

dB Transducers

Non-Contacting Ultrasonic Transducer Series

The dB Transducer Series is a range of non-contacting ultrasonic transducers for level, volume and flow measurement. Available in a variety of models and compatible with all Pulsar controllers so that you have a specific solution to suit your application requirements.



Technical Specification:

TRANSDUCER SPECIFIC:

| Model: | Dimensions: | Dia Face: | Weight: | Measurement Range: | Frequency: | Beam Angle: |
|--------|-------------------------------|----------------|---------------|------------------------|------------|-------------|
| dB3 | 78D x 115Hmm (3.07 x 4.52in) | 19mm (0.75in) | 1.1kg (2.4lb) | 0.125 - 3m (0.41-10ft) | 125kHz | <10° |
| dB6 | 86D x 106Hmm (3.39 x 4.17in) | 30mm (1.18in) | 1.1kg (2.4lb) | 0.3 - 6m (0.98-20ft) | 75kHz | <10° |
| dB56 | 86D x 106Hmm (3.39 x 4.17in) | 45mm (1.78in) | 1.1kg (2.4lb) | 0.2 - 6m (0.66-20ft) | 50kHz | <10° |
| dB10 | 86D x 106Hmm (3.39 x 4.17in) | 45mm (1.78in) | 1.1kg (2.4lb) | 0.3 - 10m (0.98-33ft) | 50kHz | <10° |
| dB15 | 86D x 122Hmm (3.39 x 4.8in) | 60mm (2.36in) | 1.2kg (2.6lb) | 0.5 - 15m (1.64-50ft) | 41kHz | <8° |
| dB25 | 105D x 142Hmm (4.13 x 5.59in) | 78mm (3.07in) | 1.4kg (3.1lb) | 0.6 - 25m (1.97-82ft) | 30kHz | <6° |
| dB40 | 205D x 223Hmm (8.07 x 8.77in) | 160mm (6.30in) | 6kg (13.2lb) | 1.2 - 40m (3.94-130ft) | 20kHz | <5° |
| dB50 | 205D x 223Hmm (8.07 x 8.77in) | 160mm (6.30in) | 6kg (13.2lb) | 2 - 50m (6.56-164ft) | 20kHz | <5° |

For specific transducers for flow applications ([dBMACH3](#) & [DUJET](#)), please refer their individual datasheets.

ALL TRANSDUCERS:

PHYSICAL:

| | |
|-----------------------|---|
| Sensor body material: | Valox 357 U and syntactic foam face |
| Cable lengths: | Standard = 5m, 10m, 20m or 30m (16.4ft, 32.8ft, 65.6ft or 98.4ft). Optional: up to 150m (492ft) maximum (increments of 10m / 32.8ft only) |
| Maximum separation: | 500m (1640ft) |
| Mounting connection: | BSP or 1" NPT |

ENVIRONMENTAL:

| | |
|--|---|
| Enclosure protection: | IP68 / NEMA 6P |
| Max. and min. temperature (electronics): | Standard: -40°C to +90°C (-40°F to +194°F) Hazardous area versions: -40°C to +75°C (-40°F to +167°F) |

APPROVALS:

| | |
|----------------|---|
| CE approval: | 2014/30/EU - EMC & 2014/34/EU ATEX Directives. Standards applied: EN 60079-0:2012+A11:2013 / EN 60079-11:2012 / EN 60079-18:2009 / EN 60079-26:2007 / EN 61326-1:2013 |
| ATEX approval: | Standard ATEX EEx m II T6 or optional EEx ia IIC T6. FM/FMC approval. (dB50 not approved) |

PERFORMANCE:

| | |
|-------------|--|
| Accuracy: | 0.25% or 6mm (0.24in) whichever is greater |
| Resolution: | 0.01% or 2mm (0.08in) whichever is greater |

TRANSDUCER OPTIONS:

| | dB3 | dB6 | dB56 | dB10 | dB15 | dB25 | dB40 | dB50 |
|-----------------------|-----|-----|------|------|------|------|------|------|
| PVDF | | ✓ | ✓ | ✓ | | | | |
| Front Threaded / PVDF | ✓ | ✓ | ✓ | ✓ | | | | |
| Submergence Shield | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Flanged DIN/ANSI | | ✓ | ✓ | ✓ | ✓ | | | |
| Foam Face | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Sanitary Flange | | ✓ | ✓ | ✓ | | | | |
| I.S. of all the above | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |

Pulsar Process Measurement Ltd. operates a policy of constant development and improvement and reserves the right to amend technical details as necessary.

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