

920i® Series

Programmable HMI Indicator/Controller



Standard Features

- LCD display, (W x H) 4.6 in x 3.4 in
- Selectable character sizes from 0.25 in to 1.2 in
- 60 configurable operator prompts
- Display up to four scale channels per screen with required Legal for Trade information
- 32 scale accumulators
- 5 softkeys with 10 user-defined, 14 preset functions per screen
- Ten programmable display screens
- Millivolt calibration, 5-point linearization and geographical calibration
- NEMA Type 4X/IP66 stainless steel enclosure
- Selectable A/D measurement rate up to 960/second
- 100 setpoints, 30 configurable setpoint types
- 2 slots for option cards
- 1,000-ID truck register for in/out weighing
- 64K user on-board NV RAM
- User programmable 128K flash memory
- Reflash memory to upgrade firmware
- Power for 16, 350 ohms load cells per A/D board
- Local-remote indicators
- Multi range/interval
- Alibi™ storage
- Audit trail tracking
- Peak hold
- Rate of change

Approvals



Measurement
Canada
Approved



USB Standard Features

- USB interface card on Port 2
- The USB card is supported on Rev L CPU boards or later
- The 920i for USB interface requires firmware version 5.0 or higher

Connector Types:

- Standard Type A: 920i connects to keyboard, ASCII font label ticket printers and flash drives
- Standard Type B: 920i connects to PC

USB Interface Functions:

- Supports weigh mode and configuration mode functions
- Supports upload of databases and .920 configuration file
- Supports download of databases, .920 configuration file, iRite, COD file and firmware file
- Sanity checks for command errors

Flash Drives:

- Supports USB 2.0
- Create sub directories by unit ID and database name
- Use the root directory for generic files

Optional Washdown Connectors page 500

- Sealed receptacle
- Connectors - cables
- USB cover - flash drive and receptacle

Specifications

Power:

Line voltages: 90-264 VAC; 9-36 VDC
Frequency: 50 or 60 Hz
Power consumption: 340 mA, maximum at 115 VAC (26W) 240 mA at 230 VAC (26W)

Excitation Voltage:

10 ± VDC, 16 x 350 Ω or 32 x 700 Ω 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 typical at 120 Hz
4.0 μV/graduation typical at 960 Hz

A/D Sample Rate:

7.5 to 960 Hz, software selectable

Resolution:

Internal resolution: 8 million counts
Weight display resolution: 9,999,999

System Linearity:

± 0.01% full scale

Digital I/O:

6 I/O channels on CPU board; optional 24-channel I/O expansion boards available

Circuit Protection:

RFI, EMI, ESD protection

Serial Ports:

4 ports on CPU board support up to 115,200 bps
Port 1: Full duplex RS-232
Port 2: RS-232 with CTS/RTS; PS/2 keyboard interface via DB-9 connector
Port 3: Full duplex RS-232, 20 mA output
Port 4: Full duplex RS-232, 2-wire RS-485, 20 mA output
Optional dual-channel serial expansion boards available
Channel A: RS-232, RS-485, 20 mA
Channel B: RS-232, 20 mA

Display:

(W x H) 4.6 in x 3.4 in (116 mm x 86 mm), 320 x 240 pixel VGA liquid crystal display (LCD) module with adjustable contrast. Transmissive display is standard. Transflective display is optional.

Keyboard:

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

Operating Temperature:

Legal: 14° F to 104° F (-10° C to +40° C)
Industrial: 14° F to 122° F (-10° C to +50° C)

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)

Rating/Material:

NEMA Type 4X/IP66, stainless steel

Warranty:

Two-year limited warranty

Approvals:

NTEP CC 01-088, Class III/IIIL 10,000d
Measurement Canada AM-5426, Class III/II HD 10,000d
OIML approved 6,000/10,000, UK 2658
CE Marked
UL-c-UL Listed (universal, deep and wall mount enclosure)
508A (optional) custom wall mount
UL Recognized panel mount

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INDICATORS / CONTROLLERS



920i Universal Part Number/Price

PART #	DESCRIPTION	USB	EST. SHIP 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 with Euro plug ††		10 lb	Consult
120074	230 VAC with Euro plug ††	USB	10 lb	Consult
107713*	9-36 VDC, 25 watt		10 lb	Consult
120080	9-36 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 with Euro plug††		10 lb	Consult
120096	230 VAC with Euro plug††	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

