SC30 single-channel

CAPTRON

Product image

Dimensional drawing

⌀ 53,6 [2,11]
⌀ 51 [2]

safecap

10 [0,39]   24,8 [0,98]   19,1 [0,75]

M12x1

M22x1

⌀ 51,5 [2,03]

Drilling pattern

⌀ 22,5

Connection plan

LED1

LED2

1	+VDC
2	
4	PhotoMOS-Relay NO
3	0V

## Plug M12, 4-pin

4   3
1   2

Stand 20.05.2025 V.2.0
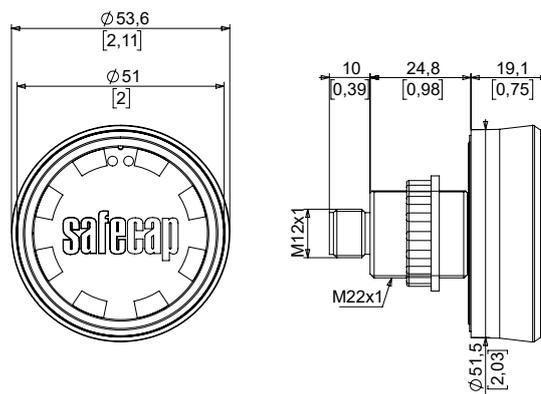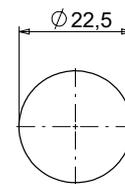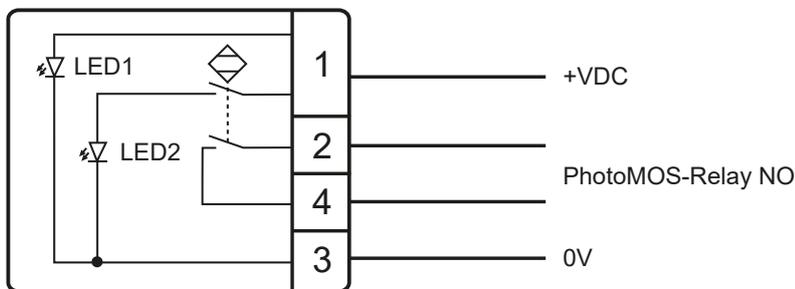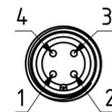
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Technical data SC30 single-channel

Operating voltage	$\mathrm{=\!\!=\!\!=}$ 24 V (19.2…28.8V)
Contact load	100 mA (70 mA at 75 °C)
Output	PhotoMOS relay normally open contact
Output pulse	Constant signal when actuated
LED 1	Green LED
LED 2	Yellow LED
Reverse polarity protection	Yes
Short circuit protection	Yes
Power consumption	Max. 20 mA at 24 V
Operating temperature	-25 °C (-13 °F) … +75 °C (167 °F)
Degree of protection IP	Front face IP68, plug IP67[1]
Type of actuation	Capacitive
Actuation force	No actuation force required
Rated insulation voltage	32 V
Switch-off delay T_a	Max. 50 ms
Switch-on delay	Max. 30 ms
$MTTF_d$	1123 years
PFH [h^{-1}]	2.47E-10
Category	up to Cat 4[2]
Performance Level	up to PLe[2]
DCavg	0%, up to 99%[2]
Working life TM	20 years

[1] IP67 for plug, when cable has been connected correctly
[2] in combination with a safety logic unit as per EN ISO 13849-1, -2, DIN EN 13851, with a DC of at least 99% and a $MTTF_d$ >31 years, and/or with a PFH_d <9* 10^{-8}

<div style="background-color:orange">⚠ WARNING</div>

Incorrect installation of safeCAP SC30!
A two-handed control device which is not installed as per standards or is not working can cause fatal or life-threatening injuries to humans.

⇨ Select the installation surfaces of the safeCAP SC30 as per the dimensions and distances prescribed in DIN EN ISO 1385:2019.

⇨ Protect the safeCAP SC30 against unintended actuation, e.g. using an SCP-6.

⇨ Before working on the machine, check to verify that the safeCAP SC30 is functioning correctly.

<div style="background-color:orange">⚠ WARNING</div>

Improper use!

safeCAP SC30 is unsuitable for machine processes where the release and interruption of a safety circuit is necessary for a period longer than 2 minutes.

Intended use

In combination with the safety relay Sirius 3SK1, safeCAP SC30 is used for the safety-oriented release and interruption of a safety circuit. safeCAP SC30 is used to protect persons working at industrial machinery which has dangerous closing movements. If safeCAP SC30 is used without the aforementioned safety relay, the safety-oriented release and interruption of a safety circuit is the responsibility of the operating organization.

Reasonably foreseeable misuse

Any use deviating from or going beyond the use specified in "Intended use" is deemed to be improper use.
The switch is not suitable for:

- use as a two-handed control without the previously specified relays or use of a substitute circuit without the independent calculation of the Performance Level as per EN ISO 13849-1:2015.
- use as a two-handed control without validation of the complete system.
- use with cables between the SC30 and safety relay longer than 30 m.
- use as a two-handed control in combination with any other switch.
- use as an EMERGENCY STOP control device.
- use in potentially explosive areas.
- use outdoors.

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