

920i® Series

Programmable Weight Indicator/Controller



Approvals



Standard Features

- Customizable backlit LCD graphical user interface
- 22 softkeys with 10 user-defined keys
- Tactile keypad for scale operations, numeric entry and navigation
- On-screen keyboard available during entry mode (or external keyboard)
- Supports 28 scales within five different scale types:
 - Analog load cell, multi-range/interval weighing
 - Total scale summing
 - Serial input scales
 - iQUBE² scales
 - Program scales
- Two to 14 option slots for additional scale channels, serial ports, digital inputs and outputs, analog outputs and protocol interfaces
- iRite™ Programming Software
 - Customizable user applications with event-based functions
 - 150 built-in functions for application processes & data tables
- Four serial ports supporting RS-232, RS-485, 20mA
- USB Type A and B replaces Serial on Port 2 (USB model)
- Alibi memory captures serial port transmissions
- Configurable data stream format
- 100 setpoints, 27 configurable setpoint types
- Six digital I/O for control
- Four different enclosure types: universal, deep universal, wall mount, panel mount

Specifications

Power:

AC voltages: 100 to 240 VAC
Frequency: 50 /60 Hz
DC voltages: 12 to 24 VDC

Power Consumption:

AC: 25W (universal) or 65W (others)
DC: 25W for all models

Excitation Voltage:

10 VDC (+/- 5 VDC)
16 × 350 ohm or 32 × 700 ohm load cells
per A/D card

Analog Signal Input Range:

-45 mV to +45 mV

Analog Signal Sensitivity:

0.3 µV/graduation minimum at 7.5 Hz
1.0 µV/graduation recommended

A/D Sample Rate:

7.5 to 960 Hz, software selectable

Resolution:

Internal: 8,000,000 counts
Display: 1,000,000

System Linearity:

± 0.01% full scale

Digital I/O:

Six I/O channels on CPU board;
Optional 24-channel I/O expansion boards

Communication Ports:

Four ports on CPU board support up to 115,200bps
Port 1: Full duplex RS-232
Port 2: RS-232 with CTS/RTS; PS/2 keyboard interface or USB type A and B connectors
Port 3: Full duplex RS-232, 20mA
Port 4: Full duplex RS-232, 2-wire RS-485, 20mA
Optional dual-channel serial expansion boards
Channel A: RS-232, RS-485, 20 mA
Channel B: RS-232, 20 mA

Display:

(W × H)
4.6 × 3.4 in (116 × 86 mm),
320 × 240 pixel
LCD module with adjustable contrast
Transmissive display
Transflective display (optional)

Keys/Buttons:

27-key membrane panel, tactile feel,
PS/2 or USB port for external keyboard connection

Temperature Range:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)
Operating: 14 °F to 122 °F (-10 °C to 50 °C)

Rating/Material:

NEMA Type 4X, Type 12, IP66
Stainless steel

Weight:

Universal enclosure: 9.5 lb (4.3 kg)
Wall mount enclosure: 23.0 lb (10.4 kg)
Panel mount enclosure: 8.5 lb (3.9 kg)
Deep universal: 11 lb (5.0 kg)

Warranty:

Two-year limited

EMC Immunity:

10 V/m

Approvals:

NTEP CC 01-088, Class III/IIIL 10,000d
Measurement Canada AM-5426,
Class III/II HD 10,000d
OIML R76/2006-A-GB1-19.08
EU Test Certificate TC11584
UL/cUL Listed (Universal, Deep Universal and Wall Mount)
cULus Recognized (Panel Mount)
cULus Listed 508A (Custom Wall Mount)
CE Marked

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920i Universal Part Number/Price

Part #	Description	USB	Est. Weight	Price
Single-Channel				
67527 †	115 VAC		10 lb	Consult
115003 †	115 VAC	USB	10 lb	Consult
67615 †	230 VAC		10 lb	Consult
120062 †	230 VAC	USB	10 lb	Consult
69522 ††	230 VAC		10 lb	Consult
120074 ††	230 VAC	USB	10 lb	Consult
107713 *	12 to 24 VDC, 25 watt		10 lb	Consult
120080 *	12 to 24 VDC, 25 watt	USB	10 lb	Consult
Dual-Channel				
69767 †	115 VAC		10 lb	Consult
120086 †	115 VAC	USB	10 lb	Consult
69772 †	230 VAC		10 lb	Consult
120090 †	230 VAC	USB	10 lb	Consult
69774 ††	230 VAC		10 lb	Consult
120096 ††	230 VAC	USB	10 lb	Consult
No A/D Channel				
77790 †	115 VAC		10 lb	Consult
120100 †	115 VAC	USB	10 lb	Consult
77791 ††	230 VAC		10 lb	Consult
120104 ††	230 VAC	USB	10 lb	Consult

