

# 1280 Enterprise™ Series

Programmable Color Touchscreen Weight Indicator/Controller



## Standard Features

- Seven-inch, 800 x 480 pixel, graphical color display that adjusts for ambient light conditions
- Twelve-inch, 1280 x 800 pixel, graphical color display that adjusts for ambient light conditions
- Highly customizable graphical user interface
- Three different enclosure types: universal with tilt stand, panel mount and wall mount
- Resistive color touchscreen that can be used with gloves
- On-screen keyboard available during entry mode or use an external keyboard
- Multi-language operation and text entry
- Keypad for scale operations, numeric entry and navigation
- More than 150 built-in functions for programming
- Customize applications and data tables with iRite™ software
- Built-in web server for remote access, systems integration and data monitoring
- Up to eight scales supporting five scale types:
  - Analog load cell scales
  - Total scales
  - Serial scales
  - Program scales
  - iQUBE2 scales
- Multi-range/interval weighing functions
- Eight digital I/O for control and pulse count
- 100 setpoints, 18 configurable setpoint types
- 22 softkeys with 10 user-defined
- Two RS-232 and RS-485 serial ports
- USB, Ethernet TCP/IP, Wi-Fi Direct(r) and Bluetooth® ports

## Options

- Six option slots that support:
  - A/D scale channels
  - Analog Input/Thermocouple
  - Digital input and outputs
  - Analog outputs
  - Serial ports
  - Four channel dry-contact relay
  - Various protocol interfaces

## Approvals



Measurement  
Canada  
Approved



\* Touch-only units  
pending approvals

## Specifications

### Power:

AC voltages: 100-240VAC; 50-60 Hz  
DC voltages: 11-30VDC  
Consumption: 60W

### Excitation Voltage:

10 ± 0.5VDC  
16 x 350Ω or 32 x 700Ω load cells per A/D card

### Analog Signal Input Range:

-60 mV to 60 mV

### Analog Signal Sensitivity:

0.3 μV/graduation minimum at 7.5 Hz–120 Hz  
1.0 μV/graduation recommended

### A/D Sample Rate:

7.5 to 960 Hz, software selectable

### Resolution:

Internal: 8 million counts/8,000,000  
Display: 9,999,999

### System Linearity

± 0.01% full scale

### Digital I/O:

Eight I/O channels on CPU board; optional serial ports:  
24-channel I/O expansion boards available

### Communication Ports:

Port 1 & 2: Full duplex RS-232 with CTS/RTS, RS-422/485  
Baud Rate: 1200 to 115200  
Port 3: USB 2.0 Device (Micro)  
Port 4: Bluetooth® SPP 2.1+EDR, Standards 4Mbaud  
USB Host: (2) Type A Connectors max 500 mA  
Ethernet: Wired 10/100 Auto-MDX  
Ethernet: Wireless 802.11 b/g/n 2.4GHz

### Onboard:

Selectable filters: Three stage, Adaptive or Damping  
Embedded Linux® OS  
8 GB eMMC (system use)  
1 GB DDR3 RAM  
460 MB onboard database (SQLite) storage  
Up to 32 GB micro SD card (sold separately)

### Display:

Seven-inch, 800 x 480 pixel, graphical color TFT display 500 or 1,000 NIT  
Twelve-inch, 1280 x 800 pixel, graphical color TFT display 1,500 NIT

### Keys/Buttons:

22-key membrane panel, tactile buttons, on-screen keyboard for text and numeric entry, USB port for flash drive, keyboard and printer

### Temperature Range

Certified: 14°F to 104°F (-10°C to 40°C)  
Operating: -4°F to 131°F (-20°C to 55°C)

### Weight:

Universal enclosure: 11 lb (4.9 kg)  
Panel mount enclosure: 8 lb (3.6 kg)  
Wall mount enclosure: 23 lb (10.4 kg)  
Panel mount 7 in touch-only enclosure: 7 lb (3.1 kg)  
Panel mount 12 in touch-only enclosure: 10 lb (4.5 kg)

### Rating/Material:

IP66 stainless steel wall enclosure  
IP69K stainless steel universal and panel mount door

### Warranty:

Two-year limited warranty

### EMC Immunity:

EN 50082 Part 2 IEC EN 61000-4-2, 3, 4, 5, 6, 8, and 11

### Approvals:

NTEP CC 15-001/Class III/III.L 10,000d  
Measurement Canada AM-5980C,  
Class III/III.L 10,000d  
OIML R76/2006-NL1-16.04 Class III/III.L 10,000d  
EU Test Certificate TC8596  
UL/cUL Listed (universal)  
UL/cUL Recognized (panel mount)  
CE Marked

