

# Series CST-CSV-CSH, CSB-CSC-CSD, CSG magnetic proximity switches

New models

## Reed

Magnetoresistive - Hall effect (Series CST, CSV, CSH only)



- » Series CST, CSV, CSH, CSG switches: integrated in the actuator profile, with or without M8 connector and new ATEX version
- » Series CSB switches: for grippers CGA, CGP
- » Series CSC switches: for grippers CGLN
- » Series CSD switches: for grippers CGSN, CGPT, CGPS, RRGB, CGCN, CGZT
- » Series CSG switches: ATEX and UL certified

The magnetic proximity switches define the position of the piston in cylinders or grippers. When the internal contact is actuated by a magnetic field, the sensors complete an electrical circuit and provide an output signal to actuate directly a solenoid valve or a PLC. A yellow or red LED diode shows when the internal magnetic contact is closed.

The switches are available in two different versions - Reed with mechanical switching and with electronic switching - and they are subdivided into Hall effect and Magnetoresistive. The electronic versions are suggested for heavy duty with frequent operations and strong vibrations.

## SERIES CST, CSV, CSH GENERAL DATA

<b>Operation</b>	Reed contact Magnetoresistive Hall effect
<b>Type of output</b>	Static or electronic PNP
<b>Type of contact in Reed switches</b>	Normally Open (NO) Normally Closed (NC)
<b>Voltage</b>	see the characteristics of each model
<b>Max current</b>	see the characteristics of each model
<b>Max load</b>	8 W DC and 10 VA AC (Reed)
<b>Protection class</b>	IP67
<b>Materials</b>	plastic body encapsulating epoxy resin; cable in PVC, connector in PVR, connector body in PU
<b>Mounting</b>	directly into the groove or by means of adapters
<b>Signalling</b>	by means of a yellow diode Led
<b>Protections</b>	see the characteristics of each model
<b>Switching time</b>	<1,8 ms (Reed); <1 ms (Magnetoresistive - Hall effect)
<b>Operating temperature</b>	-10°C ÷ 80°C
<b>Electrical duration</b>	10.000.000 cycles (Reed); 1.000.000.000 cycles (Magnetoresistive - Hall effect)
<b>Electrical connections</b>	with a 2-wire cable, section 2x0.14, 2m (standard), high flexibility; with a 3-wire cable, section 3x0.14, 2m (standard), high flexibility; with a M8 connector and cable of 0.3 m

## SERIES CST, CSV, CSH CODING EXAMPLE

<b>CS</b>	<b>T</b>	<b>-</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>N</b>	<b>-</b>	<b>5</b>	<b>EX</b>
<b>CS</b>	SERIES								
<b>T</b>	TYPE OF SLOT: T = T-slot V = V-slot H = H-slot								
<b>2</b>	OPERATION: 2 = Reed NO 3 = Magnetoresistive 4 = Reed NC 5 = Hall effect								
<b>2</b>	CONNECTIONS: 2 = 2 wires (Reed only) 3 = 3 wires 5 = 2 wires with M8 connector (Reed only) 6 = 3 wires with M8 connector								
<b>0</b>	POWER SUPPLY VOLTAGE: 0 = 10 ÷ 110 V DC; 10 ÷ 230 V AC (PNP) 1 = 30 ÷ 110 V DC; 30 ÷ 230 V AC (PNP) 2 = 3 wires cst (PNP) 3 = 10 ÷ 30 V AC/DC (PNP) 4 = 10 ÷ 27 V DC (PNP)								
<b>N</b>	NOTE (CST/CSV-250N only): N = according to norm								
<b>5</b>	LENGTH OF THE CABLE: = 2m (CST and CSV only) 2 = 2m (CSH only) 5 = 5m								
<b>EX</b>									

## SERIES CSB, CSC, CSD GENERAL DATA

<b>Funcionamiento</b>	Contacto Reed (CSB, CSC solo) Magnetoresistivo (CSD solo)
<b>Tipo de salida</b>	-
<b>Tipo de contacto en sensors Reed</b>	Normalmente abierto (NO)
<b>Tensión</b>	Ver las características de cada modelo
<b>Corriente máx.</b>	Ver las características de cada modelo
<b>Carga máx.</b>	8 W DC y 10 VA AC
<b>Grado de protección</b>	IP66
<b>Materiales</b>	Cuerpo de plástico encapsulado en resina epoxi
<b>Montaje</b>	Directamente en las ranuras
<b>Señalización</b>	Por medio de un Led rojo
<b>Protecciones</b>	Ver las características de cada modelo
<b>Tiempo de conmutación</b>	<1 ms
<b>Temperatura de funcionamiento</b>	-10°C ÷ 60°C
<b>Vida eléctrica</b>	-
<b>Conexiones eléctricas</b>	con cable de 2 hilos, sección 2x0.14, 2m (estándar), alta flexibilidad (CSB, CSC solo); con cable de 3 hilos, sección 3x0.14, 2m (estándar), alta flexibilidad (CSD solo); Con conector M8 y cables de 0.3 m (CSD solo)

## SERIES CSB, CSC, CSD CODING EXAMPLE

<b>CS</b>	<b>B</b>	<b>-</b>	<b>D</b>	<b>-</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>-</b>	
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<b>CS</b>	SERIES
<b>B</b>	TYPE OF SLOT: B = B-slot C = C-slot D = D-slot
<b>D</b>	CABLE OUTPUT: D = straight H = 90°
<b>2</b>	OPERATION: 2 = Reed NC (CSB, CSC only) 3 = Magnetoresistive (CSD only)
<b>2</b>	CONNECTIONS: 2 = 2 wires (CSB, CSC only) 3 = 3 wires (CSD only) 6 = 3 wires with M8 connector (CSD only)
<b>0</b>	POWER SUPPLY VOLTAGE: 0 = 10 ÷ 110 V DC/AC (CSB, CSC only) 4 = 10 ÷ 27 V DC PNP (CSD only)
	LENGTH OF THE CABLE: = 2m (standard) 5 = 5m

## SERIES CSG GENERAL DATA

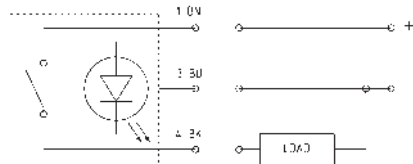
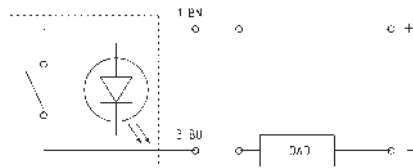
<b>Operation</b>	Reed contact Magnetoresistive
<b>Type of output</b>	Static or electronic PNP and NPN
<b>Type of contact in Reed switches</b>	Normally Open (NO)
<b>Voltage</b>	see the characteristics of each model
<b>Max current</b>	see the characteristics of each model
<b>Max load</b>	see the code tables
<b>Protection class</b>	IP67
<b>Materials</b>	plastic body encapsulating epoxy resin; cable in PU
<b>Mounting</b>	directly into the groove or by means of adapters directly into the groove
<b>Signalling</b>	by means of a LED (colours are indicated in the code tables)
<b>Protections</b>	never exceed the maximum voltages and currents
<b>Switching time</b>	<5 ms (Reed); <1 ms (Magnetoresistive)
<b>Operating temperature</b>	-10°C ÷ 70°C (-10°C ÷ 60°C only for Reed version, 2 wires UL)
<b>Electrical connections</b>	with a 2-wire cable, external section 2,8 x 2 wires PU; with a 3-wire cable, external section 2,8 x 3 wires PU

## SERIES CSG CODING EXAMPLE

<b>CS</b>	<b>G</b>	<b>-</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>UL</b>
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<b>CS</b>	SERIES
<b>G</b>	TYPE OF SLOT: G = T-slot
<b>2</b>	OPERATION: 2 = Reed Normally Open 3 = Magnetoresistive PNP 5 = Magnetoresistive NPN 6 = Magnetoresistive PNP Normally Closed 7 = Magnetoresistive NPN Normally Closed
<b>2</b>	CONNECTIONS: 2 = 2 wires 3 = 3 wires
<b>3</b>	POWER SUPPLY VOLTAGE: 3 = 5/10 ÷ 30 V AC/DC (PNP) 4 = 10 ÷ 28 V DC (PNP)
<b>2</b>	LENGTH OF THE CABLE: 2 = 2m 5 = 5m 10 = 10 m
<b>UL</b>	CERTIFICATION: EX = ATEX certification UL = UL certification

## SWITCHES ELECTRICAL CONNECTIONS

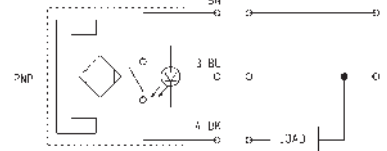
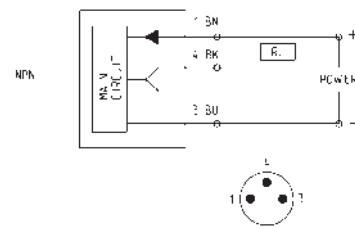


### Reed switches

BN = brown

BU = blue

BK = black



### Magnetostrictive and Hall effect switches

BN = brown

BU = blue

BK = black

## Connecting schemes in series

The 3-wire version of the Reed sensors has been designed to allow the connection of several sensors in series, as there is no voltage drop between the supply and the load.

