

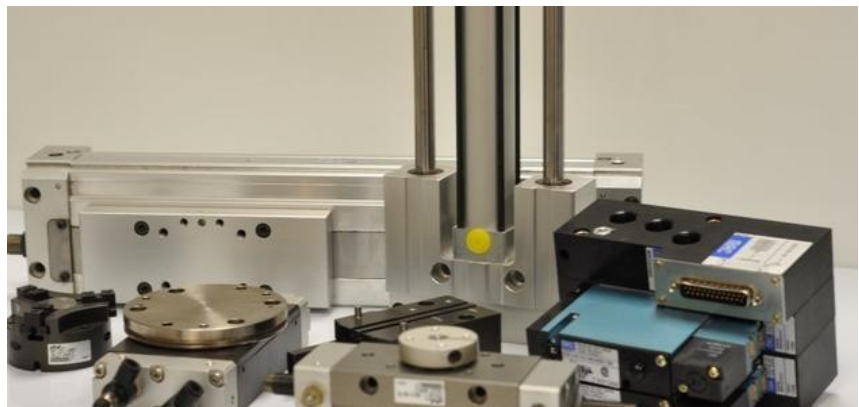


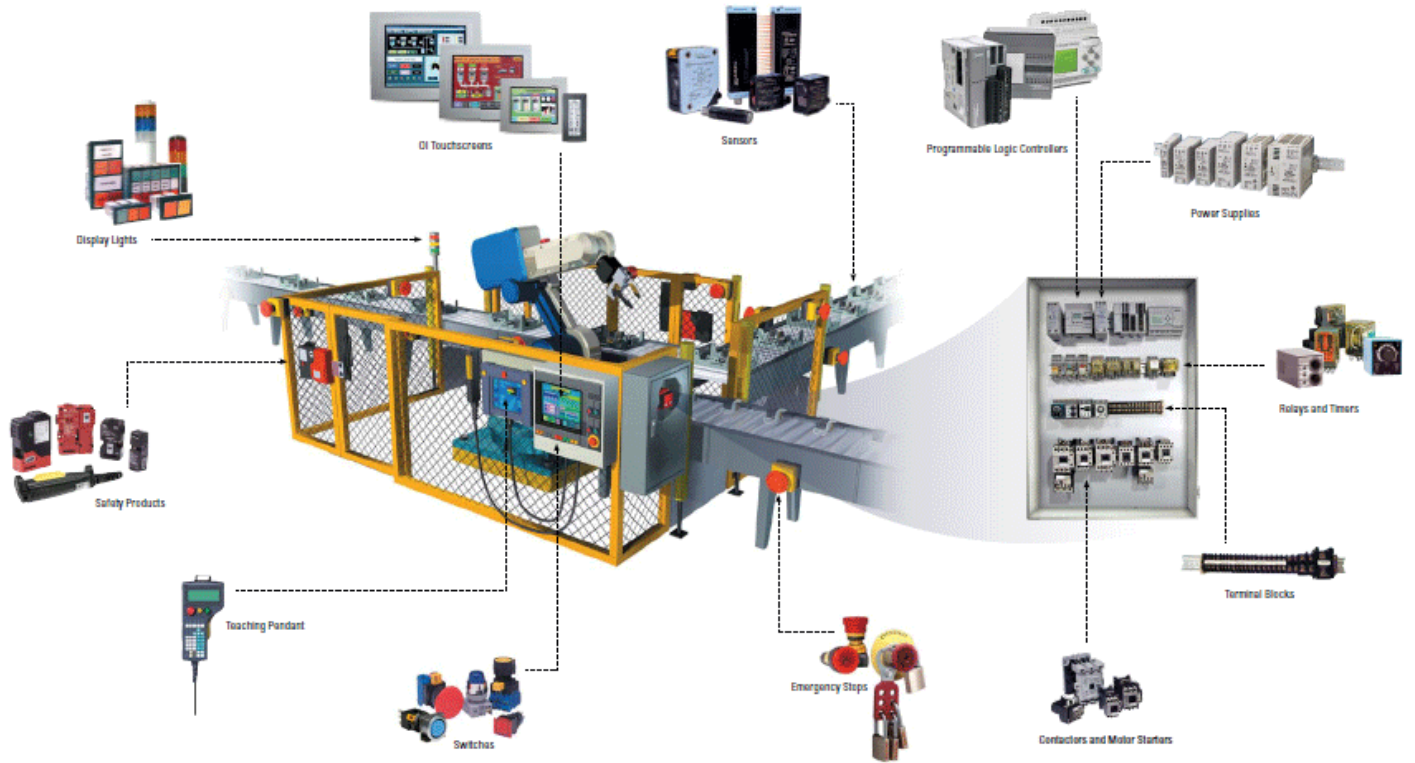
**PNEUMATIC AUTOMATION,
MOTION & ELECTRICAL
CONTROL PRODUCT
GUIDE**



2010

Version 3.0





Switches



Lights & Alarms



Power Supplies



PLC/HMI



Disconnects/Breakers



Relays



Contactors/Starters/Solid State



Transformers



Enclosures



Accessories



Pushbutton: Non-Illuminated Round Flush

Features:

- 22mm
- 600V/10A



Part Number	Function	Price
IN HW1B-M1Fxx-y	Momentary	\$22.65
IN HW1B-A1Fxx-y	Maintained	\$26.45

Pushbutton: Non-Illuminated Mushroom Head

Features:

- 22mm
- 600V/10A



Part Number	Function	Price
IN HW1B-M3Fxx-y	Momentary	\$30.75
IN HW1B-A3Fxx-y	Maintained	\$39.50

Selector Knob: 2 Position

Features:

- 22mm
- 600V/10A



Part Number	Function	Price
IN HW1S-2TFxx	MAINTAINED	\$27.45
IN HW1S-21TFxx	SPRING RET FROM RIGHT	\$30.45

Selector Knob: 3 Position

Features:

- 22mm
- 600V/10A



Part Number	Function	Price
IN HW1S-3TFxx	MAINTAINED	\$27.45
IN HW1S-33TFxx	SPRING RET TWO WAY	\$30.45