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7-inch model with keypad

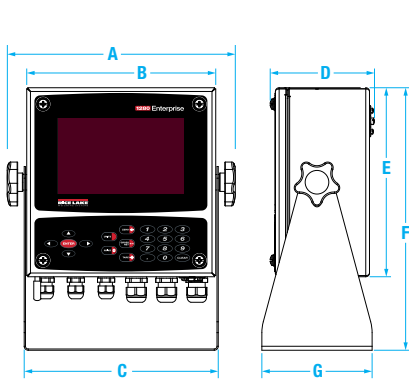


7-inch touch-only model

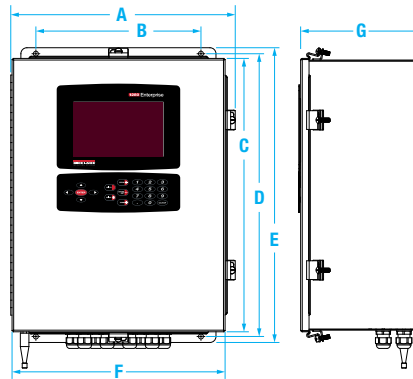


12-inch touch-only model

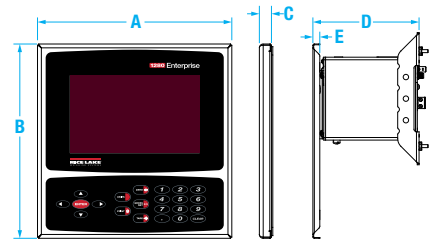
## Numeric Keypad Models:



1280-2



1280-3



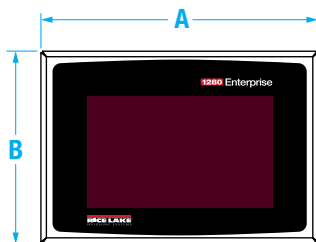
1280-4

Universal (1280-2) Dimensions	
A 10.86 in (276 mm)	B 6.22 in (158 mm)
C 9.24 in (235 mm)	D 4.97 in (126 mm)
E 9.00 in (229 mm)	F 12.50 in (318 mm)
G 5.25 in (133 mm)	

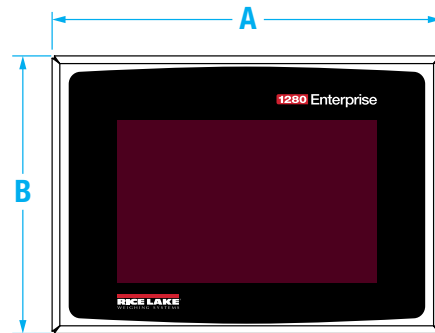
Wall Mount (1280-3) Dimensions	
A 14.92 in (379 mm)	B 11 in (279 mm)
C 18.22 in (463 mm)	D 18.84 in (479 mm)
E 19.64 in (499 mm)	F 14.20 in (361 mm)
G 8.08 in (205 mm)	

Panel Mount (1280-4) Dimensions	
A 9.00 in (229 mm)	B 9.00 in (229 mm)
C 0.58 in (15 mm)	D 5.34 in (136 mm)
E 0.32 in (8 mm)	

## Touch-only Models:



1280-5



1280-6

7-inch Touch-only (1280-5) Dimensions	
A 9.00 in (229 mm)	B 6.22 in (158 mm)
Bezel depth is 0.32 in (8 mm)	

12-inch Touch-only (1280-6) Dimensions	
A 14.00 in (356 mm)	B 10 in (254 mm)
Bezel depth is 0.32 in (8 mm)	

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## Generate a 1280 Enterprise Series Model Reference Code

This reference number can be used at time of ordering.

**ENCLOSURE TYPE**

- 1 Universal (1280-2)
- 2 Panel (1280-4)
- 3 Wall (1280-3)
- 4 Touch-only Panel 7 in (1280-5)
- 5 Touch-only Panel 12 in (1280-6)

**POWER TYPE**

- 1 AC
- 2 DC

**CORD TYPE**

- 1 NEMA 5-15 Universal
- None
- 3 CEE 7/7 Universal
- 4 NEMA 5-15 Wall
- 5 CEE 7/7 Wall

**DISPLAY TYPE**

- 1 500NIT  
7 in Universal
- 2 1000NIT  
7 in Universal
- 3 500NIT  
7 in Panel/Wall
- 4 1000NIT  
7 in Panel/Wall
- 5 1500NIT  
12 in Panel

**OPTION CARDS ALL SLOTS MUST BE FILLED**

<p>A Blank <i>If no option, controller will need 6 blanks</i></p> <p>B Single A/D Scale</p> <p>C Dual A/D Scale</p> <p>D 24 Channel Digital I/O</p> <p>E Dual Serial Channel</p> <p>F 4-dry Contact Relay</p> <p>G Single Analog Out</p> <p>H Dual Analog Out</p>	<p>I Analog Input</p> <p>J EtherNet/IP</p> <p>K DeviceNet</p> <p>L ProfiNet</p> <p>M Modbus TCP</p> <p>N Profibus DP</p> <p>O EtherCat</p> <p>P PowerLink</p>
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### Part Number