See connecting scheme.

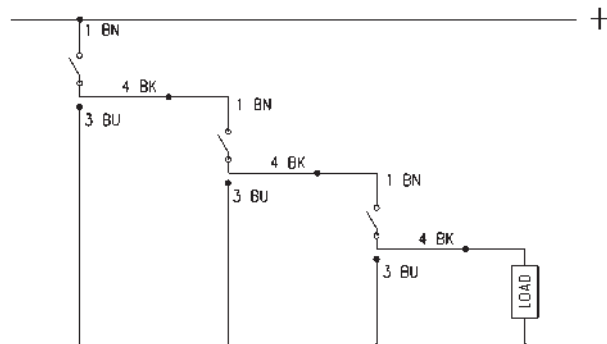
The voltage drop is 2.8V for the 2-wire Reed sensors and 1.0V for 3-wire Magnetostrictive and Hall effect sensors.

1 BN = Brown

3 BU = Blue

4 BK = Black

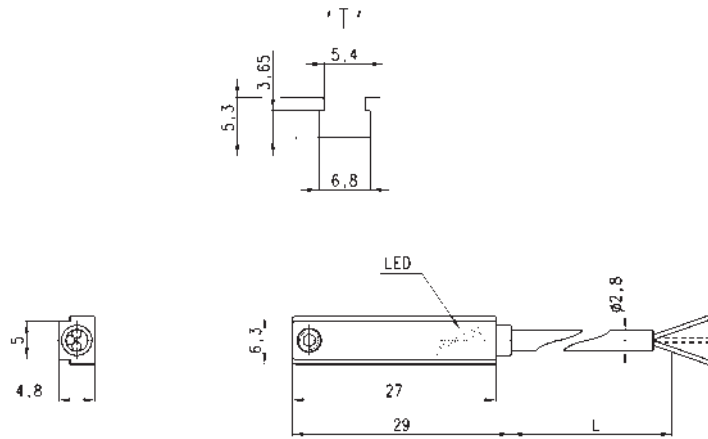
L = load



## Magnetic proximity switches with 2- or 3-wire cable for T-slot



Note for 2-wire switches Mod. CST-220, CST-220-5:  
in case of polarity reversing the sensor will still be operating, but the LED diode won't turn on.

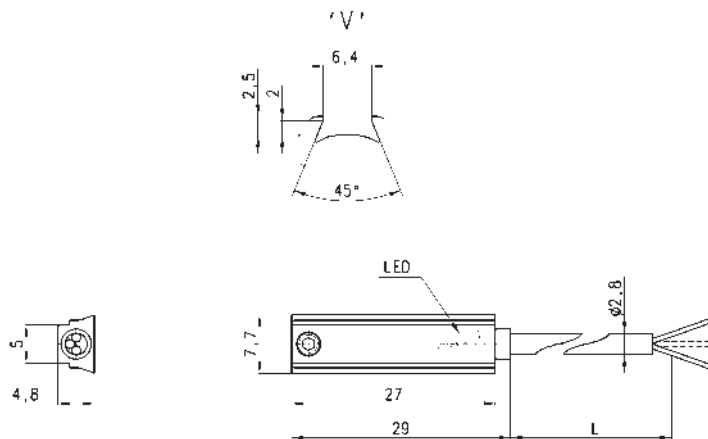


Mod.	Operation	Connections	Voltage	Output	Max. current	Max Load	Protection	L = length cable
CST-220	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	2 m
CST-220-5	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	5 m
CST-220-12	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	12 m
CST-220EX	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	2 m
CST-220-5EX	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	5 m
CST-220-12EX	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	12 m
CST-232	Reed	3 wires	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CST-232-5	Reed	3 wires	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	5 m
CST-232EX	Reed	3 wires	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CST-232-5EX	Reed	3 wires	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing and overvoltage	5 m
CST-332	Magnetoresistive	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	2 m

## Magnetic proximity switches with 2- or 3-wire cable for V-slot



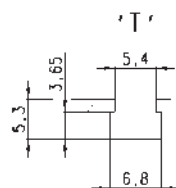
Note for 2-wire switch Mod. CSV-220:  
In case of polarity reversing the sensor will still be operating, but the LED diode won't turn on.



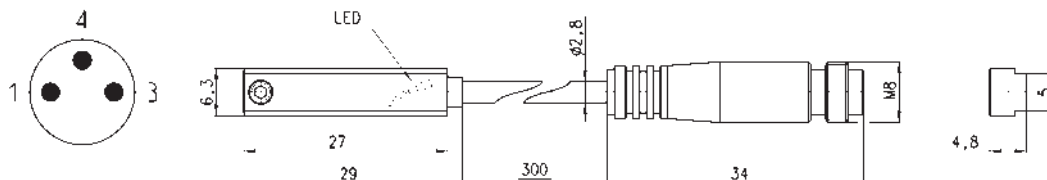
Mod.	Operation	Connections	Voltage	Output	Max. current	Max Load	Protection	L = length cable
CSV-220	Reed	2 wires	10 ÷ 110 V AC/DC-230 V AC	-	250 mA	10 VA / 8 W	None	2 m
CSV-232	Reed	3 wires	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CSV-332	Magnetoresistive	3 wires	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage	2 m

## Magnetic proximity switches with M8 3-pin connector for T-slot

Note for 2-wire switch Mod. CST-250N:  
in case of polarity reversing the sensor will still be operating, but the LED diode won't turn on.



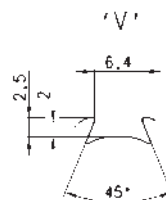
Cable length: 0.3 m



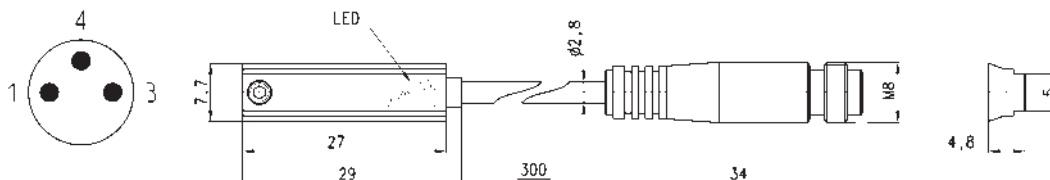
Mod.	Operation	Connection	Voltage	Output	Max. current	Max load	Protection
CST-250N	Reed	2 wires M8 male 3 pin	10 ÷ 110 V AC/DC	-	250 mA	10 VA / 8 W	None
CST-250NEX	Reed	2 wires M8 male 3 pin	10 ÷ 110 V AC/DC	-	250 mA	10 VA / 8 W	None
CST-262	Reed	3 wires M8 male 3 pin	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing
CST-262EX	Reed	3 wires M8 male 3 pin	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing
CST-362	Magnetoresistive	3 wires M8 male 3 pin	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage
CST-362EX	Magnetoresistive	3 wires M8 male 3 pin	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage
CST-562	Hall effect	3 wires M8 male 3 pin	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage
CST-562EX	Hall effect	3 wires M8 male 3 pin	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage

## Magnetic proximity switches with M8 3-pin connector for V-slot

Note for 2-wire switch Mod. CSV-250N:  
in case of polarity reversing the sensor will still be operating, but the LED diode won't turn on.



