

## Data Sheet „MT0.5-SLTR“

### Touchless sensor with illuminated front-area

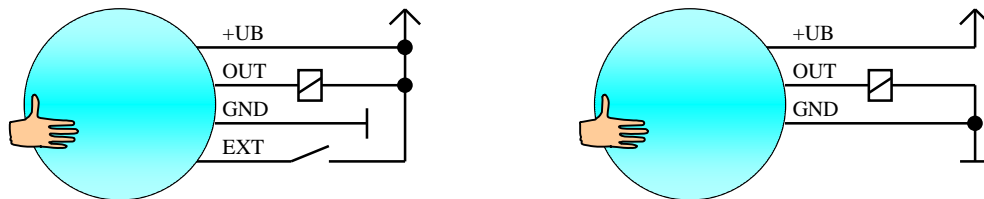


Figure 1: Schematic diagram of an relais control circuit with the MT0.5-SLTR-FLB (Flat Ribbon Cable):  
 a) external activation of illuminated front area, output N-switching  
 b) internal activation of illuminated front area, output P-switching

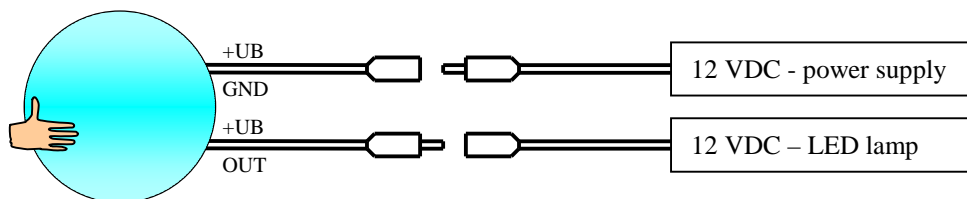


Bild 2: Schematic diagram of an LED lamp, dimmed with the MT0.5-SLTR-DC (DC connectors)

### Typical Applications

- ➔ light switches for 12V DC systems behind glass (uncoated) or on ceramic, plastic, wood
- ➔ controls with visual status indication
- ➔ optical quality Touchless Dimmer (option DIMM)
- ➔ switch in electrical equipment with high-quality surface design
- ➔ touchless control in areas with strict hygiene requirements
- ➔ switches in bathrooms and kitchen areas

### General Features

- ➔ integrated sensor area
- ➔ supply voltage: 12 VDC
- ➔ output transistor power switch (n-type)
- ➔ output function momentary switch
- ➔ LED field is inverted to the sensor (sensor OFF → LED ON)
- ➔ LED color blue

### Accessories

- ➔ adhesive film (non clear) for frontal mounting on glass
- ➔ switching box for high currents (EDIAN)

## Options

### Cable type

FLB = ribbon cable RM 1,27mm  
 DC = DC cable with plug 5,5 mm / 2,1 mm

### Sensors with cable type "FLB" (ribbon cable)

5V = supply 5 VDC  
 HV = supply 6,5 - 35 VDC  
 TA = Button, output stays switched ON as long as touch-activity lasts  
 FF = FlipFlop, every touch-activity inverts output-state  
 MFx = MonoFlop, touch-activity turns output ON for the duration x  
 100ms > x <= 20 minutes (about 10% error)  
 POUT = p-switching output  
 ext = via IN1 the LED field can be controlled externally

### Sensors with cable type "DC" (cable with plug 5.5 mm / 2.1 mm)

12V = supply 12 VDC  
 FFADE = FlipFlop with fade-in and fade-out  
 MFADE = MonoFlop with fade-in and fade-out, standard monoflop-time 60s  
 DIMM = dimming output, max 5A

### generally options

inv = LED is switched internally inverted (sensor OFF - LED OFF)  
 int = LED is switched internally non-inverted (sensor OFF - LED OFF)  
 LED colors bl - blue, rt - red, ge - yellow, gr - green, ws - white

