



Connect.  
Communicate.  
Control.



# XPress-Pro™ SW INDUSTRIAL ETHERNET SWITCHES



# XPress-Pro SW Series Hardened Ethernet Switches

## Enabling Communication for the Demanding Industrial Environment

Part of the DeviceLinX™ family of network-enablement products, XPress-Pro™ SW series managed and unmanaged Ethernet switches are designed to give you performance you can count on in harsh industrial environments.

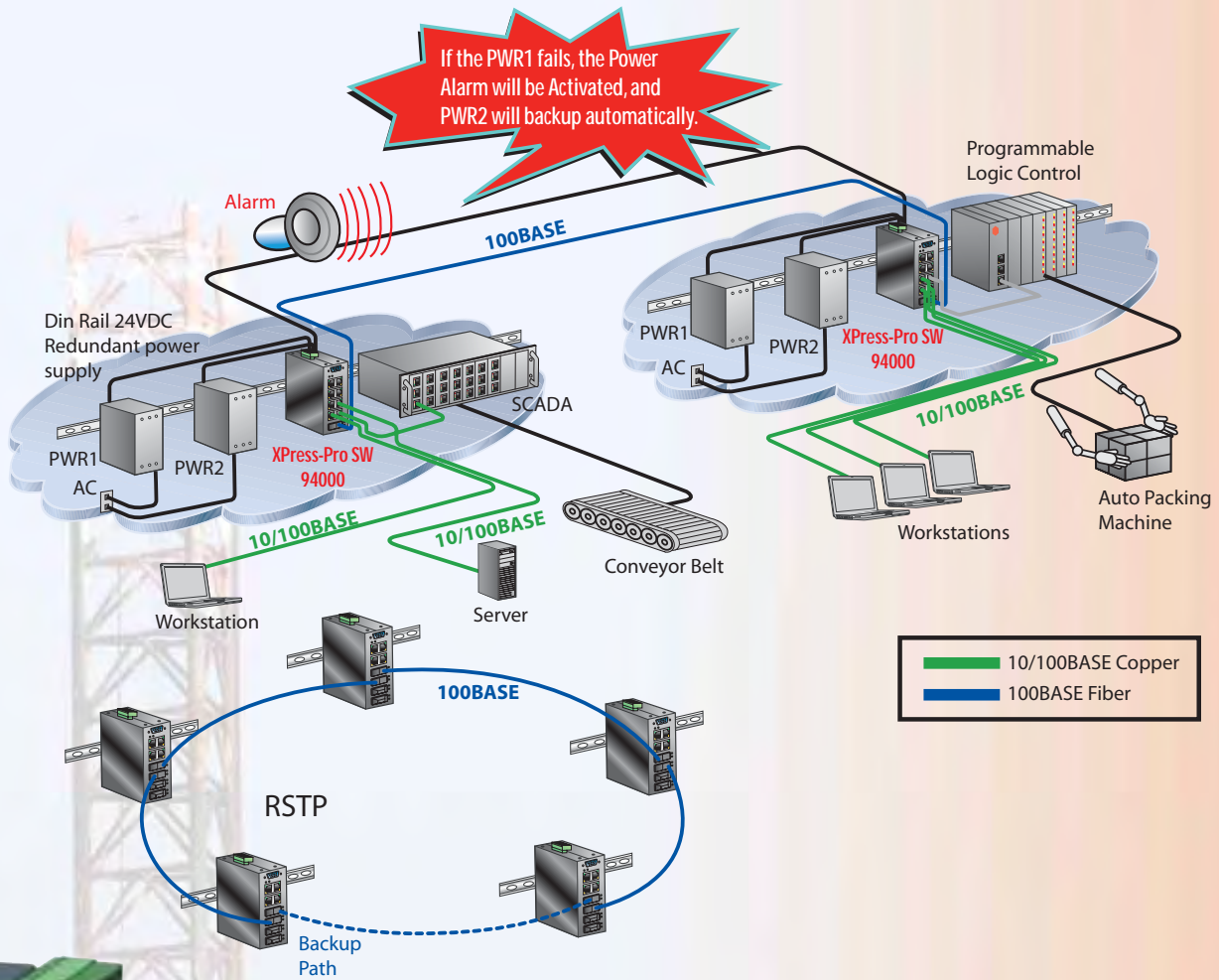
Whether they're on the factory floor or in the field, XPress-Pro switches will provide flawless communication when you need it most.