Cable length: 0.3 m

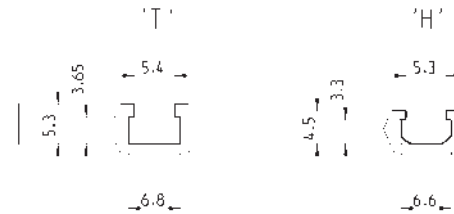


Mod.	Operation	Connection	Voltage	Output	Max. current	Max load	Protection
CSV-250N	Reed	2 wires M8 male 3 pin	10 ÷ 110 V AC/DC	-	250 mA	10 VA / 8 W	None
CSV-262	Reed	3 wires M8 male 3 pin	5 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing
CSV-362	Magnetoresistive	3 wires M8 male 3 pin	10 ÷ 27 V DC	PNP	100 mA	6 W	Against polarity reversing and overvoltage

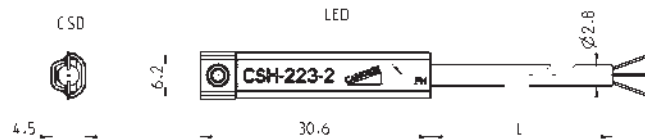
## Magnetic proximity switches with 2- or 3-wire cable for H-slot



Note for 2-wire switches Mod. CSH-223-2, CSH-223-5, CSH-221-2, CSH-221-5:  
in case of polarity reversing the sensor will still be operating, but the LED diode won't turn on.



Suitable also for T-slots

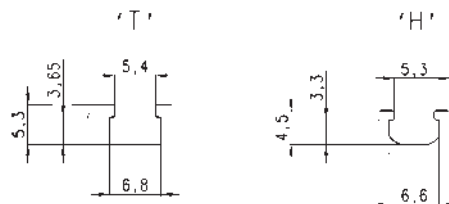


Mod.	Operation	Connection	Voltage	Output	Max current	Max load	Protection	L = cable length
CSH-223-2	Reed	2 wires	10 ÷ 30 V AC/DC	-	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CSH-223-5	Reed	2 wires	10 ÷ 30 V AC/DC	-	250 mA	10 VA / 8 W	Against polarity reversing	5 m
CSH-223-10	Reed	2 wires	10 ÷ 30 V AC/DC	-	250 mA	10 VA / 8 W	Against polarity reversing and overvoltage	10 m
CSH-223-2EX	Reed	2 wires	10 ÷ 30 V AC/DC	-	250 mA	10 VA / 8 W	Against polarity reversing and overvoltage	2 m
CSH-223-5EX	Reed	2 wires	10 ÷ 30 V AC/DC	-	250 mA	10 VA / 8 W	Against polarity reversing	5 m
CSH-223-10EX	Reed	2 wires	10 ÷ 30 V AC/DC	-	250 mA	10 VA / 8 W	Against polarity reversing	10 m
CSH-221-2	Reed	2 wires	30 ÷ 230 V AC - 30 ÷ 110 V DC	-	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CSH-221-5	Reed	2 wires	30 ÷ 230 V AC - 30 ÷ 110 V DC	-	250 mA	10 VA / 8 W	Against polarity reversing	5 m
CSH-221-2EX	Reed	2 wires	30 ÷ 230 V AC - 30 ÷ 110 V DC	-	250 mA	10 VA / 8 W	Against polarity reversing	2 m
CSH-221-5EX	Reed	2 wires	30 ÷ 230 V AC - 30 ÷ 110 V DC	-	250 mA	10 VA / 8 W	Against polarity reversing	5 m
CSH-233-2	Reed	3 wires	10 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing	2 m

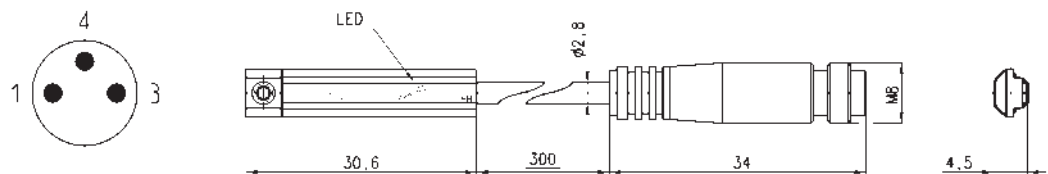
## Magnetic proximity switches with M8 3-pin connector for H-slot



Note for 2-wire switch Mod. CSH-253:  
in case of polarity reversing the sensor will still be operating, but LED diode won't turn on.



Suitable also for T-slots  
Cable length: 0.3 m



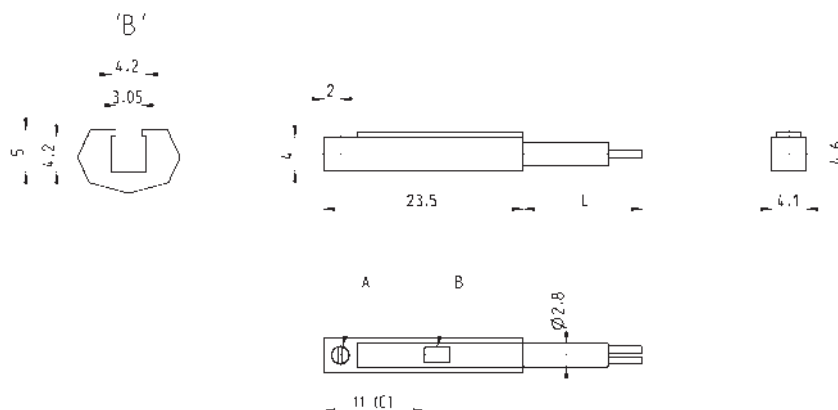
Mod.	Operation	Connection	Voltage	Output	Max current	Max load	Protection
CSH-253	Reed NO	2 wires M8 male 3 pin	10 ÷ 30 V AC/DC	-	250 mA	10 VA / 8 W	Against polarity reversing
CSH-253EX	Reed NO	2 wires M8 male 3 pin	10 ÷ 30 V AC/DC	-	250 mA	10 VA / 8 W	Against polarity reversing
CSH-263	Reed NO	3 wires M8 male 3 pin	10 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing
CSH-263EX	Reed NO	3 wires M8 male 3 pin	10 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing
CSH-364	Magnetoresistive	3 wires M8 male 3 pin	10 ÷ 27 V DC	PNP	250 mA	6 W	Against polarity reversing and overvoltage
CSH-364EX	Magnetoresistive	3 wires M8 male 3 pin	10 ÷ 27 V DC	PNP	250 mA	6 W	Against polarity reversing and overvoltage
CSH-463	Reed NC	3 wires M8 male 3 pin	10 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing
CSH-463EX	Reed NC	3 wires M8 male 3 pin	10 ÷ 30 V AC/DC	PNP	250 mA	10 VA / 8 W	Against polarity reversing



## Magnetic proximity switch with 2-wire cable for B-slot



In case of polarity reversing the sensor will still be operating, but the LED diode won't turn on.



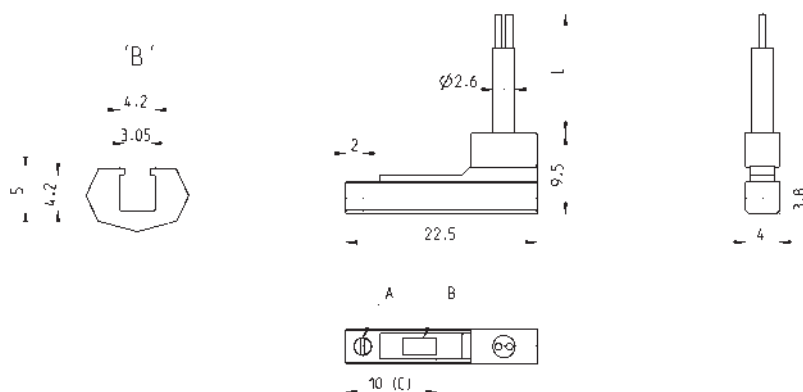
A = fixing screw  
B = Led indicator  
C = ideal position detection

Mod.	Operation	Connections	Voltage	Output	Max. current	Max Load	Protection	L = length cable
CSB-D-220	Reed	2 wires	10÷110 V AC/DC	PNP	50 mA	8 W / 10 VA	Against polarity reversing and overvoltage	2 m

## Magnetic proximity switch with 2-wire 90° cable for B-slot



In case of polarity reversing the sensor will still be operating, but the LED diode won't turn on.



