MAGNETIC PROXIMITY SWITCHES
SERIES CSD

Magnetoresistive

Series CSD magnetic proximity switches are used on grippers and actuators with a dedicated slot and detect jaw opening/closing or the position of the actuator.
When exposed to the magnetic field generated by the piston magnet, they switch the electrical circuit and generate a signal that can be used by a PLC or a solenoid valve.

An integrated LED indicates sensor switching.
Direct mounting in the slot allows the sensor to be adjusted along its seat in order to define the detection point correctly.

General Data

Operation	Magnetoresistive
Contact in Reed switches	Normally Open (NO)
Voltage output	10 ÷ 27 V DC (PNP - NPN)
Max. current	200 mA
Max. load	6 W DC
Protection class	IP66
Materials	Plastic body encapsulating epoxy resin
Mounting	Directly into the groove
Signalling	Signalling by means of a red diode Led
Protection	Against polarity reversing and overvoltage
Switching time	<1 ms
Operating temperature [°C]	-10°C ÷ 60°C
Electrical connection	With a 3-wire cable, section 3x0.14, 2m, high flexibility; With a M8 connector and cable of 0.3 m

MAGNETIC PROXIMITY SWITCHES
SERIES CSD - CODING EXAMPLES

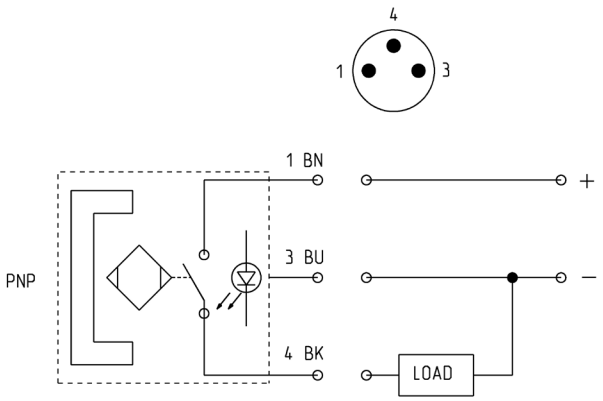
Coding Example

CS	D	D	2	2	0

CS	SERIES
D	TYPE OF SLOT D = D-slot
D	CABLE OUTPUT D = straight H = 90°
2	OPERATION 3 = Magnetoresistive
2	CONNECTIONS 3 = 3 wires 6 = 3 wires with M8 connector
0	POWER SUPPLY VOLTAGE 4 = 10 ÷ 27 V DC
	LENGTH OF THE CABLE = 2m 5 = 5m

