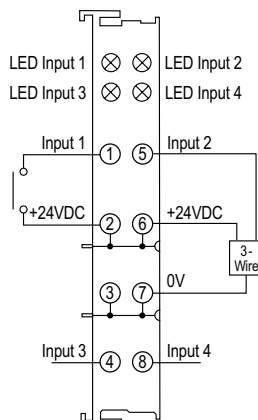


Discrete Input Terminals

PX-144 \$53.00

Four-point, 24VDC Discrete Input Terminal

The PX-144 (type 1) DC Input Terminal provides four electrically isolated 24VDC sinking inputs with LED status. For use with 3-wire and 2-wire sensors.



General Specifications	
Operating Temp	32 to 131 °F (0 to 55 °C)
Storage Temp	-13 to 185 °F (-25 to 85 °C)
Relative Humidity	5% to 95%, non-condensing
Environment Air	No corrosive gases permitted
Mounting/Orientation Restrictions	35mm DIN rail/None
Vibration	Conforms to EN 60068-2-6
Shock	Conforms to EN 60068-2-27/ EN 60068-2-29
Noise Immunity	Conforms to EN 61000-6-2/ EN61000-6-4
Protection Class	IP20
Weight	55g (1.9 oz)
Dimensions (WxHxD)	12 x 100 x 68.8 mm (0.47 x 3.94 x 2.71 in)
Adjacent Mounting on Bus Terminals with Power Contact	Yes, DC only
Adjacent Mounting on Bus Terminals without Power Contact	No
Passes Terminal Bus Power	Yes
Passes PE Bus	No
Agency Approvals*	UL/cUL File No. E157382, CE

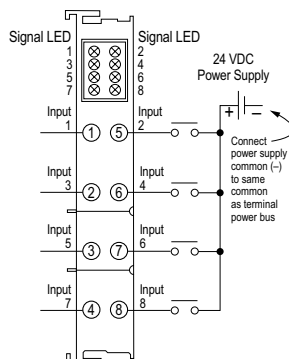
Terminal Specifications	
Inputs Per Terminal	4
Input Type	Sinking
Input Data Bytes Used	1/2 byte (4 bits)
Input Power Source	24VDC provided via terminal power bus
Current Consumption (from Terminal Power Bus)	5mA typical
Operating Voltage Rating	24VDC (-15%/+20%)
Peak Voltage Rating	30VDC
ON Voltage Level	15 to 30 VDC
OFF Voltage Level	-3 to +5 VDC
Minimum ON Current	50mA
Maximum OFF Current	100mA
Current Consumption (from I/O Bus)	5mA typical
Electrical Isolation	500Vms (I/O bus/field potential)
Heat Dissipation	1W max
OFF to ON Response	3ms
ON to OFF Response	3ms
Status Indicators	4, indicates input is ON

*To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

PX-148 \$86.00

Eight-point, 24VDC Discrete Input Terminal

The PX-148 (type 1) DC Input Terminal provides eight electrically isolated 24VDC sinking inputs with LED status.



General Specifications	
Operating Temp	32 to 131 °F (0 to 55 °C)
Storage Temp	-13 to 185 °F (-25 to 85 °C)
Relative Humidity	5% to 95%, non-condensing
Environment Air	No corrosive gases permitted
Mounting/Orientation Restrictions	35mm DIN rail/None
Vibration	Conforms to EN 60068-2-6
Shock	Conforms to EN 60068-2-27/ EN 60068-2-29
Noise Immunity	Conforms to EN 61000-6-2/ EN61000-6-4
Protection Class	IP20
Weight	55g (1.9 oz)
Dimensions (WxHxD)	12 x 100 x 68.8 mm (0.47 x 3.94 x 2.71 in)
Adjacent Mounting on Bus Terminals with Power Contact	Yes, DC only
Adjacent Mounting on Bus Terminals without Power Contact	No
Passes Terminal Bus Power	Yes
Passes PE Bus	No
Agency Approvals*	UL/cUL File No. E157382, CE

Terminal Specifications	
Inputs Per Terminal	8
Input Type	Sinking
Input Data Bytes Used	1 byte
Input Power Source	Requires external 24VDC power source
Current Consumption (from Terminal Power Bus)	2mA + load, typical
Operating Voltage Rating	24VDC (-15%/+20%)
Peak Voltage Rating	30VDC
ON Voltage Level	15 to 30 VDC
OFF Voltage Level	-3 to +5 VDC
Minimum ON Current	2mA
Maximum OFF Current	1.5 mA
Current Consumption (from I/O Bus)	5mA typical
Electrical Isolation	500Vms (I/O bus/field potential)
Heat Dissipation	1W max
OFF to ON Response	3ms
ON to OFF Response	3ms
Status Indicators	8, indicates input is ON

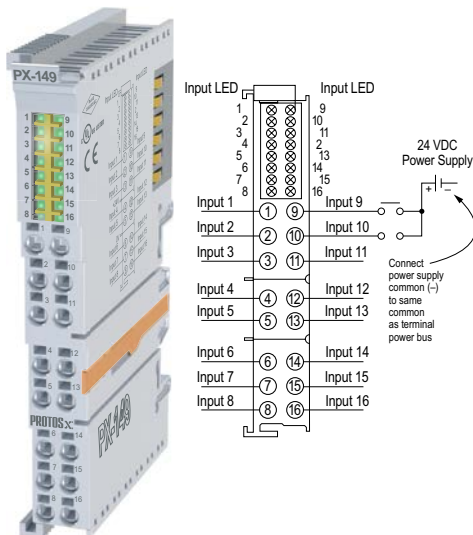
*To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

Discrete Input Terminals

PX-149 \$149.00

Sixteen-point, 24VDC Discrete Input Terminal

The PX-149 (type 1) DC Input Terminal provides sixteen electrically isolated 24VDC sinking inputs with LED status.



