

Isolating Switching Repeater TS 500

1- and 2- channel device

Features

- Input for switching contact, proximity switch Namur type acc. to DIN EN 60947-5-6 or opto-coupler
- Switchable line fault detection for broken and shorted lines
- Output relay SPDT contact or electronic (transistor passive)
- Supply voltage 230V AC or 24V DC
- Power on LED, status / error LED
- 22.5mm case for DIN rail mounting



General information

Isolating switch-coupler TS500 can be used for monitoring and controlling digital signals. The input is suitable for switching contact, proximity switch acc. Namur DIN EN 60947-5-6, or passive electronic outputs of other devices. The output can be delivered as relay SPDT or transistor (voltage free).

Short information

- | | |
|----------------------|--|
| Operating mode | The Operating mode between input and output can be selected by DIP switches at the front panel (open-circuit or close-circuit working). |
| Line fault detection | When operating with Namur proximity switches the controlling function for broken line and shorted line can be activated by DIP-switch. In case of an error, the output will be inactive and the status LED's are flashing. For switch type sensors resistors must be installed (see page 3). |

Technical data

Power supply

Supply voltage	: 230 V ±10 % AC, 47 ... 63 Hz
	: 24 V ±15 % DC
Power consumption	: < 2 W
Operating temperature	: -10 ... 55 °C (14 ... 131 °F)
Rated voltage	: 400 V AC acc. to EN 60664-1 group 2 between input/output/supply voltage
Test voltage	: 4 kV DC between input/output/supply voltage
CE - conformity	: EN 61326-1:2013 EN 60664-1:2007

Inputs

No load voltage	: approx. 8 V (acc. to DIN EN 60947-5-6, Namur)
Short circuit current	: approx. 8 mA (acc. to DIN EN 60947-5-6, Namur)
Switching points	: inactive ≤1.2 mA, active ≥2.1 mA, hysteresis approx. 0.5
mA Broken line detection	: ≤0.1 mA
Shorted line detection	: ≥7.5 mA

Relay Output

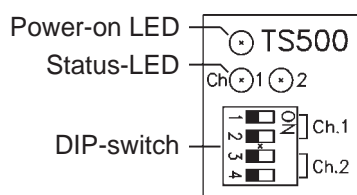
Switching capacity	: < 250 V AC < 250 VA < 2 A; < 100 V DC < 50 W < 2A
Max. switching frequency	: 5 Hz
Max. switching delay	: 20 ms (2-channel: 50 ms)

Transistor output (voltage free)

Max. voltage	: 35 V DC
Max. current	: 50 mA (short circuit protection)
Voltage drop	: ≤3.5 V (at load 50 mA)
Max. switching frequency	: 2 kHz (50 % key ratio)
Max. switching delay	: 300 µs

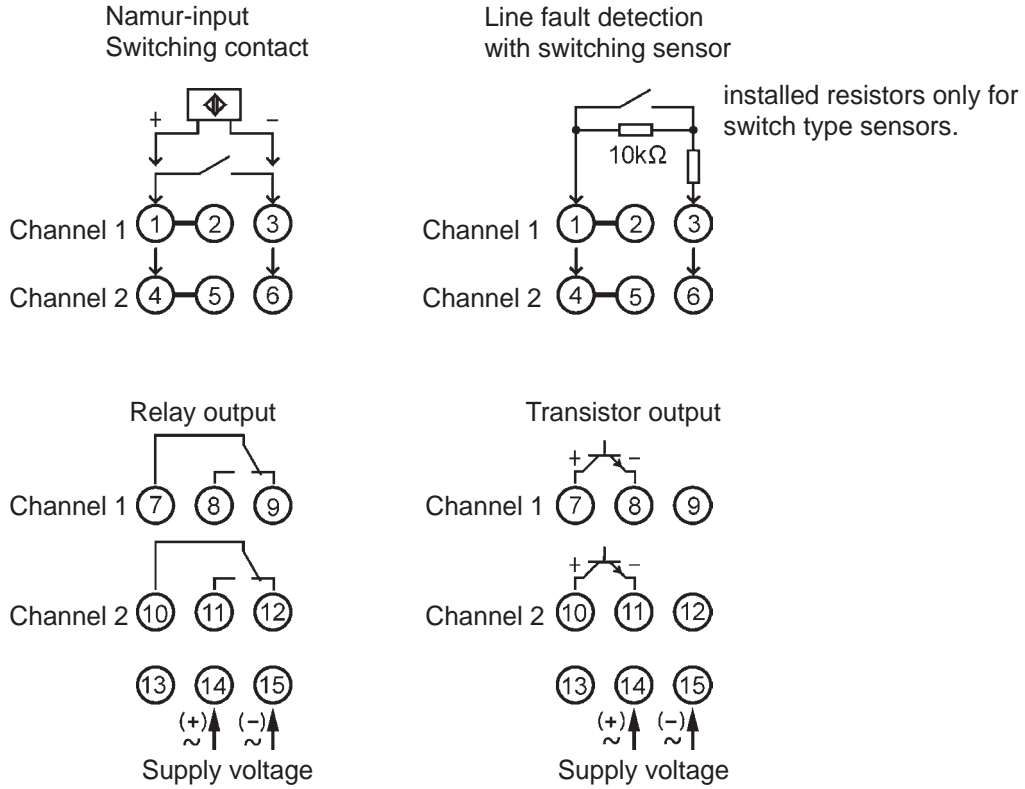
Case	: Standard DIN rail case of polycarbonate 8020 UL94V-1 acc. to DIN EN 60715:2001
Weight	: approx. 200 g
Protection	: Case IP30, terminals IP20 (BGV A3)
Connection	: Screw terminal with pressure plate, max. 2.5mm ² , wire

