

SLB 400-C



- Control Category 4 to EN 954-1, AOPD-S
- Cross-wire monitoring
- ISD Integral System Diagnostics
- Operating voltage 24 VDC
- Feedback circuit to monitor external contactors
- Two short-circuit proof additional transistor outputs
- Response time ≤ 30 ms
- Start/Restart interlock can be switched active or inactive
- Contactor monitoring can be switched active or inactive
- Can be coded
- Up to 4 light barrier pairs SLB 400 can be connected

Technical data

Standards:	IEC/EN 61496-1/-2, EN 954-1
Control category:	4
Start-up test:	yes
Start conditions:	Start-reset button, on/off coding
Feedback circuit:	yes
Enclosure:	glass-fiber reinforced thermoplastic
Mounting:	snaps onto standard DIN rail to EN 50022
Connection:	screw terminals
Cable section:	max. 4 mm ² (incl. conductor ferrules)
Protection class:	terminals IP 20, enclosure IP 40
U _e :	24 VDC \pm 15%
I _e :	0.3 A without additional transistor outputs
Inputs:	S1, S2
Monitored inputs:	max. 4 pairs of light barriers
Input resistance:	approx. 2 k Ω to ground
Input signal „1“:	10 ... 30 VDC
Input signal „0“:	0 ... 2 VDC
Max. cable length:	100 m of 0.75 mm ² conductor
Outputs:	2 enabling paths
Enabling contacts:	2 enabling paths
Utilisation category:	AC-15, DC-13
I _e /U _e :	2 A / 250 VAC, 2 A / 24 VDC
Contact load capacity:	max. 250 VAC, max. 2 A (cos φ = 1)
Switching voltage:	max. 250 VAC
Load current:	max. 2 A
Switching capacity:	max. 500 VA
Max. fuse rating:	2 A gG D-fuse
Additional outputs:	additional transistor outputs Y1, Y2, U _e – 4 V, 100 mA total, short-circuit proof, p-type
Signalling output:	2 transistor outputs, Y1 + Y2 = max. 100 mA, p-type, short-circuit proof
Switch-on time:	–
Response time:	≤ 25 ms
Monitoring for synchronism of muting sensors:	–
Indications:	ISD
Function display:	9 LEDs (ISD*)
EMC rating:	conforming to EMC Directive
Max. switching frequency:	10 Hz
Overvoltage category:	II to DIN VDE 0110
Degree of pollution:	3 to DIN VDE 0110
Resistance to vibration:	10 ... 55 Hz / amplitude 0.35 mm, ± 15 %
Resistance to shock:	30 g / 11 ms
Ambient temperature:	0 °C ... + 55 °C
Storage and transport temperature:	– 25 °C ... + 70 °C
Dimensions:	99.7 x 75 x 110 mm
Note:	Inductive loads (e.g. contactors, relays, etc.) are to be suppressed by means of a suitable circuit.

