

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)



Fiber optic converter with integrated optical diagnostics, alarm contact, for RS-422/RS-485 4 wire/ INTERBUS up to 2 Mbps, termination device with one fiber optic interface (SC duplex), 1300 nm, for fiberglass cable

Your advantages

- ☑ Connections can be plugged in using a COMBICON screw terminal block
- Redundant power supply possible by means of optional system power supply unit
- High-quality electrical isolation between all interfaces (INTERBUS // fiber optic ports // power supply // DIN rail connector)
- ✓ Approved for use in zone 2
- Floating switch contact for leading alarm generation in relation to critical fiber optic paths
- ☑ Integrated optical diagnostics for continuous monitoring of fiber optic paths
- Automatic data rate detection for all data rates up to 2 Mbps
- Shipbuilding approval in accordance with DNV GL







Key Commercial Data

Packing unit	1 pc
GTIN	4 0 4 6 3 5 6 1 7 6 2 9 3
GTIN	4046356176293

Technical data

Note

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

Dimensions

Width	35 mm
Height	105 mm
Depth	103 mm

Ambient conditions



Technical data

Ambient conditions

Ambient temperature (operation)	-20 °C 60 °C
Ambient temperature (storage/transport)	-40 °C 85 °C
Permissible humidity (operation)	30 % 95 % (non-condensing)
Altitude	\leq 5000 m (For restrictions, see the manufacturer's declaration for altitude operation)
Degree of protection	IP20
Noise immunity	EN 61000-6-2:2005

General

Transmission channels	2 (1/1) RD, TD, full duplex
Bit distortion, input	± 35 % (permitted)
Bit distortion, output	< 6.25 %
Electrical isolation	VCC // RS-422
Test voltage data interface/power supply	1.5 kV _{rms} (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC directive 89/336/EC
Noise emission	EN 55011
Net weight	190.68 g
Housing material	PA 6.6-FR
Color	green
MTBF	544 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	113 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))

Power supply

Nominal supply voltage	24 V DC (With UL approval)
Supply voltage range	18 V DC 32 V DC
Typical current consumption	110 mA (24 V DC)
Connection method	COMBICON plug-in screw terminal block

Interfaces

Interface 1	RS-422 interface in acc. with ITU-T V.11, EIA/TIA-422, DIN 66348-1
Operating mode	full duplex
Connection method	Pluggable screw connection
Transmission medium	Copper
Transmission length	≤ 1000 m (depending on the data rate, with shielded, twisted data cable)
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Serial transmission speed	≤ 2 Mbps



Technical data

Optical interface FO

No. of channels	1
Wavelength	1300 nm
Transmission length incl. 3 dB system reserve	27 km (With F-G 50/125 0.7 dB/km at 1300 nm)
	22 km (with F-G 62.5/125 0.8 dB/km at 1300 nm)
	45 km (With F-E 9/125 0,4 dB/km at 1300 nm)
Transmission medium	Multi-mode fiberglass
	Single-mode fiberglass
Transmission protocol	Transparent to protocol for RS-422 interface
Connection method	SC duplex

Digital outputs

Output name	Relay output
Output description	Alarm output
Number of outputs	1
Maximum switching voltage	60 V DC
	42 V AC
Limiting continuous current	1 A

Conformance/approvals

Designation	CE
Identification	CE-compliant
Designation	ATEX
Identification	# II 3 G Ex nA nC IIC T4 Gc X
Additional text	Please follow the special installation instructions in the documentation!
Designation	UL, USA/Canada
Identification	508 Listed
	508 Recognized
Designation	Corrosive gas test
Identification	ISA-S71.04-1985 G3 Harsh Group A
Designation	Shipbuilding
Identification	DNV GL
Temperature	В
Humidity	A
Vibration	A
EMC	В
Enclosure	Required protection according to the Rules shall be provided upon installation on board

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC directive 89/336/EC
Type of test	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6
Test result	5g, 10150 Hz, 2.5 h, in XYZ direction
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27



Technical data

Standards and Regulations

Test result	15g, 11 ms period, half-sine shock pulse
Noise emission	EN 55011
Noise immunity	EN 61000-6-2:2005
Free from substances that could impair the application of coating	according to P-VW 3.10.7 57 65 0 VW-AUDI-Seat central standard
Connection in acc. with standard	CUL
Standards/regulations	EN 61000-4-2
Contact discharge	± 6 kV
Standards/regulations	EN 61000-4-3
	EN 61000-4-4
Comments	Criterion B
Standards/regulations	EN 61000-4-5
Signal	± 1 kV
Standards/regulations	EN 55011
	EN 61000-4-6

