

FL SWITCH 1708 M12 POE - Industrial Ethernet Switch



2701883

<https://www.phoenixcontact.com/us/products/2701883>

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PoE+ Ethernet switch, 8 Ethernet ports in M12 format, automatic detection of the data transmission speed of 10/100/1000 Mbps, jumbo frames up to 9600 bytes, coupling of network segments with different transmission speeds, autocrossing function, degree of protection IP67

Product description

The Gigabit Power over Ethernet switch, which is suitable for industrial applications, enables both energy and data to be transmitted via an Ethernet cable according to IEEE 802.3at/802.3af. Up to 30 W feed power per port is possible. The device is a compact switch in robust IP67 metal housing. It has eight 8-pos. M12 Ethernet connectors, which enable PoE/PoE+ devices to be supplied and operation with speeds of 10/100/1000 Mbps. As it supports jumbo frames up to 9720 bytes, the switch is ideal for networking cameras. A total power of 200 W is available for supplying up to eight PoE/PoE+ devices. The switch generates the required 54 V DC for Power over Ethernet according to IEEE 802.3at/802.3af from the 24 V module supply for the connected termination devices.

Your advantages

- Gigabit support
- Robust IP67 housing
- Easy panel mounting
- PoE+ supply to 8 ports
- Jumbo frames with up to 9720 bytes
- Metal housing

Commercial data

Item number	2701883
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	DN19
Product key	DNN114
Catalog page	Page 303 (C-6-2019)
GTIN	4055626004181
Weight per piece (including packing)	2,588 g
Weight per piece (excluding packing)	2,300 g
Customs tariff number	85176200
Country of origin	DE

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Technical data

Dimensions

Width	176 mm
Height	112 mm
Depth	100 mm
Drill hole spacing	155 mm

Notes

General	NOTE: Meet noise immunity requirements Connect FE using a mounting screw when mounting on a conductive surface. When mounting on a non-conductive surface, FE is connected using the mounting screw via a cable lug.
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Material specifications

Color	anthracite
Housing material	Zinc die-cast, surface bronzed and nickel-plated
Housing surface material	coated

Mounting

Mounting type	Wall mounting
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Interfaces

Ethernet (PoE)

Number of interfaces	8
Connection method	M12 connector, 8-pos.
Note on the connection method	X-coded
Transmission speed	10/100/1000 Mbps
Transmission physics	Copper
Transmission length	100 m (per segment)
Signal LEDs	Data receive, link status
No. of channels	8 (RJ45 POE ports)

Signal contact

Number of interfaces	1 (Annunciator relay)
Connection method	M12 connector (A-coded)

Product properties

Product type	Switch
Product family	Unmanaged PoE Switches 1000
Type	Stand-Alone
MTTF	208.85 Years (SN 29500 standard, temperature 25°C, operating cycle 21%) 93.43 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)

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	9.98 Years (SN 29500 standard, temperature 70°C, operating cycle 100%)
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Insulation characteristics

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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Switch functions

Basic functions	Store-and-forward switch, 10/100/1000 Mbps, auto negotiation, complies with standard IEEE 802.3, 4 priority classes according to IEEE 802.1p, PoE according to IEEE 802.3at/802.3af, jumbo frames up to 9720 bytes
Signal contact control voltage	24 V DC (typical)
Signal contact control current	100 mA (24 V DC)
PROFINET conformance class	Conformance-Class A
Status and diagnostic indicators	LEDs: US1, US2 (power supply), Fail (alarm contact), 3 LEDs per Ethernet port (Link, Activity, and PoE Status), and PoE performance
Additional functions	Autonegotiation

Security functions

Basic functions	Store-and-forward switch, 10/100/1000 Mbps, auto negotiation, complies with standard IEEE 802.3, 4 priority classes according to IEEE 802.1p, PoE according to IEEE 802.3at/802.3af, jumbo frames up to 9720 bytes
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Electrical properties

Local diagnostics	US Supply voltage US Green LED
Maximum power dissipation for nominal condition	7.2 W
Test section	Between the Ethernet ports 1500 V AC 1 min. 24 V supply (US) / FE 500 V DC 1 min.
Transmission medium	Copper