Key Switch: 2 Position

Features:

- 22mm
- 600V/10A



Part Number	Function	Price
IN HW1K-2BFxx	MAINTAINED	\$53.45
IN HW1K-21BFxx	SPRING RET FROM RIGHT	\$63.45

Key Switch: 3 Position

Features:

- 22mm
- 600V/10A



Part Number	Function	Price
IN HW4K-3AFxx	MAINTAINED	\$54.95
IN HW4K-33DFxx	SPRING RET TWO WAY	\$64.95

Ordering Codes

XX	Description	Y	Description
10	1 Normally Open	B	Black
01	1 Normally Closed	G	Green
11	1 Normally Open/1 Normally Closed	R	Red
20	2 Normally Open	S	Blue
02	2 Normally Closed	W	White
22	2 Normally Open/2 Normally Closed	Y	Yellow

Emergency Stop

Features:

- 22mm
- 600V/10A



Emergency Stop w/ Lockout Tag

Features:

- 22mm
- 600V/10A



Part Number	Function	Price
IN XW1E-BV413M-R	General Use	\$60.00

Part Number	Function	Price
IN XN4E-BL413MR	General Use	\$140.00

Knockout Hole Plug

Features:

- 22mm



Part Number	Function	Price
IN LW9Z-BM	General Use	\$6.75

Pilot Lights

Miniature Pilot Lights

Features:

- Super bright LEDs
- NEMA 4x
- Dome

Appearance	Part Number	Size	Voltage	Color	Price
	✓ _{IN} AP8M222-G	8mm	24VDC	Green	\$6.20
	✓ _{IN} AP8M222-R	8mm	24VDC	Red	\$6.20
	✓ _{IN} AP8M222-A	8mm	24VDC	Amber	\$6.20
	✓ _{IN} AP1M222-G	10mm	24VDC	Green	\$6.20
	✓ _{IN} AP1M222-R	10mm	24VDC	Red	\$6.20
	✓ _{IN} AP1M222-A	10mm	24VDC	Amber	\$6.20
	✓ _{IN} AP6M222-G	16mm	24VDC	Green	\$7.70
	✓ _{IN} AP6M222-R	16mm	24VDC	Red	\$7.70
	✓ _{IN} AP6M222-A	16mm	24VDC	Amber	\$7.70

22mm Pilot Lights

Features:

- Super bright LEDs
- Full Voltage
- Dome

Appearance	Part Number	Size	Voltage	Color	Price
	✓ _{IN} HW1P-2FQD-G-24V	22mm	24VDC	Green	\$24.75
	✓ _{IN} HW1P-2FQD-R-24V	22mm	24VDC	Red	\$24.75
	✓ _{IN} HW1P-2FQD-A-24V	22mm	24VDC	Amber	\$24.75
	✓ _{IN} HW1P-2FQD-G-120V	22mm	120VAC	Green	\$26.25
	✓ _{IN} HW1P-2FQD-R-120V	22mm	120VAC	Red	\$26.25
	✓ _{IN} HW1P-2FQD-A-120V	22mm	120VAC	Amber	\$26.25

Light Towers

IDEC

Features:

- 70mm diameter
- Ultra bright LEDs
- Limit to 5 lights/stack
- IP65

Lens LED units operate with all voltage base units.
Audible horn is not available with the steady base units.




The stack light is modular and a complete system consists of:
Pole + Base (comes with top cap) + Lens LED (max of 5)

Appearance	Part Number	Description	Price
	 IN LD6A-0GQW	Frame Mount Base	\$86.00
	 IN LD6A-0WQW	Wall Mount Base	\$76.00
	 IN LD6A-0DQW	Direct Mount Base	\$56.00
	 IN LD6A-0PQW	Pole Mount without Base	\$101.00
	 IN LD9Z-6ALW-R	Red Color Lens LED Light Modules	\$27.00
	 IN LD9Z-6ALW-Y	Yellow Color Lens LED Light Modules	\$27.00
	 IN LD9Z-6ALW-S	Blue Color Lens LED Light Modules	\$30.00
	 IN LD9Z-6ALW-G	Green Color Lens LED Light Modules	\$27.00
	 IN LD9Z-6ALW-W	White Color Lens LED Light Modules	\$27.00
	 IN LD9Z-6AC-*	1-3 for the # of LED Modules	\$2.00
	LD9Z-6AC-*	4-5 for the # of LED Modules	\$3.00

Alarm Bases Available




Signaworks Standard Series LED Tower Lights

- Features:** Pre-wired and pre-assembled with 300mm pole, nuts and right angle bracket.
57mm Diameter
- Continuous LED light
 - IP20 rated
 - CE compliant

Appearance	Part Number	Description	Voltage	Color	Price
	 STL-24-3	Light Stack, three color, continuous, 300mm pole and right angle bracket	24VDC	Red-amber-green	\$135.00
	 STL-110-3	Light Stack, three color, continuous, 300mm pole and right angle bracket	120VAC	Red-amber-green	\$135.00




Signaworks OEM Series LED Tower Lights

- Features:** Pre-wired and pre-assembled with 300mm pole, nuts and right angle bracket.
- Continuous LED light
 - IP20 rated
 - CE compliant

Appearance	Part Number	Description	Voltage	Color	Price
	 LEP-24-3	Light Stack, three color, continuous, 300mm pole and right angle bracket	24VDC	Red-amber-green	\$117.00
	 LEP-110-3	Light Stack, three color, continuous, 300mm pole and right angle bracket	120VAC	Red-amber-green	\$135.00




Signaworks Super Slim Series Tower Lights

- Features:** Pre-wired and pre-assembled with threaded base, nut and lock washer
Special bulb design provides a very high intensity light
- Continuous light
 - IP20 rated
 - CE compliant

Appearance	Part Number	Description	Voltage	Color	Price
	 ST2-24-3	Light Stack, three color, continuous, aluminum tower body threaded base	24VDC	Red-amber-green	\$82.50
	 ST2-110-3	Light Stack, three color, continuous, aluminum tower body threaded base	120VAC	Red-amber-green	\$82.50

