

# FL SWITCH 1708 - Industrial Ethernet Switch



1196228

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

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Unmanaged Switch 1000, 8 M12 ports 10/100/1000 Mbps, degree of protection: IP65/IP66/IP67, 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
Sales key	DN19
Product key	DNN114
GTIN	4063151253684
Weight per piece (including packing)	1,408 g
Weight per piece (excluding packing)	1,400 g
Customs tariff number	85176200
Country of origin	DE

# FL SWITCH 1708 - Industrial Ethernet Switch



1196228

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

## Technical data

### Dimensions

Width	60 mm
Height	226 mm
Depth	46 mm

### Notes

#### Note on application

Note on application	Only for industrial use
---------------------	-------------------------

### Material specifications

Housing material	Zinc die-cast
------------------	---------------

### Mounting

Mounting type	Wall mounting
---------------	---------------

### Interfaces

#### Ethernet

Connection method	M12 connectors, 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

#### Data management status

Article revision	01
------------------	----

#### Switch functions

Basic functions	Store-and-forward switch, complies with IEEE 802.3
MAC address table	4k

# FL SWITCH 1708 - Industrial Ethernet Switch



1196228

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

Status and diagnostic indicators	LEDs: US1, US2 (power supply), 2 LEDs per Ethernet port (Link/Activity and Speed)
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
-----------------	--

## 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 <sub>PP</sub> (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
-----------------	--------------

### Power supply

Connection method	M12 connector (A-coded)
-------------------	-------------------------

## 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)

# FL SWITCH 1708 - Industrial Ethernet Switch



1196228

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

## Standards and regulations

Free from substances that could impair the application of coating	Yes
---	-----

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

## System properties

### Functionality

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

## Signaling

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

# FL SWITCH 1708 - Industrial Ethernet Switch



1196228

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

## Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/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

# FL SWITCH 1708 - Industrial Ethernet Switch



1196228

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

## Classifications

### ECLASS

ECLASS-11.0	19170402
ECLASS-12.0	19170402
ECLASS-13.0	19170402

### ETIM

ETIM 9.0	EC000734
----------	----------

### UNSPSC

UNSPSC 21.0	43222600
-------------	----------

# FL SWITCH 1708 - Industrial Ethernet Switch



1196228

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

## Accessories

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

1080720

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



Network cable, Ethernet CAT6<sub>A</sub> (10 Gbps) CAT6<sub>A</sub> (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/us/products/1080721>



Network cable, Ethernet CAT6<sub>A</sub> (10 Gbps) CAT6<sub>A</sub> (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

# FL SWITCH 1708 - Industrial Ethernet Switch



1196228

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

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

1125028

<https://www.phoenixcontact.com/us/products/1125028>



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

<https://www.phoenixcontact.com/us/products/1080724>



Network cable, Ethernet CAT6<sub>A</sub> (10 Gbps) CAT6<sub>A</sub> (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



# FL SWITCH 1708 - Industrial Ethernet Switch



1196228

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

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

1080725

<https://www.phoenixcontact.com/us/products/1080725>



Network cable, Ethernet CAT6<sub>A</sub> (10 Gbps) CAT6<sub>A</sub> (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

<https://www.phoenixcontact.com/us/products/1080726>



Network cable, Ethernet CAT6<sub>A</sub> (10 Gbps) CAT6<sub>A</sub> (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

# FL SWITCH 1708 - Industrial Ethernet Switch



1196228

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

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

1021783

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



Data connector, Ethernet CAT6<sub>A</sub> (10 Gbps), PROFINET CAT6<sub>A</sub> (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/us/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

---

Phoenix Contact 2024 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)