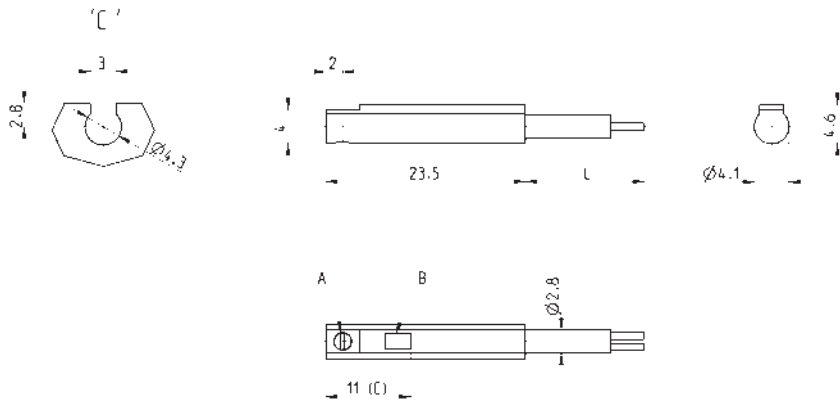
A = fixing screw  
B = Led indicator  
C = ideal position detection

Mod.	Operation	Connections	Voltage	Output	Max. current	Max Load	Protection	L = length cable
CSB-H-220	Reed	2 wires	10÷110 V AC/DC	PNP	50 mA	8 W / 10 VA	Against polarity reversing and overvoltage	2 m

**Magnetic proximity switch with 2-wire cable for C-slot**



In case of polarity reversing the sensor will still be operating, but the LED diode won't turn on.



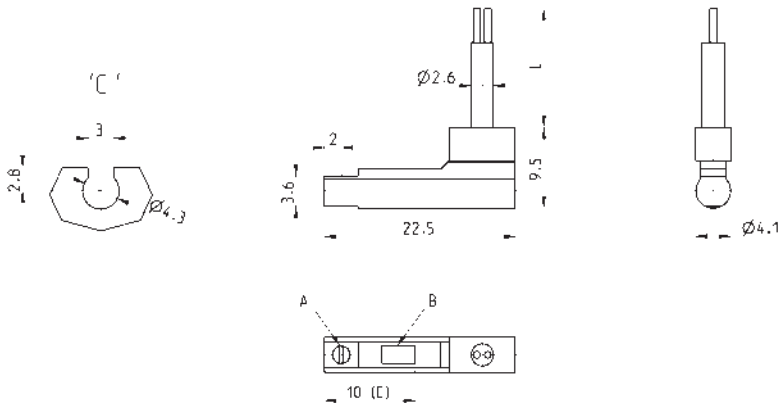
A = fixing screw  
B = Led indicator  
C = ideal position detection

Mod.	Operation	Connections	Voltage	Output	Max. current	Max Load	Protection	L = length cable
CSC-D-220	Reed	2 wires	10÷110 V AC/DC	PNP	50 mA	8 W / 10 VA	Against polarity reversing and overvoltage	2 m

**Magnetic proximity switch with 2-wire 90° cable for C-slot**



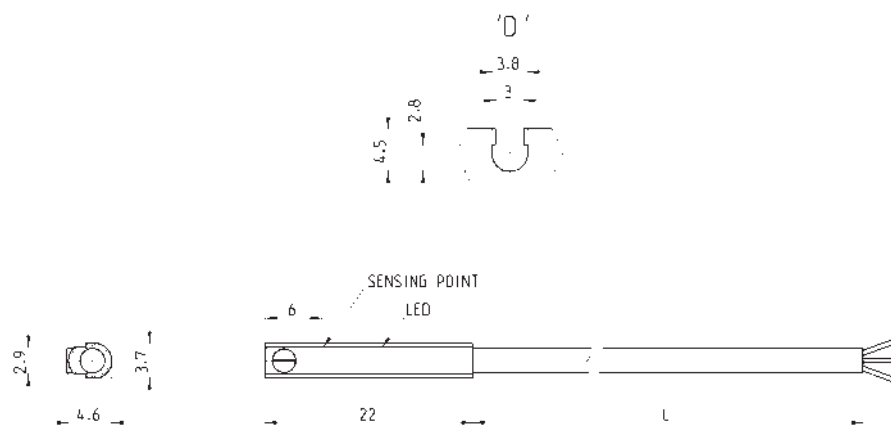
In case of polarity reversing the sensor will still be operating, but the LED diode won't turn on.



A = fixing screw  
B = Led indicator  
C = ideal position detection

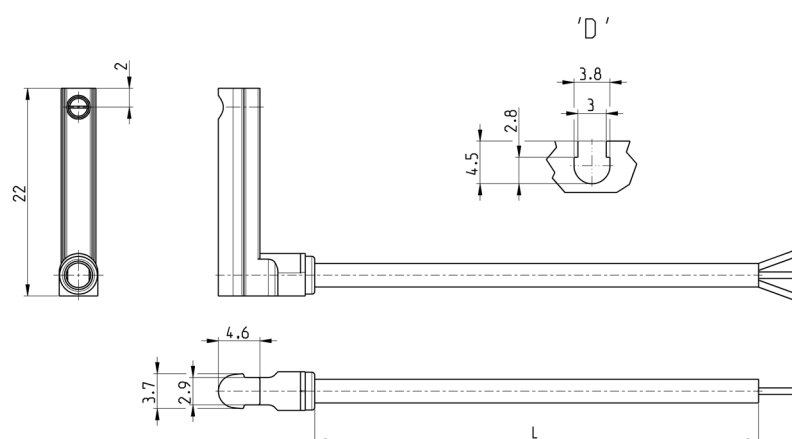
Mod.	Operation	Connections	Voltage	Output	Max. current	Max Load	Protection	L = length cable
CSC-H-220	Reed	2 wires	10÷110 V AC/DC	PNP	50 mA	8 W / 10 VA	Against polarity reversing and overvoltage	2 m

## Magnetic proximity switches, 3-wire cable, D-slot



Mod.	Operation	Connections	Voltage	Output	Max. current	Max Load	Protection	L = length cable
CSD-D-334	Magnetoresistive	3 wires	10 ÷ 27 V DC	PNP	200 mA	6W	Against polarity reversing and overvoltage	2 m
CSD-D-334-5	Magnetoresistive	3 wires	10 ÷ 27 V DC	PNP	200 mA	6W	Against polarity reversing and overvoltage	5 m

## Magnetic proximity switches, 3-wire cable, D-slot with 90° cable

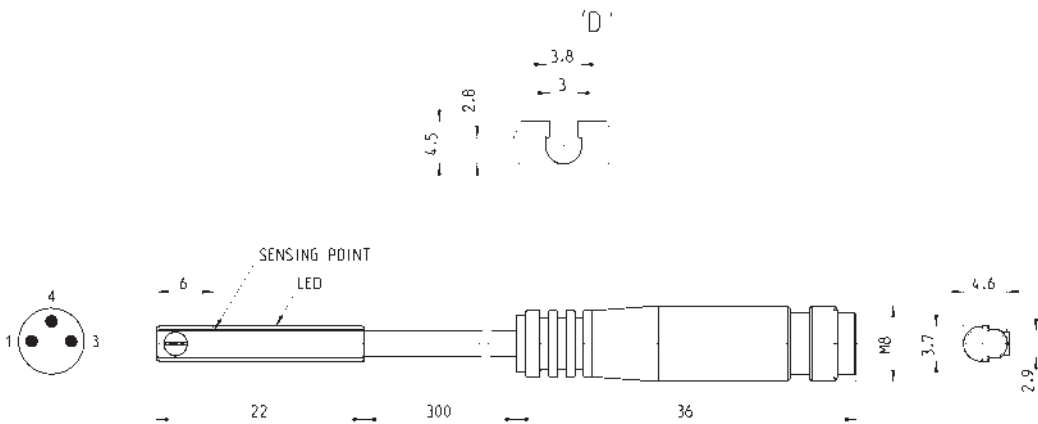


Mod.	Operation	Connections	Voltage	Output	Max. current	Max Load	Protection	L = length cable
CSD-H-334	Magnetoresistive	3 wires	10 ÷ 27 V DC	PNP	200 mA	6 W	Against polarity reversing and overvoltage	2 m
CSD-H-334-5	Magnetoresistive	3 wires	10 ÷ 27 V DC	PNP	200 mA	6 W	Against polarity reversing and overvoltage	5 m