Signaworks Value Series Tower Lights




- Features:** Pre-wired and pre-assembled with flange mount base
Bulb design
- Continuous light
 - IP20 rated

Appearance	Part Number	Description	Voltage	Color	Price
	 POP-24-3	Light Stack, three color, continuous, pole mount	24VDC	Red-amber-green	\$88.00
	 POP-110-3	Light Stack, three color, continuous, pole mount	120VAC	Red-amber-green	\$88.00

Signaworks Miniature Strobe Light

Features:



- CE compliant
- 1/2" NPT Male thread Mount strobe
Fully potted and sealed to dust moisture, vibration and corrosion
Replaceable flash tube

Appearance	Part Number	Description	Voltage	Color	Price
	 IN MSTM-110-1A	Strobe Light	110 VAC	Amber	\$83.00
	 IN MSTM-110-1R	Strobe Light	110VAC	Red	\$83.00

Signaworks Multi-tone Panel-mount Audible Alarm

Features:

- Adjustable to 95 dB sound level
 - IP54 rated
- Black, square panel alarm (62mm)
Provides 4 different sounds in one unit

Appearance	Part Number	Description	Voltage	Price
	 IN KSP-41TB	Alarms: fast, slow, high and low pulsing alarm	90-240 VAC 50/60Hz	\$85.00

IDEC Slim Line Series

Features:

- DIN Rail Mount
- UL 508
- 85-264VAC Input



IDEC Standard Series

Features:

- DIN Rail or panel mount
- UL 508
- 100-240VAC Input



	Part Number	Phase	Volts	Watts	Price		Part Number	Phase	Volts	Watts	Price
	PS5R-SC24	Single	24VDC	30W	\$110.00		PS5R-D24	Single	24VDC	50W	\$125.00
	PS5R-SD24	Single	24VDC	60W	\$140.00		PS5R-F24	Single	24VDC	120W	\$200.00
	PS5R-SE24	Single	24VDC	90W	\$175.00						
	PS5R-SF24	Single	24VDC	120W	\$215.00						
	PS5R-SG24	Single	24VDC	240W	\$310.00						

Altech (OEM Option)

Features:

- DIN Rail Mount
- UL 508
- 85-264VAC Input

Excellent low cost OEM solution









	Part Number	Phase	Voltage	Wattage	Type	Price
	PS-S6024	Single	24VDC	60W	Slim Series	\$65.00
	PS-6024	Single	24VDC	60W	Standard Size	\$68.00
	PS-10024	Single	24VDC	100W	Standard Size	\$96.00
	PS-12024	Single	24VDC	120W	Standard Size	\$98.00
	PSP-24024	Single	24VDC	240W	Standard Size	\$168.00

PLC's





IDEC Pentra

Features:







- DIN Rail mount
- Fast processing speed
- 32 Bit data and floating point math
- Up to 512 I/Os
- Max of 7 comm. ports

Appearance	Part Number	Description	Voltage	I/O	Price
	 FC5A-C24R2C	PLC—14 DC inputs, 10 Relay outputs, 88 max I/Os, 54kbyte program capacity, 32 max analog I/O	24VDC	24	\$385.00
	 FC5A-D16RS1	PLC—8 DC inputs, 6 Relay outputs, 2 Transistor (PNP) outputs, 496 max I/Os, 62.4kbyte program capacity, 56 max analog I/O	24VDC	16	\$355.00
	 FC5A-D32K3	PLC—16 DC inputs, 16 Transistor (NPN) outputs, 512 max I/Os, 62.4kbyte program capacity, 56 max analog I/O	24VDC	32	\$575.00
	 FC4A-KC4CA	Programming cable			\$40.00
	 FC9Y-LP2CDW	WindLDR PLC programming software			\$249.00

IDEC Input Expansion Modules For use with IDEC Pentra



Appearance	Part Number	Description	Type	Price
	 FC4A-N16B1	16 DC INPUT	Terminal	\$170.00
	 FC4A-N08A11	8 AC INPUT	Terminal	\$110.00

IDEC Output Expansion Modules For use with IDEC Pentra









Appearance	Part Number	Description	Type	Price
	 FC4A-R161	16 OUT Removable screw terminals	RELAY	\$215.00
	 FC4A-T08K1	8 OUT Removable screw terminals	SINKING	\$140.00
	 FC4A-T08S1	8 OUT Removable screw terminals	SOURCING	\$140.00

IDEC Combination Expansion Modules—for use with Pentra











Electrical Control

Appearance	Part Number	Description	Type	Price
	 IN FC4A-M24BR2	16 Inputs (24VDC Sink or source) 8 Relay Outputs	Wire Spring Clamp Terminals	\$290.00

IDEC Analog Expansion Modules—for use with Pentra

Appearance	Part Number	Description	Type	Price
	 IN FC4A-J8C1	8 Inputs: 16-bit (0-50000) 0-10VDC 4-20mA	Removable screw terminals	\$325.00
	 IN FC4A-L03A1	3 I/O: 12-bit (0-4095) 2 inputs: 0-10VDC, 4-20mA 1 output: 0-10VDC, 3-20mA	Removable screw terminals	\$355.00
	 IN FC4A-J4CN1	4 Inputs: 16-bit (0-50000) 0-10VDC, 4-20mA, RTD, Thermo- couple	Removable screw terminals	\$325.00
	 IN FC4A-K2C1	2 Outputs: 16-bit (0-50000) -10 to 10VDC, 4-20mA	Removable screw terminals	\$195.00

IDEC Special Modules—for use with Pentra

Appearance	Part Number	Description	Price
	 IN FC4A-ENET	Web Server Module (includes cable and Quick Start Guide), 24VDC, RS232C to Ethernet Conversion function, Remote maintenance, Web Monitoring, Alarm Messaging, Data Exchange	\$349.00
	 IN WINDSRV-1	Software for remote data archiving	\$295.00
	 IN FC4A-PC1	RS232 Module Brick, Mini DIN	\$45.00
	 IN FC4A-PC3	RS485 Module Brick, Screw Terminal	\$45.00
	 IN FC4A-HPC1	RS232 Module Slim CPU, Mini DIN	\$45.00
	 IN FC4A-HPC3	RS485 Module Slim CPU, Screw Terminal	\$55.00