Supply

Supply voltage (DC)	24 V DC (M12 connector)
Supply voltage range	18.7 V DC ... 30.5 V DC
Power supply connection	via M12 connector, T-coded
Residual ripple	3.6 V _{PP}
Max. current consumption	12 A (Maximum, nominal load)
Typical current consumption	300 mA (at U _S = 24 V DC)

Function

Signal contact control voltage	24 V DC (typical)
Signal contact control current	100 mA (24 V DC)

Supply: Module electronics

Supply voltage range	18.7 V DC ... 30.5 V DC (including ripple)
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Environmental and real-life conditions

Ambient conditions

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Degree of protection	IP65
	IP66
	IP67
Ambient temperature (operation)	-40 °C ... 70 °C (non-condensing)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Permissible humidity (operation)	10 % ... 95 %
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)
Air pressure (operation)	86 kPa ... 108 kPa (2000 m above mean sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (3500 m above sea level)

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 61000-4-2 EN 61000-4-2 (ESD) Criterion A
	EN 61000-4-3 (electromagnetic fields) EN 61000-4-3 (electromagnetic fields) Criterion A
	EN 61000-4-6 EN 61000-4-6 (line noise immunity) Criterion A
	EN 61000-4-4 EN 61000-4-4 Criterion A
	EN 61000-4-5 EN 61000-4-5 (surge) Criterion A
	EN 60950-1
Noise immunity	EN 61000-4-2
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise emission	EN 55022 / Class B

System properties

Functionality

Basic functions	Store-and-forward switch, 10/100/1000 Mbps, auto negotiation, complies with standard IEEE 802.3, 4 priority classes according to IEEE 802.1p, PoE according to IEEE 802.3at/802.3af, jumbo frames up to 9720 bytes
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Signaling

Status display	LEDs: US1, US2 (power supply), Fail (alarm contact), 3 LEDs per Ethernet port (Link, Activity, and PoE Status), and PoE performance
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Classifications

ECLASS

ECLASS-11.0

19170402

ETIM

ETIM 8.0

EC000734

UNSPSC

UNSPSC 21.0

43222600

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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
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Accessories

NBC-M12MSX/ 1,0-94F/M12MSX - Network cable

1407483

<https://www.phoenixcontact.com/us/products/1407483>



Network cable, Ethernet CAT6_A (10 Gbps), CC-Link IE CAT6_A (10 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded (Advanced Shielding Technology), Plug straight M12, coding: X / IP67, on Plug straight M12, coding: X / IP67, cable length: 1 m

NBC-M12MSX/ 2,0-94F/M12MSX - Network cable

1407484

<https://www.phoenixcontact.com/us/products/1407484>



Network cable, Ethernet CAT6_A (10 Gbps), CC-Link IE CAT6_A (10 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded (Advanced Shielding Technology), Plug straight M12, coding: X / IP67, on Plug straight M12, coding: X / IP67, cable length: 2 m

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NBC-M12MSX/ 5,0-94F/M12MSX - Network cable

1407485

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Network cable, Ethernet CAT6_A (10 Gbps), CC-Link IE CAT6_A (10 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded (Advanced Shielding Technology), Plug straight M12, coding: X / IP67, on Plug straight M12, coding: X / IP67, cable length: 5 m

NBC-M12MSX-M12MSX-10G/.../... - Network cable

1408644

<https://www.phoenixcontact.com/us/products/1408644>



Network cable, Ethernet CAT6_A (10 Gbps), CC-Link IE CAT6_A (10 Gbps), 8-position, shielded (Advanced Shielding Technology), Plug straight M12, coding: X / IP67, on Plug straight M12, coding: X / IP67, cable length: Free input (0.2 ... 40.0 m)

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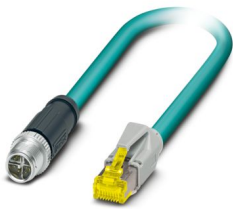
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NBC-M12MSX/ 1,0-94F/R4AC - Network cable

1407471

<https://www.phoenixcontact.com/us/products/1407471>

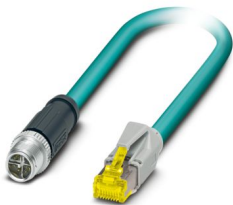


Network cable, Ethernet CAT6_A (10 Gbps), CC-Link IE CAT6_A (10 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded (Advanced Shielding Technology), Plug straight M12, coding: X / IP67, on Plug straight RJ45, coding: X / IP20, cable length: 1 m