**Magnetic proximity switches, male M8 3-pin conn., D-slot, straight**



Cable length: 0.3 m

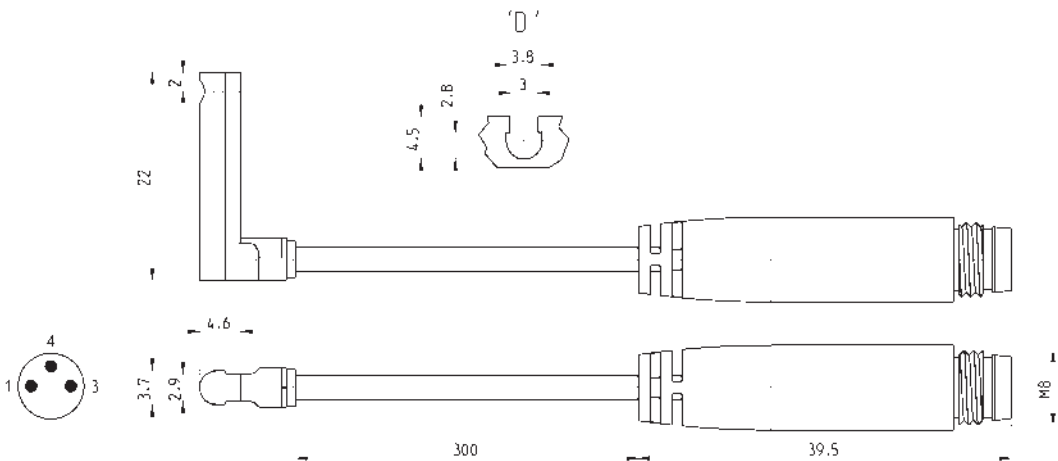


Mod.	Operation	Connection	Voltage	Output	Max current	Max load	Protection
CSD-D-364	Magnetoresistive	3 wires with M8 connector	10 ÷ 27 V DC	PNP	200 mA	6 W	Against polarity reversing and overvoltage

**Magnetic proximity switches, male M8 3-pin conn., D-slot, 90°**



Cable length: 0.3 m



Mod.	Operation	Connection	Voltage	Output	Max current	Max load	Protection
CSD-H-364	Magnetoresistive	3 wires with M8 connector	10 ÷ 27 V DC	PNP	200 mA	6 W	Against polarity reversing and overvoltage

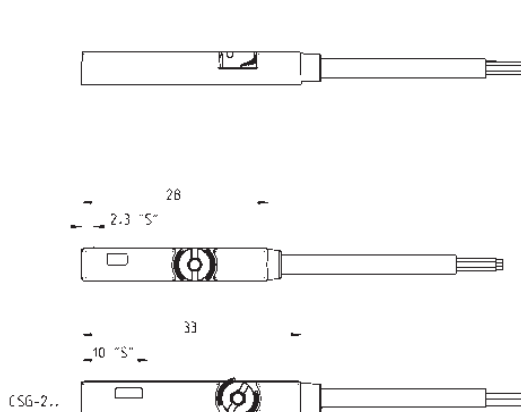
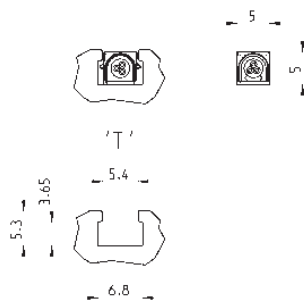
## Magnetic proximity switches, ATEX "II 3 GD" certified, T-slot, straight

**New**

Note for 2-wire switches Mod. CSG-223-2-EX, CSG-223-5-EX, CSG-324-2-EX, CSG-324-5-EX:  
in case of polarity reversing the sensor will still be operating, but the LED diode won't turn on.



Top mounting with the new fixing system



Mod.	Operation	Connection	Voltage	Output	Max current	Max load	Protection	L = cable length (m)	LED colour
CSG-223-2-EX	Reed NO	2 wires	5 ÷ 30 V AC/DC	-	100 mA	3 W	IP67	2	Red
CSG-223-5-EX	Reed NO	2 wires	5 ÷ 30 V AC/DC	-	100 mA	3 W	IP67	5	Red
CSG-233-2-EX	Reed NO	3 wires	10 ÷ 30 V AC/DC	-	500 mA	10 W	IP67	2	Yellow
CSG-233-5-EX	Reed NO	3 wires	10 ÷ 30 V AC/DC	-	500 mA	10 W	IP67	5	Yellow
CSG-324-2-EX	Magnetoresistive NO	2 wires	10 ÷ 28 V DC	-	50 mA	1.5 W	IP67	2	Red
CSG-324-5-EX	Magnetoresistive NO	2 wires	10 ÷ 28 V DC	-	50 mA	1.5 W	IP67	5	Red
CSG-334-2-EX	Magnetoresistive NO	3 wires	10 ÷ 28 V DC	PNP	200 mA	5.5 W	IP67	2	Yellow
CSG-334-5-EX	Magnetoresistive NO	3 wires	10 ÷ 28 V DC	PNP	200 mA	5.5 W	IP67	5	Yellow
CSG-534-2-EX	Magnetoresistive NO	3 wires	10 ÷ 28 V DC	NPN	200 mA	5.5 W	IP67	2	Red
CSG-534-5-EX	Magnetoresistive NO	3 wires	10 ÷ 28 V DC	NPN	200 mA	5.5 W	IP67	5	Red
CSG-734-2-EX	Magnetoresistive NC	3 wires	10 ÷ 28 V DC	NPN	200 mA	5.5 W	IP67	2	Red
CSG-734-5-EX	Magnetoresistive NC	3 wires	10 ÷ 28 V DC	NPN	200 mA	5.5 W	IP67	5	Red
CSG-634-2-EX	Magnetoresistive NC	3 wires	10 ÷ 28 V DC	PNP	200 mA	5.5 W	IP67	2	Yellow
CSG-634-5-EX	Magnetoresistive NC	3 wires	10 ÷ 28 V DC	PNP	200 mA	5.5 W	IP67	5	Yellow

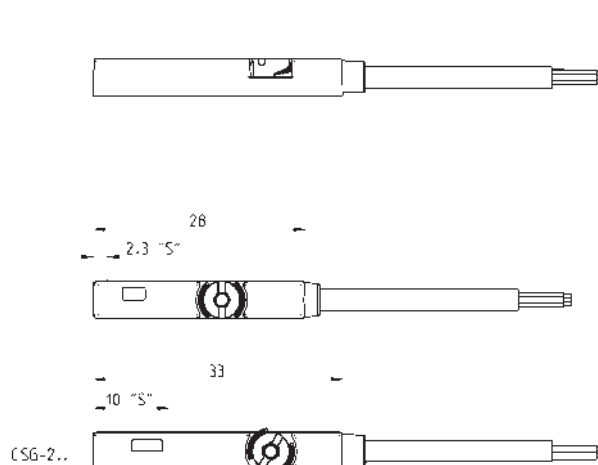
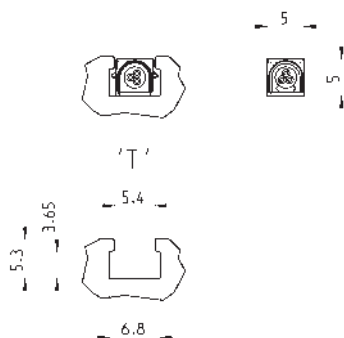
## Magnetic proximity switches, UL certified, T-slot, straight

**New**

Note for 2-wire switches Mod. CSG-223-2-UL, CSG-223-5-UL, CSG-324-2-UL, CSG-324-5-UL:  
in case of polarity reversing the sensor will still be operating, but the LED diode won't turn on.



