



Approvals



Measurement
Canada
Approved



Standard Features

- iQUBE² board has four A/D channels
- 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 scale 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 communication and visual bi-color indication of cell health
- Cell emulator compensates for load cell failure until a repair can be made

- Cal-Match[®] algorithm automatically trims and calibrates the scale in one pass of test weights (stopping over each mount)
- Standard communications
- Option card slot for fiber optic, Ethernet TCP/IP, wireless TCP/IP, USB or RS-232/RS-485
- Communicates to 920i[®], 1280, VIRTUj²[®] using ASCII (EDP) serial commands

Applications

- Truck and railroad scales
- Tank and hopper scales
- Multi-channel scales

Specifications

Voltage Input:

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

Analog Signal Input Range:

-78 to +78 mV

Analog Signal Sensitivity:

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

A/D Sampling Rate:

2.5 to 500 Hz (selectable)

Digital I/O:

Four per card, for push-button operation, setpoint control or cell status

Communication Ports:

RS-232/RS-422

Load Cell Inputs:

Four channels per board
up to four networked boards

Load Cell Excitation:

5 VDC, 57 mA maximum per channel

Rating/Material:

Polycarbonate (NEMA Type 4X) enclosure with overlapping solid cover, stainless steel screws
Stainless steel (NEMA Type 4X) enclosure with hinged cover

Temperature:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)
Operating: -13 °F to 140 °F (-25 °C to 60 °C)

Warranty:

Two-year limited

Approvals:

NTEP 03-032A1
Measurement Canada AM-5561
cULus E151461
CE Marked

Part Number/Price

| Part # | Description | Est. Weight | Price |
|-----------------------------|---|-------------|---------|
| With AC Power Supply | | | |
| 108425* | iQUBE ² , four-channel, polycarbonate 8 × 10 in junction box | 9 lb | Consult |
| 108426 | iQUBE ² , four-channel, polycarbonate 10 × 12 in junction box | 11 lb | Consult |
| 108427 | iQUBE ² , eight-channel, polycarbonate 10 × 12 in junction box | 11 lb | Consult |
| 108428* | iQUBE ² , four-channel, stainless steel 8 × 10 in junction box | 13 lb | Consult |
| Without Power Supply | | | |
| 108429* | iQUBE ² , four-channel, polycarbonate 8 × 10 in junction box | 8 lb | Consult |
| 108430 | iQUBE ² , four-channel, polycarbonate 10 × 12 in junction box | 10 lb | Consult |
| 108431 | iQUBE ² , eight-channel, polycarbonate 10 × 12 in junction box | 10 lb | Consult |
| 108432* | iQUBE ² , four-channel, stainless steel 8 × 10 in junction box | 12 lb | Consult |
| Conduit Adapters | | | |
| 92734 | Conduit adapter 3/8 in NTP to 3/4 in NPT | | Consult |
| 92735 | Conduit adapter 1/2 in NTP to 3/4 in NPT | | Consult |

