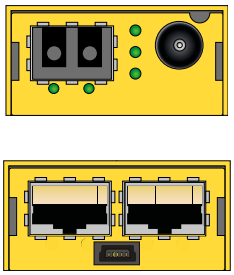
yellobrik®

ODT 1510

LYNX | Centraal™ ✓ yelloGUI ✓

Serial and GPI Fiber Transceiver



Features

- Extend serial and GPI connections up to 10km
- Supports serial RS232 or RS422 or RS485
- 2x GPI connections
- Singlemode fiber 1310nm up to 10km (6.2 miles)
- LC/PC duplex fiber connections
- Switchable RX/TX crossover
- Automatic or manual data direction
- Switchable end of line termination
- 'Plug and Play' - No PC software drivers needed
- Supports all serial protocols (standard or proprietary)

Description

The ODT 1510 is a multi-function module which (when used with another ODT 1510 in the remote location) will extend the reach of serial RS232, RS422 or RS485 as well as two GPI (general purpose I/O) up to 10km (6.2 miles) over fiber.

A single RJ45 electrical serial connection can be configured for RS232, RS422 or RS485 serial standards. A separate RJ45 connector is provided for two electrical GPI inputs and outputs. Serial communications and GPI are transmitted and extended over the same fiber link.

The ODT 1510 is completely agnostic to the serial protocol used, and supports all standard protocols and proprietary protocols at data rates from 300 to 460K Baud (auto sensing and auto adjusting).

The integrated dip switch provides precise control over the serial mode of operation with selections for the serial standard, serial termination, RX/TX crossover and RS422/485 data direction (automatic or manual). Data activity LEDs are provided for the serial port and the GPI port under the respective RJ45 connectors.

The ODT 1510 also supports mixing and matching of serial standards. For example: the transmitting module can have a RS232 input, and the receiving module can be set for RS422 output.

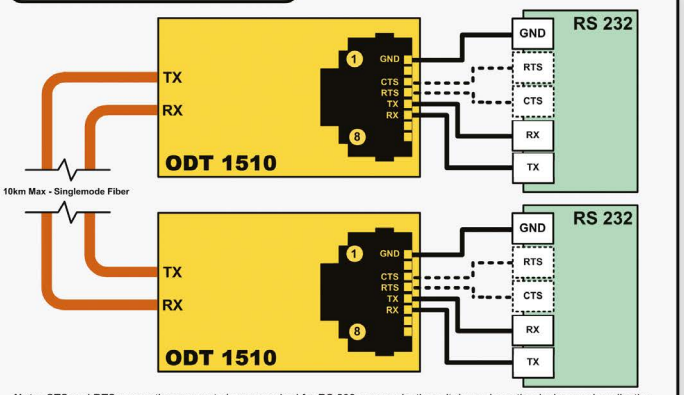
Technical Specifications

Serial I/O	EIA/ETA RS232C / RS422 / RS485 (selectable)
	Connector - RJ45
	Baud rate - Auto sense and auto adjust from 300 to 460k
	Serial setting dip switch provides settings for: • Select RS232 / RS422 / RS485 modes • Select serial termination (for end of line) • RX/TX crossover to flip the RX and TX if needed • Set RS422/485 data direction to automatic or manual if needed
	LED status indicators (under RJ45 connector) Serial TX activity + Serial RX activity
	RS422/485 Max number of electrical nodes = 25
	ESD protection for up to 26kV
GPI I/O	2x general purpose inputs + 2x general purpose outputs
	Connector RJ45
	GPI Inputs: • External passive closure between pins (short) to trigger • Max input switching frequency 25Hz (50 operations / second) • Input insulation 3.75kV
	GPI Outputs: • Internal contact closure (relay) • Max switching frequency 25Hz (50 operations / second) • Max switching power 220V DC / 0.25A or 250V AC / 0.25A • Output insulation 3.75kV
	LED status indicators (under RJ45 connector) GPI Input 1 activity / GPI Input 2 activity GPI Output 1 activity / GPI Output 2 activity
Fiber Optic	1x Fiber output (TX) and 1x Fiber input (RX) Duplex Singlemode fiber LC/PC connections
	Singlemode Version: ODT 1510 TX wavelength 1310nm, power -3dBm RX input range 1260nm to 1620nm, sensitivity -3dBm to -21dBm Max. Distance 10km (6.2 miles)
	RX and TX activity LEDs on side of module next to fiber I/O
Power	+12V DC @ 2.0W nominal - (supports 7 - 15V DC input range)
Physical	Size: 120mmx 42mmx 22mm (4.73"x 1.65"x 0.86") including connectors Weight: 125g (4.4oz)
Ambient	5 - 40ºC (41 - 104ºF) 90% Humidity (non condensing)
Model #	ODT 1510 (Singlemode) - (EAN# 4250479315136)
Includes	Module, AC power supply, SFP, mini USB cable, Ethernet cable