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Classifications

eCl@ss

eCl@ss 10.0.1	19170132
eCl@ss 4.0	27230200
eCl@ss 4.1	27230200
eCl@ss 5.0	27230200
eCl@ss 5.1	27230200
eCl@ss 6.0	19179200
eCl@ss 7.0	19179290
eCI@ss 8.0	19179290
eCl@ss 9.0	19170114

ETIM

ETIM 2.0	EC001423
ETIM 3.0	EC001423
ETIM 4.0	EC001423
ETIM 5.0	EC000310
ETIM 6.0	EC001467
ETIM 7.0	EC001467



Classifications

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	43222604
UNSPSC 18.0	43223323
UNSPSC 19.0	43223323
UNSPSC 20.0	43223323
UNSPSC 21.0	43223323

Approvals

Approvals

Approvals

DNV GL / UL Listed / UL Recognized / cUL Recognized / cUL Listed / KC / cULus Recognized / cULus Listed

Ex Approvals

ATEX

Approval details

DNV GL https://approvalfinder.dnvgl.com/ TAA00001KR

UL Listed http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm FILE E 238705

UL Recognized http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm FILE E 238705

cUL Recognized http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm FILE E 238705



Approvals

cUL Listed

CUL

http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm

FILE E 238705

KC

C

http://eng.kcc.go.kr/user/ehpMain.do

MSIP-REI-PCK-2708575

cULus Recognized



cULus Listed



Accessories

Accessories

Data cable by the meter

FO cable - PSM-LWL-GDO- 50/125 - 2799432



Fiberglass cable, duplex 50/125 $\mu m,$ by the meter, without connector, for outdoor installation

FO cable - PSM-LWL-GDM-RUGGED- 50/125 - 2799322



Fiber glass cable, duplex 50 μ m/125 μ m, by the meter, without male connector, for installation in stationary systems and machines

Data cable preassembled

FO patch cable - FL MM PATCH 1,0 LC-SC - 2989161



Assembled FO cable, break out cable, multimode fiberglass $50/125 \, \mu m$ (OM2), connector: LC/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 m



Accessories

FO patch cable - FL MM PATCH 2,0 LC-SC - 2989268



Assembled FO cable, break out cable, multimode fiberglass 50/125 µm (OM2), connector: LC/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 m

FO patch cable - FL MM PATCH 5,0 LC-SC - 2901800



Assembled FO cable, break out cable, multimode fiberglass 50/125 µm (OM2), connector: LC/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 5 m

FO patch cable - FL MM PATCH 1,0 SC-SC - 2901805



Assembled FO cable, break out cable, multimode fiberglass 50/125 µm (OM2), connector: SC duplex/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 m

FO patch cable - FL MM PATCH 2,0 SC-SC - 2901807



Assembled FO cable, break out cable, multimode fiberglass 50/125 µm (OM2), connector: SC duplex/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 m

FO patch cable - FL MM PATCH 5,0 SC-SC - 2901808



Assembled FO cable, break out cable, multimode fiberglass 50/125 µm (OM2), connector: SC duplex/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 5 m



Accessories

FO patch cable - FL MM PATCH 1,0 SC-ST - 2901809



Assembled FO cable, break out cable, multimode fiberglass $50/125 \, \mu m$ (OM2), connector: SC duplex/B-FOC(ST), degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 m

FO patch cable - FL MM PATCH 2,0 SC-ST - 2901810



Assembled FO cable, break out cable, multimode fiberglass 50/125 µm (OM2), connector: SC duplex/B-FOC(ST), degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 m

FO patch cable - FL MM PATCH 5,0 SC-ST - 2901811



Assembled FO cable, break out cable, multimode fiberglass 50/125 µm (OM2), connector: SC duplex/B-FOC(ST®), degree of protection: IP20, for installation in cable ducts or control cabinets, length: 5 m

FO patch cable - FL MM PATCH 1,0 SC-SCRJ - 2901812



Assembled FO cable, break out cable, multimode fiberglass $50/125 \, \mu m$ (OM2), connector: SC duplex/SC-RJ, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 m

FO patch cable - FL MM PATCH 2,0 SC-SCRJ - 2901813



Assembled FO cable, break out cable, multimode fiberglass 50/125 μ m (OM2), connector: SC duplex/SC-RJ, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 m



Accessories

FO patch cable - FL MM PATCH 5,0 SC-SCRJ - 2901814



Assembled FO cable, break out cable, multimode fiberglass 50/125 μm (OM2), connector: SC duplex/SC-RJ, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 5 m

FO patch cable - FL SM PATCH 1,0 LC-SC - 2989190



Assembled fiber optic cable, break-out cable, fiberglass single mode 9/125 µm (OS2, Low Water Peak Fiber) connector: LC/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 m

