

# 1280 Enterprise™ Series

Programmable Digital Weight Indicator



## Specifications

### Power:

AC voltages: 100 to 240 VAC; 50/60 Hz  
DC voltages: 11 to 30 VDC

### Power Consumption:

60 W

### Excitation Voltage:

10 VDC ( $\pm 5$  VDC)  
16  $\times$  350 ohm or 32  $\times$  700 ohm load cells per A/D card

### Analog Signal Input Range:

-60 mV to 60 mV

### Analog Signal Sensitivity:

0.3  $\mu$ V/graduation minimum at 7.5 Hz to 120 Hz  
1.0  $\mu$ V/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

$\pm 0.01\%$  full scale

### Digital I/O:

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

### 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)  
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  $\times$  480 pixel, 500 or 1,000 NIT  
Twelve-inch, 1280  $\times$  800 pixel, 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:

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

### Rating/Material:

Universal: IP69K  
Wall Mount: IP66  
Panel Mount: IP69K, NEMA Type 4X and 12  
Stainless steel 304 enclosure

### 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: 7 lb (3.1 kg)  
Panel mount 12 in touch-only: 10 lb (4.5 kg)

### Warranty:

Two-year limited

### EMC Immunity:

10 V/m

### Approvals:

NTEP 15-001/Class III/IIIL 10,000 d  
Measurement Canada AM-5980C,  
Class III/III HD 10,000 d  
OIML R76/2006-A-NL1-19.23 Class III/III 10,000 d  
OIML R61-1/2017 TC8596  
cULus Listed (Universal, Wall Mount)  
cULus Recognized (Panel Mount)  
CE Marked

## Approvals



## Standard Features

- Customizable color touchscreen with graphical user interface
- User-defined softkeys, icons and graphics
- Tactile keypad for scale operations, numeric entry and navigation
- On-screen keyboard available during entry mode (or external keyboard)
- Built-in web server for remote access, systems integration and data monitoring
- Multi-language operation and text entry
- Supports eight scales within five different kinds:
  - Analog load cell, multi-range/interval weighing
  - Total scale summing
  - Serial input scales
  - iQUBE<sup>3</sup> and iQUBE<sup>2</sup> scales
  - Program scales
- Six smart card slots for additional scale channels, serial ports, digital inputs and outputs, analog outputs and protocol interfaces
- iRite™ Programming Software
  - Five built-in applications: Truck In/Out, recipe storage, filling/dosing, counting, checkweighing
  - Customizable user programs with event-based functions
  - 150 built-in functions for common processes and data tables
  - Customize and transfer data via email, FTP server and networked printers
  - Display data with line charts or bar graphs
  - iRite reporting of iQUBE alerts
- Email, USB, Ethernet TCP/IP, Wi-Fi Direct®, two serial ports RS-232 or RS-485
- Alibi memory captures serial port transmissions
- Four configurable data-stream formats for PC, printers and remote displays
- 100 setpoints, 18 configurable setpoint types
- Eight digital I/O for control and pulse count
- Three different enclosure types: universal with tilt stand, panel mount and wall mount

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7-inch model with keypad



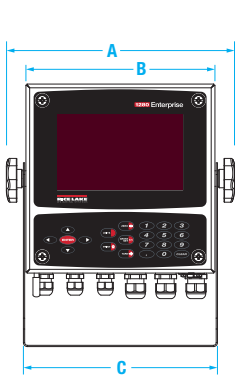
7-inch touch-only model



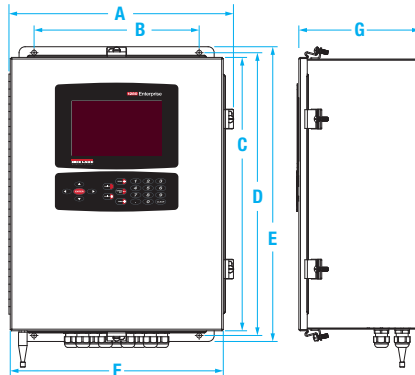
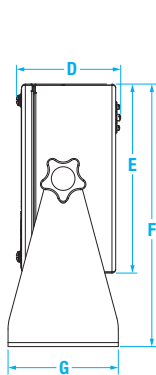
12-inch touch-only model

