

DM330S Series

Magnetostrictive Liquid Level Sensor for the Food, Dairy, and Beverage Industry



Proven Magnetostrictive Sensing Performance with Field Programmable Span.

3A Authorization

- Authorized by the 3A Sanitary Standards Council for level applications in the food, dairy, and beverage industries.

Easy Installation

- No calibration needed
- Program zero & span in the field
- Set upper and lower limits on bench prior to installation.

High Accuracy

- 0.1% accuracy full scale over 4-20mA span.
- 0.014" resolution.

Minimal Maintenance

- Unique diagnostic output provides float position beyond set span, beyond active range, as well as loss of float.

Patented Low Clearance Design

- Electronics all within 5/8" diameter sensor allows wider mounting options at less cost.

Intrinsically Safe

- Certified for Class I Div 1, Zone 0, Zone 1 Hazardous Locations

Description

The AMETEK Drexelbrook DM330S Magnetostrictive Level Measurement System takes field proven sensing technology and incorporates intrinsic safety with a field programmable zero and span. Packaging is our patented low clearance design, making the DM330S ideal for level monitoring in a variety of liquids and tank designs.

The rigid 316 stainless steel sensors are available with 180 grit for food service or 240 grit finish for higher grade sanitary applications. They are also offered with a mini-connector or an optional housing which includes terminal connectors with zero and span adjustments. All have totally welded and polished construction.

All of the sensor's electronics are integrated within the 5/8" diameter sensing tube. This breakthrough in package design eliminates the electronics enclosure at the top of the sensor, which reduces cost and offers greater options for insertion and mounting.

The DM330S is a two wire loop powered intrinsically safe sensor with a configurable 4-20 mA span.

A variety of floats and mounting accessories are available to fit virtually any application. Contact the factory to match your needs today.



Continuous Level Measurement

DM330S Series

Specifications

- **Technology:**
Magnetostrictive
- **Calibration:**
None
- **Operating Voltage:**
13.5 to 30Vdc
- **Loop Impedance (R):**
750 ohms 24Volts
- **Output:**
4 to 20mA
- **Temperature Range:**
Operational
-20°C to 70°C
Unpowered for CIP
-20°C to 125°C
- **Pressure Rating:**
1000psi (69 bar) float dependent
- **Resolution:**
0.025% full scale or
0.014" (0.35mm)
(whichever is greater)
- **Repeatability:**
0.014" + 0.05% of span
typical, 0.014" + 0.4%
of span max
- **Accuracy:**
0.1% or 0.050"
(1.27mm)
(whichever is greater)
- **Enclosure:**
Stainless Steel Standard
Epoxy painted aluminum
housing (option)
Probe Material: 316SS
Probe Rating: IP68
- **Probe Length:**
18" - 120"
(457mm - 3048 mm)
- **Null Zone (Top):**
8" (203 mm)
- **Deadband (Bottom):**
2" (51 mm)
- **Surface Finish:**
180 grit
240 grit
- **Approvals:**
Approved Intrinsically Safe for
hazardous locations by the
following agencies



Class I Div 1



II 1 G, EEx ia 11B T4 T 70° C



Class I Div 1



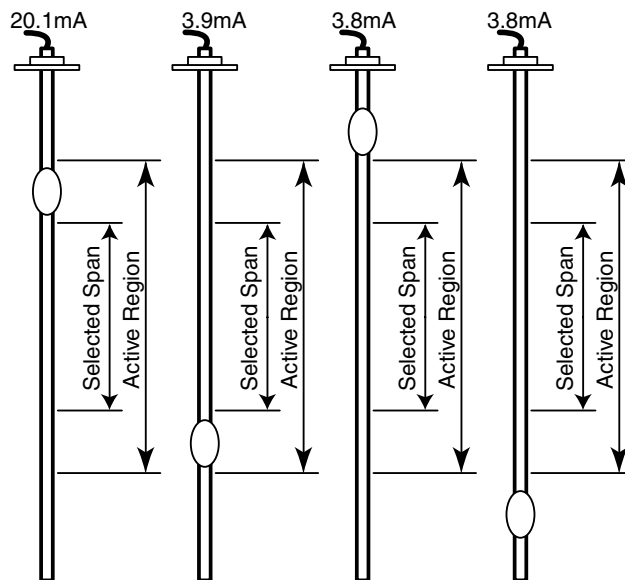
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EMC Directive (89/336/EEC)