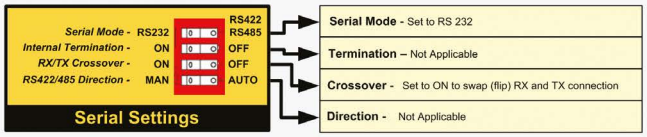
Application Examples

Connection Diagrams

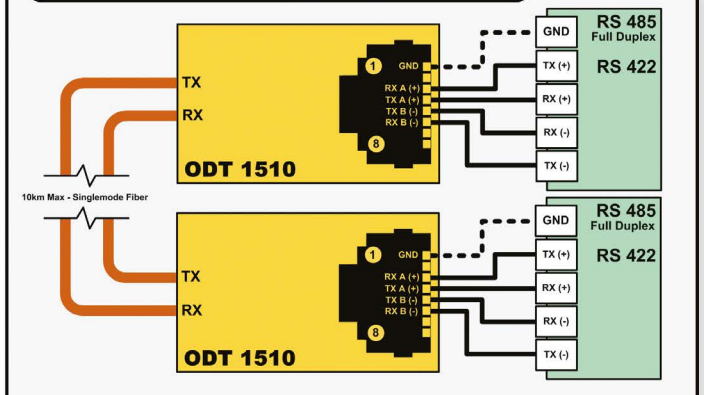
RS 232 Connections

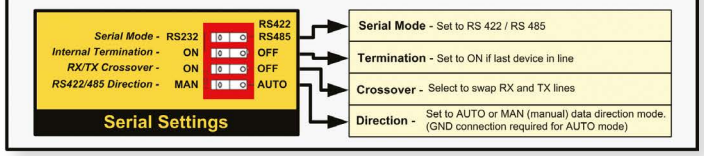


Note: CTS and RTS connections are not always required for RS 232 communications, it depends on the devices and application

