

Rugged Switch with High Resilience

DP410L-LV Series

Industrial 10-port Full Gigabit L2 Managed PoE Switch, 8x802.3at PoE, Booster PoE

Industrial PoE Switch DP410L is designed for industrial environments requiring reliable PoE power feeding as well as secured network. DP410L provides 8 RJ45 Giga 802.3at/af PoE+ ports and 2 Giga SFP ports for uplink. The power input accepts 12V/24VDC with power booster for industrial and vehicle applications. Advanced Layer 2 security and features such as 802.1X/RADIUS port-based access control, IP Security/Port Security, management IP/VLAN or management features such as VLAN, QoS, IGMP Snooping, LACP/Trunk are supported. Redundancy is designed with enhanced RSTP protocol.



PoE+ **eRSTP** **-40~70°C**



Features & Benefits

Full Gigabit Switching and Ultra High Throughput

- DP410L-LV: 10-port Full Gigabit Ethernet, including 2 100/1000M SFP and 8 Gigabit 802.3at PoE+ RJ45
- High flexibility of cable types and distances for system integrators
- Fiber ports support both 100M and 1000M SFP
- Stores and forwards with non-blocking switch fabric

Management Features

- Various configuration paths, including WebGUI, CLI, SNMP
- Layer 2 management features include VLAN, QoS, IGMP Snooping, LACP/Trunk
- Rapid Spanning Tree for Redundancy
- Traffic management: Port classification, Port policing, Port scheduler, Port shaping, QoS control list, WRED, Port Security
- LLDP topology control

Extreme PoE Capability

- 8-port IEEE 802.3af/at compliant PoE+, up to 30W/port
- **12/24V Booster PoE Input**
- Complete PoE management including **Power Budget Control** and **PoE Status**

Enhanced Cyber Security for Critical Applications

- **802.1X/RADIUS** port-based access control
- IP Security/Port Security
- HTTPs/ Management IP secure access
- Management VLAN separate the control and data vlan

Rugged Design for Wayside Network Switching with Wide Power Input Range

- Wide power range includes **24V Booster** design and dual redundant power input
- Excellent heat dissipation design for operating in **-40~70°C** environments
- High level **EMC protection** exceeding traffic control and heavy industrial standards' requirements
- IEC 61000-6-2/4 Heavy Industrial Environment



Interfaces

System LED

- 2 x Power
- 1 x ALM/DO

- 8-port 10/100/1000M RJ45, 802.3at/af compliant PoE
- 2-port 100/1000M SFP
- LED Ethernet: Green On/Blinking
- LED PoE: Amber On/Off



DIN Clip

RS232 System Management Console

Integrated DI/DO Connector

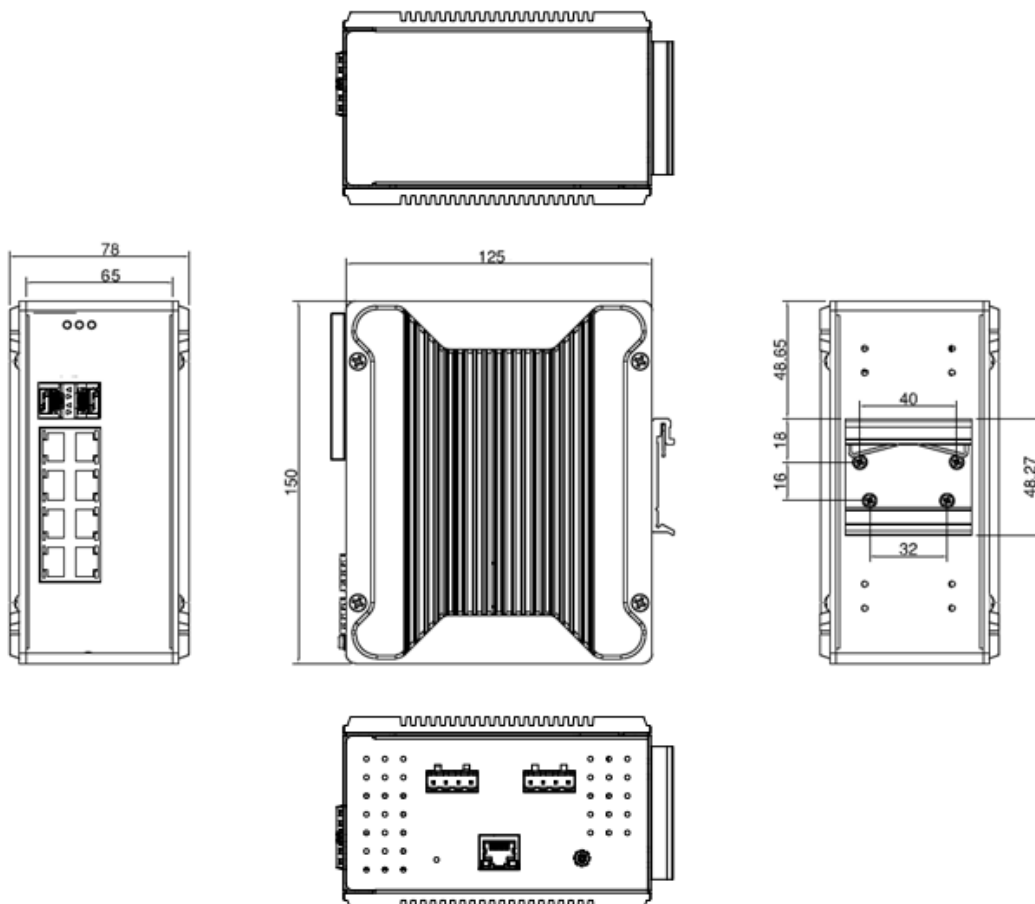
- 1 x 4-pin terminal block
- 2-pin for DI
- 2-pin for DO