*DC/DC converter installed option, not UL approved



† US plug (NA) - Type B



†† Euro Plug - Type E

920i Deep Universal Part Number/Price

Part #	Description	USB	Est. Weight	Price
Single-Channel				
82455 †	115 VAC		12 lb	Consult
115004 †	115 VAC	USB	12 lb	Consult
82457 †	230 VAC		12 lb	Consult
120064 †	230 VAC	USB	12 lb	Consult
82459 ††	230 VAC		12 lb	Consult
120075 ††	230 VAC	USB	12 lb	Consult
107714 *	12 to 24 VDC, 25 watt		12 lb	Consult
120081 *	12 to 24 VDC, 25 watt	USB	12 lb	Consult
Dual-Channel				
82456 †	115 VAC		12 lb	Consult
120087 †	115 VAC	USB	12 lb	Consult
82458 †	230 VAC		12 lb	Consult
120092 †	230 VAC	USB	12 lb	Consult
82460 ††	230 VAC		12 lb	Consult
120097 ††	230 VAC	USB	12 lb	Consult
No A/D Channel				
93243 †	115 VAC		12 lb	Consult
120101 †	115 VAC	USB	12 lb	Consult
93244 ††	230 VAC		12 lb	Consult
120105 ††	230 VAC	USB	12 lb	Consult

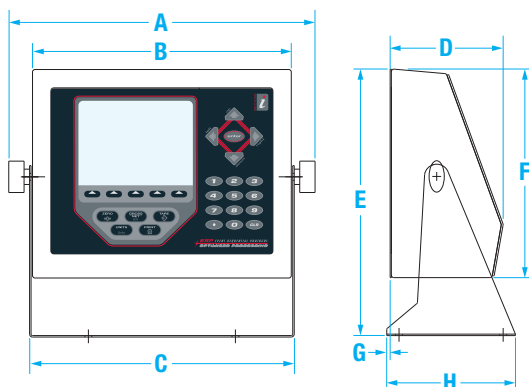
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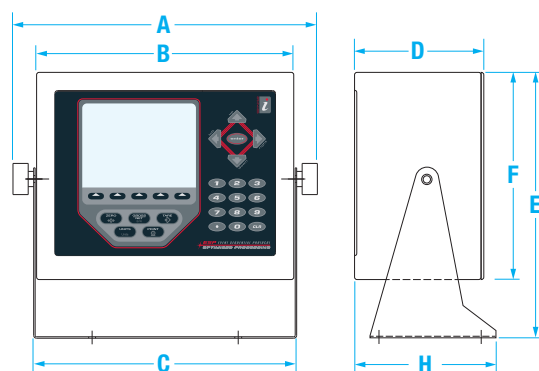


†† Euro Plug - Type E



920i Universal Dimensions

A	12.50 in (318 mm)	D	4.61 in (117 mm)	G	0.14 in (3.5 mm)
B	10.56 in (268 mm)	E	10.87 in (276 mm)	H	5.25 in (206 mm)
C	10.90 in (277 mm)	F	8.50 in (216 mm)		



920i Deep Universal Dimensions

A	12.50 in (318 mm)	D	5.36 in (136 mm)	F	8.50 in (216 mm)
B	10.76 in (273 mm)	E	10.87 in (276 mm)	H	5.88 in (149 mm)
C	10.90 in (277 mm)				

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920i Wall Mount Part Number/Price