HMI IDEC HMIs

Appearance	Part Number	Description	Price
	IN HG1F-SB22BF-W	4.6" STN High Bright Monochrome LCD Touch Screen Light Gray Bezel, RS232/485/422 comm	\$349.00
	IN HG3G-8JT22TF-W	8.4" Color LCD Touch Screen Light Gray Bezel, Ethernet Port, RS232/485/422 comm	\$625.00
	IN HG3G-AJT22TF-W	10.4" TFT 256 Color LCD Touch Screen Light Gray Bezel, Ethernet Port, RS232/485/422 comm	\$1995.00
	HG4F-JT22TFW	12.1" TFT 256 Color LCD Touch Screen Light Gray Bezel, Ethernet Port, RS232/485/422 comm.	\$2495.00
	IN HG9Y-ZSS2W	WindO/I-NV2 Program Software for touchscreens	\$175.00
	IN HG9Z-XCM1A	Programming cable, PC to RS232 Serial Port	\$25.00
	IN FC4A-KC1CA	Communication cable from FC5A PLC to HG1F	\$25.00
	IN FC4A-KC2CA	Communication cable from FC5A PLC to HG2F/3F/4F	\$25.00
	IN HG9Z-AC102	Communication cable from FC5A PLC to HG2G	\$25.00
	IN HG9Z-XCM2A	USB Programming Cable for HG3G Only!	\$10.00

IDEC PLC & HMI Package

Features:

Each package includes:

- IDEC operator interface
- MicroSmart Pentra PLC
- 24VDC slim power supply
- Cables
- PLC and HMI software
- E-stop and simulator switch







	Part Number	Controller	HMI	Power Supply	Price
IN	MM-PENTRA-16-HG1F	16 I/O Slim CPU: FC5A-D16RS1	HG1F 4.6" Mono STN	30W	\$749.00
	MM-PENTRA-24-HG1F	24 I/O All-in-One CPU: FC5A-C24R2	HG1F 4.6" Mono STN	30W	\$799.00
IN	MM-PENTRA-24-HG2G-C	24 I/O All-in-One CPU: FC5A-C24R2	HG2G 5.7" Color STN	30W	\$1149.00
	MM-PENTRA-24-HG3G-A	24 I/O All-in-One CPU: FC5A-C24R2	HG3G 10.4" Color TFT	60W	\$1899.00
	MM-PENTRA-24-HG4F	24 I/O All-in-One CPU: FC5A-C24R2	HG4F 12.1" Color TFT	30W	\$2495.00

Renu Integrated Package

Features:




- All features of Prizm LCD Operator Interfaces
- Integrated Digital I/O with optional analog I/O
- Inputs connectable to PLC or used for internal program

Appearance	Part Number	Description	I/O	Price
	 HIO-005-0808-0000-B-C-00	Text PLC 45mm x 45mm	8 IN/8 OUT	\$210.00
	 HIO-005-0606-0101-U-B-C-00	45mm x 45mm	6 IN/6 OUT, ANALOG 1 IN	\$250.00
	 HIO-140-1612-0402-U-B-R-00	162mm x 162mm	16 IN/12 RELAY OUT, ANALOG 4 IN/2 OUT	\$475.00

Renu Flexi-Panel Touch Screen with I/O

Features:

- 6 User defined function keys
- Direct connection to most controller families

Appearance	Part Number	Description	I/O Expansion	Price
	 FP4035T-E	HMI 3.5" Color	Supported up to 3 MOD	\$416.00
	 FP4050TT-E	HMI 5.7" Color	Supported up to 5 MOD	\$662.00

Pluggable expansion Module (Digital I/O)

Part Number	Description	Price
FPED0808P	8 Digital inputs (PNP or NPN) and 8 (0.5A PNP transistor) outputs—60gms	\$104.00
FPED0808N	8 Digital inputs (PNP or NPN) and 8 (0.5A PNP transistor) outputs— 70gms	\$104.00
FPED0012R	12 Digital relay outputs—85 gms	\$125.00
FPED1600	16 Digital inputs— 70gms	\$104.00
FPED0016N	16 Digital outputs (0.5A NPN transistor) - 60gms	\$137.00
FPED0016P	16 Digital outputs (0.5A PNP transistor) - 80gms	\$137.00

Pluggable expansion Module (Analog I/O)








Part Number	Description	Price
FPEA0202L	2 Analog inputs (4-20mA, 0-20mA, 0-10V, -10 to +10V ranges) and 2 Analog Outputs (4-20mA, 0-20mA, 0-10V)	\$233.00
FPEA0400L	4 Analog inputs (4-20mA, 0-20mA, 0-10V, -10 to + 10V ranges)	\$195.00

IDEC






Features:

- DIN Rail Mount




Ideal for relay logic, counters and timers

Appearance	Part Number	Description	Voltage	I/O	Price
	 IN FL1E-H12RCE	Smart Relay w/ LCD Display, clock	12/24VDC	8 PNP DC Inputs (4 can be configured as 0-10V analog inputs) 4 Relay Out	\$155.00
	 IN FL1E-H12RCC	Smart Relay w/ LCD Display, clock	100-240V AC/DC	NPN/PNP AC/DC IN 4 Relay Out	\$160.00
	 IN FL1E-RD1	FL1E SmartRelay Text Message Display	12VDC, 24V AC/DC		\$249.00
	 IN FL9Y-LP1CDW	WindLGC Programming software			\$79.00
	 IN FL1A-PC1	SmartRelay serial programming cable			\$79.00

IDEC Smart Relay Expansion Modules

Appearance	Part Number	Description	Voltage	I/O	Price
	 IN FL1B-M08B2R2	Combination I/O Module	12/24 VDC	8 (4 in /4 out) PNP In/Relay Out	\$68.00
	 IN FL1B-M08C2R2	Combination I/O Module	100-240V AC/DC	8 (4 in/4 out) PNP In/Relay Out	\$70.00
	 IN FL1B-J2B2	Analog Input	12/24V DC	2 inputs: 0-10VDC/4-20mA	\$100.00
	 IN FL1D-K2BM2	Analog Output	24VDC	2 outputs 0-10VDC	\$150.00