Integrated Power Connector

- 1 x 4-pin terminal block for redundant power input



Dimensions



Technology	
Standard	IEEE 802.3 10Base-T Ethernet
	IEEE 802.3u 100Base-TX Fast Ethernet
	IEEE 802.3u 100Base-FX Fast Ethernet Fiber
	IEEE 802.3ab 1000Base-T Gigabit Ethernet Copper
	IEEE 802.3z Gigabit Ethernet Fiber
	IEEE 802.3x Flow Control and back-pressure
	IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
	IEEE 802.1p Class of Service (CoS)
	IEEE 802.1Q VLAN
	IEEE 802.1D-2004 Rapid Spanning Tree Protocol (RSTP)
	IEEE 802.3ad Link Aggregation Control Protocol (LACP)
	IEEE 802.1X Port based Network Access Protocol
	IEEE 802.3at Power Over Ethernet Plus(PoE+), backward compatible with 802.3af PoE
Performance	
Switch Technology	Store and Forward Technology with Non-Blocking Switch Fabric
Number of MAC Address	4K
Packet Buffer Memory	1.75M bits
Transfer performance	10Base-T: 14,880pps, 100Base-TX/FX: 148,800pps, 1000Base-TX/FX: 1,488,100pps
VLAN	4095 VLANs
VLAN ID	1~4095
Traffic Prioritize	8 Priority Queues per Port
Interface	
Ethernet Port	8 x 100/1000Base-T RJ45 Auto Negotiation, Auto MDI/MDIX, 802.3at/af PoE+ complaint 2 x 100/1000M SFP
System LED	DP410L-LV LED: 2 x Power, 1 x DO/ALM DO: Red On Power: Green On
Ethernet Port LED	Link (Green On), Activity (Green Blinking) PoE power feeding: Amber on, PoE power not feeding: Off
SFP LED	Port: Link (Green On), Activity (Green Blinking); 1000M: Speed 1000M (Amber On), Speed 100M (Off)
Reset	System Reboot(2-6 Seconds)/Default Settings Reset(over 7 Seconds)
Console	1 x RS232 in RJ45 for System Configuration. Baud Rate: 115200.n.8.1, DS410L Pin Define: 3: RxD, 4: TxD, 6:GND
Digital Input, Digital Output	4-Pin Removable Terminal Block Connector 2-Pins for DI 2-Pins for DO (Relay Alarm) 1x Digital Output: Dry Relay Output with 0.5A /24V DC 1x Digital Input with Photo-Coupler Isolation Digital High: DC 11V~30V Digital Low: DC 0V~10V
Power Input	4-Pin Removable Terminal Block Connector 4 Pins for Redundant Power
Power Requirement	
Input Voltage	DP410L-LV: Dual 24VDC Booster (12~57VDC to 54V PoE Output)
Reverse Polarity Protect	Yes
Input Current	DP410L-LV: 6A@24VDC
Power Consumption	DP410L-LV: Max. 145W@24VDC full traffic with 120W PD loading, suggest to reserve 15% tolerance
PoE	
Power forwarding mode	Alternative A
PoE Power Budget	System: Max. 120W@24V~57VDC, Max.60W@12VDC Per Port: Max. 30W
PoE Standard	IEEE 802.3af/at
Management	PoE Enable/Disable, System/Port Power Budget Control, PoE Status

