

# LOOP POWERED, CURRENT OUTPUT, INDUSTRIAL DISPLACEMENT SENSOR

Model Number  
**653A01**

Revision: B  
ECN #: 34833

**Performance**

Measurement Range  
Output  
Frequency Range( $\pm 3$  dB)  
Non-Linearity

**ENGLISH**  
2 to 40 mil pk - pk  
4-20 mA  
90 to 18,000 cpm  
 $\pm 2\%$

**SI**

[2]  
0.05 to 1.02 mm pk - pk  
4-20 mA  
1.5 to 300 Hz  
[3]  
 $\pm 2\%$

**Environmental**

Overload Limit  
Temperature Range

2500 g pk  
-65 to +250 °F

**Electrical**

Excitation Voltage  
Load Resistance  
Settling Time  
Electrical Isolation(Case)

12 to 30 VDC  
50(Vs-12) ohm  
60 sec  
>10<sup>8</sup> ohm

**Physical**

Size (Hex x Height)  
Weight  
Mounting Thread  
Mounting Torque  
Sensing Element  
Sensing Geometry  
Housing Material  
Sealing

[1]  
31.75 mm x 2.6 in  
5.36 oz  
1/4-28 UNF  
3 to 5 ft-lb  
Ceramic  
Flexural  
Stainless Steel  
Welded Hermetic  
2-Pin MIL-C-5015  
Top  
4-20 mA Pos (+)  
4-20 mA Neg (-)

Electrical Connector  
Electrical Connection Position  
Electrical Connections(Pin A)  
(Pin B)

[1]  
1.25 in x 2.6 in  
5.36 oz  
1/4-28 UNF  
3 to 5 ft-lb  
Ceramic  
Flexural  
Stainless Steel  
Welded Hermetic  
2-Pin MIL-C-5015  
Top  
4-20 mA Pos (+)  
4-20 mA Neg (-)

Supplied Accessories

[1]  
Model 081A41 Mounting stud 1/4-28 socket head set screw brass tip stainless steel 5/8" long  
(1)

Notes

[1] Typical.  
[2] Conversion Factor 1 mil = 0.0254 mm  
[3] 1Hz = 60 cpm (cycles per minute).

Optional Versions

Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.  
M - Metric Mount  
Optional Accessory : Model M081A61 Mounting Stud 1/4-28 to M6 X 1 (1) replaces Model 081A41

Supplied Accessories

Model 081A41 Mounting stud 1/4-28 socket head set screw brass tip stainless steel 5/8" long  
(1)

Entered: *JA*  
Date: *1-17-11*

Engineer: *XAB*  
Date: *2-22-10*

Sales: *EB*  
Date: *1-27-10*

Approved: *EB*  
Date: *1-14-11*

Spec Number:  
43144



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All specifications are at room temperature unless otherwise specified.  
In the interest of constant product improvement, we reserve the right to change specifications without notice.  
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