

dBi HART Transducers

Level

Volume

Non-Contacting Loop Powered Ultrasonic Transducer Series with HART communication protocol

The Pulsar dBi HART Transducer Series are a range of self-contained, intelligent non-contacting ultrasonic level measurement transducers which make use of HART communication protocols to make plant integration simple. Four range choices are available with either 3m, 6m, 10m or 15m range (10ft, 20ft, 33ft or 49ft).



Technical Specification:

TRANSDUCER SPECIFIC:

Model:	Dimensions:	Weight:	Measurement Range:	Frequency:	Beam Angle:	Accuracy:	Resolution:
dBi3	77D x 134Hmm	1.0kg (2.2lb)	0.125 - 3m (0.41-10ft)	125kHz	<10°	2mm (0.08in)	1mm (0.04in)
dBi6	86D x 121Hmm	1.2kg (2.7lb)	0.3 - 6m (0.98-20ft)	75kHz	<10°	4mm (0.16in)	2mm (0.08in)
dBi10	86D x 121Hmm	1.3kg (2.9lb)	0.3 - 10m (0.98-33ft)	50kHz	<10°	3mm (0.12in) up to 6m (20ft) range 6mm (0.24in) over 6m (20ft) range	3mm (0.12in)
dBi15	86D x 135Hmm	1.4kg (3.1lb)	0.5 - 15m (1.64-50ft)	41kHz	<8°	5mm (0.2in) up to 10m (33ft) range 10mm (0.39in) over 10m (33ft) range	5mm (0.2in)

ALL TRANSDUCERS:

PHYSICAL:

Sensor body material:	Valox 357 PBT
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)
Mounting connection:	BSP or 1" NPT

ENVIRONMENTAL:

Enclosure protection:	IP68 / NEMA 6P
Max. and min. temperature (electronics):	-40°C to +80°C (-40°F to +176°F)

APPROVALS:

CE approval:	Listed in the Certificate of Conformity within the manual
ATEX approval:	Standard: Zones 1 & 2 - Ex II 2 G Ex mb IIC T4 Gb, Ex II 2 D Ex mb IIIC T130°C Db, T _{amb} = -40°C to +80°C Optional: Zone 0 - Ex II 1 G Ex ia IIC T4 Ga, Ex II 1 D Ex ia IIIC T130°C Da, T _{amb} = -40°C to +80°C

PERFORMANCE:

Input voltage range:	10-28Vdc
Output:	4-20mA output, resolution 1µa
Current consumption:	3.8mA to 22mA
Boot time:	From power-up to stable reading: Cold boot = 9 seconds, Warm boot (within 12hrs from last start-up) = 4 seconds
Communications protocol:	Hart 7

TRANSDUCER OPTIONS:

	dBi3	dBi6	dBi10	dBi15
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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