Industrial Ethernet Switch - FL SWITCH GHS 12G/8-L3 - 2700787

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's documentation. Our General Terms of Use for Downloads are valid (http://phoenixcontact.com/download)

Gigabit Modular Switch with integrated routing function

Ethernet Gigabit Modular Switch with eight 10/100/1000 Mbps RJ45 slots and four 1000 Mbps SFP ports, can be extended by an extension station to up to 28 ports, with integrated routing function

Product Description

The Gigabit Modular Switch is a high-performance managed switch, which covers the port requirements of industrial applications in a modular and flexible way. It also supports all popular Gigabit and Fast Ethernet transmission standards, IT standard protocols, and the PROFINET and EtherNet/IP™ automation protocols.
For use in the production backbone, the FL SWITCH GHS 12G/8 is the first switch, which has integrated 12 Gigabit ports and also supports the accommodation of interface modules for up to 16 additional 100 Mbps ports. With the integrated Layer 3 license, the switch can be configured as a router. The GHS switch can provide routing in up to 28 different subnetworks. With VRRP (Virtual Redundancy Routing Protocol) it can also be operated as a redundant router.

Why buy this product

- Connection of connection media that can be assembled in the field, such as POF, HCS, and GI HCS
- Quick and easy local configuration options with the new operator/display interface
- Security in the automation network according to IEEE 802.1X
- Connection of Gigabit fiberglass via FL SFP plug-in modules
- Integrated routing function

Key Commercial Data

Packing unit	1 STK
GTIN	4 046356 647144
GTIN	4046356647144

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area

Dimensions

Industrial Ethernet Switch - FL SWITCH GHS 12G/8-L3 - 2700787

Technical data

Dimensions

Width	287 mm
Height	122 mm
Depth	113 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 55 °C (non-condensing)
Ambient temperature (storage/transport)	-20 °C ... 70 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)
Air pressure (operation)	80 kPa ... 108 kPa (2000 m above sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (3500 m above sea level)

SFP interface

Interface	Ethernet (SFP)
No. of ports	4 (SFP ports)
Transmission speed	1000 Mbps (full duplex)
Transmission physics	FO

Copper interface

Interface	Ethernet
No. of ports	8 (RJ45 ports)
Transmission speed	10/100/1000 Mbps
Connection method	RJ45
Note on the connection method	Auto negotiation and autocrossing
Transmission physics	Copper

Interface expansion

Interface	Ethernet
No. of ports	2 (Per interface module)
Connection method	via interface module
Note on the connection method	Max. 4 interface modules (without extension)
Transmission speed	10/100 Mbps (full duplex)
Transmission physics	multi-mode fiberglass
	Single-mode fiberglass
	POF-SCRJ
	GI-HCS fibers
	Copper
	PoE

Function

Basic functions	Store-and-forward switch complies with IEEE 802.3, 8 priority classes according to IEEE 802.1p, smart mode, port mirroring, multicast filtering, IGMP snooping, VLANs, Media Redundancy Protocol (MRP according to IEC 62439), Rapid Spanning Tree (RSTP), Fast Ring Detection

Industrial Ethernet Switch - FL SWITCH GHS 12G/8-L3 - 2700787

Technical data

Function

	(FRD), Large Tree Support, IEEE 802.1X security, port security, SNMPv3, HTTPS, PROFINET device, GMRP, GVRP, SNTP, 2 digital inputs
Management	Web-based management (HTTP)
	SNMPv1/v2/v3
Diagnostic functions	RMON History
	N:1-Portmirroring
	LLDP (Link Layer Discovery Protocol)
	SNMP-Traps
Filter functions	Quality of Service (8 priority classes)
	Port-Priorisierung
	VLAN (up to 223 VLANs)
Supported browsers	Internet Explorer 5.5 or higher
Redundancy	MRP (Media Redundancy Protocol)
	RSTP (Rapid Spanning Tree Protocol)
	FRD (Fast Ring Detection)
	Large Tree Support
	STP (Spanning Tree Protocol)
	MSTP (Multiple Spanning Tree Protocol)
PROFINET device function	PROFINET device
	PROFIenergy
	Fast Startup
PROFINET specification	Version 1.1
PROFINET conformance class	Conformance-Class B
Additional functions	DHCP Option 82 (Relay Agent)
	Link aggregation (up to 8 trunks)
	BootP
	DHCP-Client
	MAC-based Port Security
	Jumbo frames
Status and diagnostic indicators	LEDs: US1, US2 (power supply), Fail (alarm contact), 2 LEDs per Ethernet port (Link and switchable Activity/Speed/Duplex), DI1, DI2 (Digital Input), UI (supply voltage for ext. sensor), and large operator display (display of IP address and other parameters)
Signal contact control voltage	24 V (typical)
Signal contact control current	190 mA (maximum)

Network expansion parameters

Cascading depth	Network, linear, and star structure: any
Maximum conductor length (twisted pair)	100 m

Supply voltage

Supply voltage	24 V DC (redundant)
Residual ripple	3.6 V_{PP} (within the permitted voltage range)

Industrial Ethernet Switch - FL SWITCH GHS 12G/8-L3 - 2700787

Technical data

Supply voltage

Supply voltage range	18.5 V DC ... 30.2 V DC
Typical current consumption	800 mA (up to 2.7 A, depends on the configuration)
Max. current consumption	2.7 A

General

Mounting type	DIN rail
Type AX	Stand-alone
Net weight	3050.8 g
Material base plate	Die-cast aluminum, corrosion-resistant

Connection data

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Stripping length	7 mm

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27
Test result	Operation: 25g, 11 ms duration, semi-sinusoidal shock impulse
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27
Test result	Storage/Transport: 50g, 11 ms duration, semi-sinusoidal shock impulse
Type of test	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6
Test result	Operation/Storage/Transport: 5g, 150 Hz, Criterion 3
Type of test	Free fall in acc. with IEC 60068-2-32
Test result	1 m
Noise emission	EN 61000-6-3/-4
Noise immunity	EN 61000-6-2:2005
Vibration (storage/transport)	5g, 150 Hz, in acc. with IEC 60068-2-6
Free from substances that could impair the application of coating	In acc. with VW specification
Vibration (operation)	in acc. with IEC 60068-2-6: 5g, 150 Hz

Environmental Product Compliance

REACh SVHC	1,2-dimethoxyethane,ethylene glycol dimethyl ether (EGDME) 110-71-4
	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Industrial Ethernet Switch - FL SWITCH GHS 12G/8-L3 - 2700787

Approvals

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
cULus Listed			

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
http://www.phoenixcontact.com