SIEMENS

Safety Instructions

Edition V2.0, 09/2010

OLM/P11 V4.0
OLM/P12 V4.0
OLM/P22 V4.0
OLM/G11 V4.0
OLM/G12 V4.0
OLM/G22 V4.0
OLM/G12-EEC V4.0
OLM/G11-1300 V4.0
OLM/G12-1300 V4.0

Please read and observe the detailed operating manual "SIMATIC NET PROFIBUS Optical Link Module"

You find the operating manual in the Internet under http://support.automation.siemens.com/WW/view/de/24164176 and on the attached Manual Collection DVD.

- The device/system may only be set up and operated in conjunction with the above mentioned documentation. Only **qualified personnel** should be allowed to install and work on the equipment. Qualified personnel in the sense of the technical safety instructions found in this documentation are persons who are licensed to commission, ground and label devices, systems and electric circuits in accordance with the standards of the safety technology.

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- **Warning**: The device may only be employed for the purposes described in the catalogue and in the technical description, and only in conjunction with external devices and components recommended or approved by Siemens. The product can only be operated correctly and safely if it is transported, stored, installed and assembled properly and correctly. Furthermore, it must be operated and serviced carefully. Never open the device, it contains no serviceable parts.
- Only operate the modules with safety extra-low voltage in accordance with IEC 950/EN 60 950/VDE 0805 with a maximum rating of +32 VDC (typically +24 VDC). The power source must comply with NEC, Class 2, regulations as stipulated by UL/CSA.
- Only the supplied connectors may be used for the electrical connection of the OLM, even if the OLM is used to replace an existing model. If the existing connectors (e.g. OLM V3) are used, proper contact cannot be guaranteed because of different pin diameters! The supplied connectors must also be plugged in to meet IP40 protection standards.
- Pay attention to the electrical limit values when connecting power to the signaling contacts: 50 VDC, 30 VAC(CE) / 30 VDC, 30 VAC(cULus).
  The connected power supply must also be safety extra-low voltage in accordance with IEC 950/ EN 60 950/ VDE 0805 and comply with NEC, Class 2, regulations as stipulated by UL/CSA.

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- **Danger:** Never connect the PROFIBUS OLM to the mains voltage!
- Note: Exposure to optical radiated power of the components used in this device does not represent a potential health hazard of any kind under reasonable, foreseeable conditions. Nevertheless you should avoid looking directly into the transmitter or into the end of a fiber-optic cable.

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- **Warning:** – Explosion Hazard – Do not disconnect while circuit is live unless area is known to be non-hazardous.
- Only install the device in a location where the climatic and mechanical limit values given in the Technical Data can be complied with.
- If temperatures in excess of 70°C occur on the cable or at the cable feed-in point, or the temperature at the branching point of the cables exceeds 80 °C, special measures need to be taken. If the equipment is operated at an ambient temperature of 50°C - 60°C, use cables with a permitted operating temperature of at least 80 °C.
- Note: If the PROFIBUS OLMs are supplied through extensive 24V supply lines or networks, measures against the injection of strong electromagnetic pulses into the supply lines are necessary. Such pulses can be caused e.g. by lightning strike or through switching heavy inductive loads. The robustness of the PROFIBUS OLM against electromagnetic interference is established amongst others by the "Surge Immunity Test" according to EN61000-4-5. For this test, an overvoltage protection for the voltage supply lines is required. The Dehn Blitzductor VT AD 24V Art. No. 918402 or an equivalent protection element is considered suitable. Manufacturer: DEHN+SÖHNE GmbH+Co.KG Hans Dehn Str.1 Postfach 1640 D-92306 Neumarkt, Germany.

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- **Warning:** All PROFIBUS OLMs are approved for operation in hazardous areas zone 2 according to EEx nA II T4. The modules shall be installed in a suitable enclosure providing a degree of protection of at least IP54 according to EN 60529, taking into account the environmental conditions under which the equipment will be used. It is necessary to use the supplied connectors for this case of operation.

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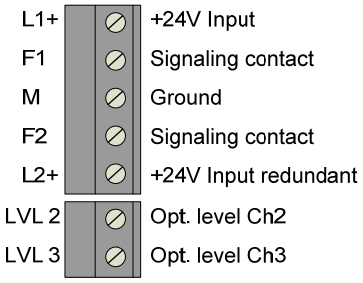
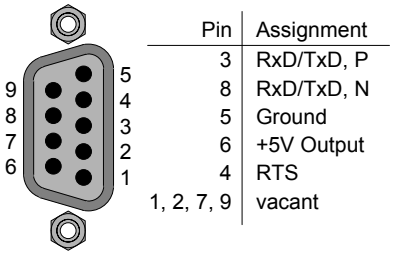
- **Warning:** Do not connect any RS 485 bus lines which have been partially or totally laid outside of buildings. In such a case, lightning strikes in the vicinity of the cable could destroy the module. Use fiber-optic lines for bus connections which lead out of a building! The fiber-optic bus lines may be laid in or through a Zone 1 hazardous area only with an OLM that is appropriately labeled (see type plate).

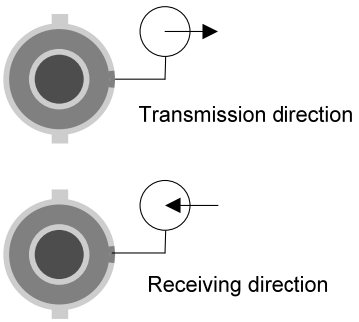


Assignment of terminal block



Pin	Assignment
3	RxD/TxD, P
8	RxD/TxD, N
5	Ground
6	+5V Output
4	RTS
1, 2, 7, 9	vacant

Assignment of Sub-D connector
Port 0 / Port 1 (RS 485)



Assignment of optical ports
Port 2 / Port 3

Compatibility

The **DIL switch S7=1** is used to switch the **compatibility mode** of the OLM V4.0 with SINEC L2FO OLM/P3, OLM/P4, OLM/S3, OLM/S4, OLM/S3-1300 and OLM/S4-1300 **on and off**. This operating mode of the OLM V4.0 is required when operating the module along with these aforementioned legacy devices.
OLM V4.0 is compatible with OLM V3.x. Therefore this DIL switch must be set to OFF (S7=0) when the OLM V4.0 is operated together with OLM V3.x devices.
If the OLM V4.0 is used with units from the OLM V3.x-G11/G12/G11-1300 and G12-1300 range, the DIL switches S5 and S6 of the OLM V3.x units involved must be set to 0 in general.

Meaning of the DIL switch settings on the OLM with S7=1 for:					
SINEC L2FO OLM/P3 and OLM/P4			SINEC L2FO OLM/S3 and OLM/S4, OLM/S3-1300 and OLM/S4-1300		
S6	Output Power CH4		S6	Reserved	
0 1	Standard High				
S5	Output Power CH3		S5	Reserved	
0 1	Standard High				
S4	Reserved		S4	Reserved	
S3	Reserved		S3	Distance	
			0 1	Extended Standard	
S2	Redundancy		S2	Redundancy	
0 1	Off On		0 1	Off On	
S1	Mode	Monitor	S1	Mode	Monitor
0 1	Line/Ring Line	On Off	0 1	Line/Ring Line	On Off
S0	Reserved		S0	Reserved	
S8	Reserved		S8	Reserved	
OLM/P3: S6 reserved			OLM/S3, OLM/S3-1300: S2 reserved		

Note: The specified approvals apply only when the corresponding mark is printed on the product.