





# dBi HART INTELLIGENT TRANSDUCERS

# Technical Specifications:

The Pulsar dBi HART Transducer Series is a range of self-contained, intelligent, non-contacting ultrasonic level measurement transducers which make use of HART communication protocols to make plant integration simple.

### **PHYSICAL: TRANSDUCER SPECIFIC:**



	dBi3	dBi6	dBi10	dBi15
Sensor Body Dimensions:	77 mm D x 134 mm H (3 in x 5.3 in)	86 mm D x 121 mm H (3.4 in x 4.8 in)	86 mm D x 121 mm H (3.4 in x 4.8 in)	86 mm D x 121 mm H (3.4 in x 4.8 in)
Weight:	1 kg (2.2 lb)	1.2 kg (2.7 lb)	1.3 kg (2.9 lb)	1.4 kg (3.1 lb)
Measurement Range:	125 mm to 3 m (4.9 in to 9.8 ft)	300 mm to 6 m (11.8 in to 19.7 ft)	300 mm to 10.1 m (11.8 in to 32.8 ft)	500 mm to 15 m (19.7 in to 49.2 ft)
Frequency:	125kHz	75kHz	50kHz	41kHz
Beam Angle:	<10°	<10°	<10°	<8°
Effective Beam Angle (using DATEM)	3°	3°	3°	3°
Accuracy	2 mm (0.08 in)	4 mm (0.2 in)	3 mm (0.1 in) up to 6 m (19.7 ft) range 6 mm (0.2 in) over 6 m (19.7 ft) range	5 mm (0.2 in) up to 10 m (32.8 ft) 10 mm (0.4 in) over 10 m (32.8 ft) range
Resolution:	1 mm (0.04 in)	2 mm (0.08 in)	3 mm (0.1 in)	5 mm (0.2 in)

### **PHYSICAL: ALL TRANSDUCERS**

Sensor Body Material:	Valox 357 PBT
Cable Lengths:	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 (492.1 ft) maximum (increments of 10 m (32.8 ft) only)
Mounting Connection:	1" BSP or 1" NPT

#### **ENVIRONMENTAL**

Enclosure Protection:	IP68 / NEMA 6P
Max. And Min. Temperature (Electonics):	-40 °C to +80 °C (-40 °F to +176 °F), options for front thread and flange mounting

#### PERFORMANCE

Input voltage range:	10-28 V DC
Output:	4-20mA output, resolution 1μa
<b>Current Consumption:</b>	3.8-22mA
Boot Time:	From power-up to stable reading: Cold boot = 8 seconds, Warm boot (within 12 hours from last start-up) = 4 seconds
Temp. Compensation:	Automatic, internal temperature sensor, ± 0.5 °C/°F
<b>Communcations Protocol:</b>	HART 7





#### **APPROVALS**

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

#### **TRANSDUCER OPTIONS**

	dBi3	dBi6	dBi10	dBi15
PVDF:		$\checkmark$	$\checkmark$	
Front Threaded / PVDF:	$\checkmark$	$\checkmark$	$\checkmark$	
Submergence Shield:	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Flanged DIN / ANSI:		$\checkmark$	$\checkmark$	$\checkmark$
Foam Face:			$\checkmark$	$\checkmark$
Sanitary Flange	$\checkmark$	$\checkmark$	$\checkmark$	
Intrinsically Safe of All the Above:	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$



## Delivering the Measure of Possibility

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For more information, please visit our website:

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