General Specifications	
Operating Temp	32 to 131 °F (0 to 55 °C)
Storage Temp	-13 to 185 °F (-25 to 85 °C)
Relative Humidity	5% to 95%, non-condensing
Environment Air	No corrosive gases permitted
Mounting/ Orientation Restrictions	35mm DIN rail/None
Vibration	Conforms to EN 60068-2-6
Shock	Conforms to EN 60068-2-27/ EN 60068-2-29
Noise Immunity	Conforms to EN 61000-6-2/ EN61000-6-4
Protection Class	IP20
Weight	60g (2.1 oz)
Dimensions (WxHxD)	12 x 100 x 68.8 mm (0.47 x 3.94 x 2.71 in)
Adjacent Mounting on Bus Terminals with Power Contact	Yes, DC only
Adjacent Mounting on Bus Terminals without Power Contact	No
Passes Terminal Bus Power	Yes
Passes PE Bus	No
Agency Approvals*	UL/cUL File No. E157382, CE

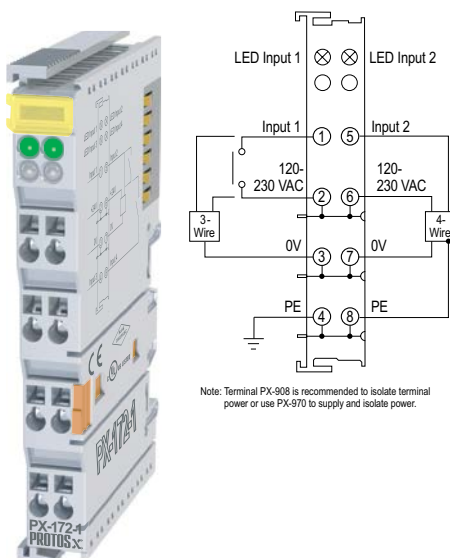
Terminal Specifications	
Inputs Per Terminal	16
Input Type	Sinking
Input Data Bytes Used	2 bytes
Input Power Source	Requires external 24VDC power source
Current Consumption (from Terminal Power Bus)	NA
Operating Voltage Rating	24VDC (-15%/+20%)
Peak Voltage Rating	30VDC
ON Voltage Level	11 to 30 VDC
OFF Voltage Level	-3 to +5 VDC
Minimum ON Current	2mA
Maximum OFF Current	40mA
Current Consumption (from I/O Bus)	20mA typical
Electrical Isolation	500Vms (I/O bus/field potential)
Heat Dissipation	1W max
OFF to ON Response	3ms
ON to OFF Response	3ms
Status Indicators	16, indicates input is ON

*To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

PX-172-1 \$59.00

Two-point, 120-230 VAC Discrete Input Terminal

The PX-172-1 (type 2) DC Input Terminal provides two electrically isolated 120-230 VAC inputs with LED status. For use with 4-wire, 3-wire and 2-wire devices.



Note: Terminal PX-908 is recommended to isolate terminal power or use PX-970 to supply and isolate power.

General Specifications	
Operating Temp	32 to 131 °F (0 to 55 °C)
Storage Temp	-13 to 185 °F (-25 to 85 °C)
Relative Humidity	5% to 95%, non-condensing
Environment Air	No corrosive gases permitted
Mounting/ Orientation Restrictions	35mm DIN rail/None
Vibration	Conforms to EN 60068-2-6
Shock	Conforms to EN 60068-2-27/ EN 60068-2-29
Noise Immunity	Conforms to EN 61000-6-2/ EN61000-6-4
Protection Class	IP20
Weight	60g (2.1 oz)
Dimensions (WxHxD)	12 x 100 x 68.8 mm (0.47 x 3.94 x 2.71 in)
Adjacent Mounting on Bus Terminals with Power Contact	Yes, AC only
Adjacent Mounting on Bus Terminals without Power Contact	No
Passes Terminal Bus Power	Yes
Passes PE Bus	Yes
Agency Approvals*	UL/cUL File No. E157382, CE

Terminal Specifications	
Inputs Per Terminal	2
Input Type	NA
Input Data Bytes Used	1/4 byte (2 bits)
Input Power Source	Requires external 120-230 VAC power source. PX-908 terminal recommended to provide power to the terminal power bus.
Current Consumption (from Terminal Power Bus)	6mA typical
Operating Voltage Rating	120 to 230 VAC
Peak Voltage Rating	260VAC
ON Voltage Level	79 to 260 VAC
OFF Voltage Level	0 to 40 VAC
Minimum ON Current	250mA
Maximum OFF Current	500mA
Current Consumption (from I/O Bus)	3mA typical
Electrical Isolation	500Vms (I/O bus/field potential)
Heat Dissipation	1W max
OFF to ON Response	10ms
ON to OFF Response	10ms
Status Indicators	2, indicates input is ON

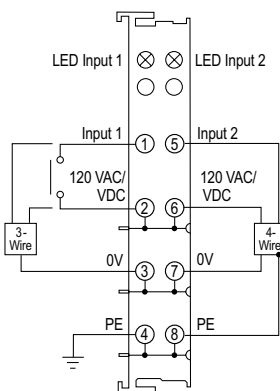
*To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

Discrete Input Terminals

PX-172-2 \$59.00

Two-point, 120 VAC/VDC Discrete Input Terminal

The PX-172-2 (type 2) DC Input Terminal provides two electrically isolated 120 VAC/VDC inputs with LED status. For use with 4-wire, 3-wire and 2-wire devices.



Note: Terminal PX-908 is recommended to isolate terminal power or use PX-970 to supply and isolate power.

