

Universal serial RS232/RS422/RS485 to single mode optic fiber media converter



RD320-OF

PLUG & PLAY



RD320-OFR

- 3 in 1 built-in serial interface : RS232/RS422/RS485, speed up to 500 Kbps
- Reliable error free communication even in case of EMI/RFI perturbations
- Fiber length up to 20 Km (9/125 μ m fiber type), SC type connectors
- Automatic RS485 line turn-around, software independent
- Half-duplex & Full-duplex bidirectionnal data transmission
- Activity LED for fiber and copper TxD & RxD signals, error LED in case of fiber breakdown
- Wide DC power range, from +9VDC to +36VDC
- Point to point mode and multipoint redundant mode (fault tolerant for the RD320-OFR model)
- 15 KV ESD protection and HF filtering on the copper side
- Robust & compact metal case, **CE** industrial grade, cabinet or 35 mm Din Rail mounting

RD320-OF & RD320-OFR

Monomode fiber optic media converter



5-YEAR WARRANTY

Using fiber optic enables to use a higher communication bandwidth while offering a total immunity against EMI/RFI interferences and an increased security as well.

The optical fibre still offers other advantages : use without risk in an explosive environment, no EMC emission, no ground loops, immunity against lightning and high voltage environments, they are finally lighter, less cumbersome, inert and corrosion resistant ...

Plug & Play : The RD320-OF device features a self configuration mechanism based on a CPLD component freed you from the tiresome operation which consist in the serial parameters setup, product is "Plug & Play".

RD300-OF features in standard a built-in system to control the fiber integrity, it reports automatically any failure with an error LED and also setup a relay contact (MOSFET) to activate any external safety device.

Its small size, design features and its great adaptability make the RD320-OFR a really universal product capable to satisfy to major needs of the industry.



TECHNICAL CHARACTERISTICS

Conversion	Serial RS232/RS422/RS485 to single mode fiber optic, RS485 mode self line turnaround
Serial speed	500 Kbps
Distance	20 Km with a 9/125 µm fiber type at 25°C
Serial protocols	The device supports any kind of communication protocols (Modbus, Unitelway, Profibus, DH+ and any ASCII or binary serial protocols ...).
Configuration	Serial link parameters self configuration, no switches. Line polarization, termination and selection between RS232/RS422/RS485 modes are configurable by mini-switches.
Serial connectors	Pluggable screw-in terminal, TxD & RxD signal for RS232 mode, TxA, TxB, RxA, RxB for RS422 mode, TRxA & TRxB for RS485 mode.
Optic fiber	9/125 µm fiber support, 1310 nm wave length
Power budget	16 dB (typical)
Fiber connectors	2 SC type connectors for the RD320-OF model, 4 for the RD320-OFR model
Network topologies	Point to point, ring, single-master & dual-master ⁽¹⁾ , redundant fiber ring ⁽¹⁾ , dual ring & dual master ⁽¹⁾ , dual point to point ⁽¹⁾ , start ⁽¹⁾ depending to models, see note ⁽¹⁾ .
Signalling	4 LEDs for TxD & RxD signals on both copper and fiber optic side, 1 LED for power, 1 error LED for fiber breakdown for the RD320-OF model, 3 additional LEDs on the RD320-OFR model for TxD, RxD signals and fiber error.
Fan-out	31 RS485 interfaces, 10 RS422 interfaces, input load 1/8 UL in RS485 mode
EMI/RFI protection	Built-in continuous line surge protection, ESD protection (15 KVeFF), HF filtering
Isolation	Infinite galvanic isolation through the optic fiber
CEM	NF EN 55022 residential emission, NF EN 61000-6-2 industrial immunity
Security	Fiber breakdown self diagnostic, failure is reported on a LED and a relay contact (MOSFET) is activated.
Power supply	+9VDC to +36VDC (pluggable screw-in terminal), 2.5W for RD320-OF, 3.9W for RD320-OFR
Environnement	Temperature from -5°C to +65°C, storage -40°C to +80°C, relative humidity from 0 to 95% RH without condensation.
Dimensions, weight	107 mm (L) x 88 mm (W) x 25 mm (H), 260 g

⁽¹⁾ These features are available only with the RD320-OFR device

References to order

RD320-OF	Serial RS232/RS422/RS485 to single mode fiber optic media converter, +9VDC to +36VDC power supply, din rail mounting
RD320-OFR	Serial RS232/RS422/RS485 to single mode fiber optic media converter, multipoint & fault tolerant, +9VDC to +36VDC power supply, din rail mounting

All the brand names mentioned in this document are trademarks. ACKSYS is constantly looking at ways to improve its products. The current specifications may therefore be modified without notice and the characteristics set out herein should not be construed as creating any contractual obligation. All the products featured herein are designed and manufactured in Europe.