

# iQUBE 2®

Digital Diagnostic Junction Box

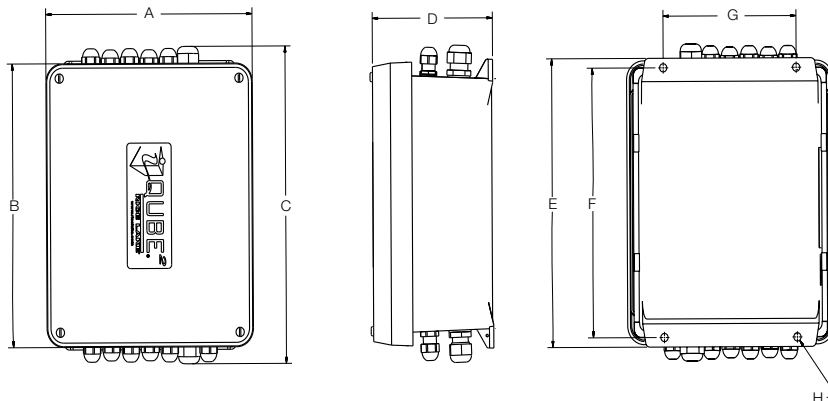


## Standard Features:

- iQUBE<sup>2</sup> board has four A/D channels
- Stainless steel or Fiberglass Reinforced Polyester (FRP), NEMA Type 4X polyester enclosure
- Supports networking up to four boards, for 16 A/D channels. Connection can be up to four separate platforms with a system total, or four separate scales systems
- Diagnostic routines for weighing errors and system health
- Cell tests for overloaded, underloaded, zero reference, drift, noise, and unbalanced conditions
- Onboard status LEDs for communications and visual bi-color indication of cell health
- Cell emulator compensates for load cell failure until a repair can be made
- Cal-Match<sup>®</sup> algorithm automatically trims and calibrates the scale in one pass of test weights (stopping over each mount)
- Standard communication RS-232/RS-422
- Option card slot for fiber-optic, Ethernet TCP/IP, wireless TCP/IP, USB or RS-232/485
- Four digital I/O per card, for push button operation, setpoint controller cell status

## Dimensions

| Stainless Steel 8 in x 10 in |                     |   |                     |
|------------------------------|---------------------|---|---------------------|
| A                            | 8.91 in (226.3 mm)  | E | 11.50 in (292.1 mm) |
| B                            | 10.13 in (257.3 mm) | F | 10.75 in (268.5 mm) |
| C                            | 12.57 in (319.3 mm) | G | 6.00 in (152.4 mm)  |
| D                            | 4.29 in (109 mm)    | H | 0.312 in (7.9 mm)   |
| FRP Large 10 in x 12 in      |                     |   |                     |
| A                            | 11.30 in (287 mm)   | E | 13.53 in (343.7 mm) |
| B                            | 13.33 in (338.6 mm) | F | 12.76 in (324.1 mm) |
| C                            | 14.00 in (355.6 mm) | G | 8.00 in (203.2 mm)  |
| D                            | 5.57 in (141.5 mm)  | H | 0.312 in (7.9 mm)   |
| FRP Small 8 in x 10 in       |                     |   |                     |
| A                            | 9.31 in (236.5 mm)  | E | 11.51 in (287.2 mm) |
| B                            | 11.31 in (287.2 mm) | F | 10.75 in (273.1 mm) |
| C                            | 12.85 in (326.4 mm) | G | 6.00 in (152.4 mm)  |
| D                            | 5.42 in (137.7 mm)  | H | 0.312 in (7.9 mm)   |



## Specifications:

### Enclosure:

Stainless steel or Fiberglass Reinforced Polyester (FRP), NEMA Type 4X enclosure

### Voltage Input:

115/230 VAC power supply DC/DC converter for 9-36 V  
6-12 VDC to CPU

### Load Cell Inputs:

4 channels per board up to 4 networked boards

### A/D Sampling Rate:

2.5-500 Hz (selectable)

### Temperature Range:

14°F to 104°F (-10°C to 40°C)

### Analog Signal Sensitivity:

0.3 uV/grad at 30 Hz  
0.5 uV/grad at 100 Hz  
1.2 uV/grad at 500 Hz

### Load Cell Excitation:

5 VDC, 57 mA maximum per channel

### Analog Range:

-4.5 mV/V to 4.5 mV/V

### Approvals:

NTEP 03-032  
Measurement Canada - AM-5561, Rev. 1  
UL E151461  
CE

### Warranty:

Two-year limited warranty

## Applications:

- Truck and railroad scales
- Tank and hopper scales
- Multi-channel scales
- Interfaces to 920i<sup>®</sup>, Virtui2<sup>®</sup>, and ASCII serial commands