IDEC Smart Relay Package

Appearance	Part Number	Description	Price
	 IN SMARTSTART-HDC-E	FL1E-H12RCE, WindLGC software, programming cable, and simulator switch	\$199.00
	 IN SMARTSTART-HAC-E	FL1E-H12RCC, WindLGC software, programming cable, and simulator switch	\$199.00





Disconnects & Breakers

Altech Motor Disconnect Switches

Features:
• UL508

DISCONNECT SWITCH = DISCONNECT + DOOR SHAFT + DOOR HANDLE




Electrical Control

Appearance	Part Number	Description	Size	Type	Price
	✓ IN KU325N	Disconnect	25A, 600V AC	3 Pole	\$23.56
	✓ IN KU363N	Disconnect	60A, 600V AC	3 Pole	\$31.41
	✓ IN VKA3100N	Disconnect	100A, 600V AC	3 Pole	\$79.74
	✓ IN LK10 Y/R UL	DOOR HANDLE		Yellow/Red	\$16.43
	✓ IN OKA/KU LK10 Y/R	DOOR MOUNTING KIT		Yellow/Red	\$24.23
	✓ IN L100AD11-ST	DOOR SHAFT	100mm		\$3.13
	✓ IN L300AD11-ST	DOOR SHAFT	300mm		\$4.16

Altech Breakers

Features:
• UL508

Wiring protection, lighting, control circuits and some motors. Relatively long thermal trip delay but low magnetic trip point.

Appearance	Part Number	Poles	Rated Current	Price
	✓ IN 1E3UM	One pole	3 Amps	\$22.22
	✓ IN 1E5UM	One pole	5 Amps	\$22.22
	✓ IN 1E10UM	One pole	10 Amps	\$22.22
	✓ IN 1E15UM	One pole	15 Amps	\$22.22
	✓ IN 2E32UM	Two pole	32 Amps	\$48.89
	✓ IN 3E5UM	Three pole	5 Amps	\$74.60
	✓ IN 3E10UM	Three pole	10 Amps	\$69.96
	✓ IN 3E15UM	Three pole	15 Amps	\$69.96
	✓ IN 3E20UM	Three pole	20 Amps	\$69.96

Relays



IDEC— RJ Family

Features:

- 12.7mm wide

SMALL SINGLE CONTACT (SPDT)

USE WITH TRANSISTOR OUTPUT OR INTERFACE W/ PLC/TRANSISTOR INPUT



Appearance	Part Number	Description	Voltage	Amps	Price
	✓ IN RJ1S-CL-D24	Single Pole, Double Throw, LED	24 VDC	12A	\$5.30
	✓ IN RJ1S-CL-A120	Single Pole, Double Throw, LED	120 VAC	12A	\$11.40
	✓ IN SJ1S-05B	DIN Rail SPDT Standard Socket			\$4.00

IDEC— RU Family

Features:

- LED indicator
- No Internal wires

SMALL FOR APPLICATIONS NEEDING MORE THAN ONE CONTACT

Appearance	Part Number	Description	Voltage	Amps	Type	Price
	✓ IN RU2S-A110	Relay with latching lever	120 VAC	10A	DPDT	\$8.40
	✓ IN RU2S-D24	Relay with latching lever	24 VDC	10A	DPDT	\$7.00
	✓ IN RU4S-A110	Relay with latching lever	120 VAC	6A	4PDT	\$9.80
	✓ IN RU4S-D24	Relay with latching lever	24 VDC	6A	4PDT	\$8.10
	✓ IN SM2S-05C	Din Rail DPDT Socket Finger Safe				\$5.63
	✓ IN SY4S-05C	Din Rail 4PDT Socket Finger Safe				\$9.52





IDEC— RH Family

SMALL FOR POWER APPLICATIONS TO BE USED AS MASTER RELAY

Features:

- Compact Size
- Large Capacity
- Indicator Light
- Check Button

Electrical Control




Appearance	Part Number	Description	Voltage	Type	Amps	Price
	✓ ^{IN} RH1B-ULCDC24V	SGL CONTACT RELAY	24 VDC	SPDT	10	\$11.46
	✓ ^{IN} RH1B-ULCAC120V	SGL CONTACT RELAY	120 VAC	SPDT	10	\$12.49
	✓ ^{IN} RH2B-ULCDC24V	2 CONTACT RELAY	24 VDC	DPDT	10	\$11.98
	✓ ^{IN} RH2B-ULCAC110-120V	2 CONTACT RELAY	120 VAC	DPDT	10	\$12.49
	✓ ^{IN} RH4B-ULCDC24V	4 CONTACT RELAY	24 VDC	4PDT	10	\$15.94
	✓ ^{IN} RH4B-ULCAC120V	4 CONTACT RELAY	120 VAC	4PDT	10	\$17.52
	✓ ^{IN} SH1B-05C	SOCKET Finger Safe		SPDT		\$5.63
	✓ ^{IN} SH2B-05C	SOCKET Finger Safe		DPDT		\$6.96
	✓ ^{IN} SH4B-05C	SOCKET Finger Safe		4PDT		\$9.88

IDEC— RR Family

OCTAL RELAYS FOR POWER APPLICATIONS

Features:

- Pin Terminals
- Indicator Light
- Check Button

Appearance	Part Number	Description	Voltage	Amps	Price
	✓ ^{IN} RR2P-ULC-DC24V	2 CONTACT RELAY	24 VDC	10	\$18.59
	✓ ^{IN} RR2P-ULC-AC120V	2 CONTACT RELAY	120 VAC	10	\$18.26
	✓ ^{IN} RR3PA-ULC-DC24V	3PDT CONTACT RELAY	24 VDC	10	\$21.87
	✓ ^{IN} RR3PA-ULC-AC120V	3PDT CONTACT RELAY	120 VAC	10	\$21.75
	✓ ^{IN} SR2P-05C	DPDT SOCKET FINGER SAFE			\$5.04
	✓ ^{IN} SR3P-05C	3PDT SOCKET FINGER SAFE			\$8.01