*Ordering Example: MT0.5-SLTR-FLB-5V-TA-inv-bl*

## Technical Data

parameter	Value
Dimensions	d=40mm, h=19mm
Weight	Ca. 35g
Connectors	
DC	in-line 5.5mm/2.1mm female, out-line 5.5mm/2.1mm male, cross-section 2x0.5mm <sup>2</sup> , 15cm long
FLB (Ribbon cable)	3 - to 5-pin, RM1.27mm, cross-section 0.093 mm <sup>2</sup> , 30cm long
Switching output	
DC	N-MOS open drain (GND-switching)
FLB	NPN open collector (GND-switching)
Option POUT	PNP open collector (+U <sub>B</sub> -switching)
Calibration	Automatic
Ready	Max 3s after the supply voltage
Function	2 per second
Characteristics	
DC	FFADE, MFADE, DIMM
FLB	Button-switching (TA), FlipFlop (FF), MonoFlop (MF)
Other	Programmable intelligence on customers demand

Table 1: General Specifications

Contact no	Signal	Note
1 (red)	+U <sub>b</sub>	Positive supply
2	OUT1	switching output
3	GND	Negative supply
4*	IN1	Input LED field control

Table 2.1: Pin assignment for option ribbon cable

\* optional

Contact no	Name	Signal	Note
DC-plug female	DC-IN	+Ub / GND	12V DC supply
DC-plug male	DC-OUT	+Ub / OUT	n- switching dimming output

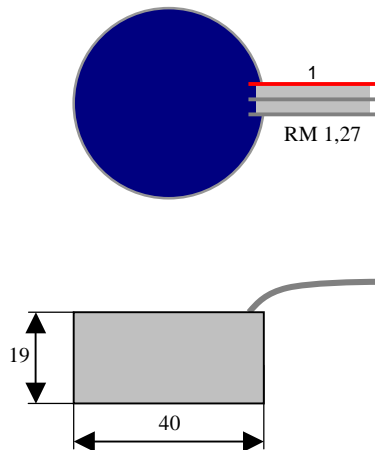
Table 2.2: Pin assignment for option DC-cable

Symbol	Parameter	Conditions	Min	Typ	Max	Units	
$+U_B$	Supply voltage	DC	Standard 5V	4,9	5	5,1	V
			12V	11,5	12	12,5	V
			Option HV	6,5	12	35	
$P_{in}$	Powerconsumption	LED-Field ON Option HV, $+U_{in}=12V$ Standard 5V, $+U_{in}=5V$	blue	420	480	540	mW
			red	620	650	680	
			yellow	360	420	480	
			green	520	550	580	
				600	660	720	
	620	650	680				
	180	200	220				
	220	250	280				
$I_{OUT1}$	OUT1- Output current	DC			0.2	A	
$I_{OUT2}^*$	OUT2- Output current	DC			0.2	A	
$I_{DIMM}^*$	Dimmer output current	DC			5	A	
$R_{iIN1}^*$	Input resistance IN1			100		kOhm	
$U_{IN1H}$	IN1 voltage H level	DC	4.5		$+U_B$	V	
$U_{IN1L}$	IN1- voltage L level	DC	GND		0.5	V	

Table 3: Typical values / limits

\* optional

Cable Type „FLB“ / Flat Ribbon Cable



Cable Type „DC“ / DC-Cable Plug 5,5mm / 2,1mm

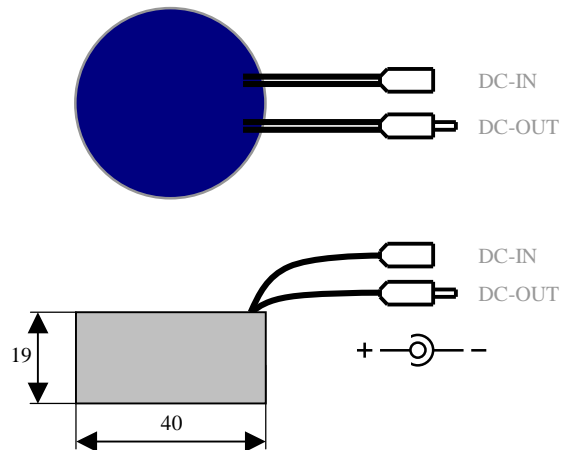


Figure 2: Dimensions (mm) sensor with DC cables and mounting base



Figure 3: Product Image SLTQ