Combined with our industrial device servers, this complete line of rugged, dependable and affordable switches delivers a robust industrial device networking solution.

DeviceLinX™



# XPress-Pro SW Series Hardened Ethernet Switches



*XPress-Pro 8-port models feature redundant power inputs and a relay for power failure alarms.*

## XPress-Pro Industrial Ethernet Switches are DIN-rail mountable and offer:

- ▶ Compliant with IEC61000-6-2 EMC generic immunity standard for the industrial environment
- ▶ Full wire-speed forwarding rate
- ▶ Alarms for power failure by relay output (8-port only)
- ▶ Fiberoptic interfaces



# XPress-Pro SW 94000 Series

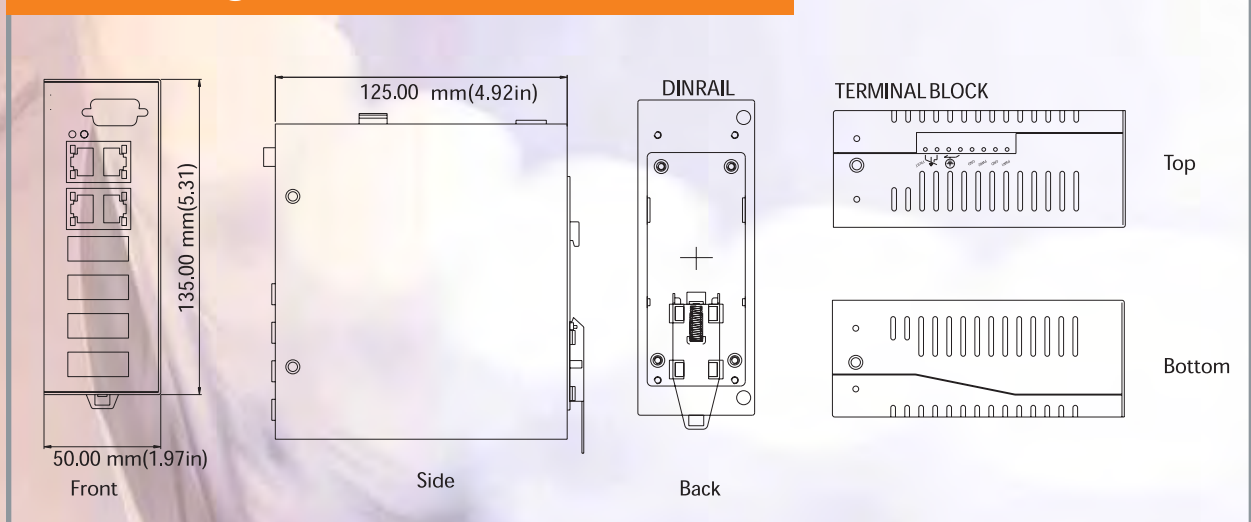
## XPress-Pro SW 94000 Series

The XPress-Pro SW 94000 is a managed Ethernet switch, allowing the user to log in and create virtual LANs, configure ports, mirror ports and more. SW 94000 switches deliver the flexibility of eight 10/100 Ethernet ports with an optional fiberoptic interface. XPress-Pro SW 94000 switches can be DIN-rail, shelf or wall mounted, and come with dual redundant power inputs via a terminal block.



- ▶ 4K MAC addresses
- ▶ 256 KB buffer memory
- ▶ Redundant 2A max, 10 to 30 VDC power inputs
- ▶ -34° to 74° C (-29° to 165° F) operating temperature range
- ▶ Hardened aluminum case
- ▶ Supports DIN-rail, panel, or rack-mounting installation
- ▶ Complies with NEMA TS1 and TS2 environmental requirements for traffic control equipment
- ▶ IEEE802.1w RSTP and IEEE802.1D STP compatible
- ▶ IP multicast filtering through IGMP snooping
- ▶ Supports port-based VLAN and IEEE802.1Q VLAN tagging and GVRP
- ▶ IEEE802.1p QoS classification based on port-based priority, VLAN priority field in VLAN-tagged frame, DS/TOS field in IP packet, UDP/TCP logical ports
- ▶ 8-port-based trunking groups with up to 8 ports per group
- ▶ Rate control
- ▶ Packet filtering and port security: destination MAC and static MAC address are not subject to aging; secure mode freezes MAC address learning
- ▶ Port mirroring
- ▶ Alarms for power failure by relay output
- ▶ UL 1604: Class 1, Division 2 classified for use in hazardous locations