General Specifications	
Operating Temp	32 to 131 °F (0 to 55 °C)
Storage Temp	-13 to 185 °F (-25 to 85 °C)
Relative Humidity	5% to 95%, non-condensing
Environment Air	No corrosive gases permitted
Mounting/Orientation Restrictions	35mm DIN rail/None
Vibration	Conforms to EN 60068-2-6
Shock	Conforms to EN 60068-2-27/EN 60068-2-29
Noise Immunity	Conforms to EN 61000-6-2/EN61000-6-4
Protection Class	IP20
Weight	60g (2.1 oz)
Dimensions (WxHxD)	12 x 100 x 68.8 mm (0.47 x 3.94 x 2.71 in)
Adjacent Mounting on Bus Terminals with Power Contact	Yes, 120 VAC/VDC only
Adjacent Mounting on Bus Terminals without Power Contact	No
Passes Terminal Bus Power	Yes
Passes PE Bus	Yes
Agency Approvals*	UL/cUL File No. E157382, CE

*To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

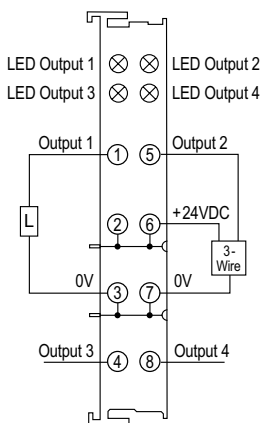
Terminal Specifications	
Inputs Per Terminal	2
Input Type	NA
Input Data Bytes Used	1/4 byte (2 bits)
Input Power Source	Requires external 120 VAC/VDC power source. PX-908 terminal recommended to provide power to the terminal power bus.
Current Consumption (from Terminal Power Bus)	6mA typical
Operating Voltage Rating	120 VAC/VDC
Peak Voltage Rating	140 VAC/VDC
ON Voltage Level	80 to 140 VAC/VDC
OFF Voltage Level	0 to 40 VAC/VDC
Minimum ON Current	250mA
Maximum OFF Current	500mA
Current Consumption (from I/O Bus)	3mA typical
Electrical Isolation	500Vms (I/O bus/field potential)
Heat Dissipation	1W max
OFF to ON Response	10ms
ON to OFF Response	10ms
Status Indicators	2, indicates input is ON

Discrete Output Terminals

PX-244-1 \$79.00

Four-point, 0.5 A, 24VDC Discrete Output Terminal

The PX-244-1 (type 1) DC Output Terminal provides four 24VDC 0.5 A short-circuit protected sourcing outputs with LED status. For use with 3-wire and 2-wire devices.



General Specifications	
Operating Temp	32 to 131 °F (0 to 55 °C)
Storage Temp	-13 to 185 °F (-25 to 85 °C)
Relative Humidity	5% to 95%, non-condensing
Environment Air	No corrosive gases permitted
Mounting/ Orientation Restrictions	35mm DIN rail/None
Vibration	Conforms to EN 60068-2-6
Shock	Conforms to EN 60068-2-27/ EN 60068-2-29
Noise Immunity	Conforms to EN 61000-6-2/ EN61000-6-4
Protection Class	IP20
Weight	60g (2.1 oz)
Dimensions (WxHxD)	12 x 100 x 68.8 mm (0.47 x 3.94 x 2.71 in)
Adjacent Mounting on Bus Terminals with Power Contact	Yes, DC only
Adjacent Mounting on Bus Terminals without Power Contact	No
Passes Terminal Bus Power	Yes
Passes PE Bus	No
Agency Approvals*	UL/cUL File No. E157382, CE

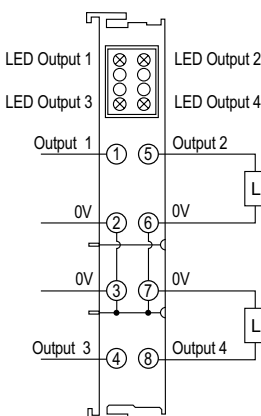
*To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

Terminal Specifications	
Outputs Per Terminal	4
Commons Per Terminal	2
Output Type	Sourcing
Output Data Bytes Used	1/2 byte (4 bits)
Output Power Source	24VDC provided via terminal power bus
Current Consumption (from Load Voltage)	30mA typical
Operating Voltage	24VDC (-15%/+20%)
Maximum Load Current	0.5 A per channel (Short-Circuit Protected)
On Voltage Drop	0.4 VDC @ 0.5 A
Maximum Leakage Current	300mA
Maximum Inrush Current	1.5 A
Maximum Short-Circuit Voltage	35V
Load Type	Resistive, inductive, lamp
Current Consumption (from I/O Bus)	9mA typical
Reverse Voltage Protection	No
Electrical Isolation	500Vms (I/O bus/field potential)
Heat Dissipation	1W max
OFF to ON Response	100ms max
ON to OFF Response	20ms max
Status Indicators	4, indicates output is ON

PX-244-2 \$97.00

Four-point, 2A, 24VDC Discrete Output Terminal

The PX-244-2 (type 1) DC Output Terminal provides four 24VDC 2A short-circuit protected sourcing outputs with LED status.



General Specifications	
Operating Temp	32 to 131 °F (0 to 55 °C)
Storage Temp	-13 to 185 °F (-25 to 85 °C)
Relative Humidity	5% to 95%, non-condensing
Environment Air	No corrosive gases permitted
Mounting/ Orientation Restrictions	35mm DIN rail/None
Vibration	Conforms to EN 60068-2-6
Shock	Conforms to EN 60068-2-27/ EN 60068-2-29
Noise Immunity	Conforms to EN 61000-6-2/ EN61000-6-4
Protection Class	IP20
Weight	60g (2.1 oz)
Dimensions (WxHxD)	12 x 100 x 68.8 mm (0.47 x 3.94 x 2.71 in)
Adjacent Mounting on Bus Terminals with Power Contact	Yes, DC only
Adjacent Mounting on Bus Terminals without Power Contact	No
Passes Terminal Bus Power	Yes
Passes PE Bus	No
Agency Approvals*	UL/cUL File No. E157382, CE