* Specifications may change without notice

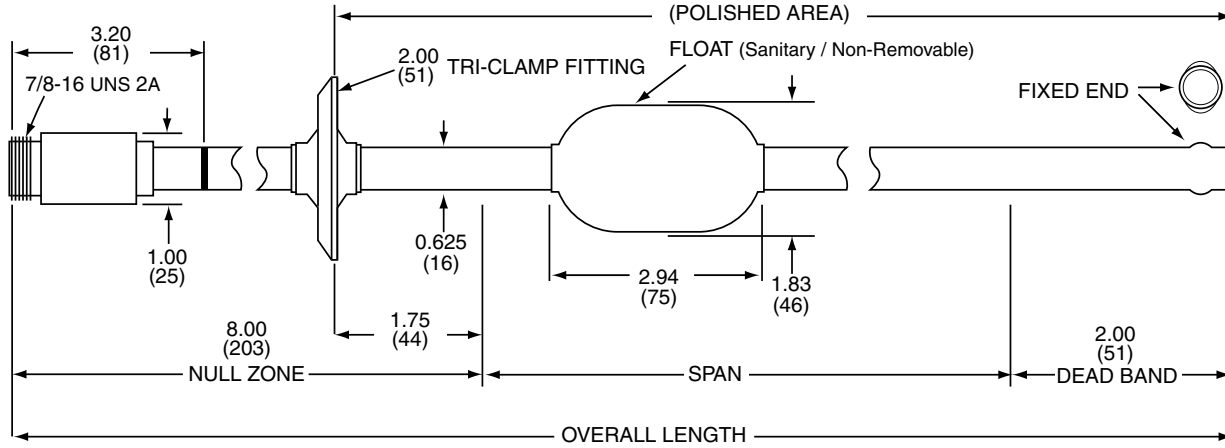
Diagnostic Locates Float Position



Continuous Level Measurement

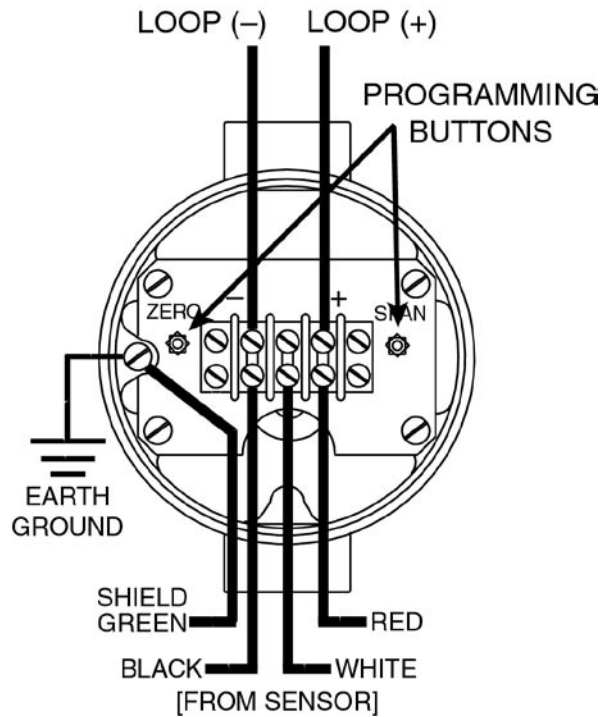
DM330S Series

Dimensions inches, (mm)

