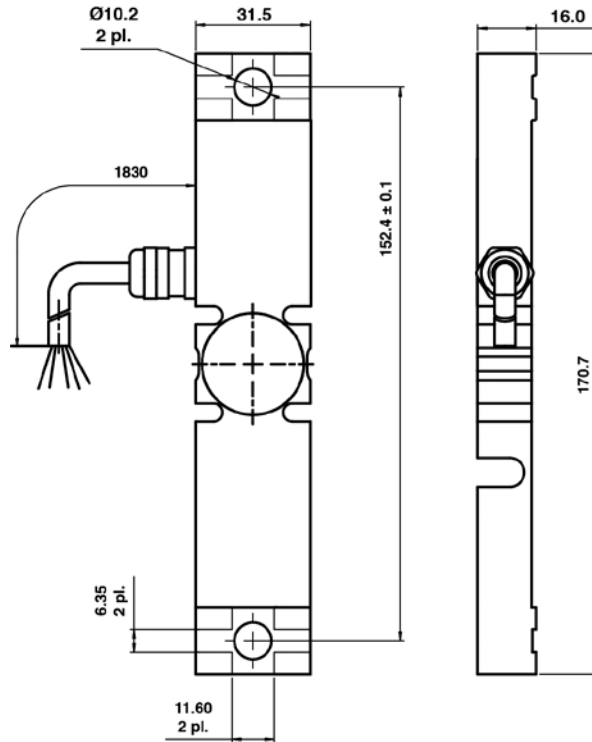


allows multiple sensors to be permanently mounted for more complex stress profiling and analysis.

The Model 178 extensometer provides an ideal solution for non-intrusive level measurements for materials that are subject to uneven buildup, bridging, or sidewall collection. Also, liquids or wetted materials that are not suited for direct contact level measurement are an ideal application for the Model 178 extensometer.

The design of the Model 178 makes it an excellent solution for retrofitting existing structures without compromising the integrity of the vessel or structure.

OUTLINE DIMENSIONS in millimeters



Wiring diagram:

- + Excitation Red
- Excitation Black
- + Output Green
- Output White

Extensometer

SPECIFICATIONS		
PARAMETER	VALUE	UNIT
Calibrated output	1.7	mV/V at 500 $\mu\epsilon$
Overload capability (zero)	300	% of rated output
Overload capability (max)	500	% of rated output
Input resistance	350 \pm 10	Ω
Output resistance	350 \pm 10	Ω
Insulation resistance	>2000	M Ω
Excitation, recommended	10	VDC
Excitations, range	5–20	VDC
Thermal effect on zero	0.025	\pm % of FSO/ $^{\circ}$ C
Compensated temperature range	–30 to +80	$^{\circ}$ C
Construction	Painted steel	
Environmental protection	IP66	

All specifications subject to change without notice.

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