



Pile Dynamics, Inc.
www.pile.com • 1.216.831.6131

Technical Specifications

Pile Installation Recorder (PIR-Q) Specifications

Main Unit

Size

60 x 180 x 228 mm (2.36 x 7.08 x 8.97 in)

Weight

1.5 kg (3.30 lbs.)

Mounting

Inside crane cabin

User Interface

High Visibility Color LCD with LED Backlighting

Power

12 or 24 V DC (Typically uses crane battery)

Temp Range

Operating 0° to 40° C (32° to 104° F); storage -20° to 65° C (-4° to 149° F)

Electronics

PC compatible processor, running Microsoft Windows® 10; 32-bit Microprocessor with 10-bit Analog to Digital Converter

Data Storage

Minimum of 128 GB Solid State Drive (SSD)

Data Export

USB

Printer Interface

USB





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Technical Specifications

Flow Tube-Meter

Type

Magnetic Flow Meter

Mounting

In line with main grout line, 76 to 152 mm diameter (2.99 to 5.98 in)

Size

775 x 405 x 470 mm (30.5 x 15.9 x 16.02 in)

Weight

47 kg (3.30 lbs.)

Max Flow Rate

625gpm with 76 mm (2.99 in) grout line; 2440gpm with 152 mm (5.98 in) grout line

Accuracy

±2%



Grout Pressure Measurement Unit

Type

Pressure transducer

Mounting

On magnetic flow tube

Max Range

Up to 1000 PSI

Output Signal

4-20mA output

Torque Measurement Unit

Type

Pressure transducer (hydraulic pressure applied to gear motor - “torque pressure” – relates to auger torque)

Mounting

On Hydraulic line powering the gear box

Max Range

Up to 10000 PSI



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Technical Specifications

Output Signal
4-20mA output

Depth Measurement Unit:

| | Wireless (US patent No. 8612175) | Conventional Wired |
|------------|---|--|
| Type | Rotary encoder on spring tensioned arm-assembly | Rotary encoder on a self-retracting reel |
| Mounting | Attaches to auger gear box | In boom of crane, cable attaches to gear box |
| Size | 600 x 150 x 150 mm (23.6 x 5.9 x 5.9 in) | 305 x 910 x 910 mm (1 x 2.98 x 2.98 in) |
| Weight | 12 kg (26.45 lbs.) | 73 kg (160.9 lbs.) |
| Max Range | 200 m (656.16 ft) | 49 m (160.7 ft) |
| Resolution | 0.6 mm (.02 in) | 0.6 mm (0.2 in) |

Wireless Rotation Measurement Unit

Type
Proximity switch

Mounting
Mounts on gear box

Size (diameter x length)
18 x 50 mm (0.05 x .16 in)

Weight
114 g

Functionality
Normally open

Max Switching Frequency
200 Hz

Sensing range
10 mm (.39 in)

Repeatability
.01 mm (.0003 in)



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Technical Specifications

Wireless Transmitter

Size

60 x 76 x 175 mm (2.36 x 2.99 x 6.88 in)

Weight

0.7 kg (1.54 lbs.)

Transmission Range

100 m (3.93 in)

Frequency

2.4 Ghz

Electronics

32-bit 24 MHz microcontroller, 12-bit digital to analog converter

Mounting

On auger gear box

Power

Rechargeable battery, size 60 x 76 x 175 mm (2.36 x 2.99 x 6.88), run time at least 24 hours

Temp Range

0° to 40° C (32° to 104° F), operating; -20° to 65° C (-4° to 149° F) storage

Other

Paper Summary Print Out for each Pile

User selectable depth increment

Results in SI or English units

Includes PIRPLOT Software License

One-year warranty on main unit

Technical manual provided in PDF form on a USB drive