Part #	Description	USB	Est. Weight	Price
Single-Channel				
69763 †	115 VAC		23 lb	Consult
115005 †	115 VAC	USB	23 lb	Consult
69765 †	230 VAC		23 lb	Consult
120066 †	230 VAC	USB	23 lb	Consult
72133 ††	230 VAC		23 lb	Consult
120078 ††	230 VAC	USB	23 lb	Consult
107715 *	12-24 VDC, 25 watt		23 lb	Consult
120082 *	12-24 VDC, 25 watt	USB	23 lb	Consult
Dual-Channel				
69770 †	115 VAC		23 lb	Consult
120088 †	115 VAC	USB	23 lb	Consult
69776 †	230 VAC		23 lb	Consult
120093 †	230 VAC	USB	23 lb	Consult
72134 ††	230 VAC		23 lb	Consult
120098 ††	230 VAC	USB	23 lb	Consult
No A/D Channel				
77794 †	115 VAC		23 lb	Consult
120102 †	115 VAC	USB	23 lb	Consult
77795 ††	230 VAC		23 lb	Consult
120106 ††	230 VAC	USB	23 lb	Consult
153346	115 VAC with start/stop switches		23 lb	Consult

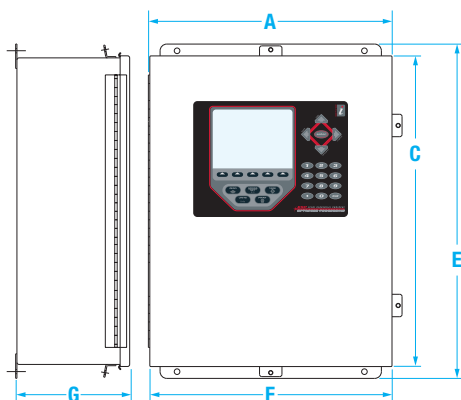
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920i Wall Mount Dimensions

A	14.30 in (363 mm)	D	18.84 in (479 mm)	F	14.30 in (363 mm)
B	11.00 in (279 mm)	E	19.63 in (499 mm)	G	6.75 in (171 mm)
C	18.20 in (462 mm)				

920i Panel Mount Part Number/Price

Part #	Description	USB	Est. Weight	Price
Single-Channel				
69764 †	115 VAC		9 lb	Consult
115006 †	115 VAC	USB	9 lb	Consult
69766 †	230 VAC		9 lb	Consult
120069 †	230 VAC	USB	9 lb	Consult
72137 ††	230 VAC		9 lb	Consult
120079 ††	230 VAC	USB	9 lb	Consult
107716 *	12-24 VDC, 25 watt		9 lb	Consult
120083 *	12-24 VDC, 25 watt	USB	9 lb	Consult
Dual-Channel				
69771 †	115 VAC		9 lb	Consult
120089 †	115 VAC	USB	9 lb	Consult
69777 †	230 VAC		9 lb	Consult
120095 †	230 VAC	USB	9 lb	Consult
72138 ††	230 VAC		9 lb	Consult
120099 ††	230 VAC	USB	9 lb	Consult
No A/D Channel				
77792 †	115 VAC		9 lb	Consult
120103 †	115 VAC	USB	9 lb	Consult
77793 ††	230 VAC		9 lb	Consult
120107 ††	230 VAC	USB	9 lb	Consult

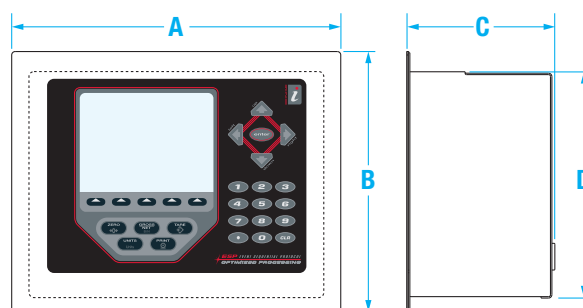
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920i Panel Mount Dimensions

A	11.56 in (294 mm)	C	5.20 in (132 mm)
B	9.16 in (233 mm)	D	7.95 in (202 mm)

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Options/Accessories

To have your option factory installed, please specify when placing your order.