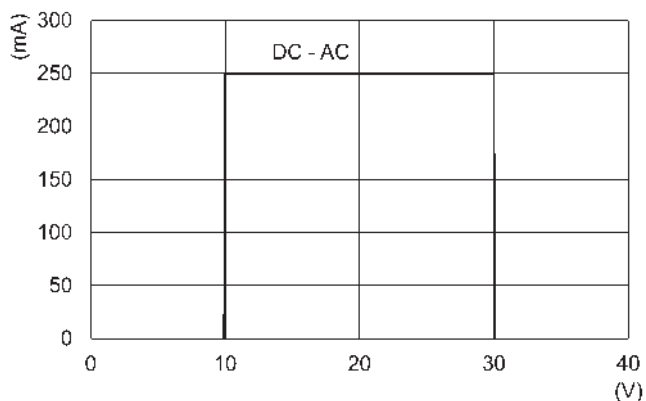
Top mounting with the new fixing system



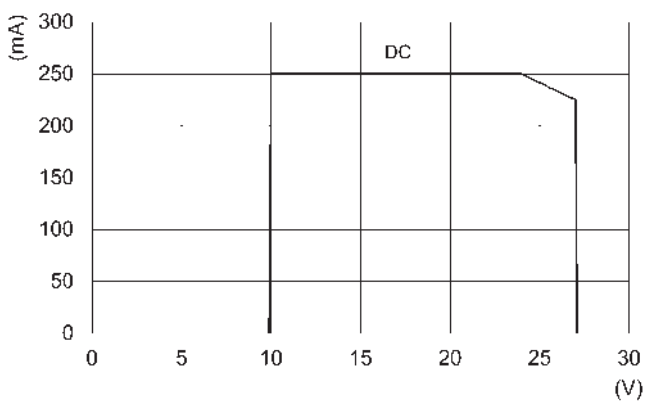
Mod.	Operation	Connection	Voltage	Output	Max current	Max load	Protection	L = cable length (m)	LED colour
CSG-223-2-UL	Reed	2 wires	5 ÷ 30 V AC/DC	-	60 mA	1.8 W	IP67	2	Red
CSG-223-5-UL	Reed	2 wires	5 ÷ 30 V AC/DC	-	60 mA	1.8 W	IP67	5	Red
CSG-223-10-UL	Reed	2 wires	5 ÷ 30 V AC/DC	-	60 mA	1.8 W	IP67	10	Red
CSG-233-2-UL	Reed	3 wires	10 ÷ 30 V AC/DC	-	100 mA	3 W	IP67	2	Yellow
CSG-233-5-UL	Reed	3 wires	10 ÷ 30 V AC/DC	-	100 mA	3 W	IP67	5	Yellow
CSG-233-10-UL	Reed	3 wires	10 ÷ 30 V AC/DC	-	100 mA	3 W	IP67	5	Yellow
CSG-324-2-UL	Magnetoresistive	2 wires	10 ÷ 28 V DC	-	40 mA	1.2 W	IP67	2	Red
CSG-324-5-UL	Magnetoresistive	2 wires	10 ÷ 28 V DC	-	40 mA	1.2 W	IP67	5	Red
CSG-334-2-UL	Magnetoresistive	3 wires	10 ÷ 28 V DC	PNP	100 mA	3 W	IP67	2	Yellow
CSG-334-5-UL	Magnetoresistive	3 wires	10 ÷ 28 V DC	PNP	100 mA	3 W	IP67	5	Yellow
CSG-534-2-UL	Magnetoresistive	3 wires	10 ÷ 28 V DC	NPN	100 mA	3 W	IP67	2	Red

## Load curves of sensors Mod. CSH, CST, CSV

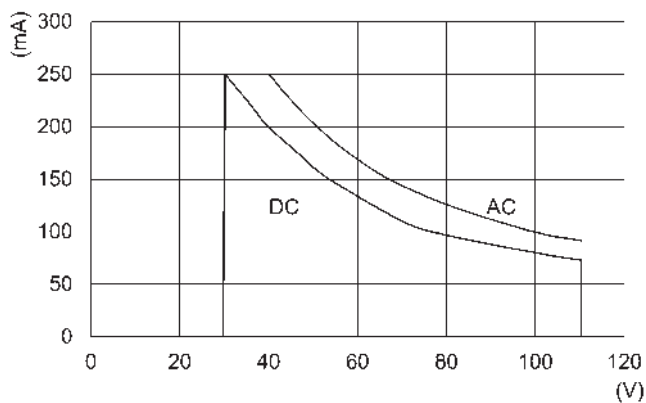
CSH-223, CSH-253, CSH-233, CSH-263, CSH-463



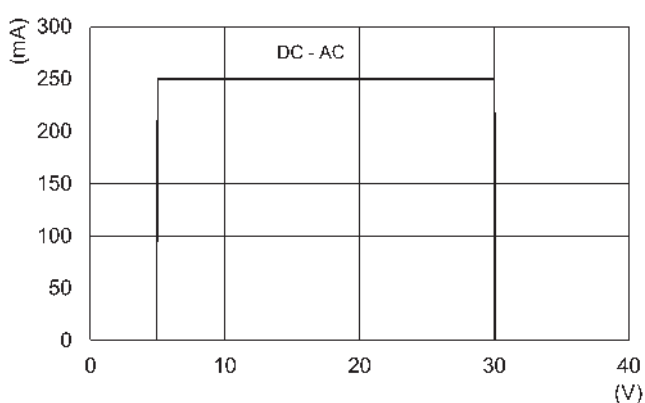
CSH-334, CSH-364



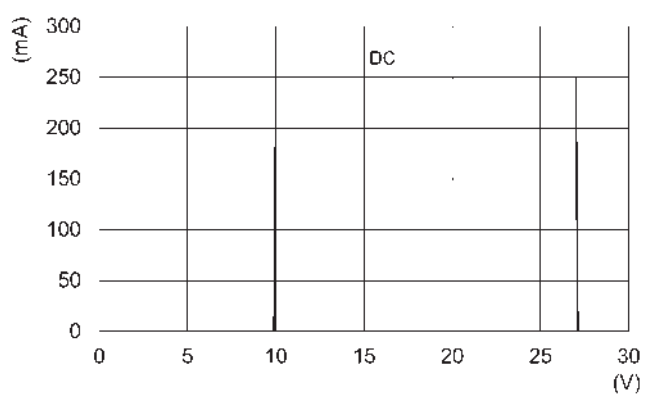
CST-250N, CSV-250N



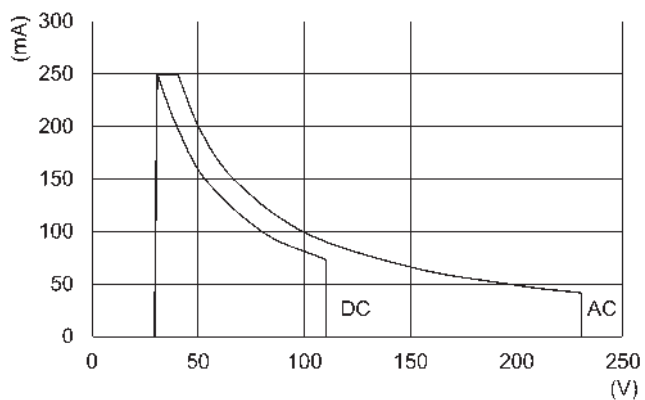
CST-232, CSV-232, CST-262, CSV-262



CST-332, CSV-332, CST-362, CSV-362, CST-532, CSV-562

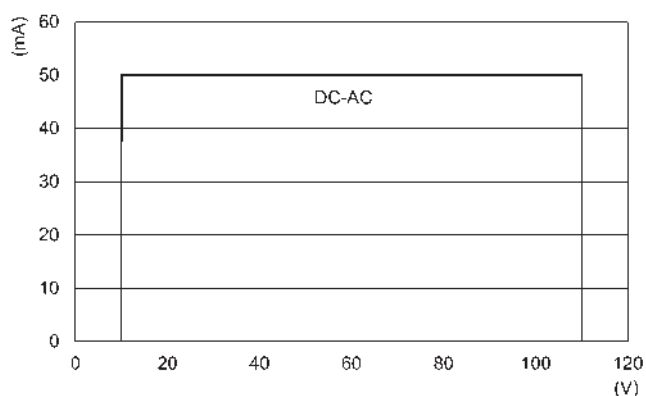


CSH-221, CST-220, CSV-220

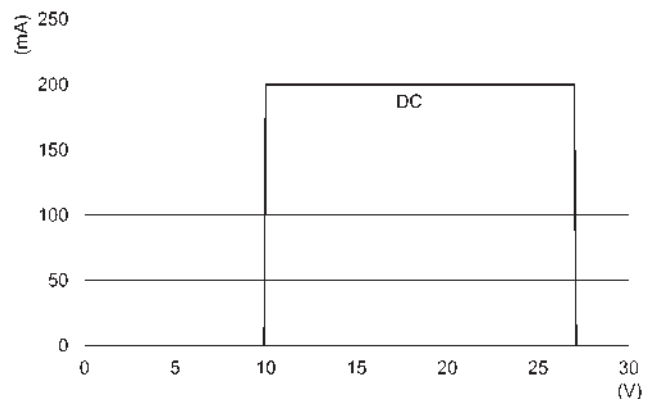


## Load curves of sensors Mod. CSB, CSC, CSD, CSG

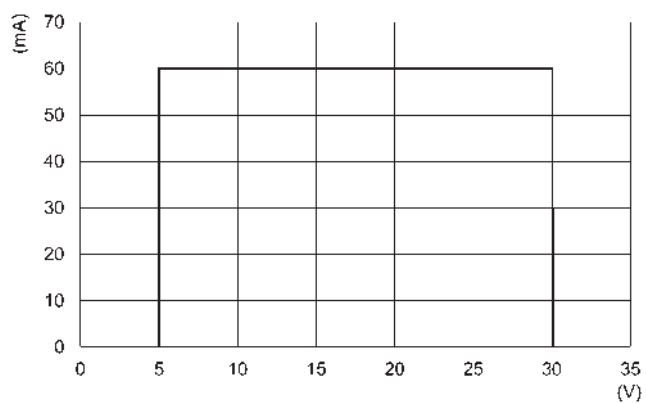
**CSB-D-220, CSB-H-220, CSC-D-220, CSC-H-220**



