

dBi MODBUS INTELLIGENT TRANSDUCERS

Technical Specifications:

The dBi-Modbus series of transducers are the ultimate low power devices that benefit from Modbus communication.



PHYSICAL: TRANSDUCER SPECIFIC

| | dBi-M3 | dBi-M6 | dBi-M10 | dBi-M15 |
|---|---------------------------------------|---|---|--|
| 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) |
| 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 (Electronics): | -40 °C to +80 °C (-40 °F to +176 °F), options for front thread and flange mounting |

APPROVALS

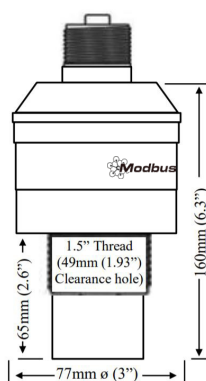
| | |
|--|---|
| CE Approval: | Listed in the Certificate of Conformity within the manual |
| IECEX, UKEx & ATEX Approvals: | Standard: Zone 0: II 1 G Ex ia IIC T4 Ga, Zone 20: II 1 D Ex ia IIC T130°C Da, Tamb = -40 °C to +80 °C. Also suitable for zones 1, 2, 21 and 22. |
| cFMus Approvals: | Standard: Intrinsically Safe for: Class I, Div.1, Group A,B,C & D, T4 Class II, Div.1, Group E,F & G, T4 Class III, T4 |

PERFORMANCE

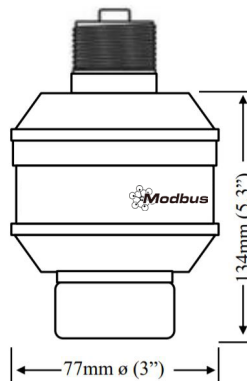
| | |
|---------------------------------|---|
| Input Voltage Range: | 5-15 V DC |
| Output: | Modbus RTU via RS-485 |
| Current Consumption: | Average 14 mA, 0.006 mAh per measurement. |
| Boot Time: | 1 second for the first measurement |
| Temp. Compensation: | Automatic, internal temperature sensor, ± 0.5 °C/°F |
| Communications Protocol: | Modbus RTU |

TRANSDUCER OPTIONS

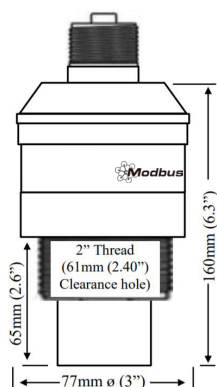
| | dBi-M3 | dBi-M6 | dBi-M10 | dBi-M15 |
|---|--------|--------|---------|---------|
| PVDF: | | ✓ | ✓ | |
| Front Threaded / PVDF: | ✓ | ✓ | ✓ | |
| Submergence Shield: | ✓ | ✓ | ✓ | ✓ |
| Flanged DIN / ANSI: | | ✓ | ✓ | ✓ |
| Foam Face: | | | ✓ | ✓ |
| Sanitary Flange | ✓ | ✓ | ✓ | |
| Intrinsically Safe of All the Above: | ✓ | ✓ | ✓ | ✓ |



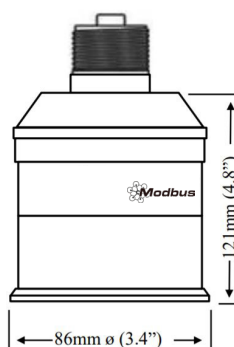
dBi-M3 & dBi-M6 Front Thread



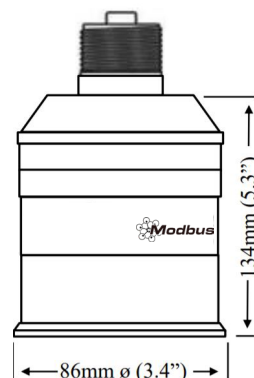
dBi-M3 Rear Thread



dBi-M10 Front Thread



dBi-M6 & dBi-M10 Rear Thread



dBi-M15 Rear Thread



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