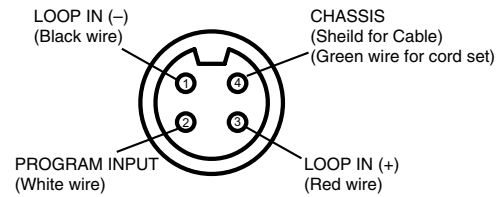


Wiring

"H" Housing Option



"M" Connector

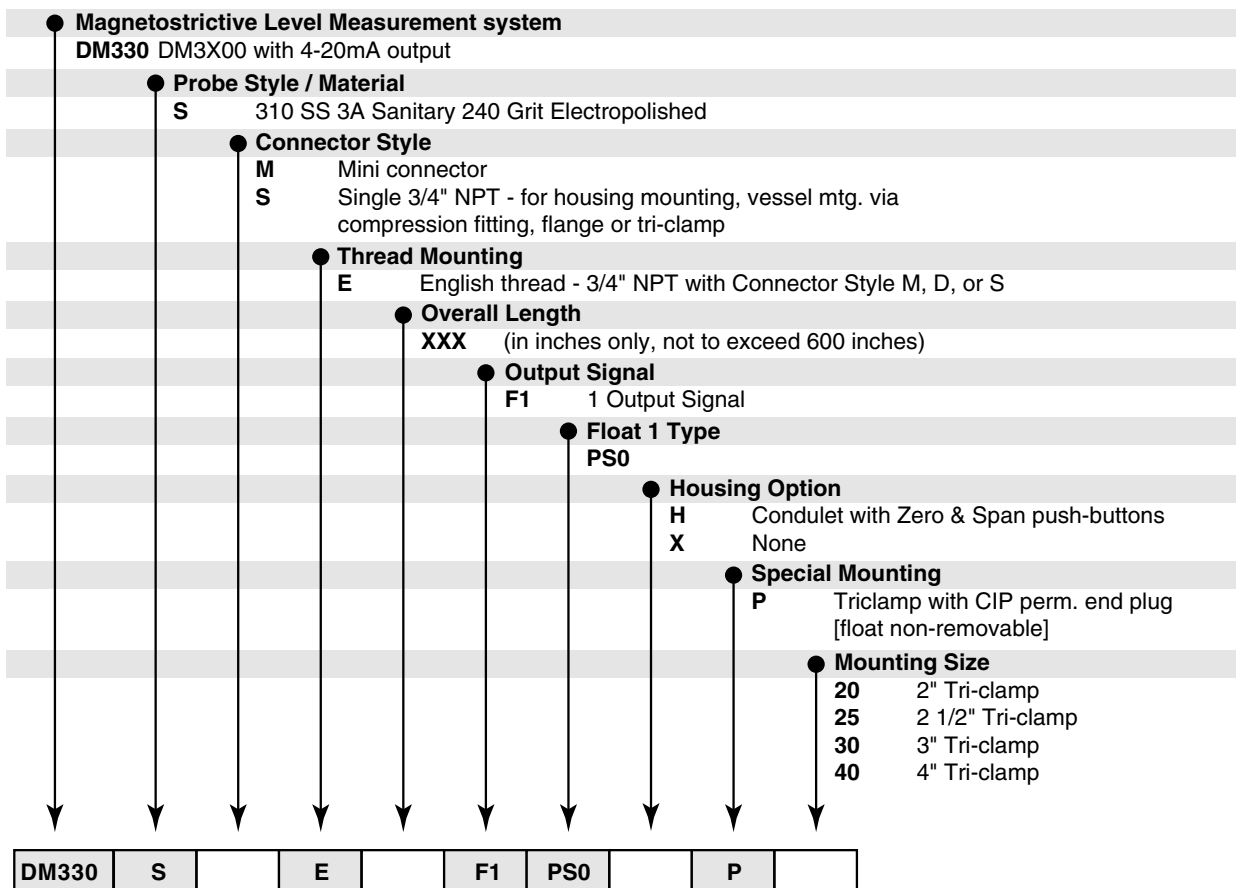


WIRING COLORS		
SIGNAL	US	EU
IN (+)	RED	BROWN
IN (-)	BLACK	BLACK
PROGRAM	WHITE	BLUE
CHASSIS	GREEN	WHITE

Continuous Level Measurement

DM330S Series

Model Numbering



U.S.A. Sales: 800-553-9092 • 24-Hour Service: 800-527-6297 • International Support: 215-674-1234 • Fax: 215-674-2731



205 Keith Valley Road
Horsham PA 19044 U.S.A.

E-mail - drexelbrook.info@ametek.com
Web - www.drexelbrook.com

AMETEK Nihon Drexelbrook
2 Chome • 12-7 Minami Gyotoku
Ichikawa City • Chiba 27201 Japan
Phone: 81-473-56-6513
Fax: 81-473-56-6535
E-mail: nd@nihon-drexelbrook.co.jp

AMETEK Singapore Pte. Ltd.
10 Ang Mo Kio Street 65
#05-12 Techpoint • 569059 Singapore
Phone: 65-6484-2388
Fax: 65-6481-6588
E-mail: aspl@ametek.com.sg

AMETEK Precision Instruments Europe
Rudolf-Diesel-Strasse 16
D-40670 Meerbusch Germany
Phone: 49-2159-9136-0
Fax: 49-2159-9136-39
Web: www.ametek.de