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

Options/Accessories

| Part # | Description | Price |
|--|---|------------|
| 108433 | Four-channel iQUBE ² board with cables and connectors | Consult |
| 97475 | DC/DC power supply, 9 to 36 VDC (requires factory installation) | Consult |
| 108434 | Remote power supply 115/230 VAC and transient board with enclosure | Consult |
| 109396 | Transient board | Consult |
| 110949 | Transient board with mount | Consult |
| 161954 | Hotspot in polycarbonate enclosure | Consult |
| 215178 | Mounting tabs-new style (set of 4, includes screws), polycarbonate | Consult |
| Communication Card | | |
| 108579 | RS-232/RS-485 port | Consult |
| 77142 | Ethernet TCP/IP | Consult |
| 206272 | Wireless LAN 802.11 A/B | Consult |
| 93245 | USB port | Consult |
| 77143 | Fiber-optic board | Consult |
| 77788 | Fiber-optic board (installed in 920i) | Consult |
| Duplex Fiber (Max Run 350 ft) | | |
| 78026 | Fiber-optic cable, 100 ft | Consult |
| 78027 | Fiber-optic cable, 200 ft | Consult |
| 78910 | Fiber-optic cable, custom length | Consult/ft |
| Home Run Cable | | |
| 116587 | EL166 16 gauge, six conductor, shielded | Consult/ft |
| Software | | |
| 108436 | VIRTUI ² activation part number | Consult |
| 112262 | Firmware update flash cable | Consult |
| 920i[®] Indicators for use with iQUBE², requires version 4 software | | |
| 77790 | 920i Universal, 115 VAC, without A/D | Consult |
| 77791 | 920i Universal, 230 VAC, without A/D | Consult |
| 93243 | 920i Deep Universal, 115 VAC, without A/D | Consult |
| 93244 | 920i Deep Universal, 230 VAC, without A/D | Consult |
| 77792 | 920i Panel Mount, 115 VAC, without A/D | Consult |
| 77793 | 920i Panel Mount, 230 VAC, without A/D | Consult |
| 77794 | 920i Wall Mount, 115 VAC, without A/D | Consult |
| 77795 | 920i Wall Mount, 230 VAC, without A/D | Consult |
| 1280 Indicators for use with iQUBE² | | |
| 189623 | 1280 7 inch touch-only, AC power supply, no power cord, standard display, without A/D | Consult |
| 188526 | 1280 7 inch touch-only, AC power supply, no power cord, high visibility display, without A/D | Consult |
| 188395 | 1280 12 inch touch-only, AC power supply, no power cord, high visibility display, without A/D | Consult |
| 181073 | 1280 Panel Mount, DC power supply, no power cord, standard display, without A/D | Consult |
| 178473 | 1280 Panel Mount, AC power supply, no power cord, high visibility display, without A/D | Consult |
| 205677 | 1280 Wall Mount, AC power supply, U.S. power cord, standard display, without A/D | Consult |
| 171667 | 1280 Wall Mount, AC power supply, U.S. power cord, high visibility display, without A/D | Consult |
| 174750 | 1280 Panel Mount, AC power supply, no power cord, standard display, without A/D | Consult |
| 174207 | 1280 Universal, AC power supply, Europe power cord, standard display, without A/D | Consult |
| 171582 | 1280 Universal, AC power supply, U.S. power cord, standard display, without A/D | Consult |
| 188713 | 1280 Universal, DC power supply, no power cord, standard display, without A/D | Consult |
| 171540 | 1280 Universal, DC power supply, no power cord, high visibility display, without A/D | Consult |
| 172419 | 1280 Universal, AC power supply, U.S. power cord, high visibility display, without A/D | Consult |



Sample Configurations

Not an actual system—illustrates connectivity

JUNCTION BOXES / SIMULATORS

Dimensions

| iQUBE ² | | | |
|---------------------------|-----------------------------------|---|------------------|
| Stainless Steel 8 × 10 in | | | |
| A | 11.50 in (292 mm) | E | 6.00 in (152 mm) |
| B | 10.30 in (262 mm) | F | 4.30 in (109 mm) |
| C | 10.90 in (277 mm) | G | 4.20 in (107 mm) |
| D | 8.30 in (211 mm) | | |
| Polycarbonate 8 × 10 in | | | |
| A | 10.10 in (257 mm) | E | 4.00 in (102 mm) |
| B | 9.50 in (241 mm) | F | 6.00 in (152 mm) |
| C | 8.50 to 9.30 in (216 to 236 mm) | G | 5.70 in (145 mm) |
| D | 7.40 in (188 mm) | | |
| Polycarbonate 10 × 12 in | | | |
| A | 12.10 in (307 mm) | E | 6.00 in (152 mm) |
| B | 11.50 in (292.1 mm) | F | 7.00 in (178 mm) |
| C | 10.50 to 11.30 in (267 to 287 mm) | G | 6.70 in (170 mm) |
| D | 9.30 in (236 mm) | | |