### 94000 Diagram



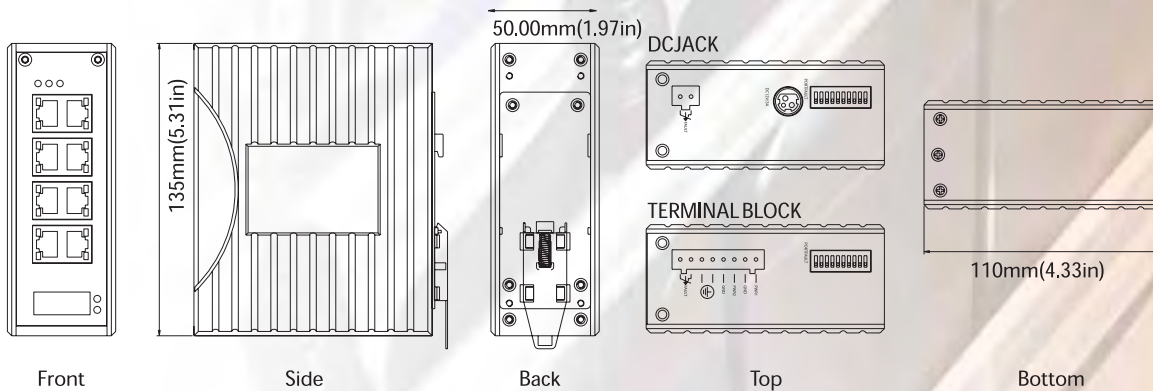
## XPress-Pro SW 92000 Series

XPress-Pro SW 92000 switches offer eight 10/100 Ethernet ports and an optional fiberoptic interface. They can be DIN-rail, shelf or wall mounted, and come with dual redundant power inputs to fit applications requiring a tough, environmentally hardened Ethernet switch.



- ▶ 2048 MAC addresses
- ▶ 768 kilobit buffer memory
- ▶ Redundant 2A max, 10 to 48 VDC power inputs
- ▶ -34° to 74° C (-29° to 165° F) operating temperature range
- ▶ Hardened aluminum case
- ▶ Supports DIN-rail, panel, or rack-mounting installation
- ▶ Comply with NEMA TS1 and TS2 environmental requirements for traffic control equipment
- ▶ Alarms for power and port link failure by relay output
- ▶ UL 1604: Class 1, Division 2 classified for use in hazardous locations

### 92000 Diagram



**XPress-Pro SW 92000 Series**

# XPress-Pro SW 52000 Series

## XPress-Pro SW 52000 Series

The XPress-Pro SW 52000 compact, fast Ethernet switches are equipped with 5-port 10/100Base-TX or 4-port 10/100Base-TX plus a fiberoptic interface. By using standard auto-negotiation and the inclusion of auto-MDIX, Lantronix delivers a cost-effective way of integrating legacy 10 Mbps networks with 100 Mbps fast Ethernet networks.