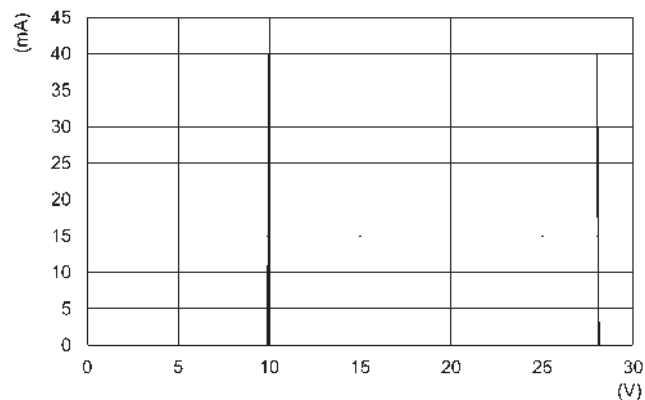
**CSD-D-334, CSD-H-334, CSD-D-364, CSD-H-364**



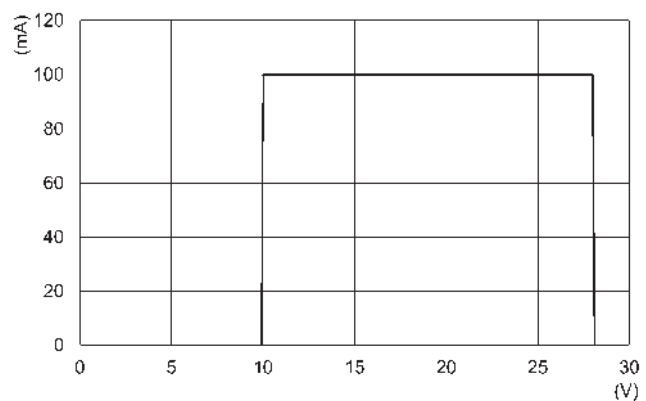
**CSG-223-UL**



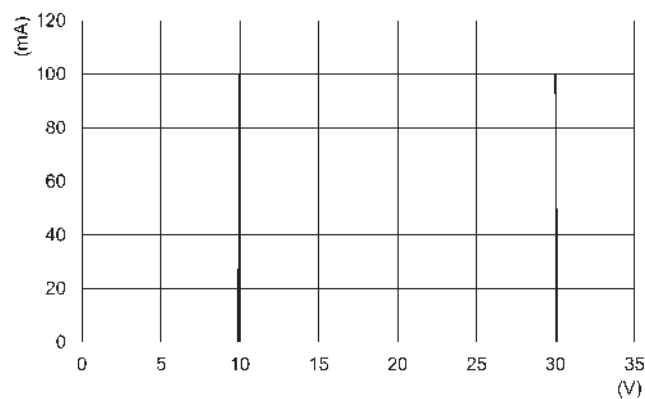
**CSG-324-UL**



**CSG-334-UL, CSG-534-UL**

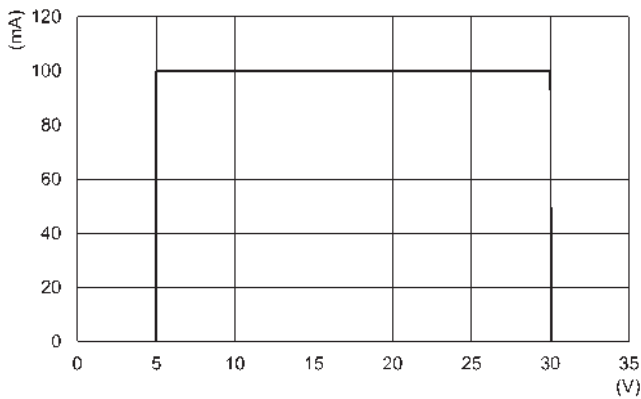


**CSG-233-UL**

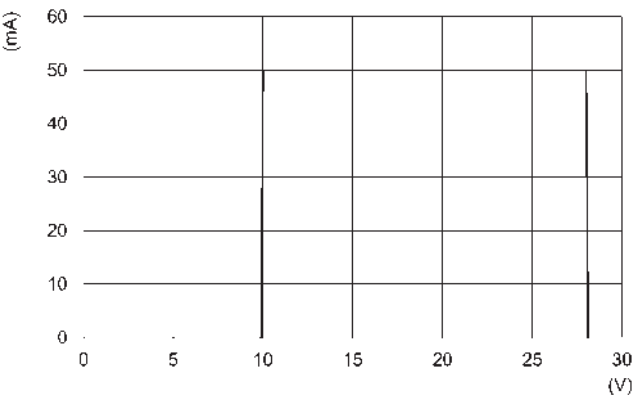


Load curves of sensors Mod. CSG

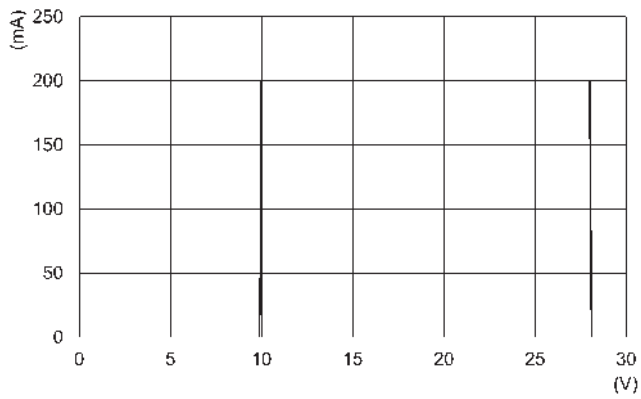
CSG-223-EX



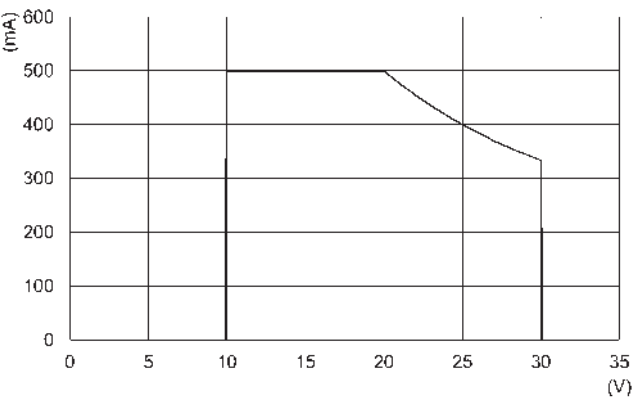
CSG-324-EX



CSG-334-EX, CSG-534-EX, CSG-634-EX, CSG-734-EX

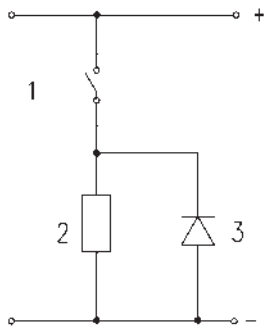


CSG-233-EX





## Electric circuit with protection against voltage spikes



DC applications: there is no protection on the Reed sensors on the inductive load, therefore it is advisable to use an electric circuit with protection against the voltage spikes.

See picture above for a typical example.

