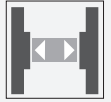


Optical data coupler LS682-DA-EN/F2



- Independent of Ethernet protocol
- TCP/IP, PROFINET, PROFIsafe, EtherCAT, FSoE, EtherNet/IP™, Ethernet POWERLINK etc.
- Plug connection for fast mounting
- No parameterization
- Line indicator for signal strength

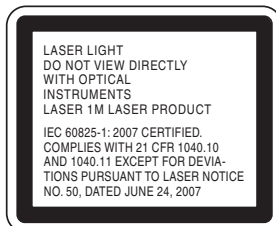
Optical data coupler for fast Ethernet, 150 m detection range, red light, 100 MBit/s data rate, M12 plug



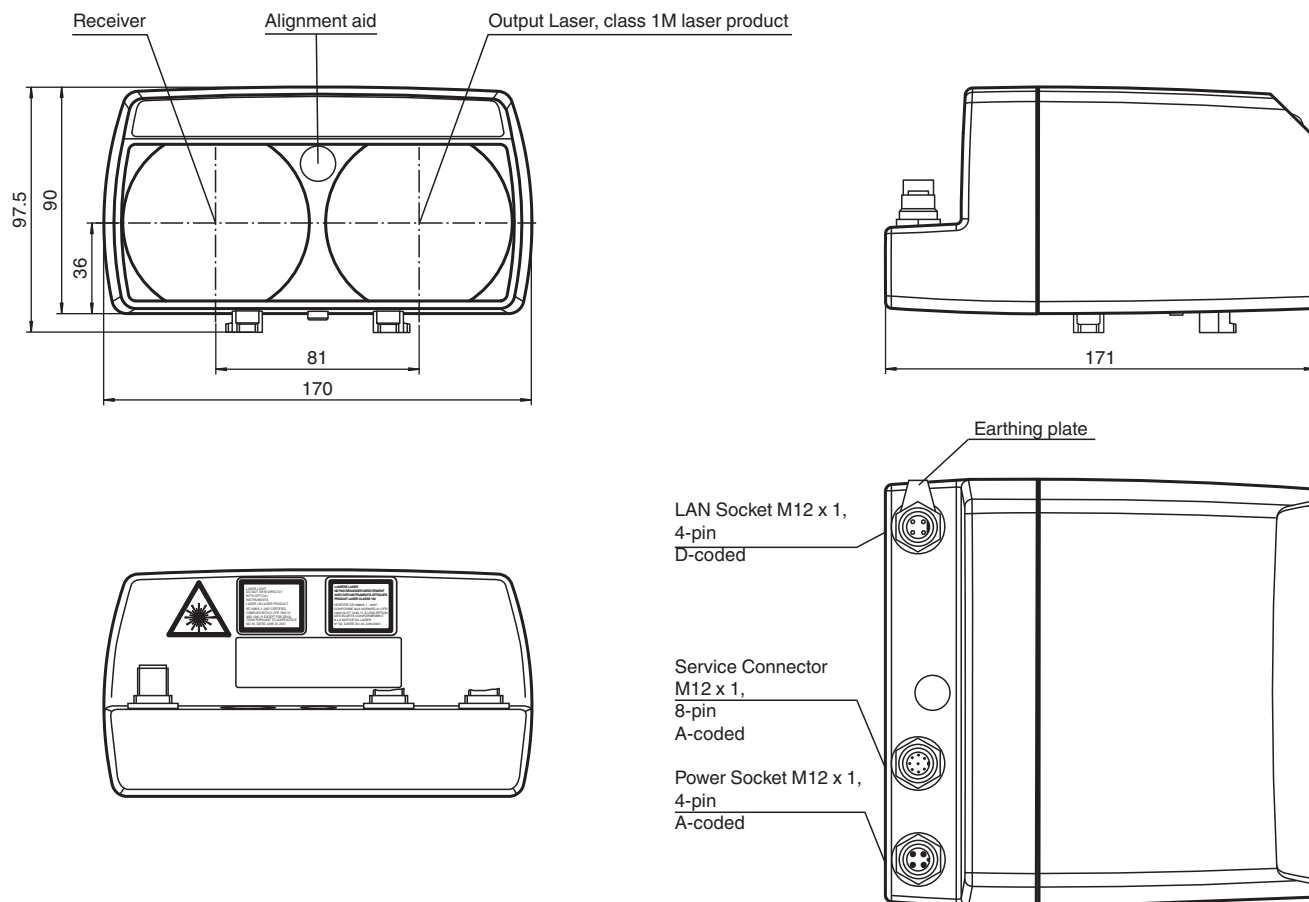
Function

The optical data coupler serves as a connection of Ethernet modules to remote modules. These can move along an axis toward each other. The devices are optimized for conditions in high bay warehouses bays. The physical transfer takes place protocol-free with 100 MBit/s full duplex. The data rate remains constant irrespective of distance. Telegrams are not saved, which enables immediate transfer.