Front panel controls

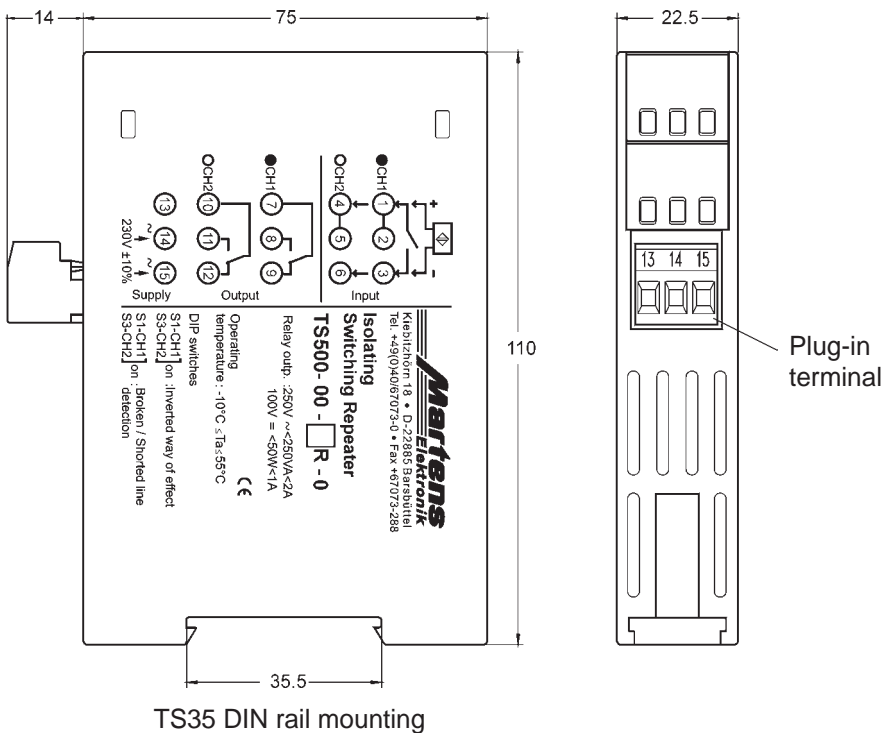


Way of effect	Ch.1 Channel 1	Ch.2 Channel 2
non inverted (N.O.)	S1 off	S3 off
inverted (N.C.)	S1 on	S3 on
Broken line/shorted line		
non active	S2 off	S4 off
active	S2 on	S4 on

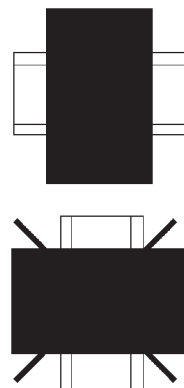
Connection diagram



Dimensions



Caution!
Mounting of multiple units without distance is only permitted in horizontal orientation.



Ordering code

TS500- 1. - 2. - 3.

1. Devicetype

00 Standard

2. Output

1R 1-channel with relay output

2R 2-channel with relay output

1T 1-channel with transistor output

2T 2-channel with transistor output

3. Supply voltage

0 230 V AC ±10 % 50-60Hz

5 24 V DC ±15 %

Note:

The TS500 is available as Ex-ia version!