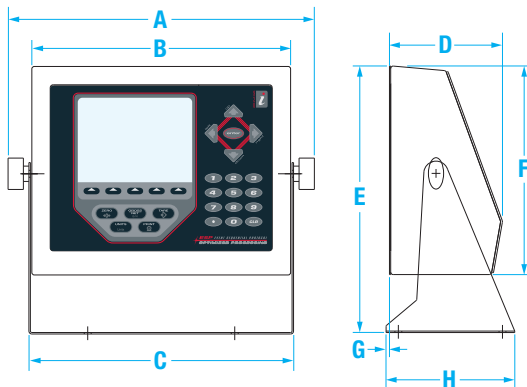
⊕ ⊕ †† CEE 7/7 plug ⊕ † NEMA 5-15 plug

920i Deep Universal Part Number/Price

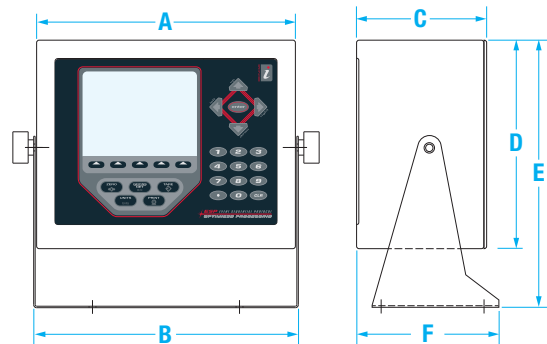
PART #	DESCRIPTION	USB	EST. SHIP WEIGHT	PRICE
Single Channel				
82455	115 VAC†		12 lb	Consult
115004	115 VAC†	USB	12 lb	Consult
82457	230 VAC†		12 lb	Consult
120064	230 VAC†	USB	12 lb	Consult
82459	230 VAC with Euro plug ††		12 lb	Consult
120075	230 VAC with Euro plug ††	USB	12 lb	Consult
107714*	9-36 VDC, 25 watt		12 lb	Consult
120081	9-36 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 with Euro plug††		12 lb	Consult
120097	230 VAC with Euro plug††	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

*DC/DC converter installed option, not UL approved

⊕ ⊕ †† CEE 7/7 plug ⊕ † NEMA 5-15 plug



920i UNIVERSAL DIMENSIONS			
A	12.50 in (318 mm)	D	4.61 in (117 mm)
B	10.56 in (268 mm)	E	10.87 in (276 mm)
C	10.80 in (203 mm)	F	8.51 in (216 mm)
		G	0.14 in (3,5 mm)
		H	5.25 in (206 mm)



920i UNIVERSAL DIMENSIONS			
A	10.75 in (318 mm)	C	5.36 in (216 mm)
B	11.00 in (268 mm)	D	8.5 in (3,5 mm)
		E	10.87 in (61 mm)
		F	5.88 in (7 mm) 4X

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RICE LAKE

920i® Series

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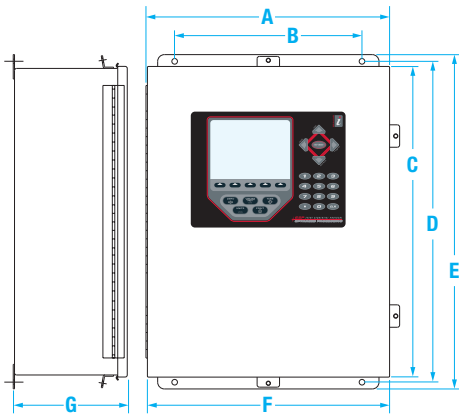


920i Wall Mount Part Number/Price

PART #	DESCRIPTION	USB	EST. SHIP 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 with Euro plug††		23 lb	Consult
120078	230 VAC with Euro plug††	USB	23 lb	Consult
107715*	9-36 VDC		23 lb	Consult
120082*	9-36 VDC	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 with Euro plug††		23 lb	Consult
120098	230 VAC with Euro plug††	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

*DC/DC converter installed option, not UL approved

†† CEE 7/7 plug † NEMA 5-15 plug



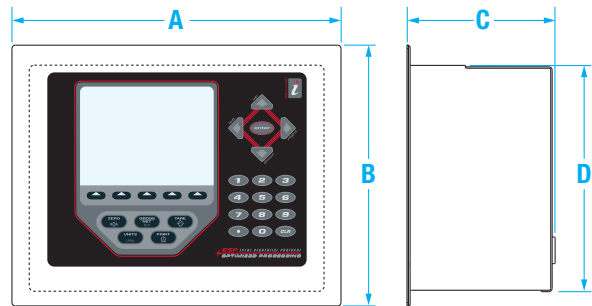
920i WALL MOUNT DIMENSIONS					
A	14.30 in (363 mm)	D	18.84 in (479 mm)	F	14.00 in (356 mm)
B	11.00 in (279 mm)	E	19.63 in (499 mm)	G	6.75 in (171 mm)
C	18.00 in (457 mm)				