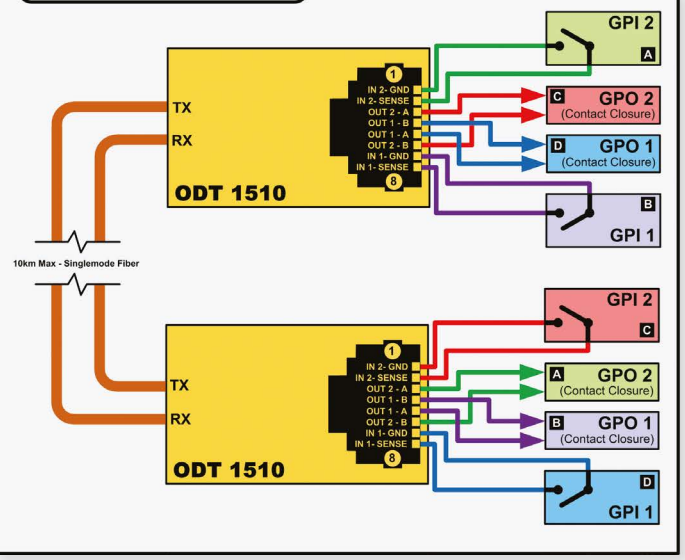


RS 422/485 Connections

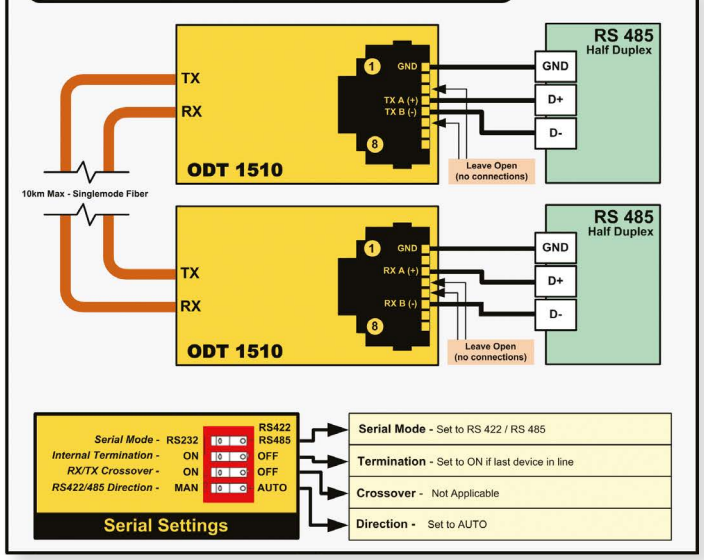




GPI Connections



RS 485 Connections – Half Duplex



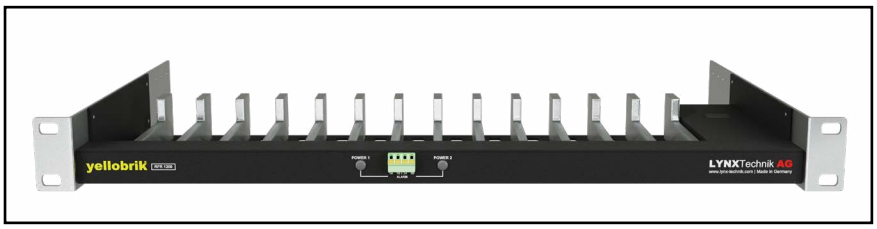
Optional Accessories

Rack Frames

This yellobrik can be placed in a rack frame along others to build increasingly complex systems, all monitored and controlled with a rack controller (RCT 1012) and server module (SRV 1000) via a PC or MAC using LynxCentraal.

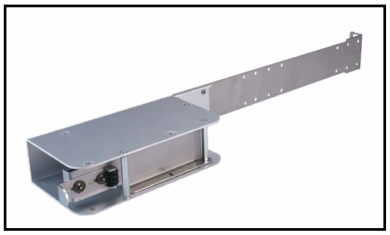
The RFR 1200 offers additional power redundancy with GPI alert. It automatically closes a connection between the A and B terminals on power failure.

The RPS A100 is a 100W power supply, which can be mounted at the rear end of the RFR 1200 with an RXT 1001 power supply holder for rack frames.



RFR 1200: yellobrik Rack Frame

RPS A100: 100W Power supply



RXT 1001: Power Supply Holder

yellobrik Server Module

The yellobrik server SRV 1000 adds functions like AutoControl, CustomControl, Mass Backup & Restore and more to a yellobrik system.

These additional features can only be accessed via LynxCentraal.

yellobrik Rack Controller Module

The yellobrik Rack Controller RCT1012 is a node module to monitor and update up to 12 yellobriks centrally via ethernet instead of individual USB connections.

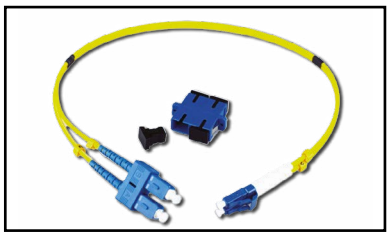
The module also offers four GPI interfaces to monitor the GPI output of other devices (example: the RFR 1200 power supply status).

Fiber Adapter Cables

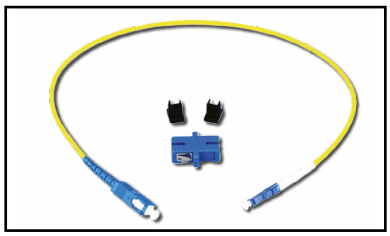
While some of our products offer LC, ST and SC fiber connectors, most SFPs in our product range offer LC fiber connectors.

To still allow the necessary flexibility in a professional setting we offer patch cables to convert LC to ST or SC fiber connections. These patch cables' insertion less and return loss are manually checked for each individual cable to allow for maximum precision when calculating the optical budget

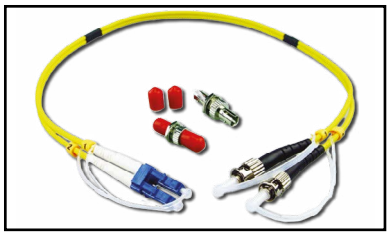
Besides the selection here we offer LC/FC and LC/LC patch cables.



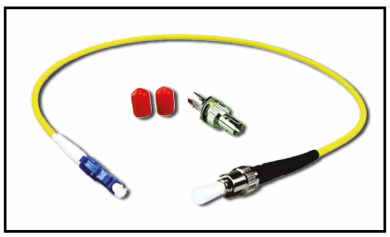
LC/SC Dup: LC/SC Duplex adapter cable



LC/SC Sim: LC/SC Simplex adapter cable



LC/ST Dup: LC/ST Duplex adapter cable



LC/ST Sim: LC/ST Simplex adapter cable