INDICATORS /  
CONTROLLERS

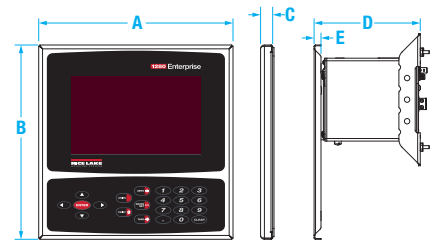
## Numeric Keypad Models:



1280-2



1280-3



1280-4

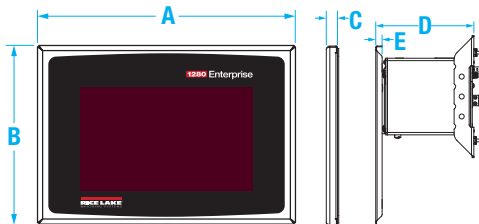
## Dimensions

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

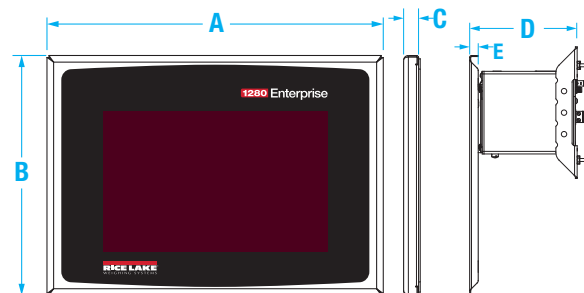
Wall Mount (1280-3)			
A	14.92 in (379 mm)	E	19.64 in (499 mm)
B	11.00 in (279 mm)	F	14.20 in (361 mm)
C	18.22 in (463 mm)	G	8.08 in (205 mm)
D	18.84 in (479 mm)		

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

## Touch-only Models:



1280-5



1280-6

## Dimensions

7-inch Touch-only (1280-5)			
A	9.00 in (229 mm)	D	5.34 in (136 mm)
B	6.22 in (158 mm)	E	0.32 in (8 mm)
C	0.58 in (15 mm)		

12-inch Touch-only (1280-6)			
A	14.00 in (356 mm)	D	5.34 in (136 mm)
B	10.00 in (254 mm)	E	0.32 in (8 mm)
C	0.58 in (15 mm)		

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## Part Number/Price

Part #	Description	Power	Display	Option Installed	Price
<b>Universal Enclosure with 500 NIT Display (1280-2)</b>					
171427 †	1280 Universal	115 VAC	500 NIT	Single Scale Card	Consult
171441 ††	1280 Universal	100 to 240 VAC	500 NIT	Single Scale Card	Consult
171662 †	1280 Universal	115 VAC	500 NIT	Dual Scale Card	Consult
172188 ††	1280 Universal	100 to 240 VAC	500 NIT	Dual Scale Card	Consult
<b>Panel Mount Enclosure with 500 NIT Display (1280-4)</b>					
171663	1280 Panel Mount	100 to 240 VAC	500 NIT	Single Scale Card	Consult
172186	1280 Panel Mount	100 to 240 VAC	500 NIT	Dual Scale Card	Consult
<b>Wall Mount Enclosure with 500 NIT Display (1280-3)</b>					
173673 †	1280 Wall Mount	115 VAC	500 NIT	Single Scale Card	Consult
174143 ††	1280 Wall Mount	100 to 240 VAC	500 NIT	Single Scale Card	Consult
174144 †	1280 Wall Mount	115 VAC	500 NIT	Dual Scale Card	Consult
174145 ††	1280 Wall Mount	100 to 240 VAC	500 NIT	Dual Scale Card	Consult
<b>Wall Mount Enclosure with 1000 NIT Display (1280-3)</b>					
172184 †	1280 Wall Mount	115 VAC	1,000 NIT	Single Scale Card	Consult
172185 ††	1280 Wall Mount	100 to 240 VAC	1,000 NIT	Single Scale Card	Consult
206563 †	1280 Wall Mount	115 VAC	1,000 NIT	Dual Scale Card	Consult
172187 ††	1280 Wall Mount	100 to 240 VAC	1,000 NIT	Dual Scale Card	Consult
<b>Touch-only 7 inch with 500 NIT Display (1280-5)</b>					
186618	1280 Touch-only 7 in	100 to 240 VAC	500 NIT	Single Scale Card	Consult
<b>Touch-only 12 inch with 1500 NIT Display (1280-6)</b>					
186465	1280 Touch-only 12 in	100 to 240 VAC	1,500 NIT	Single Scale Card	Consult