*To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

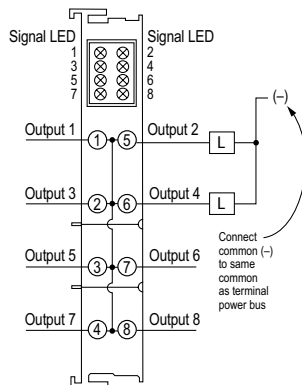
Terminal Specifications	
Outputs Per Terminal	4
Commons Per Terminal	4
Output Type	Sourcing
Output Data Bytes Used	1/2 byte (4 bits)
Output Power Source	24VDC provided via terminal power bus
Current Consumption (from Load Voltage)	30mA typical
Operating Voltage	24VDC (-15%/+20%)
Maximum Load Current	2A per channel (Short-Circuit Protected)
On Voltage Drop	0.14 VDC @ 2A
Maximum Leakage Current	60mA
Maximum Inrush Current	35A
Maximum Short-Circuit Voltage	52V
Load Type	Resistive, inductive, lamp
Current Consumption (from I/O Bus)	9mA typical
Reverse Voltage Protection	Yes
Electrical Isolation	500Vms (I/O bus/field potential)
Heat Dissipation	1W max
OFF to ON Response	160ms typ, 300ms max
ON to OFF Response	10ms min, 80ms max
Status Indicators	4, indicates output is ON

Discrete Output Terminals

PX-248 \$101.00

Eight-point, 0.5 A, 24VDC Discrete Output Terminal

The PX-248 (type 1) DC Output Terminal provides eight 24VDC 0.5 A short-circuit protected sourcing outputs with LED status.



General Specifications	
Operating Temp	32 to 131 °F (0 to 55 °C)
Storage Temp	-13 to 185 °F (-25 to 85 °C)
Relative Humidity	5% to 95%, non-condensing
Environment Air	No corrosive gases permitted
Mounting/Orientation Restrictions	35mm DIN rail/None
Vibration	Conforms to EN 60068-2-6
Shock	Conforms to EN 60068-2-27/ EN 60068-2-29
Noise Immunity	Conforms to EN 61000-6-2/ EN61000-6-4
Protection Class	IP20
Weight	70g (2.4 oz)
Dimensions (WxHxD)	12 x 100 x 68.8 mm (0.47 x 3.94 x 2.71 in)
Adjacent Mounting on Bus Terminals with Power Contact	Yes, DC only
Adjacent Mounting on Bus Terminals without Power Contact	No
Passes Terminal Bus Power	Yes
Passes PE Bus	No
Agency Approvals*	UL/cUL File No. E157382, CE

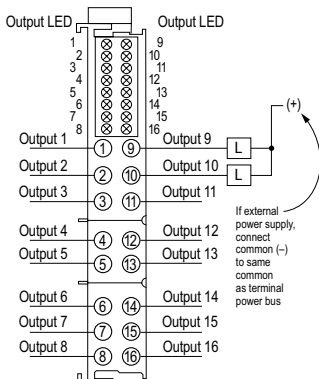
*To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

Terminal Specifications	
Outputs Per Terminal	8
Commons Per Terminal	Field wired
Output Type	Sourcing
Output Data Bytes Used	1 byte
Output Power Source	24VDC provided via terminal power bus
Current Consumption (from Load Voltage)	60mA + load typical
Operating Voltage	24VDC (-15%/+20%)
Maximum Load Current	0.5 A per channel (Short-Circuit Protected)
On Voltage Drop	0.4 VDC @ 0.5 A
Maximum Leakage Current	300mA
Maximum Inrush Current	1.5 A
Max. Short-Circuit Voltage	35V
Load Type	Resistive, inductive, lamp
Current Consumption (from I/O Bus)	18mA typical
Reverse Voltage Protection	Yes
Electrical Isolation	500Vrms (I/O bus/field potential)
Heat Dissipation	1W max
OFF to ON Response	100ms max
ON to OFF Response	20ms max
Status Indicators	8, indicates output is ON

PX-249 \$140.00

Sixteen-point, 0.5 A, 24VDC Discrete Output Terminal

The PX-249 (type 1) DC Output Terminal provides sixteen 24VDC 0.5 A short-circuit protected sinking outputs with LED status.



General Specifications	
Operating Temp	32 to 131 °F (0 to 55 °C)
Storage Temp	-13 to 185 °F (-25 to 85 °C)
Relative Humidity	5% to 95%, non-condensing
Environment Air	No corrosive gases permitted
Mounting/Orientation Restrictions	35mm DIN rail/None
Vibration	Conforms to EN 60068-2-6
Shock	Conforms to EN 60068-2-27/ EN 60068-2-29
Noise Immunity	Conforms to EN 61000-6-2/ EN61000-6-4
Protection Class	IP20
Weight	70g (2.4 oz)
Dimensions (WxHxD)	12 x 100 x 68.8 mm (0.47 x 3.94 x 2.71 in)
Adjacent Mounting on Bus Terminals with Power Contact	Yes, DC only
Adjacent Mounting on Bus Terminals without Power Contact	No
Passes Terminal Bus Power	Yes
Passes PE Bus	No
Agency Approvals*	UL/cUL File No. E157382, CE

Terminal Specifications	
Outputs Per Terminal	16
Commons Per Terminal	Field wired
Output Type	Sinking
Output Data Bytes Used	2 bytes
Output Power Source	Requires external 24VDC power source
Current Consumption (from Load Voltage)	35mA + load typical
Operating Voltage	24VDC (-15%/+20%)
Maximum Load Current	0.5 A per channel (Short-Circuit Protected)
On Voltage Drop	0.12 VDC @ 0.5 A
Maximum Leakage Current	75mA
Maximum Inrush Current	3.5 A
Max. Short-Circuit Voltage	36V
Load Type	Resistive, inductive, lamp
Current Consumption (from I/O Bus)	45mA typical
Reverse Voltage Protection	Yes
Electrical Isolation	500Vrms (I/O bus/field potential)
Heat Dissipation	1W max
OFF to ON Response	0.45 ms
ON to OFF Response	3.3 ms
Status Indicators	16, indicates output is ON