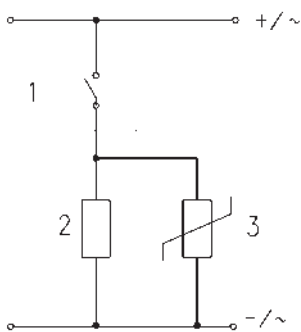
Legend:

1 = Sensor

2 = Load

3 = Protection diode

## Electric circuit with protection against voltage spikes



DC and AC applications: there is no protection on the Reed sensors on the inductive load, therefore it is advisable to use an electric circuit with protection against the voltage spikes.

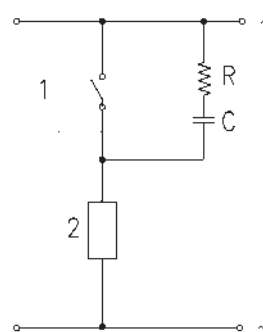
See picture above for a typical example.

Legend:

1 = Sensor

2 = Load

3 = Protection varistor



AC applications: there is no protection on the Reed sensors on the inductive load, therefore it is advisable to use an electric circuit with protection against the voltage spikes.

See picture above for a typical example.

Legend:

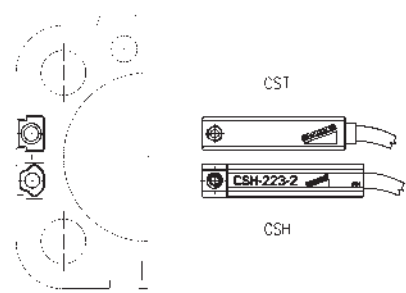
1 = Sensor

2 = Load

C + R = Series of resistor and protection capacitor

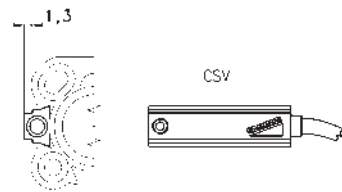
**Mounting of Series CST - CSH - CSG sensors**

CST/CSH/CSG sensors can be directly mounted on cylinders:  
Series 31, 31R, 32, 32R  
Series 52  
Series 61  
Series 63 (CSH only)  
Series 69  
Series 6PF  
Series QC, QCBF, QCTF



**Mounting of Series CSV sensors**

CSV sensors must be assembled directly into the groove of cylinders:  
Series 50 Ø 16÷25  
Series QP - QPR Ø 12÷16



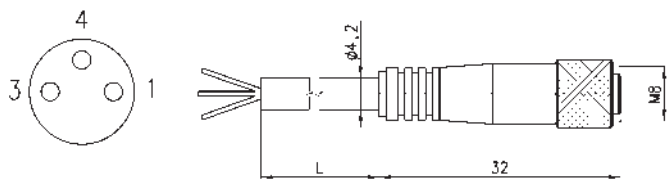
**3-wire extension with M8 3-pin female connector**



With PU sheathing, non shielded cable.  
Protection class: IP65

- 1 BN = Brown
- 4 BK = Black
- 3 BU = Blue

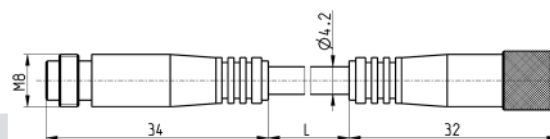
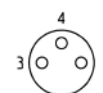
In case 2-wire sensors with M8 connector (Mod. CST-250N, CSV-250N, CSH-253) are used, please connect the brown wire to the supply (+) and the black wire to the load.



Mod.	L = cable length (m)
CS-2	2
CS-5	5
CS-10	10

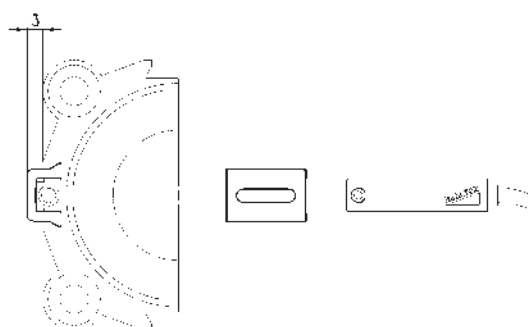
### 3-wire extension with M8 3-pin male / female connector

Non shielded



Mod.	cable length "L" (m)
CS-DW03HB-C250	2,5
CS-DW03HB-C500	5

### Adapters Mod. S-CST-01 for Series CST-CSH-CSG sensors, V-slot



Mod.	Series QP-QPR cylinders	Series 50 cylinders
S-CST-01	Ø 20 ÷ 100	Ø 32 ÷ 80

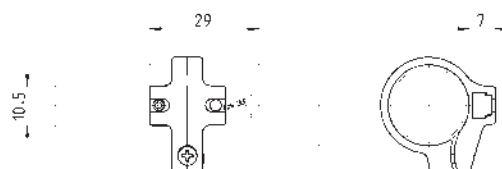
### Adapters Mod. S-CST-02..21 for Series CST-CSH-CSG sensors



- Materials:
- stainless steel and technopolymer (S-CST-05÷12)\*
  - technopolymer (S-CST-02÷04)
  - technopolymer (S-CST-18÷21)

\* Not suitable for use with Series CSG sensors

S-CST-02+04 S-CST-18+21



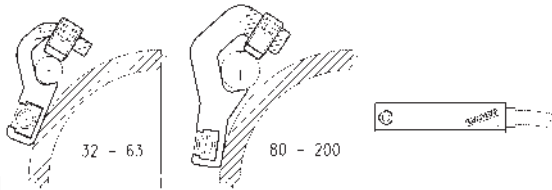
S-CST-05+12



Mod.	Cylinders Series	Ø
S-CST-02	24, 25, 27	16
S-CST-03	24, 25, 27	20
S-CST-04	24, 25, 27	25
S-CST-05	94, 95	16-20-25 (94), 16-20 (95)
S-CST-06	90, 97, 95	32 (90-97), 25 (95)
S-CST-07	90, 97	40
S-CST-08	90, 97	50
S-CST-09	90, 97	63
S-CST-10	90	80
S-CST-11	90	100
S-CST-12	90	125
S-CST-18	27, 42	32
S-CST-19	27, 42	40
S-CST-20	27, 42	50
S-CST-21	27, 42	63
S-CST-16	63	32

**Adapters Mod. S-CST-25..28 for Series CST-CSH-CSG sensors**

Material: anodized aluminium

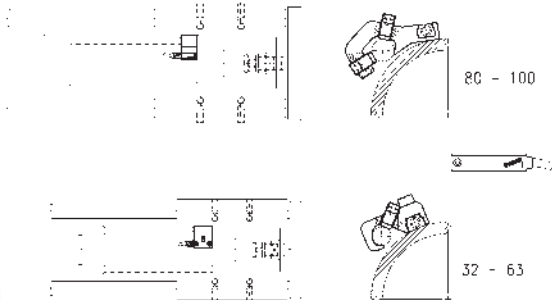


Mod.	Cylinders Series	Ø
S-CST-25	90, 63MT	32 ÷ 63
S-CST-26	90, 63MT	80 ÷ 100
S-CST-27	90, 63MT	125
S-CST-28	40	160 - 200

**Adapters for Series CST-CSH-CSG sensors**



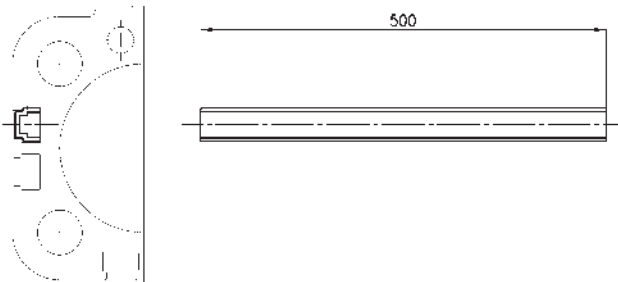
For Series 63MT cylinders mounted with guides 45NHT or 45NHB.  
S-CST-45N1 is not suitable for use with Series CSG sensors.



Mod.	Cylinders Series	Ø
S-CST-45N1	90, 63MT	32 ÷ 63
S-CST-45N2	90, 63MT	80 ÷ 100

**Slot cover profile suitable for actuators with T- and H-slot**

Supplied with 500 mm tube



Mod.	Series of cylinders
S-CST-500	31, 31 Tandem and Multi-position, QCT, QCB, QCBT, QCBF, 61, 63MP, 6E, 5E, 69, 32, 32 Tandem and Multi-position