Safety Information



Dimensions



Technical Data

General specifications

Effective detection range	0 ... 150 m
Threshold detection range	180 m
Light source	laser diode
Light type	modulated visible red light
Laser nominal ratings	
Note	VISIBLE LASER RADIATION , DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS
Laser class	1M
Wave length	660 nm
Beam divergence	15 mrad
Pulse length	8 ns
Repetition rate	62.5 MHz
Maximum optical power output	60 mW
Diameter of the light spot	1.5 m at a distance of 100 m
Angle of divergence	1 °
Ambient light limit	> 10000 Lux

Functional safety related parameters

MTTF _d	58.6 a
Mission Time (T _M)	10 a
Diagnostic Coverage (DC)	0 %

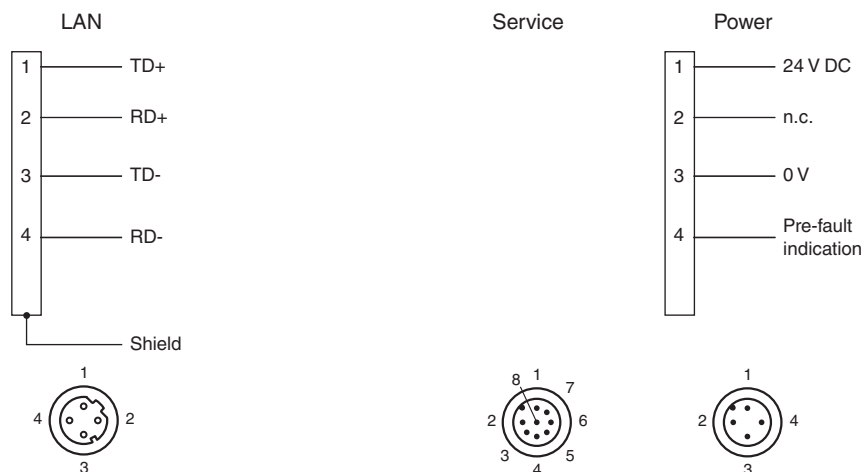
Indicators/operating means

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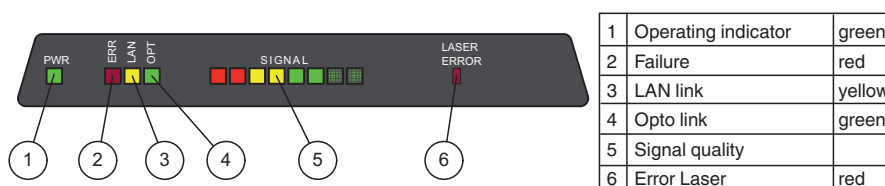
Technical Data

Data flow indicator		LED green: OPTO-Link LED yellow: LAN-Link LED red: ERROR
Function indicator		Signal strength (8 LED: Red, yellow, green)
Electrical specifications		
Operating voltage	U_B	18 ... 30 V DC
No-load supply current	I_0	200 mA
Data rate		100 MBit/s (Fast Ethernet)
Interface		
Interface type		100 BASE-TX
Output		
Pre-fault indication output		1 PNP, inactive when falling short of the stability control , short-circuit protected, max. 200 mA
Conformity		
Laser safety		EN 60825-1:2007
Approvals and certificates		
UL approval		cULus Listed
FDA approval		IEC 60825-1:2007 Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007
Ambient conditions		
Ambient temperature		-10 ... 50 °C (14 ... 122 °F)
Storage temperature		-20 ... 70 °C (-4 ... 158 °F)
Mechanical specifications		
Degree of protection		IP65
Material		
Housing		ABS / PC
Optical face		plastic
Mass		700 g