LS Industrial Systems — Contactors & Starters

Features:

SMALL POWER APPLICATIONS UP TO 13 AMP
 SMALL MOTOR STARTER
 STARTER = CONTACTOR + OVERLOAD RELAY
 CAN BE USED AS MATER CONTROL RELAY








Appearance	Part Number	Description	Poles	Amps	Voltage	Watts	Aux Contact	Price
	✓ IN GMC-12M-AC120V-1A	Contactors	3	12 A	120VAC		1no	\$23.20
	✓ IN GMC-12M-AC24V-1A	Contactors	3	12A	24VAC		1no	\$23.20
	✓ IN GMD-12M-DC24V-3W-1A	Contactors	3	12 A	24VDC	3	1no	\$25.64
	✓ IN GTK-12M-2.1	Overload Relay		2.5 A				\$29.20
	✓ IN GTK-12M-3.3	Overload Relay		4 A				\$29.20
	✓ IN GTK-12M-5	Overload Relay		6 A				\$29.20
	✓ IN GTK-12M-6.5	Overload Relay		8 A				\$29.20
	✓ IN GTK-22-3.3A	Overload Relay		3.3 A				\$42.21
	✓ IN GTK-22-5A	Overload Relay		5 A				\$42.21
	✓ IN GTK-22-7.5A	Overload Relay		7.5 A				\$42.21
	✓ IN GTK-22-8.5A	Overload Relay		8.5 A				\$42.21
	✓ IN GTK-22-15A	Overload Relay		15 A				\$42.21
	✓ IN GTK-22-19A	Overload Relay		19 A				\$42.21

Features: MOST USED
STARTER = CONTACTOR + OVERLOAD RELAY

Appearance	Part Number	Description	Poles	Amps	Voltage	Main Contact	Price	
	 IN GMC-32-AC24V-2A2B	Contactors	3	1-32A	24VAC	2no2nc	\$68.08	
	 IN GMC-32-AC120V-2A2B	Contactors	3	1-32A	120VAC	2no2nc	\$68.08	
	 IN GMC-32-DC24V-2A2B	Contactors	3	1-32A	24VDC	2no2nc	\$90.01	
	 IN GMC-32-AC8.5A	Overload Relay			8.5A			\$57.98
	 IN GMC-32-AC11A	Overload Relay			11A			\$57.98
	 IN GMC-32-AC15A	Overload Relay			15A			\$57.98
	 IN GMC-32-AC19A	Overload Relay			19A			\$57.98
	 IN GMC-32-AC22A	Overload Relay			22A			\$57.98
	 IN GMC-32-AC30A	Overload Relay			30A			\$57.98
	 IN GMC-32-AC34A	Overload Relay			34A			\$57.98

Micron Step-Down

Step down transformers are used on larger panels when the supply voltage is 480 or 230 VAC and 120VAC single phase power is required inside the panel.









Appearance	Part Number	Voltage	Size	Amps	Fusing	Price
	 IN B100BTZ13RB	480/220 TO 120VAC	.1 KVA(100VA)	.87	Pri & Sec	\$75.00
	 B200BTZ13RBF	480/220 TO 120VAC	.2 KVA (200VA)	3.75	Pri & Sec	\$105.00
	 B500BTZ13RBF	480/220 TO 120VAC	.5 KVA(500 VA)	4.75	Pri & Sec	\$168.00
	 B1K0BTZ13RBF	480/220 TO 120VAC	1 KVA (1000VA)	6.44	Pri & Sec	\$259.00
	 B1K5BTZ13RBH	480/220 TO 120VAC	1.5 KVA EXTERNAL	7.13	Pri & Sec	\$357.00
	 B3K0BTZ13JXH	480/220 TO 120VAC	3 KVA EXTERNAL	8.06	Pri	\$562.00

Saginaw — Nema 1

Features:

- Seamless welding
- Flange-mounted 1/4 turn lock
- Panel included
- Powder coated

NEMA 1 enclosures are intended for use indoors, primarily to prevent accidental contact with the enclosed equipment, in areas where unusual service conditions do not exist.









Appearance	Part Number	Size	Price
	 SCE-10N806LP	10" x 8" x 6"	\$45.52
	 SCE-14N1206LP	14" x 12" x 6"	\$65.46
	 SCE-12N1006LP	12" x 10" x 6"	\$54.80
	 SCE-16N1208LP	16" x 12" x 8"	\$106.84
	 SCE-12N1206LP	12" x 12" x 6"	\$60.13
	 SCE-16N1608LP	16" x 16" x 8"	\$119.19
	 SCE-16N1606LP	16" x 16" x 6"	\$109.57

Saginaw — Nema 4—12

Features:

- Seamless welding
- Flange-mounted 1/4 turn lock
- Panel included
- Powder coated

NEMA 4-12 enclosures are intended for use indoors or outdoors. They are constructed so as to provide a degree of protection against rain, snow, windblown dust, splashing and hose directed water. They are undamaged by the external formation of ice on the enclosure.





Appearance	Part Number	Size	Price
	SCE-12EL1206LP	12" x 12" x 6"	\$183.29
	 SCE-12EL2406LP	12" x 24" x 6"	\$218.97
	 SCE-16EL1206LP	16" x 12" x 8"	\$194.36
	 SCE-16EL1408LP	16" x 14" x 8"	\$211.59
	 SCE-16EL1608LP	16" x 16" x 8"	\$234.97
	 SCE-30EL2408LP	30" x 24" x 8"	\$329.69
	 SCE-36EL2410LP	36" x 24" x 10"	\$392.42
	 SCE-36EL2412LP	36" x 24" x 12"	\$404.72

Eurobex — Nema 4—12 with Window

Features:

- Seamless welding
- Flange-mounted 1/4 turn lock
- Panel included
- Powder coated
- Self-extinguishing polycarbonate window

NEMA 4-12 enclosures are intended for use indoors or outdoors. They are constructed so as to provide a degree of protection against rain, snow, windblown dust, splashing and hose directed water. They are undamaged by the external formation of ice on the enclosure.

