

Safety light barriers

SLB 200-C



- Control Category 2 to EN 954-1, AOPD-T
- Up to two pairs of light barrier devices can be connected
- 1 enabling path
- 1 signalling output
- Operating voltage 24 VDC
- Test input
- LED display of switching conditions
- Response time ≤ 30 ms
- Start/Restart interlock can be switched active or inactive
- Contactor monitoring can be switched active or inactive
- Additional cyclic testing
- Co-ordinated for use with SLB 200 R/E safety light barriers

Approvals



Ordering details

SLB 200-C04-1R

Technical data

Standards:	IEC/EN 61496-1/-2, EN 954-1
Control category:	2
Start-up test:	yes
Start conditions:	Test button, start-reset button, on/off coding
Feedback circuit:	yes
Enclosure:	polycarbonate
Mounting:	snaps onto standard DIN rail to EN 50022
Connection:	screw terminals
Cable section:	max. 4 mm ² (incl. conductor ferrules)
Protection class:	IP 20
U _e :	24 VDC \pm 20%
I _e :	180 mA
Inputs:	test input: command device: NC contact release start/restart interlock (start/reset): enable via command device (NO contact), contactor monitoring (NC contacts)
Monitored inputs:	max. 2 pairs of light barriers
Input resistance:	–
Max. cable length:	–
Test and feedback:	potential-free contact
Outputs:	1 enabling path
Enabling contacts:	1 enabling path
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:	8 A
Max. fuse rating:	4 A gG D-fuse
Signalling output:	1 transistor output
Switch-on conditions:	test duration: ≤ 150 ms (without relay control) ≤ 450 ms (with relay control)
Switch-off time:	response time (complete sy.): ≤ 30 ms
Indications:	red LED for light barrier interrupted green LED for light barrier free soiling: flashing red/green
Function display:	4 LEDs
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
Resistance to shock:	10 g / 16 ms
Ambient temperature:	0 °C ... + 50 °C
Storage and transport temperature:	– 20 °C ... + 80 °C
Dimensions:	45 x 84 x 118 mm
Note:	Inductive loads (e.g. contactors, relays, etc.) are to be suppressed by means of a suitable circuit.

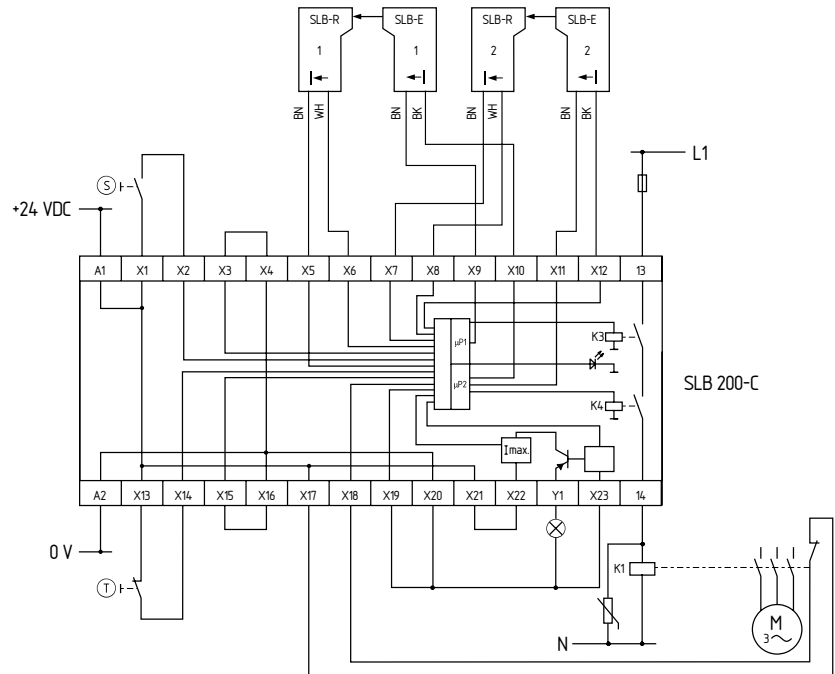


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Note

- For protection in Control Category 2 to EN 954-1
- Monitoring two pairs of light barrier devices and the power contactor using the SLB 200-C safety monitoring module
- Test push button $\text{\textcircled{T}}$
The test push button is connected to X13 and X14 in order to carry out a check of the light barrier monitoring function. The terminals X15 and X16 must be bridged.
- The wiring diagram is shown for the de-energised condition.
- Contactor check
To monitor an external contactor, the feedback circuit is connected to X17 and X18. The terminals X19 and X20 must be bridged.
- Start push button $\text{\textcircled{S}}$
The start push button can be used to start the monitoring of the light barriers for a new start or after an interruption. The terminals X3 and X4 must be bridged.
- It is also possible to connect only one pair of light barrier devices.

Wiring diagram



Note

In order to set for the desired mode of operation and number of light barriers connected, remove the front cover of the safety monitoring module. As supplied all switches are in Position 1.

Note

The required functions can be selected by means of the internal DIP switches.

	DIP switch 1	DIP switch 2	DIP switch 3
Position 1	With contactor check	With start/restart interlock	Connection of two light barriers
Position 2	Without contactor check	Without start/restart interlock	Connection of one light barrier