

# 920i<sup>®</sup> Programmable HMI Indicator/Controller



## STANDARD FEATURES

- Large (4.6 in W x 3.4 in H, 320 x 240 pixel) backlit LCD graphical display
- Selectable character sizes from .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
- Five soft keys with 10 user-defined, 14 preset functions per screen
- Ten programmable display screens
- Millivolt calibration, 5-point linearization and geographical calibration
- NEMA 4X/IP66 stainless steel enclosure
- Selectable A/D measurement rate up to 960/second
- 100 setpoints, 30 configurable setpoint types
- Two 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 $\Omega$  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



## SPECIFICATIONS

### Power:

Line voltages: 115 or 230 VAC  
 Frequency: 50 or 60 Hz  
 Power consumption: 340 mA, maximum @ 115 VAC (26 W)  
 240 mA @ 230 VAC (26 W)

### Excitation Voltage:

10  $\pm$  VDC, 16 x 350 $\Omega$  or 32 x 700 $\Omega$  load cells per A/D card

### Analog Signal Input Range:

-10 mV to +45 mV

### Analog Signal Sensitivity:

0.3  $\mu$ V/graduation minimum @ 7.5 Hz  
 1.0  $\mu$ V/graduation typical @ 120 Hz  
 4.0  $\mu$ V/graduation typical @ 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:

$\pm$  0.01% full scale

### Digital I/O:

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

### Circuit Protection:

RFI, EMI, ESD protection

### Serial Ports:

Four ports on CPU board support up to 115,200 bps; optional dual-channel serial expansion boards available  
 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

### Display (W x H):

4.6 in x 3.4 in (116 W x 86 mm H), 320 x 240 pixel VGA Liquid Crystal Display (LCD) module with adjustable contrast

### 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 4X/IP66, stainless steel

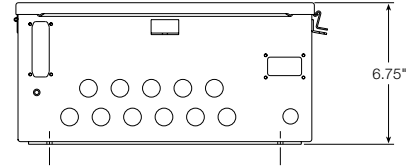
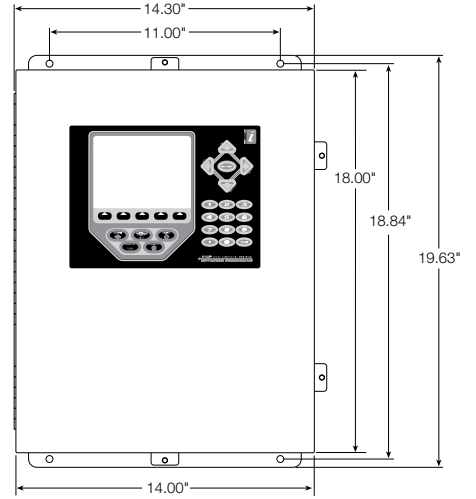
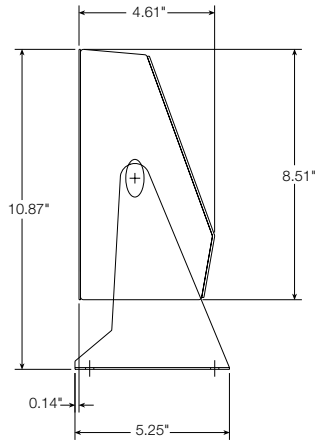
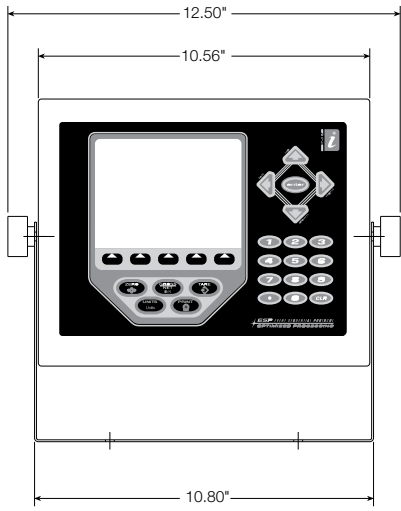
### Warranty:

