

Industrial Ethernet Switch - FL SWITCH 2608 PN



1106616

<https://www.phoenixcontact.com/pc/products/1106616>

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Managed Switch 2000, 8 M12 ports 10/100 Mbps, degree of protection: IP65/IP66/IP67, PROFINET Conformance-Class B

Your advantages

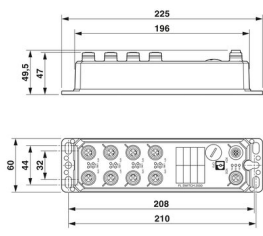
- Robust IP67 housing
- Easy panel mounting

Commercial Data

Item number	1106616
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	DNN126
GTIN	4063151001650
Weight per Piece (including packing)	1,651.4 g
Weight per Piece (excluding packing)	1,400 g
Customs tariff number	85176200
Country of origin	DE

Technical Data

Dimensions

Dimensional drawing	
Width	60 mm
Height	226 mm
Depth	46 mm

Notes

General	Support by phone or on-site (fee is charged)
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Material specifications

Housing material	Zinc die-cast
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Mounting

Mounting type	Wall mounting
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Interfaces

Ethernet

Connection method	M12 connectors, D-coded
Note on the connection method	Auto negotiation and autocrossing
Transmission speed	10/100 Mbps
Transmission physics	Copper
Transmission length	100 m (per segment)
Signal LEDs	Data receive, link status
No. of channels	8 (M12 ports)

Product properties

Type	Stand-alone
Product type	Switch
MTTF	461.15 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	149.69 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	19.78 Years (SN 29500 standard, temperature 70°C, operating cycle 100%)
Signal delay	≥ 6.5 μs (Store and Forward mode, 10/100 Mbps, depending on the frame size)

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Insulation characteristics

Protection class	III (VDE 0106)
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Switch functions

Diagnostic functions	RMON History
	LLDP (Link Layer Discovery Protocol)
	SNMP-Traps
	N:1-Portmirroring
	ACD (Address Conflict Detection)
	SysLog
	CRC-Surveillance
Basic functions	Store-and-forward switch, complies with IEEE 802.3
PROFINET conformance class	Conformance-Class B
PROFINET device function	PROFINET device
	Fast Startup
Filter functions	Quality of Service (8 priority classes)
	Class of Service
	DiffServ/DSCP
	Port-Priorisierung
	VLAN (up to 32 VLANs)
	IGMP Snooping/Querier (v1/v2)
	Auto-Query-Port
IP parameterization	Extended Multicast Filtering
	DHCP-Client
	DHCP Option 82 (Relay Agent)
	DHCP server (pool-based, port-based)
	BootP
MAC address table	8k
Management	DCP (Discovery and Configuration Protocol)
	Web-based management (HTTP/HTTPS)
	Role-based user management (LDAP, RADIUS)
	SNMPv1/v2/v3
Redundancy	Command-line interface (Telnet, SSH)
	MRP (Media Redundancy Protocol)
	RSTP (Rapid Spanning Tree Protocol)
	FRD (Fast Ring Detection)
	Large Tree Support
	LACP (Link Aggregation Control Protocol)
Status and diagnostic indicators	PROFINET S2 system redundancy
	LEDs: US1, US2 (power supply), Fail, 2 LEDs per Ethernet port (Link/Activity and Speed)
Additional functions	Transmission of MMS and GOOSE (IEC 61850-8-1)
	Transmission of Modbus/TCP
Time synchronization	SNTP (Simple Network Time Protocol)

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Security functions

Port security	MAC-based, RADIUS (IEEE 802.1X), MAC Authentication Bypass
Basic functions	Store-and-forward switch, complies with IEEE 802.3

Electrical properties

Local diagnostics	US1/2 Supply voltage US1, US2 Green LED
	FAIL Div. LED red
	LINK Link status Green LED
Maximum power dissipation for nominal condition	4.68 W ($U_S = \text{min}$, $T_{\text{amb}} = \text{max}$)
Test section	for one minute 500 V DC
Transmission medium	Copper

Supply

Supply voltage	24 V DC (redundant)
Supply voltage range	9 V DC ... 57 V DC
Residual ripple	3.6 V _{PP} (within the permitted voltage range)
Max. current consumption	0.52 A ($U_S = \text{min}$, $T_{\text{amb}} = \text{max}$)
Typical current consumption	180 mA (at $U_S = 24$ V DC and 25 °C ambient temperature)
Current consumption	180 mA

Connection data

Connection method	M12 connector (L-coded)
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Ambient conditions

Degree of protection	IP65
	IP66
	IP67
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 %
Permissible humidity (storage/transport)	5 % ... 95 %
Shock (operation)	30g (EN 60068-2-27)
Vibration (operation)	in acc. with IEC 60068-2-6: 5g, 150 Hz
Air pressure (operation)	79 kPa ... 108 kPa up to 2000 m above mean sea level (Without derating)
Air pressure (storage/transport)	79 kPa ... 108 kPa up to 2000 m above mean sea level (Without derating)

