

## SWITCH AMPLIFIER



### HIGHLIGHTS:

- 1 or 2 channel version
- Safe galvanic isolation between input / output / auxiliary voltage
- Functional safety up to SIL2 EN61508
- Inputs for switching contacts, Namur initiators, or optocouplers



### TS 125 und TS 225

Switch amplifier

#### General:

Switch amplifiers of the series TS 125 and TW 255 are used in switch cabinets for the conversion and isolation of digital switching signals, as well as in explosion-prone areas. The devices are available in one- or two-channel versions.

Passive sensors, such as switching contacts, Namur initiators, or passive electronic outputs of third-party devices, can be connected to the intrinsically safe inputs. The TS125 series in 12.5 mm wide carrier rail housing offers relay outputs with output make circuit. The TW225 series in 22.5 mm wide carrier rail housing offers relay outputs with changeover function. The plug-in terminal strips enable simple and time-saving wiring. The configuration is also quick and easy with the front DIP switches.

#### Specifications:

**Wide-range mains:** 20 ... 125 V DC and 20 ... 250 V AC, (47 ... 63 Hz), max.1.5 W

**Auxiliary voltage:** 24 V DC +/-15 % max. 1.5 W

**Test voltage:** 3kV AC between input / output / auxiliary voltage

**Working temperature:** -10 ... +60 °C

**Storage temperature:** -20 ... +80 °C

**Air humidity:** 10 ... 90 % (non-condensing)

#### Measuring inputs (in accordance with EN60947-5-6 Namur)

**Open circuit voltage:** approx. 8 V

**Short circuit voltage:** approx. 8 mA

**Switching points:** inactive <= 1.2 mA, active >= 2.1 mA, hyst. < > 0.5 mA

**Error recognition:** Wire break: <0.2 mA, short circuit: >7 mA

#### Relay outputs:

**Switching voltage:** <250 V AC <2 A <500 VA, <125 V DC <0.2 A <25 W, <30 V DC <2 A <60 W

**Switching frequency:** max. 5 Hz

**Delay:** max. 30 ms

#### Housing

**Dimensions (W x D x H):** TS125: 12,5 x 114 x 108 mm, TS225: 22,5 x 114 x 108 mm

**Protection rating:** IP20

**Terminals:** 0.2 ... 2.5 mm<sup>2</sup>, AWG 24 ... 14, removable coded terminals

**Explosion protection:** specific data on request

**Functional safety:** SIL2 in accordance with EN61508

TS - 1 - 2 - 3

Greisinger	
<b>1. Device version</b>	
125L	Housing width 12.5 mm, Relay NO contacts, Auxiliary voltage 24 V DC +/- 15 %
125M	Housing width 12.5 mm, Relay NO contacts, Wide-range mains adapter
225M	Housing width 22.5 mm, Relay changeover contacts, Wide-range mains adapter
<b>2. Explosion protection</b>	
00	Installation of the device TV125L in Zone 2 permitted, in accordance with ATEX ignition protection rating, n'
Ex	With installation of the devices outside the Ex area: Inputs intrinsically safe in accordance with ATEX ignition protection rating, ia' for Zones 0 and 20. The device TS125L may be installed in Zone 2 in accordance with ATEX ignition protection rating, ic'.
<b>3. Number of channels</b>	
1	Single channel
2	Dual channel
F	Single channel with additional error relay or parallel relay