Two-year limited warranty

### Approvals:

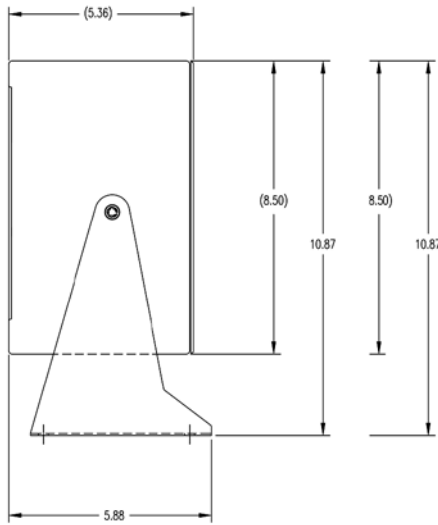
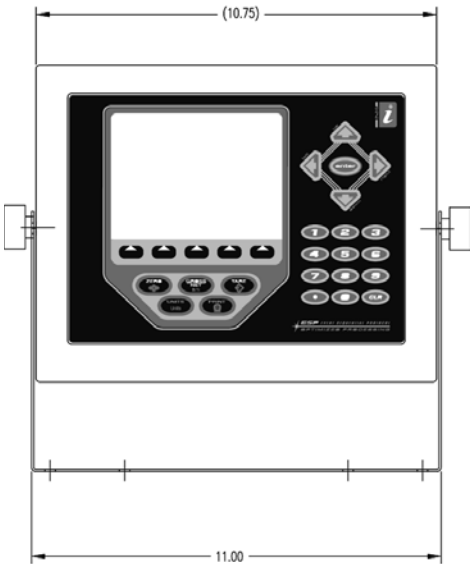
NTEP CC 01-088, Class III/IIIL 10,000d  
 Measurement Canada AM-5426, Class III/III HD 10,000d  
 OIML approved 6,000/10,000, UK 2658  
 CE marked  
 UL & C-UL listed (Universal, Deep and Wall Mount Enclosure)  
 Custom Wall Mount approved for 508A (Optional)  
 Panel Mount UL recognized

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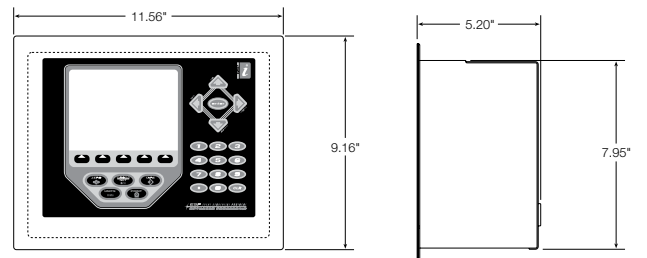


920i Universal

920i Wall Mount



920i Deep Enclosure



920i Panel Mount

## PART NUMBER/PRICE

PART #	DESCRIPTION	EST. SHIP WEIGHT	PRICE
<b>Single Channel - 115 VAC†</b>			
67527	920i Universal	10 lb	Consult
82455	920i Deep Universal	12 lb	Consult
69763	920i Wall Mount, stainless steel	2 lb	Consult
69764	920i Panel Mount, stainless steel bezel	9 lb	Consult
<b>Single Channel - 230 VAC†</b>			
67615	920i Universal	10 lb	Consult
82457	920i Deep Universal	12 lb	Consult
69765	920i Wall Mount	23 lb	Consult
69766	920i Panel Mount	9 lb	Consult
<b>Single Channel - 230 VAC with Euro plug ††</b>			
69522	920i Universal	10 lb	Consult
82459	920i Deep Universal	12 lb	Consult
72133	920i Wall Mount	23 lb	Consult
72137	920i Panel Mount	9 lb	Consult
<b>Single Channel - 9-36 VDC</b>			
107713	920i Universal, 25 watt	10 lb	Consult
107714	920i Deep Universal, 25 watt	12 lb	Consult
107715	920i Wall Mount, 25 watt	23 lb	Consult
107716	920i Panel Mount, 25 watt	9 lb	Consult
<b>Dual Channel - 115 VAC†</b>			
69767	920i Universal	10 lb	Consult
82456	920i Deep Universal	12 lb	Consult
69770	920i Wall Mount	23 lb	Consult
69771	920i Panel Mount	9 lb	Consult
<b>Dual Channel - 230 VAC†</b>			
69772	920i Universal	10 lb	Consult
82458	920i Deep Universal	12 lb	Consult
69776	920i Wall Mount	23 lb	Consult
69777	920i Panel Mount	9 lb	Consult
<b>Dual Channel - 230 VAC with Euro plug ††</b>			
69774	920i Universal	10 lb	Consult
82460	920i Deep Universal	12 lb	Consult
72134	920i Wall Mount	23 lb	Consult
72138	920i Panel Mount	9 lb	Consult
<b>No A-D Channel - 115 VAC†</b>			
77790	920i Universal, without A/D channel	10 lb	Consult
93243	920i Deep Universal, without A/D channel	12 lb	Consult
77794	920i Wall Mount, without A/D channel	23 lb	Consult
77792	920i Panel Mount, without A/D channel	9 lb	Consult
<b>No A-D Channel - 230 VAC††</b>			
77791	920i Universal, without A/D channel	10 lb	Consult
93244	920i Deep Universal, without A/D channel	12 lb	Consult
77795	920i Wall Mount, without A/D channel	23 lb	Consult
77793	920i Panel Mount, without A/D channel	9 lb	Consult