† US plug (NA) - Type B



†† Euro Plug - Type E



(Brazil) - Type N



††† BS1363 (UK) - Type G



†††† AS 3112 (Australian) - Type I

INDICATORS / CONTROLLERS

## Model Reference Chart

Choose any options to best fit your application and we customize

ENCLOSURE TYPE	POWER TYPE	DISPLAY TYPE	CORD TYPE	OPTION CARDS <small>ALL SLOTS MUST BE FILLED</small>
<ol style="list-style-type: none"> <li>1 Universal (1280-2)</li> <li>2 Panel (1280-4)</li> <li>3 Wall (1280-3)</li> <li>4 Touch-only Panel 7 in (1280-5)</li> <li>5 Touch-only Panel 12 in (1280-6)</li> </ol>	<ol style="list-style-type: none"> <li>1 AC</li> <li>2 DC</li> </ol>	<ol style="list-style-type: none"> <li>1 500 NIT 7 in Universal</li> <li>2 1000 NIT 7 in Universal</li> <li>3 500 NIT 7 in Panel/Wall</li> <li>4 1000 NIT 7 in Panel/Wall</li> <li>5 1500 NIT 12 in Panel</li> </ol>	<ol style="list-style-type: none"> <li>1 US Plug Universal</li> <li>2 Brazil Plug Universal</li> <li>3 Euro Plug Universal</li> <li>4 US Plug Wall</li> <li>5 Euro Plug Wall</li> <li>6 Brazil Plug Wall</li> <li>7 UK Plug Universal</li> <li>8 AU/NZ Plug Universal</li> <li>9 UK Plug Wall</li> <li>10 AU/NZ Plug Wall</li> </ol>	<ol style="list-style-type: none"> <li>A Blank <small>If no option, controller will need 6 blanks</small></li> <li>B Single A/D Scale</li> <li>C Dual A/D Scale</li> <li>D 24 Channel Digital I/O</li> <li>E Dual Serial Channel</li> <li>F 4-dry Contact Relay</li> <li>G Single Analog Out</li> <li>H Dual Analog Out</li> <li>I Analog Out</li> <li>J EtherNet/IP™</li> <li>K DeviceNet®</li> <li>L PROFINET</li> <li>M Modbus TCP</li> <li>N PROFIBUS® DP</li> <li>O EtherCat®</li> <li>P PowerLink</li> </ol>

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INDICATORS /  
CONTROLLERS

## Single A/D Scale



**Excitation Voltage:**  
10 VDC bipolar, 4 or 6 wire sensing  
16 × 350 ohms per channel

**Analog Input Signal:**  
-10 to +40 mV

Part #	Description	Price
220026	Single scale A/D	Consult
166957	A/D sealing kit	Consult

## Dual A/D Scale



**Excitation Voltage:**  
10 VDC bipolar, 4 or 6 wire sensing  
8 × 350 ohms per channel

**Analog Input Signal:**  
-10 to +40 mV

Part #	Description	Price
220027	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
170008	DIO adapter, includes 60 pin flat ribbon cable, 24 in	Consult
170009	DIO adapter, includes 60 pin round cable, 60 in	Consult
170736	DIO adapter, includes 60 pin cable and cord grip, 60 in	Consult

\* 24 I/O ribbon cable required.

## Dual Serial Channel



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

Part #	Description	Price
164685	Dual serial channel	Consult

## Single Analog Out



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

Part #	Description	Price
165366	Single analog out	Consult

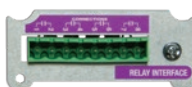
## Dual Analog Out



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

Part #	Description	Price
164686	Dual analog out	Consult

## Relay Card



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

Part #	Description	Price
164689	Relay card	Consult

## Analog Input



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

Part #	Description	Price
164687	Dual analog input	Consult

## Data Exchange with PLC/DCS Systems

### EtherNet/IP™



Part #	Description	Price
165792	EtherNet/IP, single port	Consult
208129	EtherNet/IP, dual port	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

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## Options/Accessories

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

Part #	Description	Price
<b>Manuals and Software</b>		
167659	Technical Manual	Consult
72809	Interchange database software	Consult
164939	8 GB Micro SD card with SD and USB adapter	Consult
195607	USB flash drive, 1 GB	Consult
<b>Extended Display Cable Length for Touch Only Models</b>		
182600	Display cable for 7 in (500 NIT) touch-only, 5 ft length	Consult
182601	Display cable for 7 in (500 NIT) touch-only, 10 ft length	Consult
187489	Display cable for 7 in (1,000 NIT) touch-only, 10 ft length	Consult
180027	Display cable for 12 in touch-only, 5 ft length	Consult
180028	Display cable for 12 in touch-only, 10 ft length	Consult
<b>Extended Touch Cable Length for Touch Only Models</b>		
180744	Touch cable for touch-only, 5 ft length	Consult
180745	Touch cable for touch-only, 10 ft length	Consult