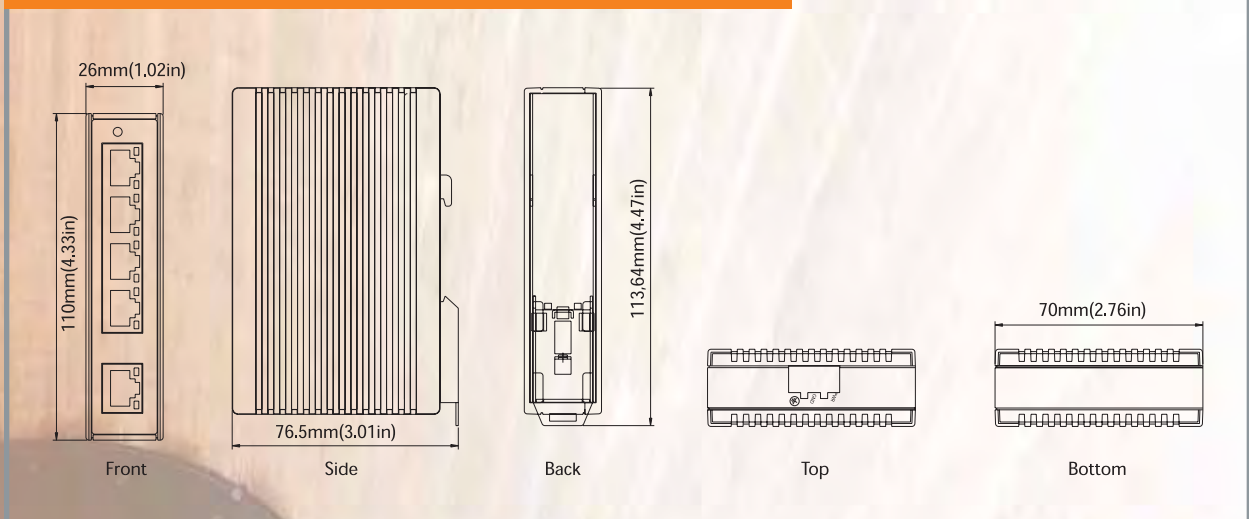
SW 52000 TX ports auto-negotiate for 10/100 Mbps speed and auto detect full or half-duplex mode.

The fiber port on the SW 52012F accommodates multimode SC with a fiberoptic connection between two nodes that can reach up to two kilometers. SW 52000 series switches can be DIN-rail mounted and are equipped with terminal block power input to accommodate just about any application that requires an Ethernet switch.



- ▶ 2048 MAC addresses
- ▶ 384 kilobit buffer memory
- ▶ .1A max, 12 to 48 VDC power input
- ▶ -10° to 60° C (14° to 140° F) operating temperature range
- ▶ Industrial plastic case supports DIN-rail mounting

