Switch for Public Transport Systems

PTS, Actuator symbol: open

PTS, Actuator symbol: close

See below:
Approvals and Compliances

Description
- Momentary switch available in version Standard or as custom specific variant
- Assembly by screws with nuts
- Four-conductor cable, optional male tabs on housing

Characteristics
- Illumination housing and actuator made of plastic material, cover plate made of aluminium
- Variable color design of the bezel and the cover plate, customer specific laser lettering
- high lifetime with 10 million actuations
  Excellent tactile feeling
- Illumination for switching status recognition (Viewing angle 180°)
- Low mounting depth with angled cable version

Last order date: 30.03.2025
Last delivery date: 30.06.2025

Weblinks
pdf data sheet, html datasheet, General Product Information, CAD-Drawings, Product News, Detailed request for product

Technical Data

Electrical Data

Supply Voltage	LED operating data are listed in separate table
Switching Voltage	min. 5 VDC , max. 137 VDC/ 60 / 50 VAC/DC
Switching current	min. 5 mA, max. 250 mA
Rated Switching Capacity	17 W
Dielectric Strength	8 kV air discharge, 6 kV contact discharge, 500 VAC (VAC 1 min., DIN EN 50155)
Burst Impulse	± 1,8 kV 1,2/50 µs Surge, ± 2 kV 5/50 µs Burst according to DIN EN 50155
Insulation Resistance	> 100 MΩ
Lifetime	> 10 million actuations at Rated Switching Capacity

Mechanical Data

Actuating Force	8 ± 4 N center, 10 ± 5 N edge
Actuating Travel	0.8 ± 0.5 mm center, 1.0 ± 0.5 mm edge
End Stop Strength	250 N
Vibration Resistance	5 h (category 1 class B)
Shock Resistance	30/6 g/ms (DIN 60068-2-27) , 3/5 g/ms (3 vertically and horizontally/ 5 lengthwise, DIN 61373)
Mounting screw torque	0,8 - 1.0 Nm
Lifetime	> 10 million actuations

Climatical Data

Operating Temperature	-40 to +85 °C
IP-Protection	IP67 Front Side, , IP65 Rear Side

Other Data

Fixing Screws	3*M4
Cable Cross Section	4*0.5 mm²
Weight	appr. 85 g

Material

Illumination Housing	PC
Actuator	PC / ABS
Bezel	PBT
Symbols	PC / ABS
Cover of Actuator	Aluminium anodized
Seal Ring	NBR70

Approvals and Compliances

Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in Details about Approvals

SCHURTER products are designed for use in industrial environments. They have approvals from independent testing bodies according to national and international standards. Products with specific characteristics and requirements such as required in the automotive sector according to IATF 16949, medical technology according to ISO 13485 or in the aerospace industry can be offered exclusively with customer-specific, individual agreements by SCHURTER.

Application standards

Application standards where the product can be used

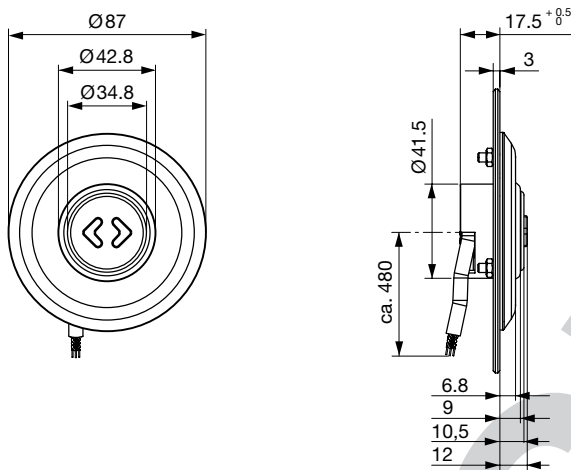| Organization	Design	Standard	Description
	Suitable for applications acc.	EMC Directive:	DIN 55011/55022/50121-3-2/61000-4-3
IEC	Suitable for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements

Compliances

The product complies with following Guide Lines

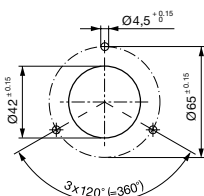| Identification	Details	Initiator	Description
RoHS	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
REACH	REACH	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.