NBC-M12MSX/ 2,0-94F/R4AC - Network cable

1407472

<https://www.phoenixcontact.com/us/products/1407472>



Network cable, Ethernet CAT6_A (10 Gbps), CC-Link IE CAT6_A (10 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded (Advanced Shielding Technology), Plug straight M12, coding: X / IP67, on Plug straight RJ45 / IP20, cable length: 2 m

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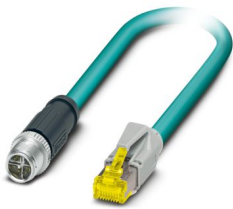
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NBC-M12MSX/ 5,0-94F/R4AC - Network cable

1407473

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Network cable, Ethernet CAT6_A (10 Gbps), CC-Link IE CAT6_A (10 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded (Advanced Shielding Technology), Plug straight M12, coding: X / IP67, on Plug straight RJ45 / IP20, cable length: 5 m

NBC-M12MSX-R4AC-10G/.../... - Network cable

1408647

<https://www.phoenixcontact.com/us/products/1408647>



Network cable, Ethernet CAT6_A (10 Gbps), CC-Link IE CAT6_A (10 Gbps), 8-position, shielded (Advanced Shielding Technology), Plug straight M12, coding: X / IP67, on Plug straight RJ45 / IP20, cable length: Free input (0.2 ... 40.0 m)

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NBC-M12MSX/ 1,0-94F - Network cable

1407467

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Network cable, Ethernet CAT6_A (10 Gbps), CC-Link IE CAT6_A (10 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded (Advanced Shielding Technology), Plug straight M12, coding: X / IP67, on free cable end, cable length: 1 m

NBC-M12MSX/ 2,0-94F - Network cable

1407468

<https://www.phoenixcontact.com/us/products/1407468>



Network cable, Ethernet CAT6_A (10 Gbps), CC-Link IE CAT6_A (10 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded (Advanced Shielding Technology), Plug straight M12, coding: X / IP67, on free cable end, cable length: 2 m

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NBC-M12MSX/ 5,0-94F - Network cable

1407469

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Network cable, Ethernet CAT6_A (10 Gbps), CC-Link IE CAT6_A (10 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded (Advanced Shielding Technology), Plug straight M12, coding: X / IP67, on free cable end, cable length: 5 m

NBC-M12MSX-10G/.../... - Network cable

1408648

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Network cable, Ethernet CAT6_A (10 Gbps), CC-Link IE CAT6_A (10 Gbps), 8-position, shielded (Advanced Shielding Technology), Plug straight M12, coding: X / IP67, on free cable end, cable length: Free input (0.2 ... 40.0 m)

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VS-08-M12MS-10G-P SCO - Data connector

1417430

<https://www.phoenixcontact.com/us/products/1417430>



Data connector, Ethernet CAT6_A (10 Gbps), 8-position, shielded, Plug straight M12 SPEEDCON, coding: X, Piercecon[®] fast connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

NBC-M12MSX-R4RC-10G/.../... - Network cable

1408646

<https://www.phoenixcontact.com/us/products/1408646>



Network cable, Ethernet CAT6_A (10 Gbps), CC-Link IE CAT6_A (10 Gbps), 8-position, shielded (Advanced Shielding Technology), Plug straight M12, coding: X / IP67, on Plug straight RJ45 Push Pull / IP67, cable length: Free input (0.2 ... 40.0 m)

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SACC-M12FST-3PECON-PG11-M - Power connector

1404644

<https://www.phoenixcontact.com/us/products/1404644>



Power connector, Power, 4-position, unshielded, Socket straight M12, coding: T, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg11, external cable diameter 8 mm ... 10 mm, For direct current up to 12 A/63 V

PROT-M12 FS - Sealing cap

1560251

<https://www.phoenixcontact.com/us/products/1560251>



M12 sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field

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PROT-M12 - Screw plug

1680539

<https://www.phoenixcontact.com/us/products/1680539>



An M12 screw plug for the unoccupied M12 sockets of the sensor/actuator cable, boxes and flush-type connectors

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