Standards and regulations

Free from substances that could impair the application of coating	Yes
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EMC data

Conformance with EMC directives	EN 61000-6-2 EN 61000-4-2 (ESD) Criterion B EN 61000-6-2 EN 61000-4-3 (electromagnetic fields) Criterion A
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	EN 61000-6-2 EN 61000-4-4 (EFT burst) Criterion A
	EN 61000-6-2 EN 61000-4-5 (surge) Criterion B
	EN 61000-6-2 EN 61000-4-6 (line noise immunity) Criterion A
	EN 61000-6-3 (conducted emissions) Class B
	EN 61000-6-3 (conducted emissions) Class B
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise emission	EN 61000-6-3
Noise immunity	EN 61000-6-2

LED signaling

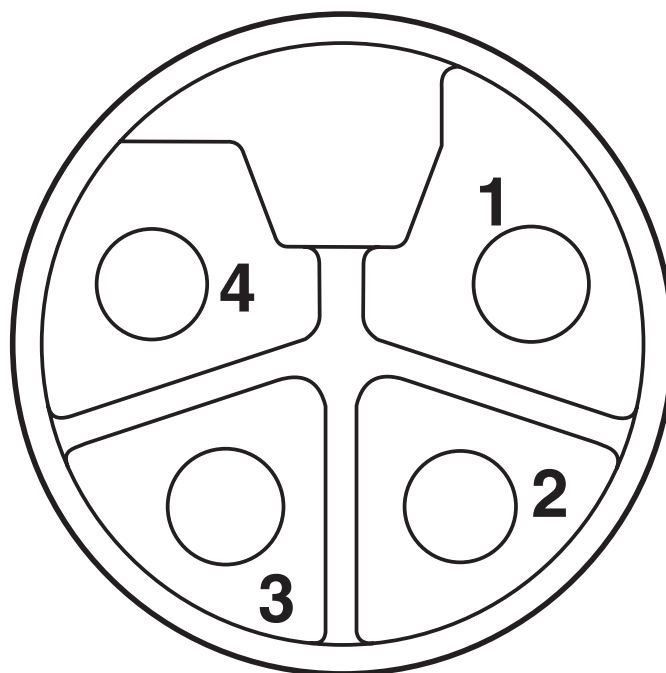
Status display	LEDs: US1, US2 (power supply), Fail, 2 LEDs per Ethernet port (Link/Activity and Speed)
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Drawings

Schematic diagram



Connection of the supply voltage

PIN 1 Us1

PIN 2 GND

Pin 3 GND

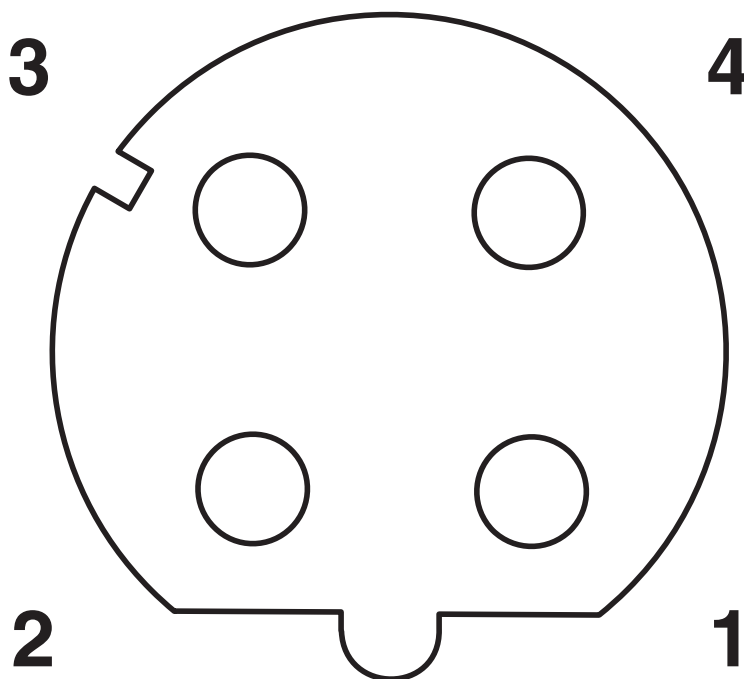
Pin 4 Us2

Pin 5 N.C.