Part #	Description	Price
Option Cards		
68532	A/D, single-channel	Consult
68533	A/D, dual-channel	Consult
67600	Memory, 1 MB NV RAM	Consult
67601	Digital I/O, 24-channel TTL output	Consult
67602	Analog output: selectable 0-10 V, 0-20 mA	Consult
103138	Analog output, dual-channel 0-10 V, 0-20 mA	Consult
67603	Pulse input, single-channel	Consult
67604	Serial port card, dual-channel, RS-232 and RS-485	Consult
87697	Analog input +/-10 VDC, 0-20 mA and thermocouple	Consult
Network Cards		
65383	Ethernet thin server (external)	Consult
71986	Ethernet TCP/IP 10/100 module (internal)	Consult
206271	Wireless LAN module 802.11 b/g	Consult
87803	EtherNet/IP® interface	Consult
68539	Remote I/O interface	Consult
68540	Profibus® DP interface	Consult
187816	Profinet® I/O interface	Consult
68541	DeviceNet™ interface	Consult
103136	ControlNet® interface	Consult
Expansion Cards		
69782	Two-slot expansion board (wall mount)	Consult
71743	Two-slot expansion board (panel mount and deep universal)	Consult
180047	Two-slot expansion board (panel mount, DC powered)	Consult
179488	Two-slot expansion board (wall mount DC powered)	Consult
69783	Six-slot expansion board (wall mount)	Consult
Hardware		
83569	Clear protective overlay (package of 5)	Consult
70056	Cable, DB9M to DB9F, Straight Cable	Consult
99149	Keyboard, QWERTY 109-key USB, flexible, washable	Consult
77788	Fiber optic board, installed in 920i	Consult
92777	Filter, PreVent™ vent kit PG 7 cord grip	Consult
19368	Start/stop controls without box, for use on wall mount	Consult
19369	Start/stop switch with FRP box	Consult
93359	Keyboard, QWERTY PS/2 connector	Consult
Manuals and Software		
69781	iRev™ scale software	Consult
72809	Interchange® database software	Consult
67887	Additional installation manual	Consult
67888	Additional programming reference	Consult

Primary Component Parts

Part #	Description	Price
Boards		
186272***	CPU board assembly for LED backlight, (blue color)	Consult
186273***	Display board, LED back light, transmissive	Consult
186274***	Display board, LED back light, transreflective	Consult
206696***	Display kit (186273) and retrofit cable (207045)	Consult
Power Supply		
67613	AC power supply, 25 watt for universal	Consult
71333	AC power supply, 65 watt for deep, panel and wall mount	Consult
132791	Power supply 12 to 24 VDC, 25 watt	Consult
Membrane		
66502	Switch panel membrane	Consult

***Design change in 2018 to LED backlight display.

CCFL backlight displays are no longer available.

The LED backlight display can be used with green CPU board Rev N or older by replacing the power supply cable, see Tech Bulletin PN 189640 for compatibility details. There is a generic retrofit PN 207045 for the existing power supply cable or a new power supply cable can be installed. Universal 186464 (AC) 186464 (DC); Deep universal 186278 (AC) 187603 (DC); Panel 186278 (AC) 187603 (DC); Wall 186760 (AC) 188345 (DC); Two-slot expansion for wall 188716 (AC) 189424 (DC); Two-slot expansion panel for deep universal 188717 (AC) 189425 (DC); Six-slot expansion for wall 188774 (AC).

Cables and Receptacles

To have your option factory installed, please specify when placing your order.

Part #	Connector Type		Length	Price
USB Cables <i>(Connector is a male plug)</i>				
79074	A UNSEALED	B UNSEALED	2 m	Consult
124700	A SEALED	B SEALED	3 m	Consult
126477	A SEALED	A UNSEALED	3 m	Consult
124701	A SEALED	B UNSEALED	3 m	Consult
124702	B SEALED	A UNSEALED	3 m	Consult
USB Receptacles <i>(Receptacle is a socket)</i>				
126476*	A SEALED	A UNSEALED	0.5 m	Consult
124703*	A SEALED	B UNSEALED	0.5 m	Consult
124704*	B SEALED	B UNSEALED	0.5 m	Consult
125998*	A SEALED	FIVE-PIN Internal to 920i	0.28 m	Consult
125999*	B SEALED	FIVE-PIN Internal to 920i	0.28 m	Consult
Ethernet Cables				
124706	RJ-45 SEALED	RJ-45 SEALED	3 m	Consult
124707	RJ-45 SEALED	RJ-45 UNSEALED	2 m	Consult
Ethernet Receptacles <i>(Receptacle is a socket)</i>				
176789*	RJ-45 SEALED		0.75 m	Consult
172734*	RJ-45 SEALED		0.5 m	Consult
126353*	RJ-45 SEALED		0.28 m	Consult
Cable and Receptacle Accessories				
124695	Panel plug 1.125 in diameter			Consult
124694	Cover for sealed receptacles			Consult
124689	Cover for flash driver mounts on sealed receptacle			Consult
195607	USB Flash Drive 8GB			Consult

*These options require a milled back plate

Unsealed Connectors