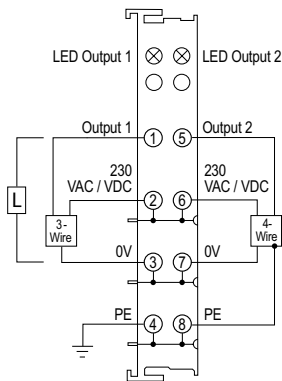
*To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

Discrete Relay Output Terminals

PX-272-1 \$107.00

**Two-point, 0-230 VAC/VDC
Discrete Solid State Relay
Output Terminal**

The PX-272-1 (type 2) Solid State Relay Output Terminal provides two 230 VAC/VDC 0.3 A outputs with LED status. For use with 4-wire, 3-wire and 2-wire devices.



Note: Terminal PX-908 is recommended to isolate terminal power or use PX-970 to supply and isolate power.

General Specifications	
Operating Temp	32 to 131 °F (0 to 55 °C)
Storage Temp	-13 to 185 °F (-25 to 85 °C)
Relative Humidity	5% to 95%, non-condensing
Environment Air	No corrosive gases permitted
Mounting/ Orientation Restrictions	35mm DIN rail/None
Vibration	Conforms to EN 60068-2-6
Shock	Conforms to EN 60068-2-27/ EN 60068-2-29
Noise Immunity	Conforms to EN 61000-6-2/ EN61000-6-4
Protection Class	IP20
Weight	55g (1.9 oz)
Dimensions (WxHxD)	12 x 100 x 68.8 mm (0.47 x 3.94 x 2.71 in)
Adjacent Mounting on Bus Terminals with Power Contact	Yes, 230 VAC/VDC only
Adjacent Mounting on Bus Terminals without Power Contact	No
Passes Terminal Bus Power	Yes
Passes PE Bus	Yes
Agency Approvals*	UL/cUL File No. E157382, CE

*To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

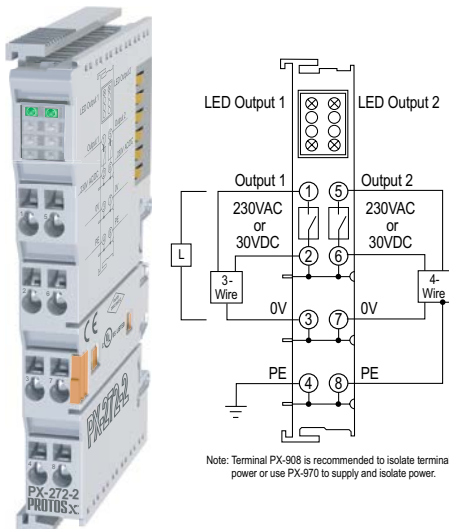
Terminal Specifications	
Outputs Per Terminal	2
Commons Per Terminal	2
Output Type	Solid State Relay (DC sourcing only)
Output Data Bytes Used	1/4 byte (2 bits)
Output Power Source	230 VAC/VDC provided via terminal power bus
Current Consumption (from Terminal Power Bus)	(ON resistance max 100mV) + load
Operating Voltage	0 to 230 VAC/VDC (DC 100Hz)
Maximum Load Current	0.3 A per point
Maximum Leakage Current	< 1mA (off state)
Maximum Inrush Current	0.5 A for 20s, 1.5 A for 100ms
Contact Resistance	2.1 V, typical 3.2 V, max.
Surge Voltage Protection	From 400VAC
Load Type	Resistive, inductive
Current Consumption (from I/O Bus)	10mA
Electrical Isolation	500Vms (I/O bus/field potential) 2500VDC (1 min.)
Heat Dissipation	1W max
Switch-ON Time	4 to 6 ms
Switch-OFF Time	0.05 to 0.1 ms
Switch-ON Delay	320ms
Switch-OFF Delay	6.2 ms
Status Indicators	2, indicates output is ON

Discrete Relay Output Terminals

PX-272-2 \$84.00

Two-point, 230VAC / 30VDC Discrete Relay Output Terminal

The PX-272-2 (type 2) Relay Output Terminal provides two 230VAC / 30VDC 5A outputs with LED status. For use with 4-wire, 3-wire and 2-wire devices.



General Specifications	
Operating Temp	32 to 131 °F (0 to 55 °C)
Storage Temp	-13 to 185 °F (-25 to 85 °C)
Relative Humidity	5% to 95%, non-condensing
Environment Air	No corrosive gases permitted
Mounting/ Orientation Restrictions	35mm DIN rail/None
Vibration	Conforms to EN 60068-2-6
Shock	Conforms to EN 60068-2-27/ EN 60068-2-29
Noise Immunity	Conforms to EN 61000-6-2/ EN61000-6-4
Protection Class	IP20
Weight	85g (3.0 oz)
Dimensions (WxHxD)	12 x 100 x 68.8 mm (0.47 x 3.94 x 2.71 in)
Adjacent Mounting on Bus Terminals with Power Contact	Yes, 230VAC or 30VDC only
Adjacent Mounting on Bus Terminals without Power Contact	No
Passes Terminal Bus Power	Yes
Passes PE Bus	Yes
Agency Approvals*	UL/cUL File No. E157382, CE