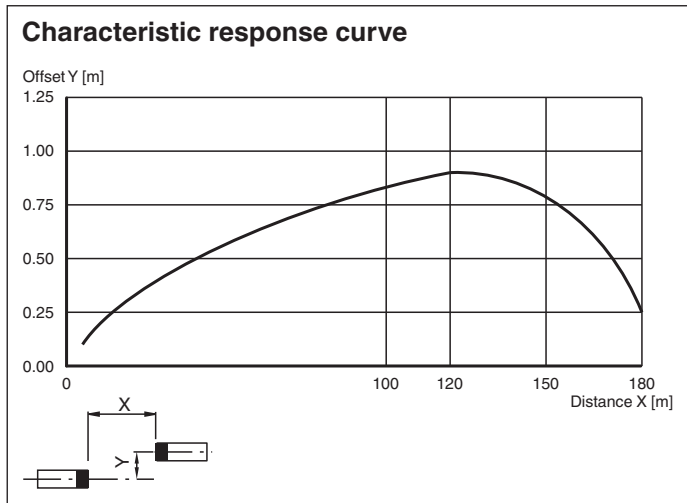
Connection Assignment



Assembly



Characteristic Curve



Accessories

	OMH-LS610-01	Mounting bracket for optical data coupler
	OMH-LS610-01	Mounting bracket for optical data coupler
	OMH-LS610-02	Direct mounting set consisting of 4 x M4 threaded inserts
	OMH-LS610-03	Mounting bracket with deviation mirror for optical data coupler

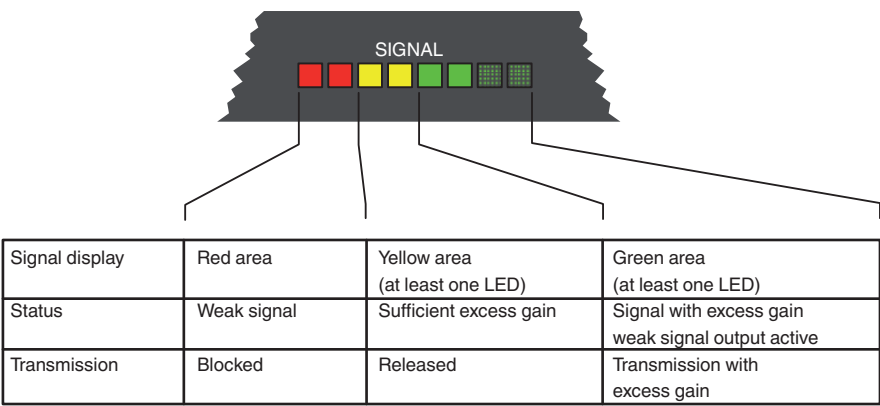
Additional Information

Product Description

The LS682-DA-EN is a device for serial data transfer in Ethernet systems. One F1 and one F2 device is needed for each data transfer link.
Data is transferred in both directions simultaneously by means of modulated light.

Function Displays/Excess Gain

A red alignment LED, which can be seen from a long way off, is located on the front of the device to serve as an alignment aid. As soon as a receiver detects the emitted light of the device opposite it, the flashing frequency of the alignment aid decreases. If the light goes out, this indicates that the devices are aligned with sufficient excess gain. For fine adjustment, the optical data coupler features a bar graph display (signal display) for optimum alignment.



Mounting

The device is mounted using appropriate accessories, e.g., OMH-LS610-01 for wall mounting.
The x-y adjuster is delivered preassembled. It is fixed in the required beam direction ($\pm 90^\circ$ rotation possible) on the mounting bracket.

LASERSTRAHLUNG
LASER RADIATION
RAYON LASER

NICHT DIREKT MIT OPTISCHEN INSTRUMENTEN BETRACHTEN
DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS
NE PAS REGARDER DIRECTEMENT AVEC DES INSTRUMENTS OPTIQUES

LASER KLASSE 1M
CLASS 1M LASER PRODUCT
PRODUIT LASER CLASSE 1M

Laser notice laser class 1M

- The irradiation can lead to irritation especially in a dark environment. Do not point at people!
- Caution: visible and invisible laser radiation, do not observe laser light with optical instruments such as magnifying glasses, microscopes, telescopes or binoculars!
- Maintenance and repairs should only be carried out by authorized service personnel!
- Attach the device so that the warning is clearly visible and readable.
- Caution: use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

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