



CSS 15-30-2P+D-M-L

- Ø M30
- Metal enclosure
- Pre-wired cable, 7-pole
- Max. length of the sensor chain 200 m
- Max. 16 sensors can be wired in series.
- 2 short-circuit proof PNP safety outputs
- High repeat accuracy of the switching points
- Integral cross-short, wire-breakage and external voltage monitoring of the safety cables up to the control cabinet

Data

Ordering data

	CSS 15-30-2P+D-M-L
	101209841
EAN (European Article Number)	4030661386805
eCl@ss number, Version 9.0	27-27-24-03

Approval - Standards

IFA
EAC

General data

	CSS 30
	IEC 61508
	IEC 60947-5-3
Active principle	inductive
Housing construction form	Cylinder, thread
Installation conditions (mechanical)	not flush
Sensor topology	Sensor for series wiring
Enclosure material	Nickel plated brass

Active area	Plastic
Gross weight	248 g
Reaction time, maximum	30 ms
Duration of risk, maximum	30 ms

General data - Features

Diagnostic output	Yes
Short circuit detection	Yes
Short-circuit recognition	Yes
Safety functions	Yes
Cascadable	Yes
Integral System Diagnostics, status	Yes
Number of LEDs	1
Number of semi-conductor outputs with signaling function	1
Number of fail-safe digital outputs	2
Number of Series-wiring of sensors	16

Safety appraisal

	ISO 13849-1 IEC 60947-5-3 IEC 61508
Performance level, up to	e
Control category to EN13849	4
PFH-value	$2.50 \times 10^{-9} /h$
Safety Integrity Level (SIL), applicable for	3
Mission Time	20 Year(s)

Mechanical data

Actuating panels	Actuation from top
Active area	front side
Switch distance	15 mm
Ensured switch distance "ON" S_{ao}	12 mm
Ensured switch distance "OFF" S_{ar}	19 mm

Actuator switch distance	Actuator CST 34-S-3: 12 mm
	Actuator CST 30-1: 15 mm
	Actuator CST 30-1: 12 mm
	Actuator CST 34-S-3: 10 mm
	Actuator CST 30-1: 19 mm
	Actuator CST 34-S-3: 16 mm
Hysteresis (Switch distance), maximum	2 mm
Repeat accuracy R R	1 mm

Mechanical data - Connection technique

Terminal Connector	Cable
Length of cable	2 m
Wire cross-section	0.3 mm ²
Wire cross-section	23 AWG
Note	The cable section of the interconnecting cable must be observed for both wiring variants! Cable length and cable section alter the voltage drop depending on the output current

Mechanical data - Dimensions

	M30
Length of sensor	101 mm

Ambient conditions

Protection class	IP 65 to IEC/EN 60529
	IP 67 to IEC/EN 60529
Ambient temperature, minimum	-25 °C
Ambient temperature, maximum	+55 °C
Storage and transport temperature, minimum	-25 °C
Storage and transport temperature, maximum	+85 °C
Resistance to vibrations to EN 60068-2-6	10 ... 55 Hz, amplitude 1 mm
	30 g / 11 ms
	II

Ambient conditions - Insulation value

Rated impulse withstand voltage	0.8 kV
	III
	3

Electrical data

Voltage type	DC (direct current)
No-load current	50 mA
Rated operating voltage, minimum	20.4 VDC
Rated operating voltage, maximum	26.4 VDC
Operating current	500 mA
Required rated short-circuit current to EN 60947-5-1	100 A
Switching frequency, approx.	3 Hz

Electrical data - Fail-safe digital outputs

Output current, (fail-safe output), maximum	0.5 A
Versions	p-type
Voltage drop U_d , maximum	0.5 V
Current leakage	0.5 mA
Voltage, Utilisation category DC12	24 VDC
Current, Utilisation category DC12	0.5 A
Voltage, Utilisation category DC13	24 VDC
Current, Utilisation category DC13	0.5 A

Electrical data - Diagnostic output

Versions	p-type
Voltage drop U_d , maximum	4 V
Voltage, Utilisation category DC12	24 VDC
Current, Utilisation category DC12	0.1 A
Voltage, Utilisation category DC13	24 VDC
Current, Utilisation category DC13	0.1 A

Electrical data - Electromagnetic compatibility (EMC)

IEC 61000-6-4
IEC 61000-6-2

Pin assignment

PIN 1	A1 Ue Brown
PIN 2	X1 safety input 1: Violet
PIN 3	A2 GND Blue
PIN 4	Y1 Safety output 1 Black
PIN 5	OUT diagnostic output: Grey
PIN 6	X2 Safety input 2 White
PIN 7	Y2 Safety output 2 red

Scope of delivery

Included in delivery	Actuators must be ordered separately.
Delivery scope of Mounting material	2x Mounting accessories Nuts M30

Accessory

CST 34-S-3
CST 30-1
PROTECT PSC1
SRB-E-301ST
SRB-E-201LC

Notes

Note (General)	Evaluation requirements: The switch-off pauses of 250 µs – 1500 µs must be tolerated by the evaluation.
	The switch-off time of the safety sensor of 250 µs is additionally extended according the cable length and the capacity of the cable used. Typically a switch off time of 500 µs with 100 m of connection cable is reached.

Pictures

Photo/Product/Catalogue



ID: kc553f26

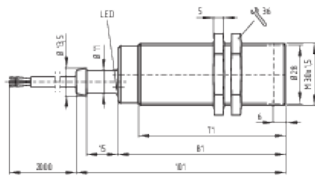
| 109,7 kB | .png | 74.083 x 172.508 mm - 210 x 489

Pixel - 72 dpi

| 602,0 kB | .jpg | 227.189 x 529.167 mm - 644 x 1500

Pixel - 72 dpi

Dimension/Product/Basic



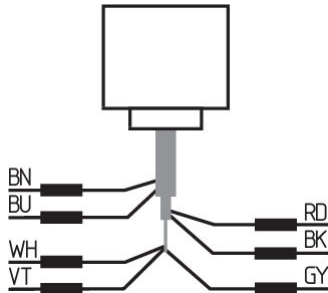
ID: 1css3g06

| 6,9 kB | .png | 74.083 x 51.506 mm - 210 x 146 Pixel
- 72 dpi

| 27,0 kB | .cdr |

| 88,8 kB | .jpg | 352.778 x 245.181 mm - 1000 x 695
Pixel - 72 dpi

Graphic/Product/Contact



ID: kcsc1k02

| 77,8 kB | .jpg | 352.778 x 321.028 mm - 1000 x 910

Pixel - 72 dpi

| 15,8 kB | .cdr |

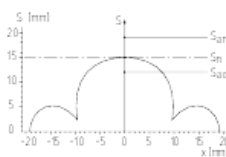
Photo/Product/Group

ID: kc33f28

| 520,0 kB | .jpg | 352.778 x 176.742 mm - 1000 x 501

Pixel - 72 dpi

Diagramm/Product/Curve



ID: kc33d13

| 62,4 kB | .jpg | 352.778 x 247.297 mm - 1000 x 701

Pixel - 72 dpi

| 2,1 kB | .png | 74.083 x 51.858 mm - 210 x 147 Pixel
- 72 dpi

| 25,3 kB | .cdr |

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The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.

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