Dimension [mm]

PTS version with angled cable
Other form of cable outlet on request
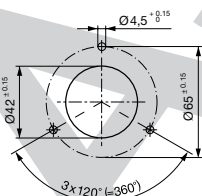

Dimension
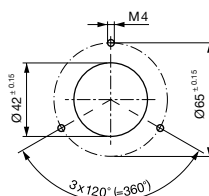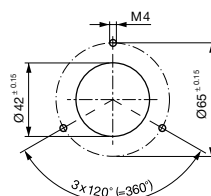
[Bohrbilder]   [Bohrbilder]

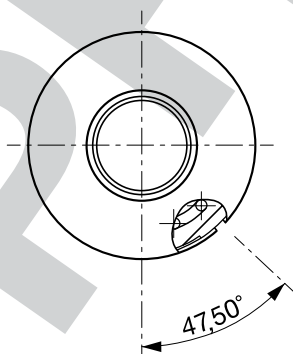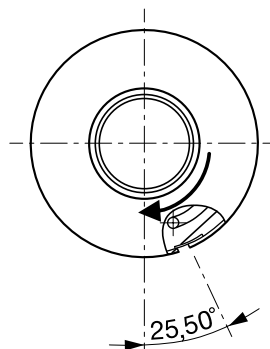Through hole drilling   Through hole drilling   Threaded hole drilling   Threaded hole drilling
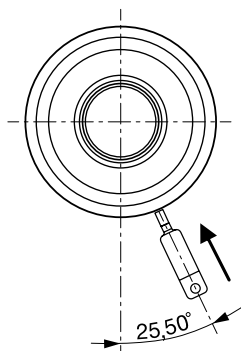
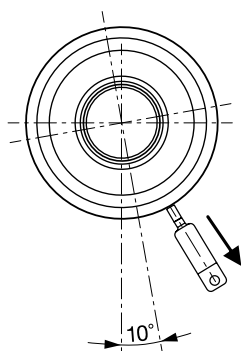## Assembly Instructions

Assembly

Insert bezel in open area

Turn the bezel in clockwise direction until it snaps

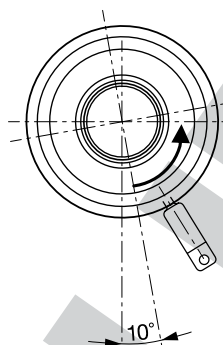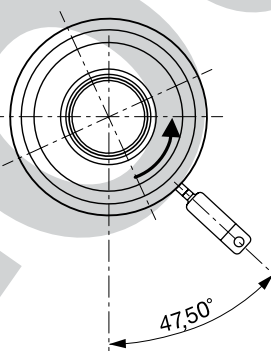## Disassembly

25,50°

Insert disassembly tool

Turn the bezel with disassembly tool 10° counterclockwise

10°

Pull disassembly tool

47,50°

Turn the bezel with disassembly tool again for 15° counterclockwise and remove the bezel

Diagrams

PTS NO

Connection	Print on strands	Type 1 24 [V]	Type 2 110 [V]	Connection	Print on strands	Voltage U [V]	Current I [mA]
VDC	No. 2	− 30%	− 30%	S1	No. 3	min. 5	min. 5
		+ 25%	+ 25%			max. 137	max. 250
GND	No. 1	− 30%	− 30%	S2	No. 4	min. 5	min. 5
		+ 25%	+ 25%			max. 137	max. 250

PTS NC

Connection	Print on strands	Type 1 24 [V]	Type 2 110 [V]	Connection	Print on strands	Voltage U [V]	Current I [mA]
VDC	No. 2	− 30%	− 30%	S1	No. 3	min. 5	min. 5
		+ 25%	+ 25%			max. 137	max. 200
GND	No. 1	− 30%	− 30%	S2	No. 4	min. 5	min. 5
		+ 25%	+ 25%			max. 137	max. 200

(PTS NC version available on request)

LED Data

Operating Data	Forward Current typ.	Forward Current max.
LED red	4 mA	6 mA
LED green	4 mA	6 mA
LED yellow	6 mA	8 mA
Supply voltage 24 or 110 VDC		

Qualification Test

Qualification Test	Standard
Function Test	DIN EN 61373
Mechanical Shock	DIN EN 60068-2-27
Voltage Resistance with Climate Test	DIN EN 60068-2-30
Climatic Test	DIN EN 50155
EMC Test Interference Output on Lines	DIN EN 55011 / 55022
EMC Test Interference Output on Housing	DIN EN 55011 / 55022
EMC Test Interference Resistance Surge Impulse	EN 50121-3-2 (Rail Norm)
EMC Test Interference Resistance Electro Static Discharge	DIN EN 61000-4-2
EMC Test Interference Resistance High Frequency Fields on Housing	DIN EN 61000-4-3
EMC Test Interference Resistance Burst Impulse	DIN EN 61000-4-4
EMC Test Interference Resistance Surge Impulse	DIN EN 61000-4-5
EMC Test Interference on Lines	DIN EN 61000-4-6
Insulation Resistance	DIN VDE 0100, Part 600
IP Degree of Protection	DIN EN 60529
Patent	DE 199 53 629.5

RAMS (Reliability, Availability, Maintainability, Safety)	
FIT	< 3,7 failures 1 mill. h (basis MIL-HDBK-217F)
MTTF	> 250.000 h
FMECA	MIL-STD 1629A, IEC 60812

Packaging unit	packed in air cushion bag

06.04.2025