



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

Technical Specifications

Pile Installation Recorder (PIR-Q)

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:

- $\pm 2\%$



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)



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Mounting:

- On Hydraulic line powering the gear box

Max Range:

- Up to 10000 PSI

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



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Max Switching Frequency:

- 200 Hz

Sensing Range:

- 10 mm (.39 in)

Repeatability:

- .01 mm (.0003 in)

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





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- 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