FO patch cable - FL SM PATCH 2,0 LC-SC - 2989297



Assembled fiber optic cable, break-out cable, fiberglass single mode 9/125 µm (OS2, Low Water Peak Fiber) connector: LC/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 m

FO patch cable - FL SM PATCH 5,0 LC-SC - 2901827



Assembled fiber optic cable, break-out cable, fiberglass single mode $9/125 \, \mu m$ (OS2, Low Water Peak Fiber) connector: LC/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: $5 \, m$

FO patch cable - FL SM PATCH 1,0 SC-SC - 2901829



Assembled fiber optic cable, break-out cable, fiberglass single mode 9/125 µm (OS2, Low Water Peak Fiber) connector: SC duplex/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 m



Accessories

FO patch cable - FL SM PATCH 2,0 SC-SC - 2901830



Assembled fiber optic cable, break-out cable, fiberglass single mode 9/125 µm (OS2, Low Water Peak Fiber) connector: SC duplex/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 m

FO patch cable - FL SM PATCH 5,0 SC-SC - 2901831



Assembled fiber optic cable, break-out cable, fiberglass single mode 9/125 µm (OS2, Low Water Peak Fiber) connector: SC duplex/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 5 m

FO patch cable - FL SM PATCH 1,0 SC-ST - 2901832



Assembled fiber optic cable, break-out cable, fiberglass single mode 9/125 µm (OS2, Low Water Peak Fiber) connector: SC duplex/B-FOC(ST®), degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 m

FO patch cable - FL SM PATCH 2,0 SC-ST - 2901833



Assembled fiber optic cable, break-out cable, fiberglass single mode 9/125 μ m (OS2, Low Water Peak Fiber) connector: SC duplex/B-FOC(ST®), degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 m

FO patch cable - FL SM PATCH 5,0 SC-ST - 2901834



Assembled fiber optic cable, break-out cable, fiberglass single mode 9/125 μ m (OS2, Low Water Peak Fiber) connector: SC duplex/B-FOC(ST®), degree of protection: IP20, for installation in cable ducts or control cabinets, length: 5 m



Accessories

FO patch cable - FOC-GDM-RUGGED-1016/IP20/... - 2901558



Robust GOF installation cable for assembly (IP20 heads only) for installation in stationary systems and machines, aramid strain-relief elements, with individual elements made from FRNC material, halogen-free, ozone and UV resistant, with a polyurethane (PUR) outer sheath

FO patch cable - FOC-GDM-RUGGED-1016/... - 1402193



rugged GOF installation cable for inner areas with highly tear-proof aramid strain-relief elements. Individual elements consist of highly flexible FRNC material. The cable is halogen-free, ozone and UV resistant and has a rugged polyurethane (PUR) outer sheath.

FO patch cable - FOC-GDO-1017/IP20/... - 2901559



Highly rugged GOF round cable (IP20 heads only) for assembly and for outdoor installation with integrated moisture barrier as well as rodent-proof scrim. Individual elements made from highly flexible FRNC material. The wire is ozone and UV resistant with a very rugged polyethylene outer sheath.

Phoenix Contact 2020 © - all rights reserved http://www.phoenixcontact.com

PHOENIX CONTACT GmbH & Co. KG Flachsmarktstr. 8 32825 Blomberg Germany

Tel. +49 5235 300 Fax +49 5235 3 41200

http://www.phoenixcontact.com

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Fibre Optic Transmitters, Receivers, Transceivers category:

Click to view products by Phoenix Contact manufacturer:

Other Similar products are found below:

HFBR-1532ETZ STV.2413-574-00262 TRPRG1VA1C000E2G TOTX1350(V,F) FTLX3813M349 SCN-1428SC FWLF-1519-7D-49 LTK-ST11MB HFD8003-002/XBA HFD3020-500-ABA FTLF1429P3BCVA S6846 SCN-2638SC FTL410QE4N FTLC9555FEPM TQS-QG4H9-J83 SCN-1570SC SCN-1601SC SCN-1338SC SFPPT-SR3-01 HFD8003-500-XBA SCN-1383SC FTLC9555SEPM 2333569-1 LNK-ST11HB-R6 FTLX6875MCC FTL4C1QL3L FTL4C1QE3L FTL4C1QL3C 1019682 1019683 1019705 HFBR-1415Z OPF693-2 AFBR-5803ATQZ AFBR-5803ATZ PLR135/T9 TGW-Q14BB-FCQ AFBR-5803AZ TQS-Q1LH8-XCA03 TQS-Q1LH8-XCA05 TQS-Q1LH8-XCA10 TQS-Q1LH9-2CA HFBR-1414Z HFBR-1527Z HFBR-1528Z HFBR-2406Z HFBR-2505AZ HFBR-2532Z HFBR-1532Z