### → 52000 Diagram





XPress-Pro SW Model:	52000	92000	94000
<b>Designation</b>		100Base-FX	
<b>Typical Distance</b>		2 Km	
<b>Nominal Wavelength</b>		1310 nm	
<b>Cable Type</b>		62.5/125 mm	
<b>Connector</b>		SC	
<b>Optical Budget</b>		15 dB	
<b>Serial Interface</b>	5-port 10/100Base-TX or 4-port 10/100Base-TX plus 1-port 100Base-FX	8-port 10/100Base-TX	8-port 10/100Base-TX, plus 1-port 100Base-FX (optional)
<b>Forward and Filtering Rate</b>	14,880 pps for 10 Mbps 148,810 pps for 100 Mbps	148,810 pps for 100 Mbps 14,880 pps for 10 Mbps	14,880 pps for 10 Mbps 148,810 pps for 100 Mbps
<b>Address Table Size</b>	2048 MAC addresses	2048 MAC addresses	4K MAC addresses
<b>Latency</b>	Less than 5.1 μs	Less than 7.1 μs	Less than 9.6 μs
<b>Reverse Polarity Protection</b>	n/a	n/a	Yes
<b>Network Interface</b>	10/100 Mbps full/half-duplex, auto negotiation, auto MDI/MDIX	10/100 Mbps full/half-duplex, auto negotiation, auto MDI/MDIX	10/100 Mbps full/half-duplex, auto negotiation, auto MDI/MDIX
<b>LED Indicators</b>	Per Unit: Power Status Per Port: 10/100TX, 100FX: Link/Activity (Green), Speed (Yellow)	Per Unit: Power Status (Power 1, Power 2) Per Port: 10/100TX, 100FX: Link/Activity (Green), Speed (Yellow), Fault (Red)	Per Unit: Power Status (Power 1, Power 2) Per Port: 10/100TX, 100FX: Link/Activity (Green), Speed (Yellow)
<b>Management</b>	n/a	n/a	RS-232 console, Telnet, SNMP V1 & V2, RMON, Web browser, TFTP
<b>Alarm Contact</b>	n/a	One relay output with current 1A @ 24 VDC	One relay output with current 1A @ 24 VDC
<b>Standards</b>	IEEE802.3 10Base-T, IEEE802.3u 100 Base-TX/100Base-FX, IEEE802.3x	IEEE802.3 10Base-T, IEEE802.3u 100 Base-TX/100Base-FX, IEEE802.3x	IEEE802.3 10Base-T, IEEE802.3u 100 Base-TX/100Base-FX, IEEE802.3x, IEEE802.1Q, IEEE802.1p, IEEE802.1w
<b>Power</b>	Input Voltage: 12 to 48 VDC Input Current: 0.1A max. Power Consumption: 2.4W max.	Input Voltage: 10 to 48 VDC Input Current: 1.5A max. Power Consumption: 24 VDC @ 0.55A, 18.48 W max.	Input Voltage: 10 to 30 VDC Input Current: 2A max. Power Consumption: 24 VDC @ 0.77A, 18.48 W max.
<b>Environmental</b>	Operating Temperature: -10° to 60° C (-14° to 140° F) Storage Temperature: -25° to 85° C (-13° to 185° F) Humidity: 10% to 90% relative humidity (non-condensing)	Operating Temperature: -34° to 74° C (-29° to 165° F) Storage Temperature: -40° to 85° C (-40° to 185° F) Humidity: 10% to 95% relative humidity (non-condensing)	Operating Temperature: -34° to 74° C (-29° to 165° F) Storage Temperature: -40° to 85° C (-40° to 185° F) Humidity: 10% to 95% relative humidity (non-condensing)
<b>Protocols Supported</b>	n/a	n/a	IGMP, GVRP, SNMP V1/V2, RMON, TFTP
<b>Packet Buffer Memory</b>	384 kilobit	768 kilobit	256 KB
<b>Packaging</b>	Plastic case with DIN-rail mounting	Aluminum case with DIN-rail, or panel mounting	Aluminum case with DIN-rail, panel or rack mounting
<b>Dimensions:</b>	25 mm W x 70 mm D x 110 mm H (0.99" W x 2.76" D x 4.33" H)	50 mm W x 110 mm D x 136 mm H (1.97" W x 4.33" D x 5.35" H)	50 mm W x 125 mm D x 135 mm H (1.97" W x 4.92" D x 5.31" H)
<b>Weight:</b>	0.2 Kg (0.44 lbs.)	0.8 Kg (1.76 lb)	0.8 Kg (1.76 lb)
<b>Processing Types</b>			Store-and-forward Half-duplex back-pressure and IEEE802.3x full-duplex flow control
<b>Standards</b>	IEEE802.3 10Base-T, IEEE802.3u 100 Base-TX/100Base-FX, IEEE802.3x		
<b>Regulatory Approvals:</b>	FCC Part 15, Class A		
<b>Emission Compliance</b>	Manufactured in an ISO9001 facility		
<b>ISO</b>	UL 60950, EN 60950, IEC 60950, IEC 61000-6-2, UL 1604: Classified for ITE Equipment for use in hazardous locations: Class 1, Division 2 group A, B, C & D: Temp Code T4A; -25°C < Tamb < 74°C		
<b>Safety</b>	UL 60950	EN55022 (CISPR22 Class A), EN55024 (CISPR24 Class A) Enclosure Contact: + / - 4 KV; Criteria B, Enclosure Air: + / - 8 KV; Criteria B	
<b>CE Approval</b>	n/a	Enclosure Ports: 10V/m, 80 to 1000 MHz; Criteria A	
<b>ESD Standards (IEC 61000-4-2)</b>	n/a	Enclosure Ports: + / - 4 KV @ 2.5 KHz; Criteria B, DC Power Ports: + / - 4 KV; Criteria B, AC Power Ports: + / - 4 KV; Criteria B	
<b>Radiated FRI Standards (IEC 61000-4-3)</b>	n/a	Signal Ports: + / - 1 KV; Line-to-earth; Criteria B, DC Power Ports: + / - 0.5 KV; Line-to-earth; Criteria B AC Power Ports: + / - 2 KV; Line-to-earth; Criteria B	
<b>Burst Standards (IEC 61000-4-4)</b>	n/a	Signal Ports: 10V @ 0.15 - 80 MHz; Criteria A, DC Power Ports: 10V @ 0.15 - 80 MHz; Criteria A AC Power Ports: 10V @ 0.15 - 80 MHz; Criteria A, Earth Ground Ports: 10V @ 0.15 - 80 MHz; Criteria A	
<b>Surge Standards (IEC 61000-4-5)</b>	n/a	Enclosure Ports: 30 A/m @ 50, 60 Hz; Criteria A AC Power Ports: 30% Reduction for 0.5 period; Criteria B	
<b>Induced RFI Standards (IEC 61000-4-6)</b>	n/a	(IEC 60068-2-6) Vibration Resistance: 5G @ 150 Hz; Criterion 3 (Operation/Storage/Transport) (IEC 60068-2-27) Shock: • 5 G @ 11 ms (Half-Sine Shock Pulse; Operation) • 50 G @ 11 ms (Half-Sine Shock Pulse; Storage/Transport)	
<b>Magnetic Field Standards (IEC 61000-4-8)</b>	n/a	(IEC 60068-2-32) Free Fall: 1 M (3.281 ft.)	
<b>Voltage Dip Standards (IEC 61000-4-11)</b>	n/a	Yes	
<b>Environmental Test Compliance</b>	n/a		
<b>NEMA TS1/2 Environ. Requirements for Traffic Control Equipment</b>	n/a		
<b>Installation Type:</b>	DIN Rail (mounting kit is included)	DIN Rail (mounting kit is included) Optional wall-mount kit, ordered separately (X9294PMKT-01)	DIN Rail (mounting kit is included) Optional wall-mount or rack-mount kit, ordered separately (X9294DRKT-01), (X9294PMKT-01)