Approvals



Ordering details

SLB 400-C10-1R

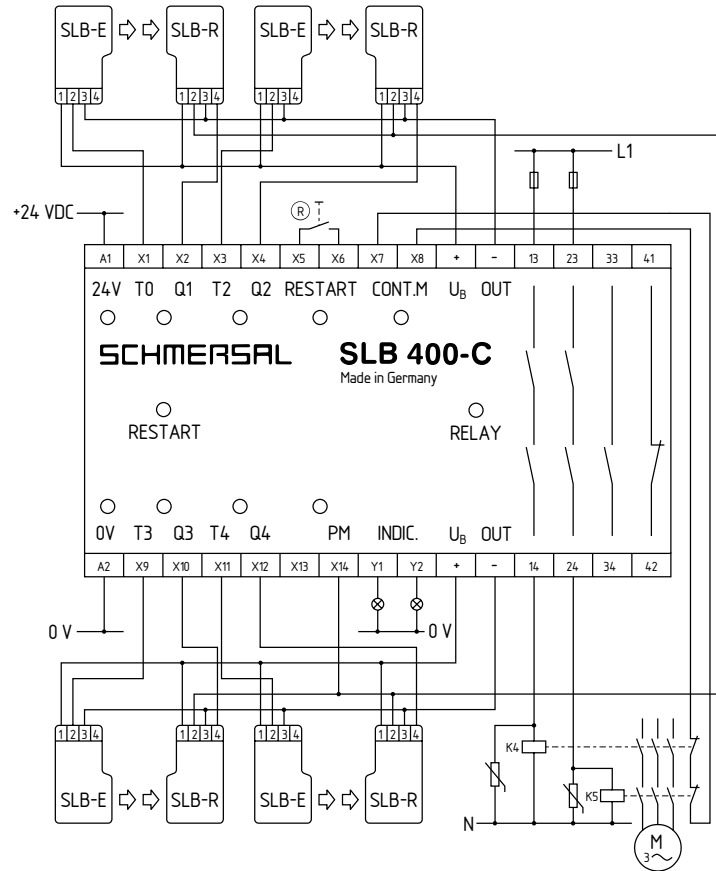


Safety light barriers

Note

- For protection in Control Category 4 to EN 954-1
- Monitoring up to four pairs of light barrier devices and the power contactors using the SLB 400-C safety monitoring module
- The wiring diagram is shown for the de-energised condition.
- Connection of two pairs of safety light barrier devices
When two pairs of safety light barriers are connected, the terminals X9-X10 and X11-X12 must be bridged.
- Restart push button (R)
The restart function can be selected by means of the DIP switches. When a start push button is connected to X5 and X6, it must be operated for min. 250 ms and max. 5 s after an interruption of the safety light barriers.

Wiring diagram



ISD

The following faults are registered by the safety monitoring modules and indicated by ISD

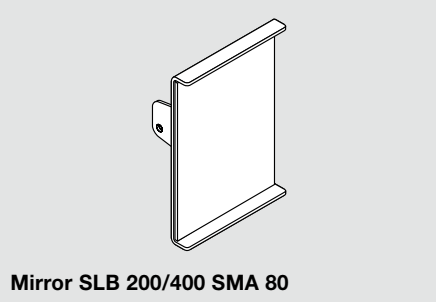
- Short-circuit on the connecting leads
- Interruption of the connecting leads
- Failure of the safety relay to pull-in or drop-out
- Fault on the input circuits or the relay control circuits of the safety monitoring module
- Mutual influence between the connected pairs of light barrier device and others on neighbouring systems

Note

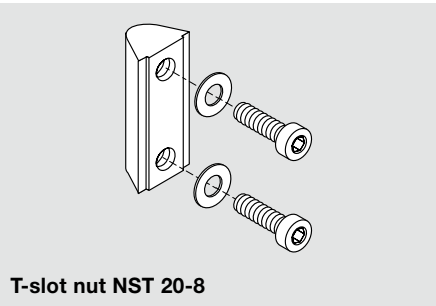
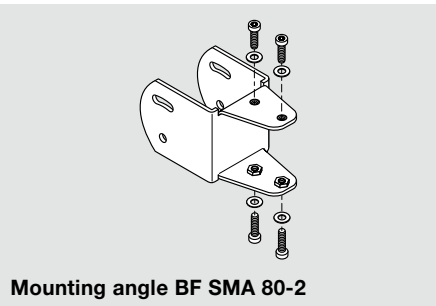
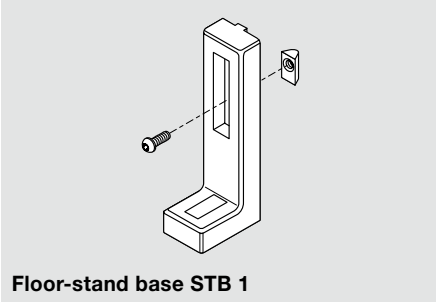
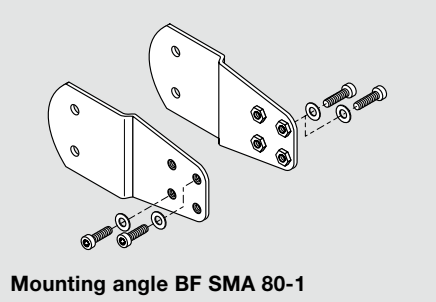
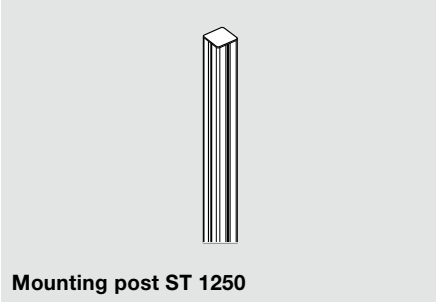
The ISD tables (Integral System Diagnostics) for analysis of the fault indications and their causes are shown in the manual.

Safety light barriers accessories SLB 200 and SLB 400

System components



System components



Ordering details

Mirror SMA 80
Mounting angles for mirror BF SMA 80-1
BF SMA 80-2
T-slot nut NST 20-8

Ordering details

Mounting post ST 1250
Floor-stand base STB 1