

# dB ULTRASONIC TRANSDUCERS

## Technical Specifications:

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.



### PHYSICAL: TRANSDUCER SPECIFIC

Model:	Dimensions:	Dia Face:	Weight:	Measurement Range:	Frequency:	Beam Angle:
<b>dB3</b>	78 (D) mm x 115 (H) mm (3.1 in x 4.5 in)	19 mm (0.7 in)	1.1 kg (2.4 lb)	125 mm to 3 m (4.9 in to 9.8 ft)	125kHz	<10°
<b>dB6</b>	86 (D) mm x 106 (H) mm (3.4 in x 4.2 in)	30 mm (1.2 in)	1.1 kg (2.4 lb)	300 mm to 6 m (11.8 in to 19.7 ft)	75kHz	<10°
<b>dB56</b>	86 (D) mm x 106 (H) mm (3.4 in x 4.2 in)	45 mm (1.8 in)	1.1 kg (2.4 lb)	200 mm to 6 m (7.9 in to 19.7 ft)	50kHz	<10°
<b>dB10</b>	86 (D) mm x 106 (H) mm (3.4 in x 4.2 in)	45 mm (1.8 in)	1.1 kg (2.4 lb)	300 mm to 10 m (11.8 in to 32.8 ft)	50kHz	<10°
<b>dB15</b>	86 (D) mm x 122 (H) mm (3.4 in x 4.8 in)	60 mm (2.4 in)	1.2 kg (2.6 lb)	500 mm to 15 m (19.7 in to 49.2 ft)	41kHz	<8°
<b>dB25</b>	105 (D) mm x 142 (H) mm (4.1 in x 5.6 in)	78 mm (3.1 in)	1.4 kg (3.1 lb)	600 mm to 25 m (23.6 in to 82 ft)	30kHz	<6°
<b>dB40</b>	205 (D) mm x 223 (H) mm (8.1 in x 8.8 in)	160 mm (6.3 in)	6 kg (13.2 lb)	1.2 m to 40 m (3.9 ft to 131.2 ft)	20kHz	<5°

### PHYSICAL: ALL TRANSDUCERS

<b>Sensor Body Material:</b>	Valox 357 U and syntactic foam face
<b>Cable Lengths:</b>	Standard = 5 m, 10 m, 20 m, or 30 m (16.4 ft, 32.8 ft, 65.6 ft, or 98.4 ft). Optional: up to 150 m (492 ft) maximum (increments of 10 m (32.8 ft) only)
<b>Maximum Separation:</b>	500 m (1,640 ft)
<b>Mounting Connection:</b>	BSP or 1" NPT

### ENVIRONMENTAL

<b>Enclosure Protection:</b>	IP68 / NEMA 6P
<b>Max. And Min. Temperature (Electronics):</b>	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

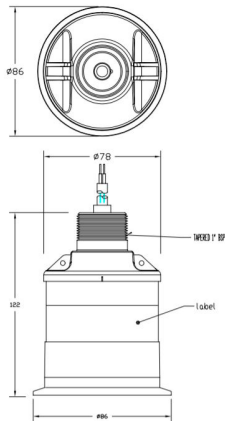
<b>CE Approval:</b>	2014/30/EU to EMC & 2014/34/EU ATEX Directives. Standards applied: EN 60079-0:2012+A11:2013/ EN 60079-11:2012 / EN 60079-18:2009 / EN 60079-26:2007 / EN 61326-1:2013
<b>ATEX Approval:</b>	Standard ATEX EEx m II T6 or optional EEx ia IIC T6. FM/FMC approval.

## TRANSDUCER OPTIONS

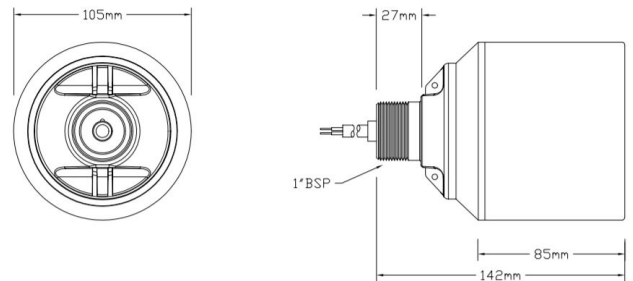
Model:	dB3	dBs6	dB6	dB10	dB15	dB25	dB40
PVDF		✓	✓	✓			
Front Threaded / PVDF	✓	✓	✓	✓			
Submergence Shield	✓	✓	✓	✓	✓	✓	
Flanged DIN/ANSI		✓	✓	✓	✓		
Foam Face		✓		✓	✓	✓	✓
Sanitary Flange		✓	✓	✓			
Intrinsically Safe of All the Above	✓	✓	✓	✓	✓	✓	✓

## PERFORMANCE

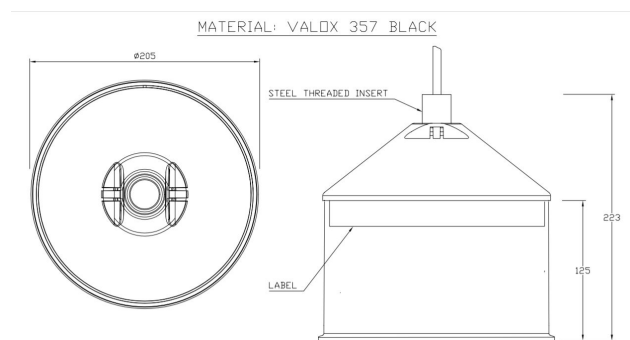
<b>Accuracy:</b>	0.25% or 6 mm (0.2 in) whichever is greater
<b>Resolution:</b>	0.01% or 2 mm (0.08 in) whichever is greater
<b>Temp. Compensation:</b>	Automatic, internal temperature sensor, $\pm 0.5$ °C/°F



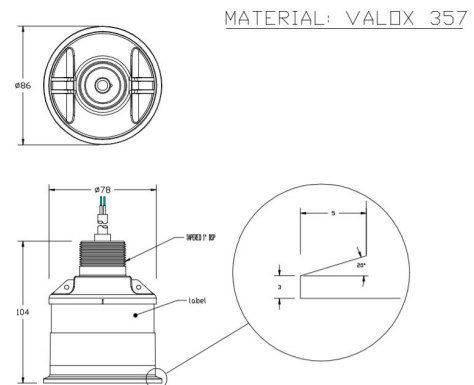
dB15 Transducer Drawing



dB25 Transducer Drawing



dB40 Transducer Drawing



dB6 & dB10 Transducer Drawing



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