# XPress-Pro Industrial Power Supply

## Product Description:

30W / 1.5A DIN-rail 24 VDC industrial power supply

## Input:

85 to 264 VAC (47 to 63 Hz) or 120 to 370 VDC

## Output:

36W, 24 VDC, 0 to 1.5A

## Overvoltage Protection:

27.6 to 32.4 Volts

## Overload Protection:

105 to 160% rated output power

## Protection Type:

Constant current limiting, recovers automatically

## Inrush Current:

15A/115 VAC or 30A/230 VAC

## Environmental:

*Operating Temperature:* -20° to 60° C (-4° to 140° F)

*Storage Temperature:* -40° to 85° C (-40° to 185° F)

*Working Humidity:* 10% to 95% non-condensing

*Storage Humidity:* 20% to 90% non-condensing

## Dimensions:

78 mm W x 56 mm D x 93 mm H ( 3.17" W x 2.2" D x 3.66" H)

## Regulatory Approvals:

*Safety:* UL60950-1, TUV EN60950-1 approved, design refer to EN50178

*EMI conduction & radiation:* EN55011, EN55022 (CISPR22) Class B

*EMS immunity:* EN61000-4-2, 3, 4, 5, 6, 8, 11, ENV50204, EN55024, EN61000-6-2, EN61204-3 heavy industry level, criteria A



## Ordering Information

Part Number	Description
X52000001-01	XPress-Pro SW 52000; Industrial -10 -60°C 5-Port 10/100TX Ethernet Switch with DIN Rail
X52012011-01	XPress-Pro SW 52012F; Industrial -10 -60°C 4-Port 10/100TX, 1-Port 100BaseFX MM SC Connector Ethernet Switch with DIN Rail
X92000001-01	XPress-Pro SW 92000; hardened -34-74°C 8-Port 10/100TX Ethernet Switch with DIN Rail
X92012011-01	XPress-Pro SW 92012F; hardened -34-74°C 8-Port 10/100TX, 1-Port 100BaseFX MM SC Connector Ethernet Switch with DIN Rail
X94000001-01	XPress-Pro SW 94000; hardened manageable -34-74°C 8-Port 10/100TX Ethernet Switch with DIN Rail
X94012011-01	XPress-Pro SW 94012F; hardened manageable -34-74°C 8-Port 10/100TX, 1-Port 100BaseFX MM SC Connector Ethernet Switch with DIN Rail
X3024DR00-01	30 Watts 24VDC output, hardened DIN Rail power supply
<b>Accessories:</b>	
X9294DRKT-01	19" Rack Mount Kit for 94000 series
X9294PMKT-01	Wall Mount Kit for 92000, 94000 series

# LANTRONIX®

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