Part #	Reference #	Description	Power	Display	Option Installed	Price
<b>Universal Enclosure with 500 NIT Display (1280-2)</b>						
171427†	1111BAAAAA	1280 Universal	115VAC	500 NIT	Single Scale Card	Consult
171441††	1131BAAAAA	1280 Universal	100-240 VAC	500 NIT	Single Scale Card	Consult
171662†	1111CAAAAA	1280 Universal	115VAC	500 NIT	Dual Scale Card	Consult
172188††	1131CAAAAA	1280 Universal	100-240 VAC	500 NIT	Dual Scale Card	Consult
<b>Panel Mount Enclosure with 500 NIT Display (1280-4)</b>						
171663	21-3BAAAAA	1280 Panel Mount	100-240 VAC	500 NIT	Single Scale Card	Consult
172186	21-3CAAAAA	1280 Panel Mount	100-240 VAC	500 NIT	Dual Scale Card	Consult
<b>Wall Mount Enclosure with 500 NIT Display (1280-3)</b>						
173673†	3143BAAAAA	1280 Wall Mount	115VAC	500 NIT	Single Scale Card	Consult
174143††	3153BAAAAA	1280 Wall Mount	100-240 VAC	500 NIT	Single Scale Card	Consult
174144†	3143CAAAAA	1280 Wall Mount	115VAC	500 NIT	Dual Scale Card	Consult
174145††	3153CAAAAA	1280 Wall Mount	100-240 VAC	500 NIT	Dual Scale Card	Consult
<b>Wall Mount Enclosure with 1000 NIT Display (1280-3)</b>						
172184†	3144BAAAAA	1280 Wall Mount	115VAC	1,000 NIT	Single Scale Card	Consult
172185††	3154BAAAAA	1280 Wall Mount	100-240 VAC	1,000 NIT	Single Scale Card	Consult
173806†	3144CAAAAA	1280 Wall Mount	115VAC	1,000 NIT	Dual Scale Card	Consult
172187††	3154CAAAAA	1280 Wall Mount	100-240 VAC	1,000 NIT	Dual Scale Card	Consult
<b>Touch-only 7 inch with 500 NIT Display (1280-5)</b>						
186618	41-3BAAAAA	1280 Touch-only 7 in	100-240 VAC	500 NIT	Single Scale Card	Consult
<b>Touch-only 12 inch with 1500 NIT Display (1280-6)</b>						
186465	51-5BAAAAA	1280 Touch-only 12 in	100-240 VAC	1,500 NIT	Single Scale Card	Consult

† NEMA 5-15 plug    †† CEE 7/7 plug (Euro)

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## Single A/D Scale



**Excitation Voltage:**  
10 VDC bi-polar, 4 or 6 wire sensing  
16 x 350 ohms per channel  
**Analog Input Signal:**  
-10 to +40 mV

Part #	Description	Price
164085	Single scale A/D	Consult
166957	A/D sealing kit	Consult

## Dual A/D Scale



**Excitation Voltage:**  
10 VDC bi-polar, 4 or 6 wire sensing  
8 x 350 ohms per channel  
**Analog Input Signal:**  
-10 to +40 mV

Part #	Description	Price
164683	Dual scale A/D	Consult
166957	A/D sealing kit	Consult

## Digital I/O



24 channels, configurable as inputs or outputs  
Inputs: 5 VDC max, active low; Outputs: 20 mA max per channel, active low; 5 VDC source available: 500 mA max

Part #	Description	Price
164684	Digital I/O	Consult

*For 24 I/O ribbon cable required.*

## Dual Serial Channel



Two-channel, full duplex RS-232 with CTS/RTS, RS-485 or RS-422, 1200-115200 baud

Part #	Description	Price
164685	Dual serial channel	Consult

## Single Analog Out



16 bit, voltage output 0-10 VDC, current output 0-20mA, 4-20mA

Part #	Description	Price
165366	Single analog out	Consult

## Dual Analog Out



16 bit, voltage output 0-10 VDC, current output 0-20mA, 4-20mA

Part #	Description	Price
164686	Dual analog out	Consult

## Relay Card



Relay four-dry contact, max current 3A @ 30 VDC, 3A @250VAC

Part #	Description	Price
164689	Relay card	Consult

## Analog Input



**Analog Input Signal:**  
±10VDC, ±100mV, 0-20 mA

Part #	Description	Price
164687	Dual analog input	Consult

## Data Exchange with PLC/DCS Systems

### EtherNet/IP



Part #	Description	Price
165792	EtherNet/IP	Consult

### DeviceNet



Part #	Description	Price
165793	DeviceNet	Consult

### Profinet



Part #	Description	Price
165794	Profinet	Consult

### Modbus TCP



Part #	Description	Price
165796	Modbus TCP	Consult

### Profibus DP



Part #	Description	Price
165795	Profibus DP	Consult

### EtherCAT



Part #	Description	Price
179533	EtherCAT	Consult

### PowerLink



Part #	Description	Price
182319	PowerLink	Consult

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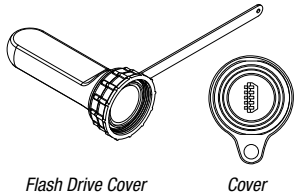
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## Grayhill Relays and Racks

