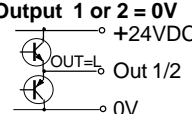
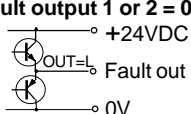
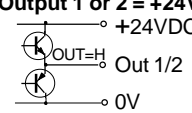
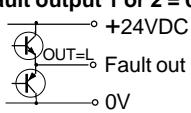
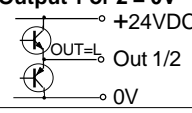
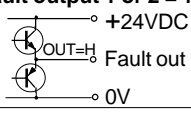
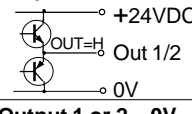
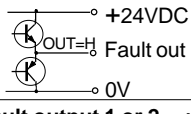
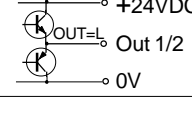
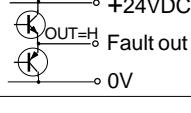


## Data Processing Receiver for Magnetic Detectors MSx-20 and MFx-15 / MTx-15

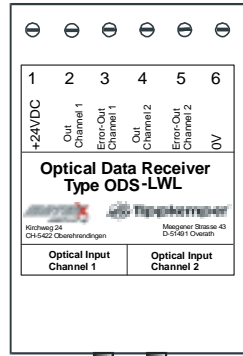
### Type ODS-LWL

- For data processing in composition with magnetic field sensors, type MFx/MTx-15(-3G) over POF
- 2 independent receivers inside
- Simple connection of synthetic fibre optics (POF) without special tools
- Short response time and very high sensitivity
- 2 x Status outputs and  
2 x Fault indication outputs



Technical Data	Type	ODS-LWL	
Number of receivers		2	
Minimum pulse width at the inputs		≥ 2µs	
Minimum optical input power		≥ 0.2µW (LWL, L:10m, D:1mm; pulse with ≥2µs)	
Response time		≤ 2ms	
Supply voltage		20VDC to 28VDC	
Current consumption		50mA	
Maximum power dissipation		1.4W	
Status indication outputs		2 x Push-Pull, short circuit protected, max. 20mA	
Fault indication outputs		2 x Push-Pull, short circuit protected, max. 20mA	
Inputs		2 x Optical for synthetic fibre optics, 2.2mm, core 1mm	
Housing		Synthetic (Makrolon / Polystyrene)	
Enclosure rating, at EN 60529		IP20	
Mounting		On DIN rail at EN 50022 or with 2 screws	
Ambient working temperature TA		-20°C < TA < +50°C	
Electrical connection		Terminal screws, 1/4-36UNS-2B	
Applicable POF's		Outside diameter: 2.2mm / Core diameter: 1mm	
POF length		Dependent on type and structure of the used POF	
Optical input connection		POF-connection for PHOENIX Q-FSMA connectors (Phoenix Article-No.: 18 85 99 4)	
Accessories (not included)		- POF, single or multiple faser, D2.2mm/1mm - Q-FSMA POF-connector	
Options		--	
Function			
Scraper moved:		<b>Output 1 or 2 = 0V</b> 	<b>Fault output 1 or 2 = 0V</b> 
Scraper in park position:		<b>Output 1 or 2 = +24V</b> 	<b>Fault output 1 or 2 = 0V</b> 
Scraper moved Battery low:		<b>Output 1 or 2 = 0V</b> 	<b>Fault output 1 or 2 = +24V</b> 
Scraper in park position Battery low:		<b>Output 1 or 2 = +24V</b> 	<b>Fault output 1 or 2 = +24V</b> 
No valid optical input signal or no fibre optic connected:		<b>Output 1 or 2 = 0V</b> 	<b>Fault output 1 or 2 = +24V</b> 