Appearance	Part Number	Size	Price
	 5412ESW201610	20" x 16" x 10"	\$570.88
	 5412ESW363010	36" x 30" x 10"	\$1123.44
	 5412ESW483610	48" x 36" x 10"	\$1720.57

Saginaw Control Engineering — Nema 3/3R



Features:




- Seamless welding
- Seamless poured gasket
- Padlock pull catch
- Drip shield
- 180 degree door opening
- Panel is double bent
- Powder coated

NEMA 3 enclosure are intended for use outdoors. They are constructed so as to provide a degree of protection against rain and snow. They are undamaged by the external formation of ice on the enclosure.

Subpanels must be ordered separately

Part Number	Size (Inches)	Color	Price
 SCE-24R2008LP	24H x 20W x 8D	White	\$215.39
 SCE-24R2008LP-GRAY	24H x 20W x 8D	Gray	\$215.39
 SCE-30R2408LP	30H x 24W x 8D	White	\$284.18
 SCE-30R2408LP-GRAY	30H x 24W x 8D	Gray	\$284.18
 SCE-30R2416LP	30H x 24W x 16D	White	\$322.06
 SCE-30R2416LP-GRAY	30H x 24W x 16D	Gray	\$322.06
 SCE-42R3016LP	42H x 30W x 16D	White	\$549.06
 SCE-42R3016LP-GRAY	42H x 30W x 16D	Gray	\$549.06

Nema 3R Subpanels Bent




Part Number	Size (Inches)	For Panel	Price
 SCE-24P20	21H x 17W x .88D	24H x 20W	\$45.57
 SCE-30P24	27H x 21W x .88D	30H x 24W	\$63.29
 SCE-42P30	39H x 27W x .88D	42H x 30W	\$116.47

Eurobex — Nema 4X-12 Fiberglass

Features:

- Quick Release Cover
- Poured Gasket
- Mounting Feet Included
- JIC Panel Included

Nema 4X-12 Fiberglass enclosures are suited for use indoors or outdoors where corrosion may be a problem, to protect the enclosed equipment from water coming from any direction, dust, dirt and oil.

Appearance	Part Number	Size	Price
	 5412 ESRQ080604	8" x 6" x 4"	\$103.42
	 5412 ESRQ100806	10" x 8" x 6"	\$115.30

Altech— Polycarbonate Pushbutton Enclosures

Features:

- IP66 Rated
- 22.5 Diameter Holes
- Light Gray



Part Number	Holes	Dimensions L X W X H	Price
153-901	1	3.7 X 3.7 X 3.19	\$11.81
153-902	2	5.12 X 3.7 X 3.19	\$14.57
153-903	3	7.09 X 3.7 X 3.19	\$17.35
153-904	4	7.09 X 3.7 X 3.19	\$20.12
153-905	5	7.09 X 3.7 X 3.19	\$23.08

Pfannenberg—Fans, Filters, Rainhoods & Thermostats

Part Number	Description	Price
PF22000	Filter Fan 115V	\$156.00
PFA20000	Exhaust Filter	\$49.00
PF RH-20000LG	Rain Hood Light Gray	\$88.00
FLZ530	Thermostat for Cooling Fan	\$30.00

Sizing a Panel for VFD







-Drives dimensions are for F7, P7, G7

-V1000 Drives need to be sized on case by case basis

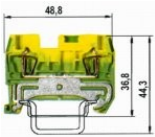



HP	Voltage	Panel Size
5, 7.5, 10	230/460V	32H x 24W x 16D
15, 20	460V	
15, 20	230V	40H x 32W x 16D
25, 30, 40, 50	460V	
25, 30, 40	230V	46H x 42W x 16D
60, 70, 100	460V	
50, 60, 75, 100	230V	37.5H x 84W x 18.8D
125, 150, 200, 250	460V	
125, 150	230V	74H x 84W x 18.8D
300, 350, 400, 450, 500	460V	

Wieland Terminal Blocks

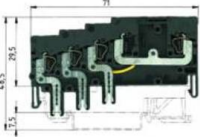






Clamp WKFM

Appearance	Accessory number	Part Number	Description	Wire Gage	Price
	1	 56.702.0053.0	Feed-Through TERM WKF 1,5/35	26-14 AWG	\$1.91
	2	 56.702.5153.0	Feed-Through TERM WKF 1,5 D2/2/35	26-14AWG	\$2.84
	3	 56.704.0055.0	Feed-Through TERM WKFN 4/35 Blue	0.13-4 mm ²	\$1.25
	4	 56.702.7653.0	Double Deck TERM. WKF 1,5 E2/35	26-14 AWG	\$3.63
	5	 56.704.8453.0	Motor Connection Blocks, WKF 4 3D/SL/35	26-10 AWG	\$19.57

Ground Terminal Blocks

























Appearance	Accessory number	Part Number	Description	Wire Gage	Price
	9	 56.702.9053.0	Earth Terminal WKF 1,5 SL/35	26-14AWG	\$8.24
	10	 56.702.9153.0	Earth Terminal WKF 1,5 D2/2SL/35	26-14AWG	\$9.80
	11	 56.704.9055.0	Earth Terminal WKFN 4 SL/35	0.13-4mm ²	\$3.88

Sensors & Valve T-Blocks

Appearance	Accessory number	Part Number	Description	Wire Gage	Price
	6	 37.702.7753.0	Feeder Terminal WKF 1.5 KOE	28-16AWG	\$8.77
	7	 37.702.8653.0	Actuator Terminal WKF 1.5 KOA 2L/SL-PGE	28-16AWG	\$15.15
	8	 37.702.8553.0	Initiator Term. WKF 1.5 KOI 3L/SL-PGE	28-16AWG	\$19.18
		 69.700.0953.0	Connect Module VM WKF K0.. 9		\$68.93
		 69.700.1853.0	Connect Module VM WKF K0.. 18		\$259.24
	6	 04.343.8053.0	Blanking Cover AD VM-1,5/8 BLACK		\$28.69