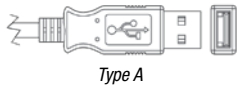
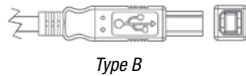
Part #	Description	Price
52332	Two-channel input relay, 2.5-28VDC	Consult
52318	Two-channel input relay, 120VAC	Consult
52319	Two-channel input relay, 240VAC	Consult
52331	Two-channel input relay, 10-32VDC	Consult
52316	Two-channel output relay, 120-140VAC at 2 amp	Consult
52317	Two-channel output relay, 240-280VAC at 7 amp	Consult
71376	Two-channel output relay, 3-60VDC at 1 amp	Consult
71377	Two-channel output relay, 0-200VDC/VAC at 1.5A/10W (dry contact)	Consult
84698	Two-channel output relay, inductive load, 120-140VAC at 2A	Consult
84699	Two-channel output relay, inductive load, 240-280VAC at 2A	Consult
52312	Eight-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
170008	Cable, 60-pin flat ribbon with 50-pin adapter, 24 in length	Consult
170009	Cable, 60-pin round with 50-pin adapter, 60 in length	Consult
170736	Cable, 60-pin round with cord grip and 50-pin adapter, 60 in length	Consult

## Options

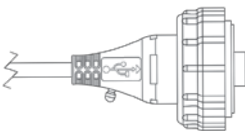
Part #	Description	Price
<b>Manuals and Software</b>		
77925	Revolution scale software	Consult
166046	Manual, Operation	Consult
167659	Manual, Technical	Consult
167660	CD, 1280 Documents	Consult
164939	8 GB Micro SD card with SD and USB adapter	Consult
173046	USB flash drive, 1 GB	Consult



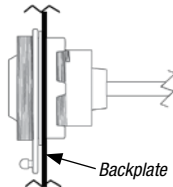
Unsealed Connectors



Sealed Connector



Sealed Receptacle



## Options

Part #	Description	Price
<b>Primary Component Parts</b>		
163400	7 in 500 NIT display	Consult
163399	7 in 1,000 NIT display	Consult
182992	12 in 1,500 NIT display	Consult
179992	CPU board assembly includes face plate and fan plate	Consult
160758	Back Plane board	Consult
162693	AC power supply board	Consult
162694	DC power supply board	Consult
164121	Overlay, keypad, for panel & wall mount	Consult
164120	Overlay, touchscreen, for panel & wall mount	Consult
161731	Overlay, keypad, for universal	Consult
161730	Overlay, touchscreen, for universal	Consult
178498	Overlay, touchscreen, for 7 in touch-only panel mount	Consult
176126	Overlay, touchscreen, for 12 in touch-only panel mount	Consult
178161	Clear protective overlay display (pack of 5)	Consult
178163	Clear protective overlay keypad (pack of 5)	Consult

## Options/Accessories

Part #	Description	Connector Type				Price
		Sealed		Unsealed		
USB Cables (Note: Cables have a plug)						
		A	B	A	B	
152434	Unsealed connectors USB-A to USB micro A, 2 m cable			X		Consult
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
<b>USB Receptacles (Note: Receptacles have a socket)</b>						
176790	Sealed receptacle USB-A for panel mount, 0.75 m cable	X		X		Consult
126476	Sealed receptacle USB-A for wall mount, 0.5 m cable	X		X		Consult
172735	Sealed receptacle USB-A for universal, 0.25 m cable	X		X		Consult
124694	Cover for sealed receptacles					Consult
124689	Cover for flash driver mounts on sealed receptacle					Consult
<b>Ethernet Cables</b>						
		Sealed		Unsealed		
72697	Unsealed Ethernet, RJ45 to RJ45, 2 m cable			X		Consult
124706	Sealed to sealed Ethernet 3 m cable	X				Consult
124707	Sealed to unsealed Ethernet 3 m cable	X		X		Consult
<b>Ethernet Receptacles</b>						
		Sealed		Unsealed		
176789	Sealed receptacle Ethernet RJ-45, 0.75 m cable	X				Consult
172734	Sealed receptacle Ethernet RJ-45, 0.5 m cable	X				Consult
126353	Sealed receptacle Ethernet RJ-45, 0.25 m cable	X				Consult