

MonoScan®

Ultrasonic Continuous Level Measurement Device

for Liquids, Solids and Open Channel Flow

More compact. More reliable. More value.

Deploying breakthrough, patented technology, MonoScan assures accurate measurements even under changing conditions. This self-calibrating product represents a unique combination of strength, performance and value.



More flexibility. More compatibility

MonoScan® is an excellent choice for measuring liquid and solid levels at ranges of up to 15 meters, with a 0.25% accuracy of measuring range. The MonoScan® single enclosure and compact sensor, ensures a full match with your installations.

Moreover, the MonoScan is the smallest ultrasonic gauging device for measuring open channel flow, incorporating 9 predefined types of weirs and flumes in its memory that assures fast and easy set-up.

Communications and Control

MonoScan® includes optional digital communication via RS 485 – Modbus and compatibility with HART protocol. It can control different devices through its three SPDT relays.

Advantages

- Direct installation on tanks, vessels and reactors
- Self-calibration to virtually all types of conditions
- Full compensation in virtually all environments
- Delivers highest accuracy even under harsh conditions
- Maintenance-free

Applications

- Chemical processes
- Petrochemicals
- Food & Beverage industries
- Water & Waste water
- Pharmaceuticals
- Pulp & Paper industries
- Plastics



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SOLID
Applied Technologies Ltd.

Data Sheet MonoScan[®], MonoScan485[®]

MonoScan (2W)



MonoScan485 (4W)



Applications

Liquid, Solid, Open Channel Flow

Liquid, Solid, Open Channel Flow

Measuring Ranges

Liquids and Flow-

Short-Range: 0.2-5m (0.6-16 ft)
Standard-Range: 0.6-15m (1.9-49 ft)

Solids –

Short-Range: 0.2-5m (0.6-16 ft)
Standard-Range: 0.6-8.5m (1.9-28 ft)

Liquids and Flow-

Short-Range: 0.2-5m (0.6-16 ft)
Standard-Range: 0.6-15m (1.9-49 ft)

Solids –

Short-Range: 0.2-5m (0.6-16 ft)
Standard-Range: 0.6-8.5m (1.9-28ft)

Measurement Accuracy

0.25% of measuring range

0.25% of measuring range

Resolution

3 mm (0.11 inch)

3 mm (0.11 inch)

Power Supply

12-28VDC (0.1A surge)

12-28VDC (0.1A surge); 100-240 VAC 50/60 Hz 30 mA

Load

750 ohm @ 28VDC

750 ohm @28VDC

Current Output

4-20mA loop

4-20mA

Mounting Option

2" NPT/2" BSP

2" NPT/2" BSP

Temperature Range

-40°C to +70°C (-40°F to +158°F)

-40°C to +70°C (-40°F to +158°F)

Ambient Compensation

Integral

Integral

Housing Type

Integrated (Mono-Block)

Integrated (Mono-Block)

Housing Material

ABS + UV

ABS + UV

Enclosure Rating

IP 65

IP 65

Beam Angle

5° @ 3db point

5° @ 3db point

Sensor Type

25 KHz

25 KHz

Operating Temp'

-40°C to +70°C (-40°F to +158°F)

-40°C to +70°C (-40°F to +158°F)

Sensor material

Stainless Steel 316L or Coated Aluminum

Stainless Steel 316L or Coated Aluminum

Sensor Housing

PP/PVDF

PP/PVDF

Display

LCD (4 digits – 7 segments)

LCD (4 digits – 7 segments)

Communication

N/A

RS485

Interface

N/A

Modbus-RTU, HART*

Relays

N/A

3 SPDT

Trigger Points

N/A

6 Points

Weight

Up to 1.4 Kg (3.08 lb)

Up to 1.4 Kg (3.08 lb)

Enclosure Dimensions

289mm x 107mm x 85mm

289mm x 107mm x 85mm

Certifications*

CE - EMC
ATEX: EX ia IIC T4
FM: Class I Division 1 Group A T4
CSA: Class I, II, III, Group A,B,C,D,E,F and G

CE - EMC
ATEX: EX ia IIC T4
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* Consult factory for availability



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Specifications are subject to change without notice