Software	
Management Interface	WebGUI, Command Line Interface (CLI), Telnet, SNMP
Network Management	IPv4 management, SNMP v1/v2c/v3/Trap, MIBs, LLDP, DHCP client, TFTP, System Log, NTP
Traffic Management	Flow Control, Port Trunk/802.3ad LACP, VLAN, Private VLAN, Shared VLAN, Rate Limiters, Port Mirror, IGMP Snooping v2, Port classification, Port policing, Port scheduler, Port shaping, QoS control list, Storm policing, WRED, Port Security, ACL, Loop Protection
Security	IEEE 802.1X/RADIUS, Management IP, Management VLAN, SSL
Redundancy	Rapid Spanning Tree Protocol/Spanning Tree Protocol (RSTP/STP)
Mechanical	
Installation	DIN Rail
Enclosure Material	Steel Metal
Dimension	78x155x125 (W x H x D) / without DIN Rail Clip
Ingress Protection	IP31
Weight	~985g without package
Environmental	
Operating Temperature & Humidity	-40°C~70°C , 0%~95% Non- Condensing
Storage Temperature	-40°C~85°C
MTBF	>200,000 hours
Warranty	5 years
Standard	
EMC	EN61000-6-2/EN61000-6-4 Heavy Industrial EN61000-4-2 ESD, EN61000-4-3 RS, EN61000-4-4 EFT, EN61000-4-5, EN61000-4-6 CS, EN61000-4-8 Magnetic Field
EMI	CISPR 22, FCC part 15B Class A

Ordering Information

Model Name	Description
DP410L-LV	Industrial 10-port Full Gigabit L2 Managed PoE Switch, 2GSFP+8GT PoE+
	Package List
	1 x Product Unit (Without SFP Transceiver)
	2 x 4-pin Removable Terminal Block Connector
	1 x Attached Din Clip
	1 x Quick Installation Guide

DP410L/DS410L Family

	10/100/1000 Base-T	Combo (GT/SFP)	100/1000 Base-X	802.3at PoE+	WAN	Console/USB	DI/DO	Power Input	Software	Redundancy	Temp.
DP410L-LV	8	-	2	8	-	1/0	1/1	24V (12~57V)	L2+	STP/RSTP	-40~70°C
DS410L	8	-	2	-	-	1/0	1/1	12~48V	L2+	STP/RSTP	-40°C~75°C
DS410L-MM/SS-SC	8	-	2x 1000-X SC Type	-	-	1/0	1/1	12~48V	L2+	STP/RSTP	-40°C~75°C
DS410F	2	2	6	-	-	1/0	1/1	12~48V	L2+	STP/RSTP	-40°C~75°C



Optional Accessory

Item	
MK-D1-2	Wall-mounting kit with 2 plates and 8 screws
CBL-RJ45F9-1.5M	Serial RS232 console cable RJ45 to DB9 Female 1.5Meter
PSD40-24	40W/24VDC DIN-rail power supply
SFPGEM05	SFP, 1000Mbps, LC, multi, 550M, 0~70°C
SFPGEM05T	SFP, 1000Mbps, LC, multi, 550M, -40~85°C
SFPGEM05D	SFP, 1000Mbps, LC, multi, DDM, 550M, 0~70°C
SFPGEM05DT	SFP, 1000Mbps, LC, multi, DDM, 550M, -40~85°C
SFPGEM2	SFP, 1000Mbps, LC, multi, 2KM, 0~70°C
SFPGEM2T	SFP, 1000Mbps, LC, multi, 2KM, -40~85°C
SFPGEM2D	SFP, 1000Mbps, LC, multi, DDM, 2KM, 0~70°C
SFPGEM2DT	SFP, 1000Mbps, LC, multi, DDM, 2KM, -40~85°C
SFPGES10	SFP, 1000Mbps, LC, single, 10KM, 0~70°C
SFPGES10T	SFP, 1000Mbps, LC, single, 10KM, -40~85°C
SFPGES10D	SFP, 1000Mbps, LC, single, DDM, 10KM, 0~70°C
SFPGES30	SFP, 1000Mbps, LC, single, 30KM, 0~70°C
SFPGES30T	SFP, 1000Mbps, LC, single, 30KM, -40~85°C
SFPGES30D	SFP, 1000Mbps, LC, single, DDM, 30KM, 0~70°C
SFPGES10-A	SFP, 1000Mbps, LC, single, 10KM, BiDi TX-1310nm RX-1550nm, 0~70°C
SFPGES10-B	SFP, 1000Mbps, LC, single, 10KM, BiDi TX-1550nm RX-1310nm, 0~70°C
SFPGES10T-A	SFP, 1000Mbps, LC, single, 10KM, BiDi TX-1310nm RX-1550nm, -40~85°C
SFPGES10T-B	SFP, 1000Mbps, LC, single, 10KM, BiDi TX-1550nm RX-1310nm, -40~85°C
SFPGES10D-A	SFP, 1000Mbps, LC, single, DDM, 10KM, BiDi TX-1310nm RX-1550nm, 0~70°C
SFPGES10D-B	SFP, 1000Mbps, LC, single, DDM, 10KM, BiDi TX-1550nm RX-1310nm, 0~70°C