Wieland

Clamp Accessories

Appearance	No.	Part Number	Description	Price
	1	 07.312.8153.0	End Plate APF 1,5	\$4.84
	1	 07.312.8253.0	Partition Plate TWF 1,5	\$4.84
	1	 Z7.268.1027.0	10 Pole Cross Connector IVB WKF 1,5-10	\$29.24
	2	 07.312.8553.0	End Plate APF 1,5	\$5.40
	2	 07.312.8653.0	Partition Plate TWF 1,5 D2/2	\$5.45
	2	 Z7.268.1027.0	10 Pole Cross Connector IVB WKF 1,5-10	\$29.25
	3	 07.312.9255.0	End Plate APFN 4/35	\$4.70
	3	 07.312.9355.0	Partition Plate TWFN 4/35	\$4.70
	3	 Z7.261.2027.0	10 Pole Cross Connector IVBWF 4-10	\$30.17
	4	 07.312.8753.0	End Plate APF 1,5 E2	\$4.49
	4	 07.312.8853.0	Partition Plate TWF 1,5 E2	\$5.44
	4	 Z7.268.1027.0	10 Pole Cross Connector IVB WKF 1,5-10	\$29.25
	9	 07.312.8153.0	End Plate APF 1,5	\$4.84
	9	 07.312.8253.0	Partition Plate TWF 1,5	\$4.84
	10	 07.312.8553.0	End Plate APF 1,5 D2/2	\$5.40
	10	 07.312.8653.0	Partition Plate TWF 1,5 D2/2	\$5.45
	11	 07.312.9255.7	End Plate APFN 4/35 GREEN	\$5.42
		 Z5.522.8553.0	End Bracket 9708/2S 35	\$1.62
		 06.502.4300.0	0.4-2.5 mm Standard Screwdriver	\$0.78
		 06.502.4000.0	0.6-3.5 mm Standard Screwdriver	\$0.63

Wieland Terminal Blocks

Screw Clamp

Appearance	Accessory number	Part Number	Description	Wire Gage	Price
	12	57.504.0055.0	Feed-Through TERMWK 4/I/V0	22-10 AWG	\$1.23
	13	57.506.0055	Feed-Through TERMWK 6/U/V0	22-8 AWG	\$1.79
	14	57.516.0055.0	2 wire	0.2-0.4mm ²	
	15	57.353.0155.0	2 wire	10-0 AWG	
		57.504.9053.0	Ground TB	22-10 AWG	
		57.516.9055.0	Ground TB WKN 16 SL/U/V0	12-4 AWG	\$15.71
		57.535.9055.0	Ground TB WKN 35SL/U/V0	10-2 AWG	\$62.06

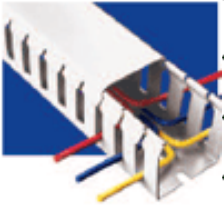





Wieland

Screw Clamp Accessories










Appearance	No.	Part Number	Description	Price
	12	07.311.0155.0	End Plate AP 2,5 -4/V0	\$4.18
	12	07.311.1155.0	Partition Plate TW 2,5 -4/V0	\$5.69
	12	Z7.281.2227.0	12 Pole Cross Connector IVBWK 4-12	\$65.21
	13	07.311.0255.0	End Plate AP 6/V0	\$4.76
	13	07.311.1255.0	Partition Plate TW 6/V0	\$5.89
	13	Z7.282.3227.0	12 Pole Cross Connector IVBWK 6-12	\$76.47
	14	07.311.6755.0	End Plate APN 16/V0	\$8.01
	14	07.311.7755.0	Partition Plate TWN 16/V0	\$8.80
	14	Z7.284.3227.0	12 Pole Cross Connector IVBWK 16-12	\$170.91
	15	07.311.7855.0	Partition Plate TWN 35/V0	\$10.51
	15	Z7.285.3227.0	12 Pole Cross Connector IVBWK 35-12	\$499.39

Accessories












Altech Wire Duct

Appearance	Part Number	Description	Size	Price
	 IN B25X60S-R	Standard Slot Gray PVC with Cover	1"x2"x6.5"	\$26.03
	 IN B25X80S-R	Standard Slot Gray PVC with Cover	1"x3"x6.5"	\$27.47
	 IN B60X60S-R	Standard Slot Gray PVC with Cover	2"x2"x6.5"	\$27.47
	 IN B60X80S-R	Standard Slot Gray PVC with Cover	2"x3"x6.5"	\$32.84
	 IN B80X80S-R	Standard Slot Gray PVC with Cover	3"x3"x6.5"	\$35.34

IDEC Nameplates

Appearance	Part Number	Legend	Hole Size	Price
	 IN HWAV-27	EMERGENCY STOP	22mm	\$6.00
	 IN HWAM-111	JOG	22mm	\$1.50
	 IN HWAM-123	START	22mm	\$2.00
	 IN HWAM-125	STOP	22mm	\$1.50
	 IN HWAM-212	OFF-ON	22mm	\$1.50
	 IN HWAM-317	HAND-OFF-AUTO	22mm	\$1.50
	 IN HWAM-RUNNING	RUNNING	22mm	\$1.50
	 IN HWAM-FAULT	FAULT	22mm	\$1.50

Altech Cable Glands

Appearance	Part Number	Description	Price
	 IN 5308924	3/8" NPT, black, 1.5 - 6mm range	\$0.78
	 IN 5308925	1/2" NPT, black, 3— 9 mm range	\$0.96
	 IN 5308926	3/4" NPT, black, 7—16mm range	\$1.58
	 IN 5308927	1" NPT, black, 11—21mm range	\$3.19
	 IN 5309719	M20x1.5/13, black, 3—9 mm range	\$0.78
	 IN 7211976	Locknut, M20x1.5	\$0.17
	 IN 7211495	Locknut, 3/8" NPT	\$0.23
	 IN 7211496	Locknut, 1/2" NPT	\$0.26
	 IN 7211497	Locknut, 3/4" NPT	\$0.50
 IN 7211498	Locknut, 1" NPT	\$0.64	