

# BOSS — Bolt on Strain Sensor



## **Convert your existing Tank / Silo / Vessel/Structure into a weighing scale.**

Meltron's unique bolt-on strain sensor technology provides continuous measuring of vessel weight.

Bolt-on Strain sensors measure the strain level changes in vessel supports caused by material movement. Quickly and easily installed, this cost-effective method is an excellent alternative to traditional level sensing or complex load cell based weighing systems.

When BOSS is bolted on opposite sides of the vertical legs of a vessel, it converts the vessel into a weighing system. Adding material to a vessel compresses the legs and thereby the strain gauge, changing the gauge resistance to give an electrical output proportional to the material weight change.

### **Features & Benefits**

#### **Bolt-on Technology**

Creates a weighing system by mounting BOSS to the vessel's leg supports.

#### **Simple Mounting**

No specialized tools for installation.

#### **Uses Existing Vessel Structure**

No need to take vessel out of operation to install BOSS.



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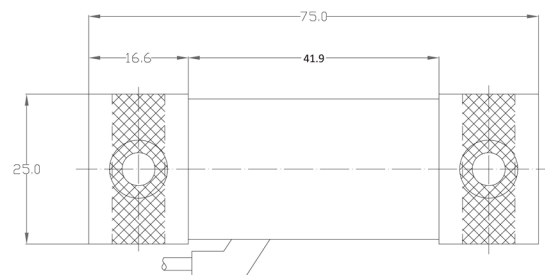
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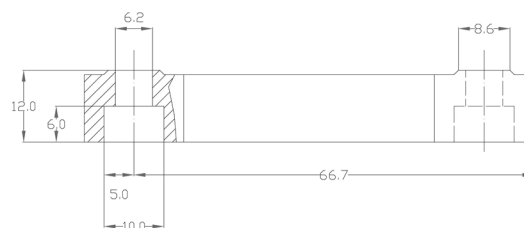
# BOSS - Bolt-on Strain Sensor

Capacity	$\mu\epsilon$	500 *
Rated Output at 500 $\mu\epsilon$	mV/V	0.6 mV/V
Combined Error	(%FS)	0.7%
Creep (30 minutes)	%FS/30min	$\leq \pm 0.05$
Temperature effect on sensitivity	(%FS/10C)	$\leq \pm 0.03$
Temperature effect on zero	(%FS/10C)	$\leq \pm 0.03$
Input resistance	( $\Omega$ )	385+/-20
Output resistance	( $\Omega$ )	350+/-5
Insulation resistance	(M $\Omega$ )	$\geq 5000$ (50VDC)
Temperature, Compensated	( $^{\circ}\text{C}$ )	-10~+50
Temperature, Operating	( $^{\circ}\text{C}$ )	-20~+60
Excitation, Recommended	(V)	5~12(DC)
Safe overload	(%FS)	150

\* Based on dimensions of leg , ensure that there is sufficient strain on the leg of the vessel when loaded.



Hole to Hole spacing (centre to centre) = 58.50 mm



Cable: 4 Core cable , 4mm dia, 5m long

Excitation: Red+, Black-

Signal: Green+, White-



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