†† CEE 7/7 plug



† NEMA 5-15 plug

## OPTIONS/ACCESSORIES

PART #	DESCRIPTION	PRICE
<b>Option Cards</b>		
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 0-10V, 0-20 mA	Consult
103138	Analog output, dual channel 0-10V, 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 +/-10VDC, 0-20 mA and thermocouple	Consult
<b>Network Cards</b>		
65383	Ethernet Thin Server (external)	Consult
71986	Ethernet TCP/IP 10/100 Base-T module (internal)	Consult
98057	Ethernet TCP/IP, wireless LAN card 802.11 B/G	Consult
87803	Ethernet IP (specifically for A-B PLC)	Consult
68539	Allen-Bradley Remote I/O interface	Consult
68540	Profibus® DP interface	Consult
68541	DeviceNet™ interface	Consult
103136	ControlNet interface	Consult
<b>Expansion Cards</b>		
69782	Two-slot expansion board (wall mount)	Consult
71743	Two-slot expansion board (panel mount & deep universal)	Consult
69783	Six-slot expansion board (wall mount)	Consult
<b>Hardware</b>		
96925	Scanner, MS-3204, RS-232	Consult
81217	Sun shield	Consult
83569	Clear protective overlay (package of five)	Consult
70056	Cable, DB9M to DB9F, Straight Cable	Consult
93359	PS/2 Keyboard	Consult
77788	Fiber optic board, installed in 920i	Consult
92777	Filter, PreVent™ vent kit PG 7 cord grip	Consult
19368	Start/stop controls	Consult
100759	Sunlight viewable display, transfective installed option, replaces transmissive display	Consult
<b>Manuals and Software</b>		
69781	iRev™ Scale Software	Consult
72809	920i interchange® database software	Consult
67887	Additional installation manual	Consult
67888	Additional programming reference	Consult
<b>Primary Component Parts</b>		
117930	CPU board assembly	Consult
67614	Display board assembly Transmission Blue	Consult
100759	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
97474	DC/DC converter 9-36 nominal, 25 watt	Consult
66502	Switch panel membrane	Consult

## GRAYHILL RELAYS AND RACKS

PART #	DESCRIPTION	PRICE
52332	2-channel input relay, 2.5-28VDC	Consult
52318	2-channel input relay, 120VAC	Consult
52319	2-channel input relay, 240VAC	Consult
52331	2-channel input relay, 10-32VDC	Consult
52316	2-channel output relay, 120-140VAC @ 2 amp	Consult
52317	2-channel output relay, 240-280VAC @ 7 amp	Consult
71376	2-channel output relay, 3-60VDC @ 1 amp	Consult
71377	2-channel output relay, 0-200VDC/VAC @ 1.5A/10W (dry contact)	Consult
52331	2-channel input relay, 10-32 VDC	Consult
84698	2-channel output relay, inductive load, 120-140VAC @ 2A	Consult
84699	2-channel output relay, inductive load, 240-280VAC @ 2A	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
76644	8-channel relay rack, DIN rail mount, requires 50-pin flat or round ribbon cable - 4 slots	Consult
76645	16-channel relay rack, DIN rail mount, requires 50-pin flat or round ribbon cable - 8 slots	Consult
76646	24-channel relay rack, DIN rail mount requires 50-pin flat or round ribbon cable - 12 slots	Consult
46189	Jumper strap, 10 position for Grayhill	Consult
108396	Digital input 5VDC, 15-30 VAC/10-32VDC	Consult
108397	Digital output 5VDC, 3-60VDC	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

## OPTO 22 RELAYS AND RACKS

PART #	DESCRIPTION	PRICE
15969	G4IDC5 10-32VDC Input relay module, white (N/O)	Consult
15970	G40DC5R Dry contact 100VDC/1.5A output, red (N/O)	Consult
22848	G40DC5R5 Dry contact 100VDC/1.5A output, red (N/C)	Consult
15971	G40AC5 115 VAC Output relay module, black (N/O)	Consult
15972	G4IAC5 115VAC Input relay module, yellow (N/O)	Consult
22847	G40AC5A5 115/230VAC Output relay module, black (N/C)	Consult
36632	G40AC5A 115/230 VAC Output relay module, black (N/O)	Consult
36631	G4IAC5A 230VAC 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