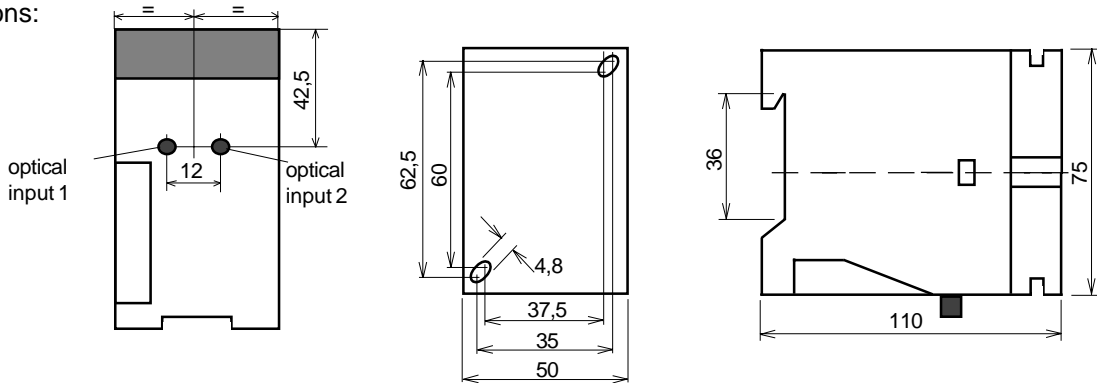
Connections ODS-LWL:



- 1 +24VDC
- 2 Output 1
- 3 Fault output 1
- 4 Output 2
- 5 Fault output 2
- 6 0V

Optical input channel 1    Optical input channel 2

Dimensions:



Operating Manual / EC - Declaration of Conformity:

**General mounting prescriptions:**

Do not exceed the maximum ratings. The electrical connections must be exactly as shown in the connection diagram. For highest noise immunity use twisted pair cables with shielding. The cable shield should be connected to the protection earth, large-surfaced. Connection cables must not be installed parallel to high voltage cables.

**Function**

The optical data processing unit type ODS-LWL is applicable with magnetic field detectors series MSx-20 or MFx/MTx-15. The optical data processing unit must be mounted out of the high tension field. He contains 2 independent data receivers. Each receiver has a signal and a fault indication output.

	Battery	Status Output	Fault indication output
Scrapper moved	OK	LOW	LOW
In park position	OK	HIGH	LOW
Scrapper moved	Low	LOW	HIGH
In park position	Low	HIGH	HIGH

Is the no fibre optic connected or no valid signal recognized the normal out and the fault indication output both are switched to High (+24V). (Equal state to scrapper (Molch) moved at low Battery).

**Mounting the POF**

For mounting the POF a quick connector type Q-FSMA-KT (Phoenix No.: 1885994) will be required. (Not included in the package). POF specifications: Core diameter: 1mm, Cladding diameter: 2.2mm. Fix the connector Q-FSMA-KT at the data processing unit ODS-LWL. Cut the POF with the special cutter carefully and push them trough the quick connector inside the optical receiver set. Rigid fasten the locking nut at the quick connector. The applicable length of the POF is dependent of there type and structure. The functional safety of the data receiver is given by the working up of the optical fibres. Specially near the sensor, the fibre optics must not be buckled or laid with a small radius. Buckled or bad laid fibre optics results to a strong decrease of performance. Avoid performance decreasing and failures caused by wear, by a

functional mounting of the fibre optics.

**Maintenance**

Protect the fibre optic adaptor at the data receiver and the optical fibres against pollution. Please set up the protection caps if no optical fibres are connected. If the fibre optic adaptor is contaminated, clean with alcohol. Do not use aggressive solvents. Plastic optical fibres can be destroyed by strong solvents. Equipment must only be repaired or serviced by the manufacturer.

**Safety Informations**

The data receiver ODS-LWL must not be used for Accident-Prevention! When installing and operating with the sensor, it is necessary to take into consideration the relevant international and other national regulations.

Standards met:

- EN 61000-6-1/-2, EN 61000-6-3/4, EN 60529
- Machine directive: 98/37EG
- Low voltage directive: 73/23/EWG, 93/68/EWG
- EMC, 89/336/EWG, 91/263/EWG, 92/31/EWG, 93/68/EWG
- RoHS directive: 2002/95/EG

**General Notes**

We reserve the right to modify our equipment. Our equipment is designed in accordance with the RoHS directive. It neither emit or contain any damaging or siliconized substances and use a minimum of energy and resources. No longer usable or irreparable units must be disposed of in accordance with local waste disposal regulations.

**Declaration of Conformity**

The conformity of the devices with the EC standards and directives and the observation of the Quality Safety System ISO 9001:2000 with the ATEX module "Production", declares:

Hans Bracher, Matrix Elektronik AG

**Matrix Elektronik AG (Manufacturer)**

Kirchweg 24 CH-5420 Ehrendingen  
Tel.: +41 56 20400-20 Fax -29

**Tippkemper - Matrix GmbH**

Meegener Str. 43 D-51491 Overath  
Tel.: +49 2206 9566-0 Fax -19

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