920i Panel Mount Part Number/Price

PART #	DESCRIPTION	USB	EST. SHIP 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 with Euro plug††		9 lb	Consult
120079	230 VAC with Euro plug††	USB	9 lb	Consult
107716*	9-36 VDC		9 lb	Consult
120083*	9-36 VDC	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 with Euro plug††		9 lb	Consult
120099	230 VAC with Euro plug††	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

*DC/DC converter installed option, not UL approved

†† CEE 7/7 plug † NEMA 5-15 plug



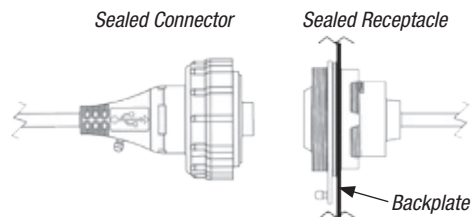
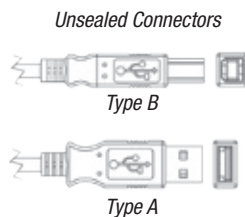
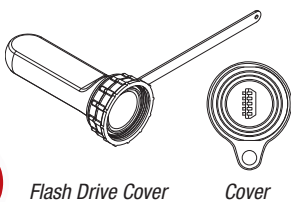
920i PANEL MOUNT DIMENSIONS			
A	11.56 in (294 mm)	C	5.20 in (132 mm)
B	9.16 in (233 mm)	D	7.95 in (202 mm)

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Options/Accessories

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 Base-T module (internal) page 536	Consult
98057	Ethernet TCP/IP, wireless LAN card 802.11 B/G page 536	Consult
87803	Ethernet IP™ (specifically for A-B PLC) page 536	Consult
68539	Allen-Bradley Remote I/O interface page 534	Consult
68540	Profibus™ DP interface page 534	Consult
68541	DeviceNet™ interface page 535	Consult
103136	ControlNet™ interface page 535	Consult
Expansion Cards		
69782	2-slot expansion board (wall mount)	Consult
71743	2-slot expansion board (panel mount & deep universal)	Consult
69783	6-slot expansion board (wall mount)	Consult
Hardware		
83569	Clear protective overlay (package of 5)	Consult
70056	Cable, DB9M to DB9F, Straight Cable	Consult
93359	Keyboard, QWERTY PS/2	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
Manuals and Software		
69781	iRev™ scale software	Consult
72809	920i interchange™ database software	Consult
67887	Additional installation manual	Consult
67888	Additional programming reference	Consult
Primary Component Parts		
117930	CPU board assembly	Consult
164371	Display board assembly transmission blue	Consult
164375	Display board assembly, transfective gray, sunlight viewable	Consult
67613	Power supply assembly, 25 watt	Consult
71333	Power supply, 65 watt used in deep, panel mount and wall enclosures	Consult
132791	DC/DC converter 9-36 nominal, 25 watt	Consult
66502	Switch panel membrane	Consult



Options/Accessories

PART #	DESCRIPTION	CONNECTOR TYPE		PRICE		
		Sealed	Unsealed			
USB Cable Options						
Note: Connector is a male plug						
		A	B			
79074	Unsealed connectors USB-A to USB-B, 2 m cable		X	X	Consult	
124700	Sealed connectors, USB-A to USB-B, 3 m IP68 cable	X	X		Consult	
126477	Sealed connector USB-A to unsealed connector USB-A, 3 m IP68 cable	X		X	Consult	
124701	Sealed connector USB-A to unsealed connector USB-B, 3 m IP68 cable	X			X	Consult
124702	Sealed connector USB-B to unsealed connector USB-A, 3 m IP68 cable		X	X	Consult	
124695	Panel plug 1.125 in diameter				Consult	
USB Receptacles						
Note: Receptacle is a socket						
		Sealed	Unsealed			
126476	Sealed receptacle USB-A for wall mount, 0.5 m cable	X		X	Consult	
124703	Sealed receptacle USB-A to unsealed connector USB-B, 0.5 m cable	X			X	Consult
124704	Sealed receptacle USB-B to unsealed connector USB-B, 0.5 m cable		X		X	Consult
125998*	Sealed receptacle USB-A to 5-Pin connector, 0.28 m cable (internal to 920i)	X			Consult	
125999*	Sealed receptacle USB-B to 5-Pin connector, 0.28 m cable (internal to 920i)	X			Consult	
124694	Cover for sealed receptacles				Consult	
124689	Cover for flash driver mounts on sealed receptacle				Consult	
125077	Rice Lake USB flash drive, 1 GB				Consult	
Ethernet Cables						
		Sealed	Unsealed			
124706	Sealed to sealed, 3 m cable	X			Consult	
124707	Sealed to unsealed connector, 3 m cable	X		X	Consult	
Ethernet Receptacles						
		Sealed	Unsealed			
126353*	RJ-45 receptacle sealed, 0.28 m internal to 920i (requires Ethernet TCP/IP option installed)	X			Consult	