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Schematic diagram



Assignment of the LAN socket

- Pin 1 Transmit +
- Pin 2 Receive +
- Pin 3 Transmit -
- Pin 4 Receive -

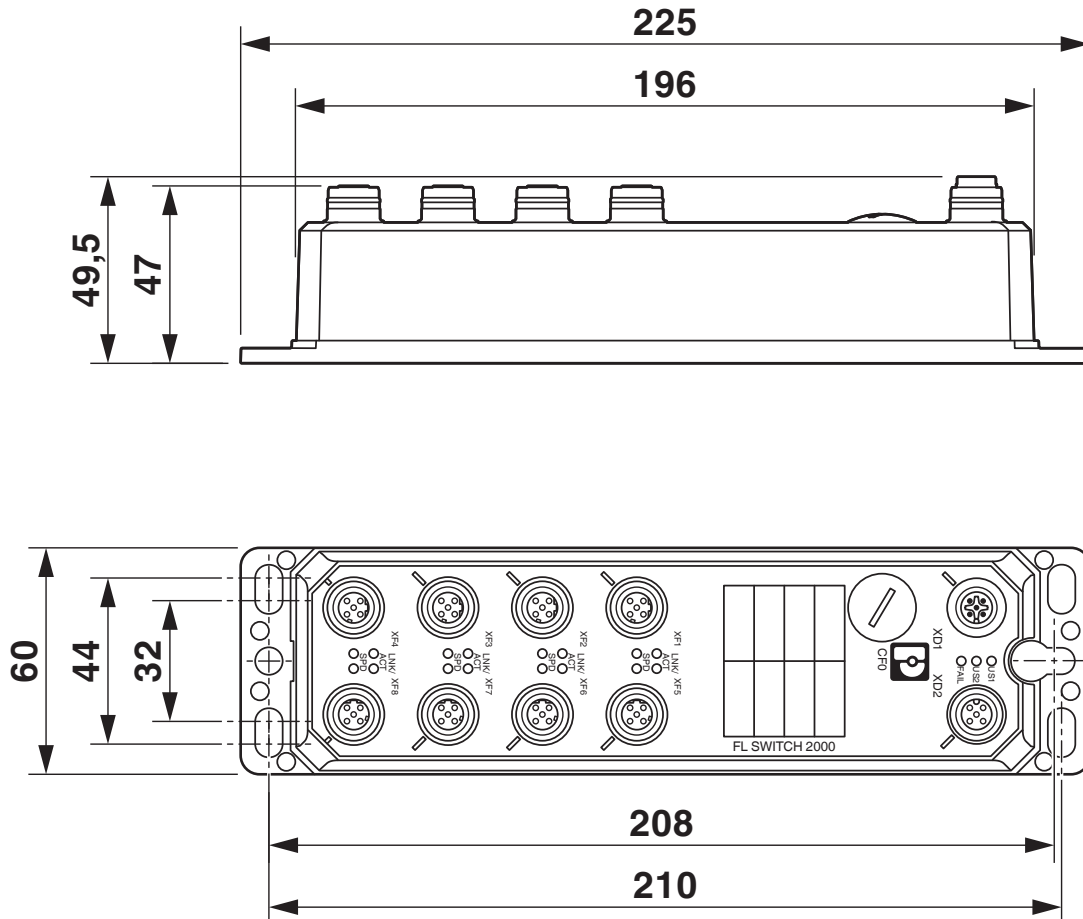
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Dimensional drawing



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Approvals



EAC

Approval ID: RU D-DE.GB09.B.00312

PROFINET

Approval ID: Z13092



cULus Listed

Approval ID: FILE E 238705

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Classifications

ECLASS

ECLASS-9.0	19170106
ECLASS-10.0.1	19170401
ECLASS-11.0	19170401

ETIM

ETIM 8.0	EC000734
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UNSPSC

UNSPSC 21.0	43222600
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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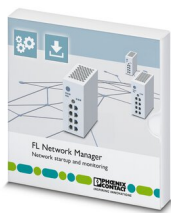
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Accessories

Network management software

Network management software - FL NETWORK MANAGER BASIC - 2702889

<https://www.phoenixcontact.com/pc/products/2702889>



FL Network Manager, SNMP-based configuration and firmware update software, for easy startup of Managed Switches

Driver and interface software

Driver and interface software - FL SNMP OPC SERVER V3 - 2701139

<https://www.phoenixcontact.com/pc/products/2701139>



SNMP-OPC server, German and English, for monitoring and configuration of SNMP-capable equipment in HMI and SCADA systems

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Network cable

Network cable - NBC-M12MSD/ 2,0-93C/M12MSD - 1416200

<https://www.phoenixcontact.com/pc/products/1416200>



Network cable, PROFINET CAT5 (100 Mbps), EtherCAT[®] CAT5 (100 Mbps), 4-position, shielded (Advanced Shielding Technology), Plug straight M12 / IP67, coding: D, on Plug straight M12 / IP67, coding: D, cable length: 2 m

Network cable

Network cable - NBC-MRD-MRD SCO-PN/.../... - 1408624

<https://www.phoenixcontact.com/pc/products/1408624>



Network cable, PROFINET CAT5 (100 Mbps), EtherCAT[®] CAT5 (100 Mbps), 4-position, Variable cable type, shielded, Plug angled M12 SPEEDCON / IP67, coding: D, on Plug angled M12 SPEEDCON / IP67, coding: D, cable length: Free input (0.2 ... 40.0 m)

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