iQUBE 2®
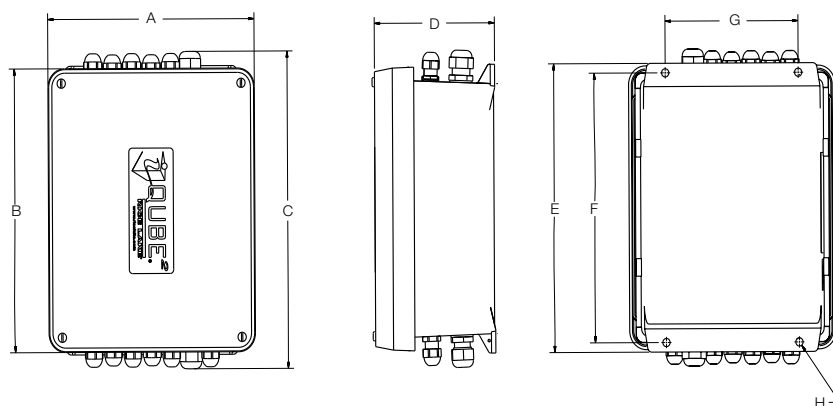## Digital Diagnostic Junction Box

Standard Features:

- iQUBE2® 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® 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®, Virtui2®, and ASCII serial commands

Part Number/Price

Part #	Description	Est. Weight	Price
With AC Power Supply			
108425*	iQUBE2, four-channel, FRP 8 in x 10 in junction box	9 lb	Consult
108426	iQUBE2, four-channel, FRP 10 in x 12 in junction box	11 lb	Consult
108427	iQUBE2, eight-channel, FRP 10 in x 12 in junction box	11 lb	Consult
108428*	iQUBE2, four-channel, stainless steel 8 in x 10 in junction box	13 lb	Consult
Without Power Supply			
108429*	iQUBE2, four-channel, FRP 8 in x 10 in junction box	8 lb	Consult
108430	iQUBE2, four-channel, FRP 10 in x 12 in junction box	10 lb	Consult
108431	iQUBE2, eight-channel, FRP 10 in x 12 in junction box	10 lb	Consult
108432*	iQUBE2, four-channel, stainless steel 8 in x 10 in junction box	12 lb	Consult
Conduit Adaptors			
92734	Conduit adaptor 3/8 in NTP to 3/4 in NPT		Consult
92735	Conduit adaptor 1/2 in NTP to 3/4 in NPT		Consult

* 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	Consult
97475	DC/DC power supply, 9-36 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
161936	Hotspot Wi-Fi 802.11 a, b, g	Consult
161954	Hotspot in FRP enclosure	Consult
Communication Card		
108579	RS-232/RS-485 port	Consult
77142	Ethernet TCP/IP	Consult
108671	Wireless LAN 802.11 B/G	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
Home Run Cable		
116587	EL166 16 gauge, six conductor, shielded	Consult
Software		
77925	Revolution® configuration software	Consult
108435	Virtui2® virtual indicator demo CD	Consult
108436	Virtui2 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

Fiber Optic Transceiver
RS-232/RS-422/RS-485
Ethernet TCP/IP
Wireless Ethernet

Sample Configurations*

*Not an actual system—illustrates connectivity