## Part Number/Price

| Part #                      | Description                                                     | Est. Weight | Price      |
|-----------------------------|-----------------------------------------------------------------|-------------|------------|
| <b>With AC Power Supply</b> |                                                                 |             |            |
| 108425*                     | iQUBE2, four-channel, FRP 8 in x 10 in junction box             | 9 lb        | \$1,045.00 |
| 108426                      | iQUBE2, four-channel, FRP 10 in x 12 in junction box            | 11 lb       | \$1,195.00 |
| 108427                      | iQUBE2, eight-channel, FRP 10 in x 12 in junction box           | 11 lb       | \$1,945.00 |
| 108428*                     | iQUBE2, four-channel, stainless steel 8 in x 10 in junction box | 13 lb       | \$1,695.00 |
| <b>Without Power Supply</b> |                                                                 |             |            |
| 108429*                     | iQUBE2, four-channel, FRP 8 in x 10 in junction box             | 8 lb        | \$925.00   |
| 108430                      | iQUBE2, four-channel, FRP 10 in x 12 in junction box            | 10 lb       | \$1,095.00 |
| 108431                      | iQUBE2, eight-channel, FRP 10 in x 12 in junction box           | 10 lb       | \$1,845.00 |
| 108432*                     | iQUBE2, four-channel, stainless steel 8 in x 10 in junction box | 12 lb       | \$1,650.00 |
| <b>Conduit Adaptors</b>     |                                                                 |             |            |
| 92734                       | Conduit adaptor 3/8 in NPT to 3/4 in NPT                        |             | \$25.00    |
| 92735                       | Conduit adaptor 1/2 in NPT to 3/4 in NPT                        |             | \$25.00    |

\* Enclosure size 8 in x 10 in required for truck scale junction box pocket

## Options/Accessories

| Part #                                                                   | Description                                                        | Price      |
|--------------------------------------------------------------------------|--------------------------------------------------------------------|------------|
| 108433                                                                   | Four-channel iQUBE2 board with cables and connectors               | \$745.00   |
| 97475                                                                    | DC/DC power supply, 9-36 VDC (requires factory installation)       | \$160.00   |
| 108434                                                                   | Remote power supply 115/230 VAC and transient board with enclosure | \$255.00   |
| 109396                                                                   | Transient board                                                    | \$65.00    |
| 110949                                                                   | Transient board with mount                                         | \$80.00    |
| 161936                                                                   | Hotspot Wi-Fi 802.11 a, b, g                                       | \$1,195.00 |
| 161954                                                                   | Hotspot in FRP enclosure                                           | \$2,245.00 |
| <b>Communication Card</b>                                                |                                                                    |            |
| 108579                                                                   | RS-232/RS-485 port                                                 | \$260.00   |
| 77142                                                                    | Ethernet TCP/IP                                                    | \$400.00   |
| 108671                                                                   | Wireless LAN 802.11 B/G                                            | \$570.00   |
| 93245                                                                    | USB port                                                           | \$160.00   |
| 77143                                                                    | Fiber-optic board                                                  | \$200.00   |
| 77788                                                                    | Fiber-optic board (installed in 920i)                              | \$200.00   |
| <b>Duplex Fiber (Max Run 350 ft)</b>                                     |                                                                    |            |
| 78026                                                                    | Fiber-optic cable, 100 ft                                          | \$135.00   |
| 78027                                                                    | Fiber-optic cable, 200 ft                                          | \$270.00   |
| 78910                                                                    | Fiber-optic cable, custom length                                   | \$1.35/ft  |
| <b>Home Run Cable</b>                                                    |                                                                    |            |
| 116587                                                                   | EL166 16 gauge, six conductor, shielded                            | \$2.65/ft  |
| <b>Software</b>                                                          |                                                                    |            |
| 77925                                                                    | Revolution® configuration software                                 | \$35.00    |
| 108435                                                                   | Virtui2® virtual indicator demo CD                                 | N/C        |
| 108436                                                                   | Virtui2 activation part number                                     | \$500.00   |
| 112262                                                                   | Firmware update flash cable                                        | \$50.00    |
| <b>920i® Indicators for use with iQUBE2, requires version 4 software</b> |                                                                    |            |
| 77790                                                                    | 920i universal, 115 VAC, without A/D                               | \$1,945.00 |
| 77791                                                                    | 920i universal, 230 VAC, without A/D                               | \$1,945.00 |
| 93243                                                                    | 920i deep universal, 115 VAC, without A/D                          | \$2,145.00 |
| 93244                                                                    | 920i deep universal, 230 VAC, without A/D                          | \$2,145.00 |
| 77792                                                                    | 920i panel mount, 115 VAC, without A/D                             | \$1,945.00 |
| 77793                                                                    | 920i panel mount, 230 VAC, without A/D                             | \$1,945.00 |
| 77794                                                                    | 920i wall mount, 115 VAC, without A/D                              | \$2,545.00 |
| 77795                                                                    | 920i wall mount, 230 VAC, without A/D                              | \$2,545.00 |



## Sample Configurations\*

\*Not an actual system—illustrates connectivity