*To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

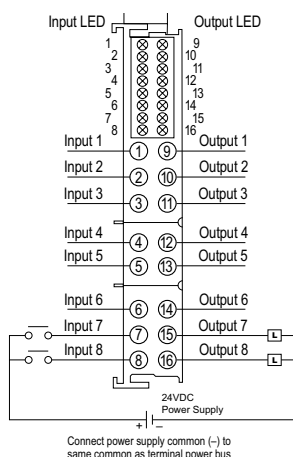
Terminal Specifications	
Outputs Per Terminal	2
Commons Per Terminal	2
Output Type	SPST Relay, normally open contact (DC sourcing only)
Output Data Bytes Used	1/4 byte (2 bits)
Output Power Source	230VAC/30VDC provided via terminal power bus
Current Consumption (from Terminal Power Bus)	(ON resistance typ 2.4 V, max 3.2 V) + load
Operating Voltage	230VAC/30VDC
Maximum Load Current	5A per point
Maximum Load Current with Resistive Load	AC: 5A @230VAC, 1250VA DC: 5A @ 30VDC, 150W
Maximum Load Current with Inductive Load, cosφ = 0.4, L/R = 7ms	AC: 2A @230VAC DC: 2A @ 30VDC
Minimum Load (approximate)	10mA @ 5VDC (as supplied) 100mA @ 20VDC (after approx. ≥ 100mA has been switched at least once)
Load Type	Resistive, inductive, lamp
Switching Times	Reaction Time: 10ms max. Release Time: 4ms max. Bounce Time: 5ms max.
Contact Material	Silver Cadmium Oxide
Current Consumption (from I/O Bus)	80mA
Electrical Isolation	500Vms (I/O bus/field potential) 2500VDC (1 min.)
Heat Dissipation	1W max
Switching Frequency at Maximum Contact Load	10/minute
Maximum Contact Resistance	< 30mV
Minimum Insulation Resistance	100MV @ 500VDC
Mechanical Operating Life	20,000,000 switching operations
Electrical Operating Life	Minimum 100,000 switching operations with resistive loads
Test Voltage Between Open Contacts	750V for 1 minute
Status Indicators	2, indicates output is ON

Discrete Combination Terminal

PX-549 \$153.00

Eight inputs/Eight outputs, 24VDC Discrete Input/Output Terminal

The PX-549 (type 1) DC Input/Output Terminal provides eight 24VDC inputs and eight 24VDC 0.5 A outputs with reverse polarity protection and LED status.



General Specifications	
Operating Temp	32 to 131 °F (0 to 55 °C)
Storage Temp	-13 to 185 °F (-25 to 85 °C)
Relative Humidity	5% to 95%, non-condensing
Environment Air	No corrosive gases permitted
Mounting/ Orientation Restrictions	35mm DIN rail/None
Vibration	Conforms to EN 60068-2-6
Shock	Conforms to EN 60068-2-27/ EN 60068-2-29
Noise Immunity	Conforms to EN 61000-6-2/ EN61000-6-4
Protection Class	IP20
Weight	60g (2.1 oz)
Dimensions (WxHxD)	12 x 100 x 68.8 mm (0.47 x 3.94 x 2.71 in)
Adjacent Mounting on Bus Terminals with Power Contact	Yes, DC only
Adjacent Mounting on Bus Terminals without Power Contact	No
Passes Terminal Bus Power	Yes
Passes PE Bus	No
Agency Approvals*	UL/cUL File No. E157382, CE

*To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

Terminal Specifications	
Inputs/Outputs Per Terminal	8 sinking inputs / 8 sourcing outputs
Data Bytes Used	1 byte (inputs) / 1 byte (outputs)
Input/Output Power Source	Requires external 24VDC power source
Operating Voltage Rating	24VDC (-15%/+20%)
Current Consumption (from I/O Bus)	25mA typical
Current Consumption (from Terminal Power Bus)	15mA + load typical
Electrical Isolation	500Vms (I/O bus/field potential)
Heat Dissipation	1W max
Status Indicators	8 input and 8 output, indicates ON
Input Specifications	
Peak Voltage Rating	30VDC
ON Voltage Level	15 to 30 VDC
OFF Voltage Level	-3 to +5 VDC
Minimum ON Current	2mA
Minimum OFF Current	40mA
Current Consumption (from I/O Bus)	3mA typical
OFF to ON Response	3ms
ON to OFF Response	3ms
Output Specifications	
Max. Load Current per Output	0.5 A (Short-Circuit Protected)
On Voltage Drop	0.14 VDC @ 2A
Maximum Leakage Current	5mA
Maximum Inrush Current	2A
Maximum Short-Circuit Voltage	45V
Load Type	Resistive, inductive, lamp
Reverse Voltage Protection	Yes
OFF to ON Response	50ms
ON to OFF Response	75ms

System Installation and Removal

Bus Coupler and Bus Terminal Installation

Bus Coupler Installation:

1. Attach a Bus Coupler by snapping it onto 35mm DIN rail and securing it into position using the DIN rail locking wheel (where applicable) located on the left side of the coupler.

Bus Terminal Installation:

2. To add a bus terminal, insert unit onto right side of Bus Coupler using the tongue and groove at the top and bottom of the unit, pressing gently until it snaps onto the DIN rail.
- A proper connection cannot be made by sliding the units together on the DIN rail. When correctly installed, no significant gap can be seen between the attached units. Bus connection is made through the six slide contacts located on the upper right side of the units. Add up to 64 bus terminals per Bus Coupler, including a bus end terminal.

2

Insert unit using tongue and groove molded guide and press gently until it becomes firmly seated on DIN rail.

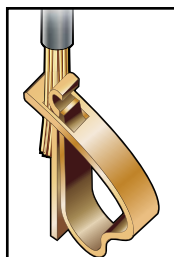
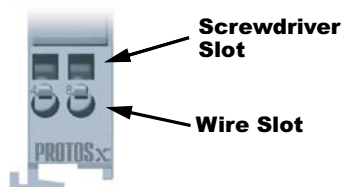
Where applicable, rotate Locking Wheel to lock Bus Coupler

1

Align tab with molded guide

Wiring Connections

- Wire connection is made through a spring clamp style terminal. This terminal is designed for a single-conductor solid or stranded wire. Wire connection is made by firmly pushing the screwdriver into the screwdriver slot, inserting the wire into the wire slot and removing the screwdriver, locking the wire into position.