## Primary Component Parts

Part #	Description	Price
<b>Displays</b>		
163400	7 in 500 NIT display	Consult
163399	7 in 1,000 NIT display	Consult
182992	12 in 1,500 NIT display	Consult
<b>Boards</b>		
179992	1280 main CPU board with fan plate	Consult
199157	1280, CPU AC power, extruded aluminum enclosure (replacement)	Consult
<b>Power Supplies</b>		
202512	AC power supply board	Consult
202514	DC power supply board	Consult
<b>Overlays</b>		
164121	Keypad, for panel and wall mount	Consult
164120	Touchscreen, for panel and wall mount	Consult
161731	Keypad, for universal	Consult
161730	Touchscreen, for universal	Consult
178498	Touchscreen, for 7 in touch-only panel mount	Consult
176126	Touchscreen, for 12 in touch-only panel mount	Consult
178161	Clear protective overlay display for 7 in display (pack of 5)	Consult
178163	Clear protective overlay keypad for 7 in display (pack of 5)	Consult

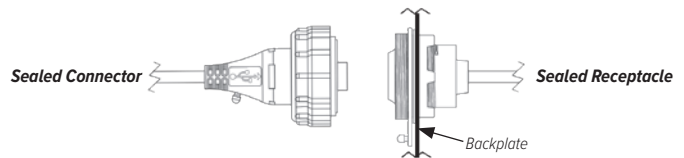
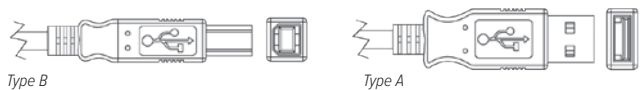
## Cables and Receptacles

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

Part #	Connector Type	Length	Price
<b>USB Cables (Connector is a male plug)</b>			
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
152434	A UNSEALED Micro A UNSEALED	2 m	Consult
<b>USB Receptacles (Receptacle is a socket)</b>			
176790 Panel Mount	A SEALED A UNSEALED	0.75 m	Consult
126476 Wall Mount	A SEALED A UNSEALED	0.5 m	Consult
172735 Universal	A SEALED A UNSEALED	0.25 m	Consult
<b>Ethernet Cables</b>			
72697	RJ-45 UNSEALED RJ-45 UNSEALED	2 m	Consult
124706	RJ-45 SEALED RJ-45 SEALED	3 m	Consult
124707	RJ-45 SEALED RJ-45 UNSEALED	2 m	Consult
<b>Ethernet Receptacles (Receptacle is a socket)</b>			
176789	RJ-45 SEALED	0.75 m	Consult
172734	RJ-45 SEALED	0.5 m	Consult
126353	RJ-45 SEALED	0.25 m	Consult
<b>Cable and Receptacle Accessories</b>			
124694	Cover for sealed receptacles		Consult
124689	Cover for flash driver mounts on sealed receptacle		Consult

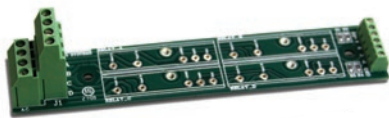
INDICATORS / CONTROLLERS

### Unsealed Connectors



# Relays and Racks

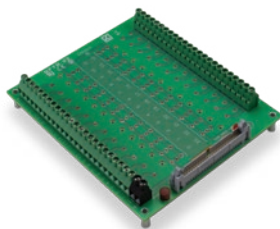
Input/Output Components



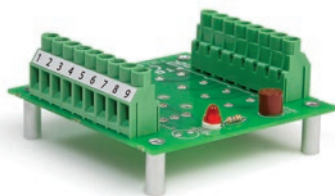
PN 45408  
(6.10 × 1.20in)



PN 33206  
(10.00 × 3.25 × 2.32in)



PN 33205  
(7.50 × 6.25 × 2.32in)

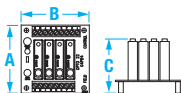


PN 15973  
(3.25 × 3.25 × 2.32in)

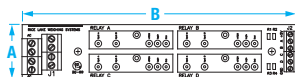
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## Relay Racks

