

FL SWITCH 1708 - Industrial Ethernet Switch



1196228

<https://www.phoenixcontact.com/pc/products/1196228>

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Unmanaged Switch 1000 series, 8 M12 ports 10/100/1000 Mbps, degree of protection: IP65/IP66/IP67, Ambient temperature (operation): -40 °C ... 75 °C, Supply voltage range: 9 V DC ... 57 V DC, Extended temperature range

Your advantages

- QoS-prioritized (Quality of Service) messages
- Jumbo frame support (frame size up to 9216 bytes/frame)
- Local diagnostic indicators with LEDs
- Enhanced traffic prioritization for automation protocols
- PROFINET PTCP filter for reliable communication on PROFINET networks
- PROFINET Conformance Class A for real-time data exchange
- Auto negotiation and autocrossing detection simplifies installation and setup

Commercial data

Item number	1196228
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	DNN114
GTIN	4063151253684
Weight per piece (including packing)	1,341 g
Weight per piece (excluding packing)	1,341 g
Customs tariff number	85176200
Country of origin	DE

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Technical data

Dimensions

Width	60 mm
Height	226 mm
Depth	46 mm

Notes

Note on application

Note on application	Only for industrial use
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Material specifications

Housing material	Die-cast zinc
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Mounting

Mounting type	Panel mounting
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Interfaces

Ethernet

Connection method	M12 connector, X-coded
Note on the connection method	Auto negotiation and autocrossing
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 (M12 ports)

Product properties

Product type	Switch
Product family	Unmanaged Switch 1000
Type	Stand-Alone
MTTF	56.6 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)
	621 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	460.2 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
Special properties	Extended temperature range

Switch functions

Basic functions	Store-and-forward switch, complies with IEEE 802.3
MAC address table	4k
Status and diagnostic indicators	LEDs: US1, US2 (power supply), 2 LEDs per Ethernet port (Link/Activity and Speed)

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Additional functions	100 BASE-TX/100BASE-FX (IEEE 802.3u)
	Jumbo frames (max. 9,600 bytes)
	Quality of Service (QoS) prioritization (IEEE 802.1p)
	Energy-efficient Ethernet (IEEE 802.3az)
	Gigabit Ethernet 1000BASE-T (IEEE 802.3ab)
	10Base-T (IEEE 802.3)

Security functions

Basic functions	Store-and-forward switch, complies with IEEE 802.3
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Electrical properties

Local diagnostics	US1/2 Supply voltage US1, US2 Green LED
	LINK Link status Green LED
Transmission medium	Copper

Supply

Supply voltage (DC)	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	390 mA (9 V DC)
Typical current consumption	142 mA

Connection data

Connection technology

Connection name	Power supply
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Power supply

Connection method	M12 connector, A-coded
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP66
	IP67
Ambient temperature (operation)	-40 °C ... 75 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)
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)

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Standards and regulations

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

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
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
	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 61000-6-2 EN 61000-6-4 (interference) Class A
Noise immunity	EN 61000-6-2 EN 61000-6-4 (conducted interference) Class A
	EN 61000-6-2:2019

Noise emission

Standards/regulations	EN_61000-6-4:2019
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System properties

Functionality

Basic functions	Store-and-forward switch, complies with IEEE 802.3
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Signaling

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

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1196228>



EAC

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



cULus Listed

Approval ID: E238705



CC-Link IE Field

Approval ID: NRT-IF-00057



CC-Link IE Field

Approval ID: NRT-IT-00066

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Classifications

ECLASS

ECLASS-13.0	19170402
ECLASS-15.0	19170402

ETIM

ETIM 9.0	EC000734
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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)
SCIP	4a3966a6-6256-49cc-8de7-1421021d1cbb

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Accessories

NBC-M12MRX/1,0-94F/M12MRX - Network cable

1080720

<https://www.phoenixcontact.com/pc/products/1080720>



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

NBC-M12MRX/2,0-94F/M12MRX - Network cable

1080721

<https://www.phoenixcontact.com/pc/products/1080721>



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

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

1125028

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Network cable, Ethernet CAT5 (1 Gbps) CAT5 (1 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/1,0-94F/M12MRX - Network cable

1080724

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Network cable, Ethernet CAT6_A (10 Gbps) 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 angled M12, coding: X / IP67, cable length: 1 m

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NBC-M12MSX/2,0-94F/M12MRX - Network cable

1080725

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Network cable, Ethernet CAT6_A (10 Gbps) 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 angled M12, coding: X / IP67, cable length: 2 m

NBC-M12MSX/5,0-94F/M12MRX - Network cable

1080726

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Network cable, Ethernet CAT6_A (10 Gbps) 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 angled M12, coding: X / IP67, cable length: 5 m

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SACC-PO12MSX-8CT-CL SH - Data connector

1021783

<https://www.phoenixcontact.com/pc/products/1021783>



Data connector, Ethernet CAT6_A (10 Gbps), PROFINET CAT6_A (10 Gbps), 8-position, shielded, Plug straight M12 Push-pull external locking, coding: X, Crimp connection, knurl material: PA 6.6, external cable diameter 6.5 mm ... 10 mm, without crimp contacts

SACC-PO12MSD-4CT-CM SH PN - Data connector

1021830

<https://www.phoenixcontact.com/pc/products/1021830>



Data connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Plug straight M12 Push-pull external locking, coding: D, Crimp connection, knurl material: PA 6.6, external cable diameter 4.5 mm ... 7.5 mm, without crimp contacts

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PROT-M12 - Screw plug

1680539

<https://www.phoenixcontact.com/pc/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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