*These options require a milled back plate which has two cutouts. If ordering only one receptacle, a plug (PN 124695) is required for the second cutout. USB enclosure parts with cutout: PN 119891 (Universal) PN 115118 (Universal Deep) PN 126585 (Wall Mount)

920i® Series

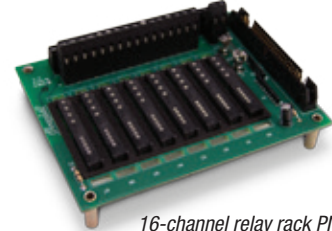
Programmable HMI Indicator/Controller

Grayhill Relays and Racks

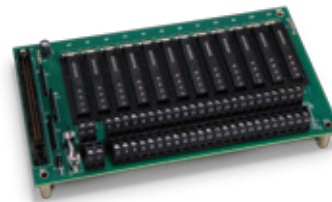
PART #	DESCRIPTION	PRICE
52332	2-channel input relay, 2.5-28VDC	Consult
52318	2-channel input relay, 120 VAC	Consult
52319	2-channel input relay, 240 VAC	Consult
52331	2-channel input relay, 10-32 VDC	Consult
52316	2-channel output relay, 120-140 VAC at 2 amp	Consult
52317	2-channel output relay, 240-280 VAC at 7 amp	Consult
71376	2-channel output relay, 3-60 VDC at 1 amp	Consult
71377	2-channel output relay, 0-200 VDC/VAC at 1.5A/10W (dry contact)	Consult
84698	2-channel output relay, inductive load, 120-140 VAC at 2A	Consult
84699	2-channel output relay, inductive load, 240-280 VAC at 2A	Consult
54215	Fuse, 3.15 amp, Grayhill	Consult
52312	8-channel relay rack, panel mount and wall mount, requires 50-Pin flat or round ribbon cable - 4 slots	Consult
52314	16-channel relay rack, panel mount and wall mount, requires 50-Pin flat or round ribbon cable - 8 slots	Consult
52315	24-channel relay rack, panel mount and wall mount, requires 50-Pin flat or round ribbon cable - 12 slots	Consult
46189	Jumper strap, 10 position for Grayhill	Consult
108396	Digital input 5 VDC, 15-30 VAC/10-32 VDC	Consult
108397	Digital output 5VDC, 3-60 VDC	Consult
70780	Cable, 50-Pin flat ribbon for digital I/O	Consult
70779	Cable, 50-Pin round ribbon for digital I/O with cord grip	Consult
72442	Cable, 50-Pin round ribbon for digital I/O without cord grip	Consult



8-channel relay rack PN 52312



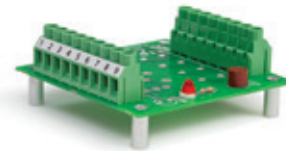
16-channel relay rack PN 52314



24-channel relay rack PN 52315

OPTO 22 Relays and Racks

PART #	DESCRIPTION	PRICE
15969	G4IDC5 10-32VDC input relay module, white (N/O)	Consult
15970	G40DC5R dry contact 100 VDC/1.5A output, red (N/O)	Consult
22848	G40DC5R5 dry contact 100 VDC/1.5A output, red (N/C)	Consult
15971	G40AC5 115 VAC output relay module, black (N/O)	Consult
15972	G4IAC5 115 VAC input relay module, yellow (N/O)	Consult
22847	G40AC5A5 115/230 VAC output relay module, black (N/C)	Consult
36632	G40AC5A 115/230 VAC output relay module, black (N/O)	Consult
36631	G4IAC5A 230 VAC input relay module, yellow (N/O)	Consult
16478	Quencharc arc suppressor	Consult
101923	FRP enclosure with Opto 4-channel rack	Consult
15973	4-channel relay rack, 3.25 x 3.25 in	Consult
45408	4-channel relay rack 6.1 x 1.2 in	Consult
99032	Adapter plate, for 4-channel Opto rack 33490	Consult
26834	Fuse, 1 amp, OPTO 22	Consult
21735	Fuse, 4 amp, OPTO 22	Consult



OPTO 22 G4 PN-15973



OPTO 22 G4 PN-45408