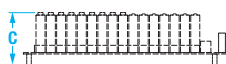
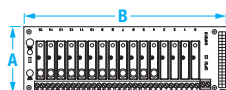
OPTO 22 4-Channel			
15973	Four-channel relay rack	Consult	
Dimensions			
A	3.25 in (83 mm)	B	3.25 in (83 mm)
		C	2.32 in (59 mm)



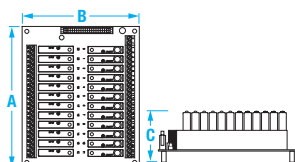
OPTO 22 4-Channel			
45408	Four-channel relay rack (non UL)	Consult	
Dimensions			
A	1.20 in (30 mm)	B	6.11 in (155 mm)
		C	2.32 in (59 mm)



OPTO 22 16-Channel			
33206	16-channel relay rack, ribbon cable connection	Consult	
Dimensions			
A	3.25 in (83 mm)	B	10.0 in (254 mm)
		C	2.32 in (59 mm)



OPTO 22 24-Channel			
33205	24-channel relay rack, ribbon cable connection	Consult	
Dimensions			
A	7.50 in (83 mm)	B	6.25 in (83 mm)
		C	2.32 in (59 mm)



## Part Number/Price

Part #	Description	Price
Input/Output Component		
43942	Allen-Bradley® multi-function relay with digital display	Consult
29616	Dayton multi-function relay	Consult
Other Relays		
15952	Eight-pin octal relay, AC/DC output, 10 A, 120 VAC coil	Consult
15960	Eight-pin octal relay, AC/DC output, 10 A, 6 VDC coil	Consult
15961	Eight-pin octal socket	Consult
70780	Cable, 50-pin flat ribbon for digital I/O, 24 in	Consult
70779	Cable, 50-pin round ribbon for digital I/O with cord grip, 60 in	Consult
72442	Cable, 50-pin round ribbon for digital I/O without cord grip, 60 in	Consult
93577	Cable, 50-pin flat ribbon for digital I/O, 31 in	Consult
94384	Cable, 50-pin flat ribbon for digital I/O, 50 in	Consult

## Relays

Part #	Voltage	Description	Price
OPTO 22 1-Channel Input Relay			
15972	90 to 140 VAC	G4IAC5-L (N/O), yellow	Consult
36631	180 to 280 VAC/VDC	G4IAC5A (N/O), yellow	Consult
15969	10 to 32 VDC	G4IDC5 (N/O), white	Consult
OPTO 22 2-Channel Output Relay			
15971	115 VAC	G4OAC5 (N/O), black	Consult
22847	115/230 VAC	G4OAC5A5 (N/C), black	Consult
36632	115/230 VAC	G4OAC5A (N/O), black	Consult
15970	100 VDC	G4ODC5R, (N/O) dry contact, red	Consult
121345	60 VDC	G4ODC5, (N/O), red	Consult
22848	100 VDC	G4ODC5R5, (N/C) dry contact, red	Consult
Relay Boards Fixed Dry Contact Relay			
30549	2-channel 120 to 240 VAC or 30 VDC/5 A		Consult
15959	4-channel 120 to 240 VAC or 30 VDC/5 A		Consult
29615	Board, relay mounting 1-channel (requires DIN rail for mounting (non UL)		Consult
33207	Board, relay mounting 8-channel		Consult

## Miscellaneous Parts

Part #	Description	Price
Cables for Digital I/O		
70780	50-pin flat ribbon, 24 in	Consult
93577	50-pin flat ribbon, 31 in	Consult
94384	50-pin flat ribbon, 50 in	Consult
70779	50-pin round ribbon with cord grip, 60 in	Consult
72442	50-pin round ribbon without cord grip, 60 in	Consult
170008	60-pin flat ribbon with 50-pin adapter, 24 in	Consult
170009	60-pin round with 50-pin adapter, 60 in	Consult
170736	60-pin round with 50-pin adapter and cord grip, 60 in	Consult
Opto 22 Misc.		
26834	Fuse, 1A 250V (for PN 15970 and PN 22848)	Consult
21735	Fuse, 4A 250V (for PN 15971, PN 22847 and PN 36632)	Consult
16478	Quencharc® arc suppressor	Consult
101923	FRP enclosure with Opto four-channel rack	Consult
99032	Adapter plate, for four-channel Opto rack 33490	Consult
155253	Board assembly, DWM IV, eight-channel, Opto 22 G4 series compatible, (non UL)	Consult