

dBMACH3 Transducer datasheet



Pulsar's dBMACH3 is a high accuracy non-contacting ultrasonic transducers offer compact, robust measurement for Open Channel Flow applications. dBMACH3 is the first ultrasonic transducer with zero effective blanking distance beyond the nosecone. An innovative approach to transducer design in combating electrical noise, Pulsar has incorporated a low voltage communication and the use of digital echo processing, makes cable splicing issues a thing of the past.



Measurement Range

Range: 0 inches – 8.0 ft. (0.0m – 2.4m)

Performance

Accuracy: +/- 0.04 inches (+/- 1mm)

Resolution: 0.02 inches (0.5mm)

Operating Temperature: -22 to 176°F (-30 to +80°C)

Beam Angle: Effective 3° full beam angle with algorithms
<12° full beam angle at -3dB, 125KHz

Return Echo: A digital current signal (for eliminating electrical noise) and returned back to the microprocessor for signal processing.

Standard Mounting

Mounting: 1" NPT rear

Enclosure Material: Valox 357 PBT (Polybutylene terephthalate)

Approvals

Enclosure Rating: NEMA 6P (IP68)

Area Classification: FM/FMC: Class I, Div. 1, Groups A-D and Class II, Div. 1, Groups E-G . ATEX EEx m IIC

Option Classification: Intrinsically Safe, ATEX EEx ia

Options

Intrinsically Safe: I.S. (EEx ia), ATEX Zone 0

Cable Connection

Cable Splicing: Cable splicing is not an issue.

Cable Extension: 3-conductor 20 AWG shield

Maximum Separation: 3,280 ft. (1km) between transducer and transceiver
(12,600 ft. (3.8km) is achievable, contact manufacturer for more information.)

Other Information

Technical Note: Can also be used in normal level applications.

dBMACH3

