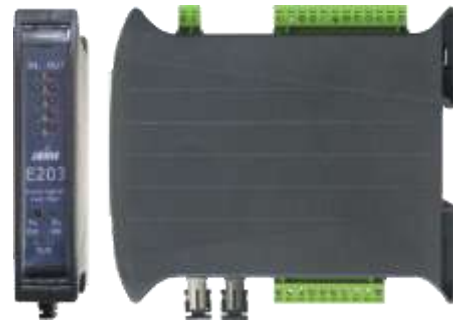


## Adapters for duplex transmission of binary signals over the multimode fiber optic

# ELO E203, E207, E208



### Characteristics

- Bidirectional transfer of 5 binary signals**
- Data error and Link error indication**
- DIN rail mounting**
- Supply voltage 9 – 24 V DC nominal**
- Range p to 2 km**
- Multimode cable 50/125 or 62,5/125 μm**

### Introduction

Data transmission over the fiber optic is suitable in such applications, where noise induction in metal conductors can interfere with transferred data or even destroy devices. It may be also appropriate to connect devices with high voltage potential over the fiber optic link.

### Use of the multiplexers

Binary data signaling is still concern of the fire protection and security field. It is usable in automation application too. Adapter can be used for fault signalization, fiber optic line breakdown detection, to blackout or brownout of the remote station indication.

Inputs are galvanic isolated. They are fitted with input current limitation to 6 mA.

Outputs can be fitted with classic relay (60V AC/DC, 5A) – model ELO E208 or with SSR (Solid State Relay, MOSFET technology, 0.5A, 48V DC / 24V AC) – models ELO E203 and E207.

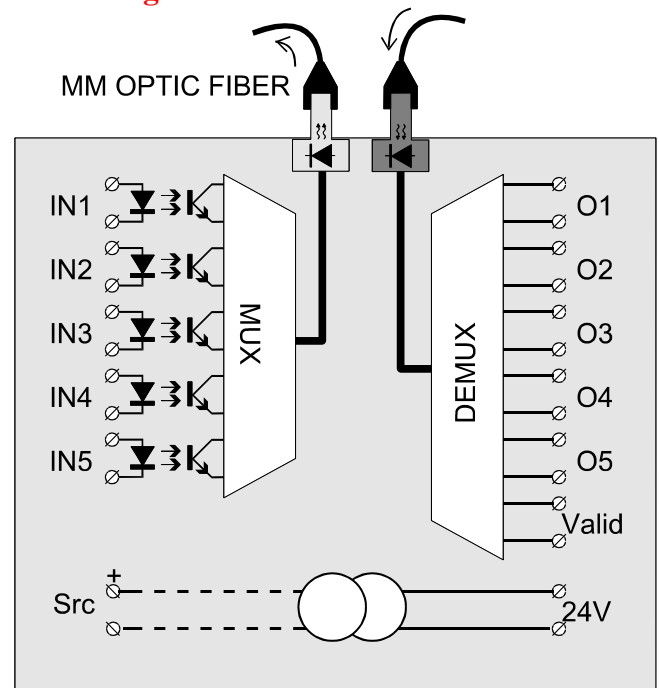
### Operation principles

State of every input IN1 .. IN5 is periodically sampled, coded and transmitted from input unit over the optical link. Receiver unit decodes received packets and sets outputs O1 .. O5. Furthermore it indicate validity of the received data by „ON“ state on the „Valid“ output as an unit is checking transferred data. If there is any packet error detected, the „Valid“ output switches off, whereas data outputs stay in last good known conditions. If the error lasts for a few seconds, all outputs are subsequently switched off.

Model ELO E207 contains a 24V/40mA supply, which is galvanic isolated (clamps „Src“). It is suitable if it is necessary to transmit for instance a relay contacts without potential.

Input & output states are indicated on the front panel altogether with processor status and eventually transmission error.

### Block diagram



### Specification

#### Parameters

Binary inputs	galvanic isolated
Log. 0	0 – 3 V
Log. 1	> 4.5 V
Input current limiter	6 mA
Binary outputs	SSR, or electromechanical relay
Max. switched current SSR/relay	0.5/5 A
Max. switched voltage SSR	, 24/30 V AC
Max. switched voltage - relay	48/60 V DC
Optic fibers	multimode 50/125 or 62,5/125 μm

Optic connectors	ST
Typical range	2 km
Nominal supply voltage	9 – 24 V DC
Limit supply voltages	7 – 30 V DC
Power take off (24 V)	typ. 150 mA, max. 400 mA
Wave length	820 nm
Dimensions W x L x H	22,5 x 108 x 120 mm
Weight	140 g
Storage temperature	- 10° to +50° C
Working temperature	+ 5° to +50° C