Wiring Specifications

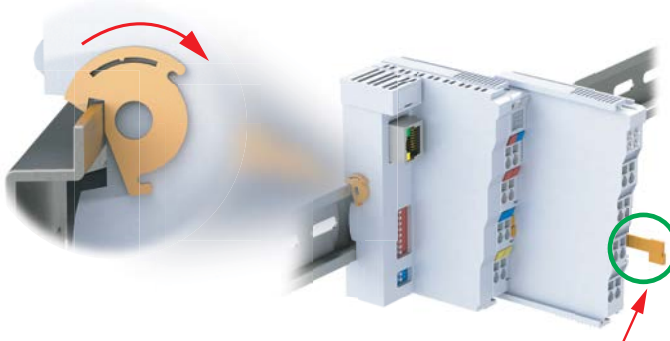
Connection Type	Spring Clamp Terminals
Wire Gauge	28–14 AWG (0.08–2.5 mm ²)
Screwdriver Width	2.5 mm (0.10 in) such as P/N TW-SD-MSL-2
Wire Stripping Length	8mm

* For Thermocouple terminals, thermocouple extension wire is recommended

Removing Bus Coupler and Bus Terminals

- A locking mechanism prevents individual units from being pulled off. For bus terminal removal, pull the orange DIN rail release tab firmly to unlatch the unit from the rail. If attached to other terminal units, slide unit forward until released. For Bus Couplers with locking wheels, release the DIN rail locking wheel, then pull firmly on DIN rail release tab.

Where applicable, rotate Locking Wheel to unlock Bus Coupler



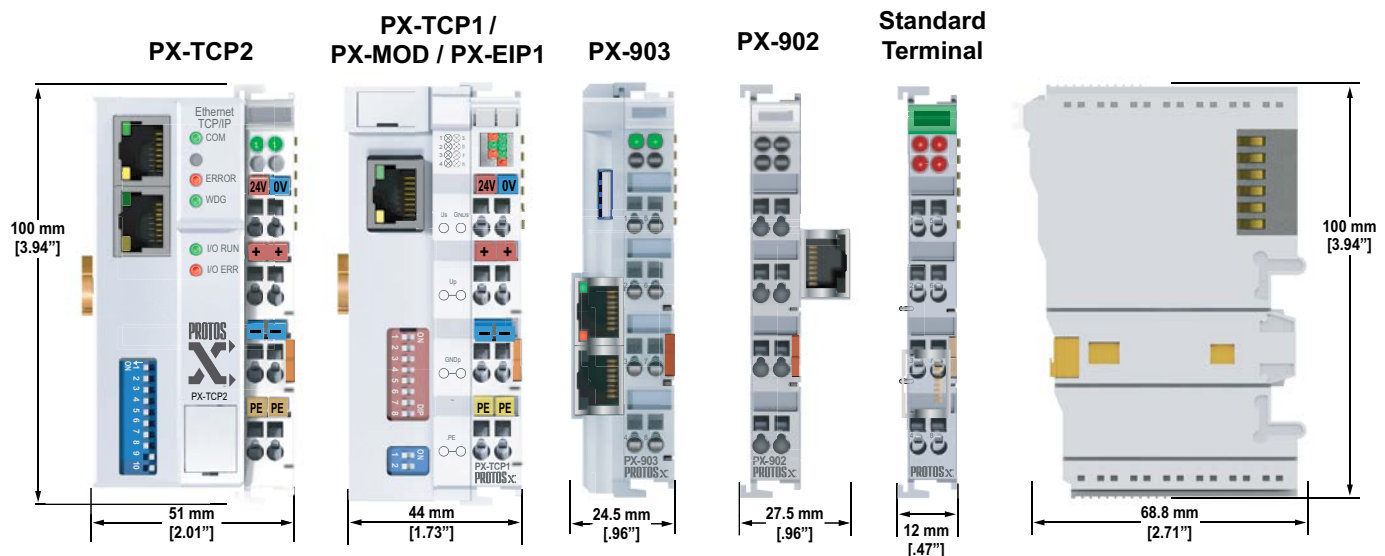
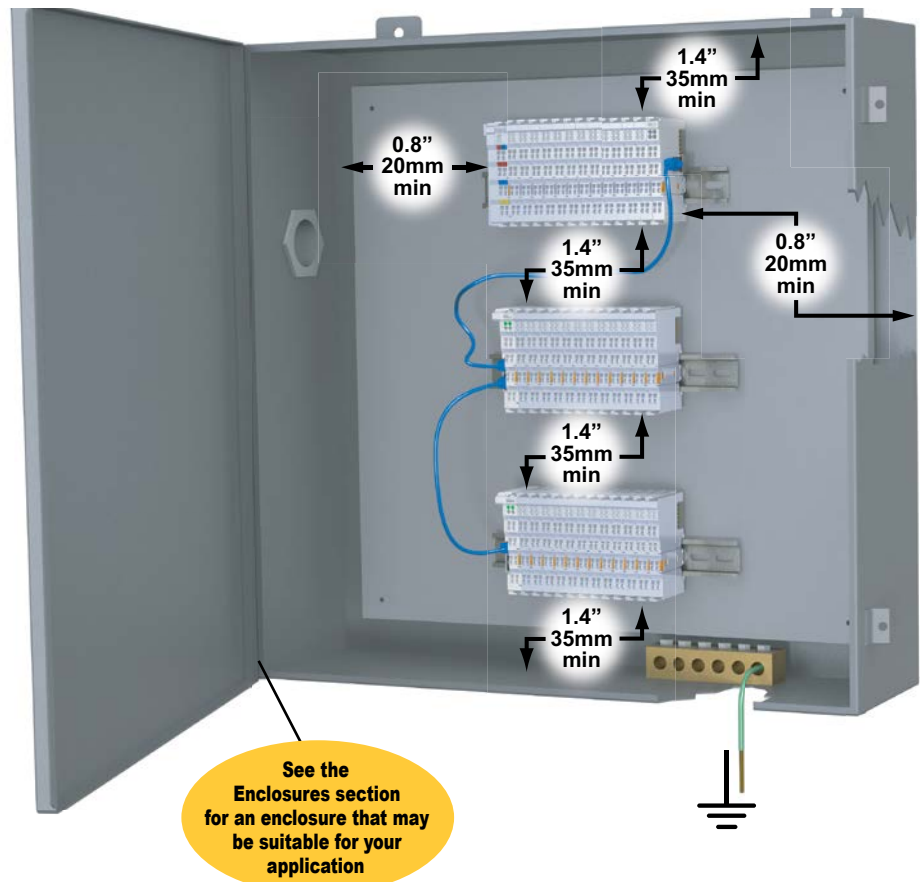
Firmly pull DIN Rail Release Tab to unlatch unit from rail.

