



TNT 33



Test monitoring unit

Safety note:

- The test monitoring unit TNT 33 is a contactless active protective device according to EN 61496-1 only in connection with an EC certified protective photoelectric sensor category 2.
- Extensive description is part of every shipment.

Accessories

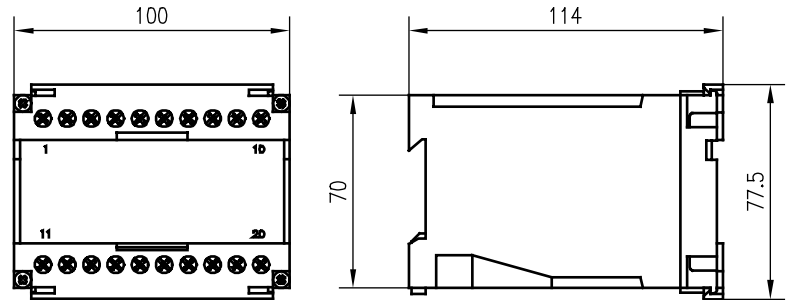
(available separately)

- Safety muting controller
 - SMC 33 (Part No. 500 28157)
 - SMC 34 (Part No. 500 82120)

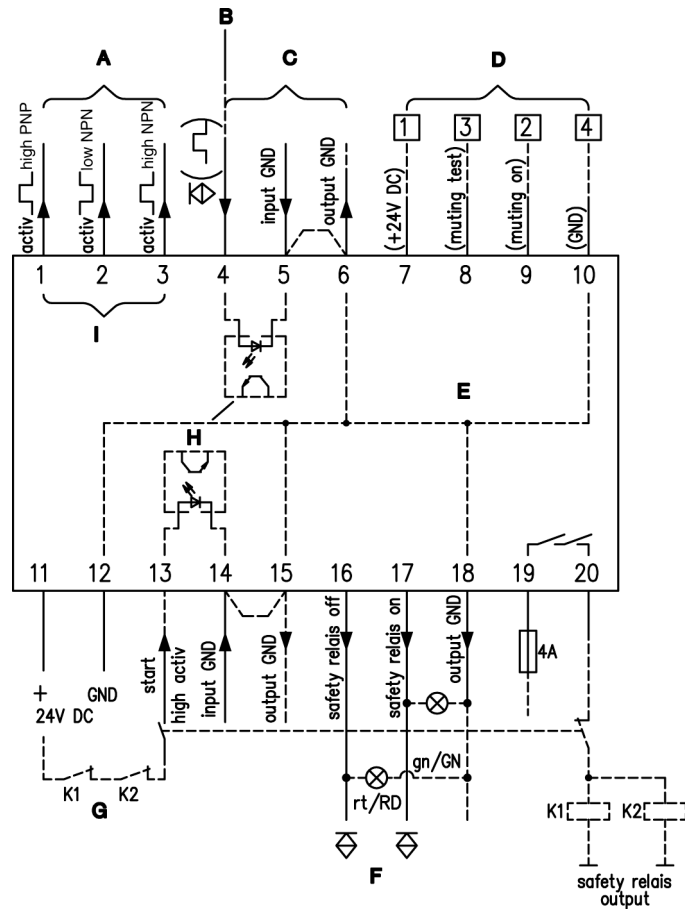
Features

- High security through permanent cyclic test in time intervals of 2 sec.
- Highest operating safety through micro controller technique
- Security relay output with fault protected monitoring
- No interruption of operating during test procedure
- Connection possibility for all current testable protective photoelectric sensors
- Integrated muting switching input
- Optical coupler inputs for high interference protection
- Separate signaling outputs as PNP transistor outputs
- Integrated start and restart-disable

Dimensional Drawing



Electrical Connection



- | | |
|------------------------------------|----------------------------------------|
| A Transmitter | F Signal output PNP, max. 100mA |
| B Switching output receiver | G Relay monitoring |
| C Receiver | H Optical coupler |
| D SMC 33 | I Reference GND = U_b -GND |
| E Internal GND connections | |

606715 - 02/06 Subject to change without prior notice



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Technical Data

Electrical data	
Operating voltage U_p	24VDC \pm 15% (incl. residual ripple)
Residual ripple	\leq 15% of U_p
Current consumption	approx. 200mA
Response time	\leq 20ms
Sensors	
Transmitter activation	terminal 1 PNP (HIGH active) terminal 2 NPN (LOW active) terminal 3 NPN (HIGH active)
Receiver input	voltage free optical coupler input input current approx. 5mA at 24VDC
Muting	
Muting test	PNP (HIGH active)
Muting input	voltage free optical coupler input Input current approx. 5mA at 24VDC
Inputs/outputs	
Start input „START“	voltage free optical coupler input input current approx. 5mA at 24VDC
Delay before start-up at U_p ON	approx. 2s
Signaling outputs	PNP transistor output, 100mA short-circuit and polarity reversal protection
Safety relays „OFF“	safety output opened, output (HIGH active)
Safety relays „ON“	safety output closed, output (HIGH active)
Function characteristics (antivalent)	if incandescent lamps are connected, the cold resistance of the filament must be at least 240 Ω
Safety output	voltage free N.O. contact max. current load 4A
Fuse	external with max. 4AMT
Overvoltage category acc. to VDE 0110 part 1	4 for rating voltage 300 VAC
Mechanical data	
Housing	polycarbonate, cover ABS/v-o gray
Connection	screw terminals max. connection cross section 2x2.5mm ² acc. to DIN 46288
Mounting type	snap-on mounting on top hat rail
Weight	200g
Environmental data	
Ambient temp. (operating/storage)	-20°C ... +60°C/-30°C ... +70°C
Contact protection	IP 40 (only for application in electrical operating rooms/ switching cabinet with minimum protection class IP 54 is suitable)

Tables

Protective photoelectric sensor AOPD type 2
(extract)

Designation	Operating range
LS 763/4.8	6 m
SLSR 95/44.8 L	8 m
LS 92/4.8 L	12 m
LS 92/4.8 S	12 m
LS 92/4.8,6000	12 m
SLS 96M/P-...T2	50 m
SLSR 96K/P-...T2	30 m
SLS 85M/P-1750-T2-8	60 m
SLS 78M/P-1750-T2-8	120 m
SLS 46/44.8-S12	30 m
SRK 96	6 m

Order guide

Designation	Part No.
TNT 33	500 28158