Installation Considerations

Terminal Dimensions and Spacing Requirements

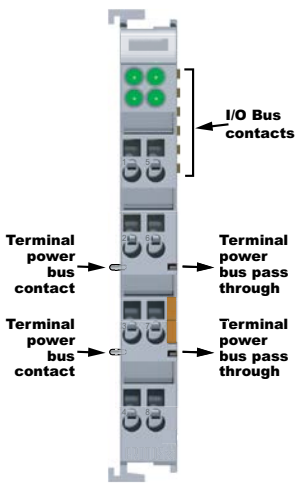
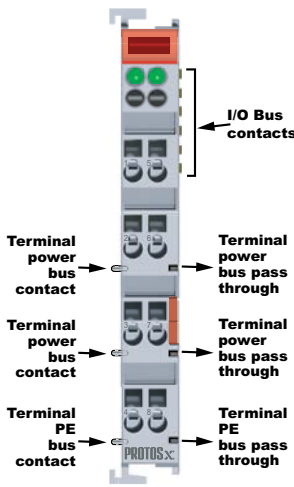
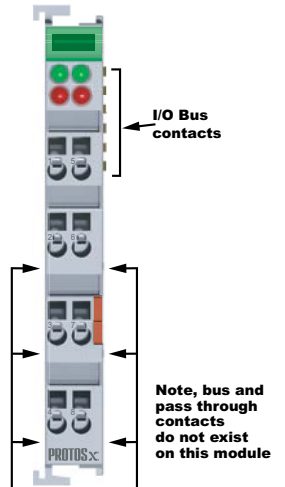
Use the following diagrams to make sure the Protos X system can be installed in your application. Protos X terminals require 35mm DIN rail for mounting; there are no orientation restrictions.

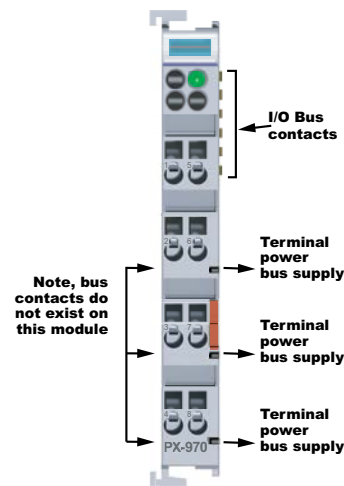
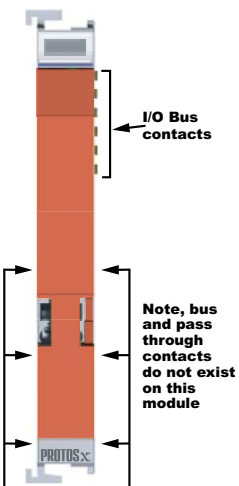
To ensure proper airflow for cooling purposes, units should be spaced, at a minimum, as shown. It is also important to check the Protos X dimensions against the conditions required for your application.



Installation Considerations

Terminal Types

TYPE 1	TYPE 2	TYPE 3
 <p>I/O Bus contacts</p> <p>Terminal power bus contact</p> <p>Terminal power bus pass through</p> <p>Terminal power bus contact</p> <p>Terminal power bus pass through</p>	 <p>I/O Bus contacts</p> <p>Terminal power bus contact</p> <p>Terminal power bus pass through</p> <p>Terminal power bus contact</p> <p>Terminal power bus pass through</p> <p>Terminal PE bus contact</p> <p>Terminal PE bus pass through</p> <p>PROTOSx</p>	 <p>I/O Bus contacts</p> <p>Note, bus and pass through contacts do not exist on this module</p> <p>PROTOSx</p>
<p>Type 1: This terminal passes the terminal power bus from the preceding terminal to the next terminal and therefore it must be mounted to a preceding terminal that passes bus power.</p>	<p>Type 2: This terminal passes the terminal power bus and PE from the preceding terminal to the next terminal and therefore it must be preceded by a terminal that passes both terminal power bus and PE.</p>	<p>Type 3: This terminal does not pass the terminal power bus or PE and can be preceded by any terminal, however it will interrupt the terminal power bus and PE.</p>

TYPE 4	TYPE 5
 <p>I/O Bus contacts</p> <p>Note, bus contacts do not exist on this module</p> <p>Terminal power bus supply</p> <p>Terminal power bus supply</p> <p>Terminal power bus supply</p> <p>PX-970</p>	 <p>I/O Bus contacts</p> <p>Note, bus and pass through contacts do not exist on this module</p> <p>PROTOSx</p>
<p>Type 4: This terminal requires external voltage connection and supplies the terminal power bus to terminals located to its right. The terminals to its right must support the same power bus of 120/230 VAC or 24VDC. This terminal will not pass terminal power or PE from any preceding terminals.</p>	<p>Type 5: This terminal is used to separate the terminal power bus and PE from other terminals and can be mounted next to any terminal.</p>