Switches electrical connections

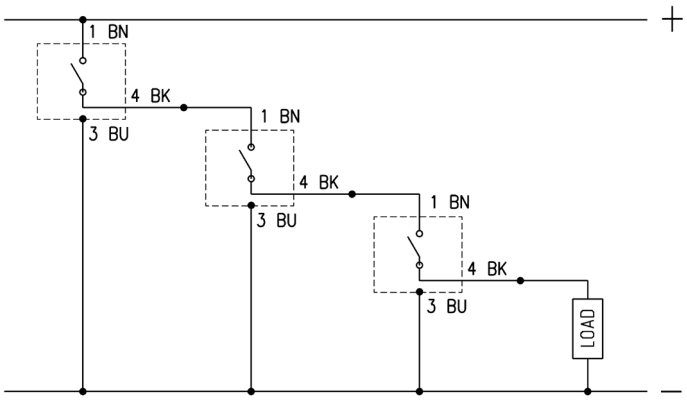
Magnetoresistive



Legend:
BN = brown
BU = blue
BK = black

Connecting schemes in series

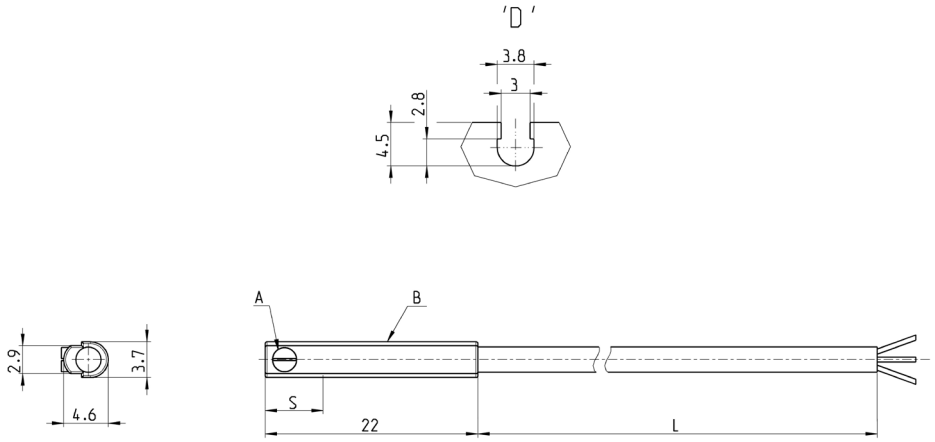
The 3-wire version of the Reed sensors has been designed to allow the connection of several sensors in series, as there is no voltage drop between the supply and the load.
See connecting scheme.
The voltage drop is 2.8V for the 2-wire Reed sensors and 1.0V for 3-wire Magnetoresistive and Hall effect sensors.



Legend:
BN = Brown
BU = Blue
BK = Black

MAGNETIC PROXIMITY SWITCHES
SERIES CSD - DIMENSIONS

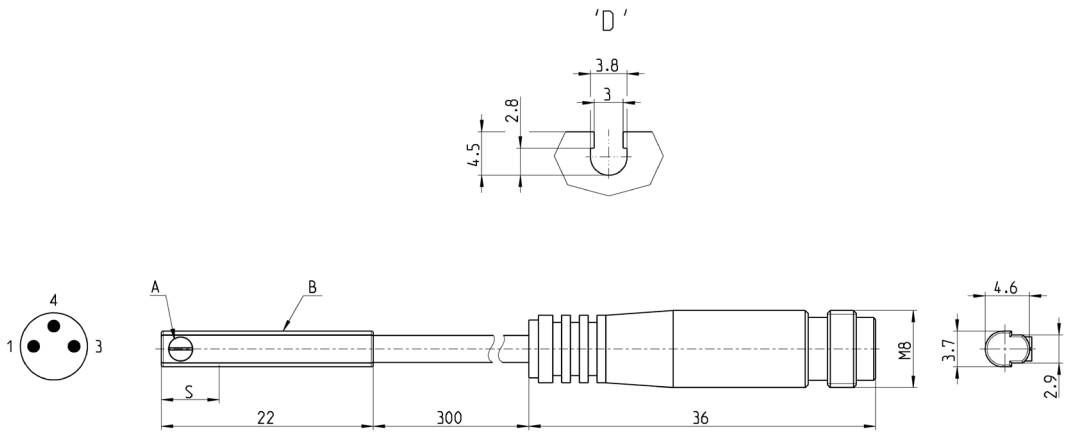
Magnetic proximity switches, 3-wire cable, D-slot



A = Fixing screw
B = Led indicator
S = Sensing point
L = Length cable

Mod.	Operation	Connections	Voltage	Output	Max. current	Max Load	Protection	L	S	LED colour
CSD-D-334	Magnetoresistive	3 wires	10 ÷ 27 V DC	PNP	200 mA	6W	Against polarity reversing and overvoltage	2 m	6 mm	Red
CSD-D-334-5	Magnetoresistive	3 wires	10 ÷ 27 V DC	PNP	200 mA	6W	Against polarity reversing and overvoltage	5 m	6 mm	Red
CSD-D-374	Magnetoresistive	3 wires	10 ÷ 27 V DC	NPN	200 mA	6W	Against polarity reversing and overvoltage	2 m	6 mm	Red
CSD-D-374-5	Magnetoresistive	3 wires	10 ÷ 27 V DC	NPN	200 mA	6W	Against polarity reversing and overvoltage	5 m	6 mm	Red

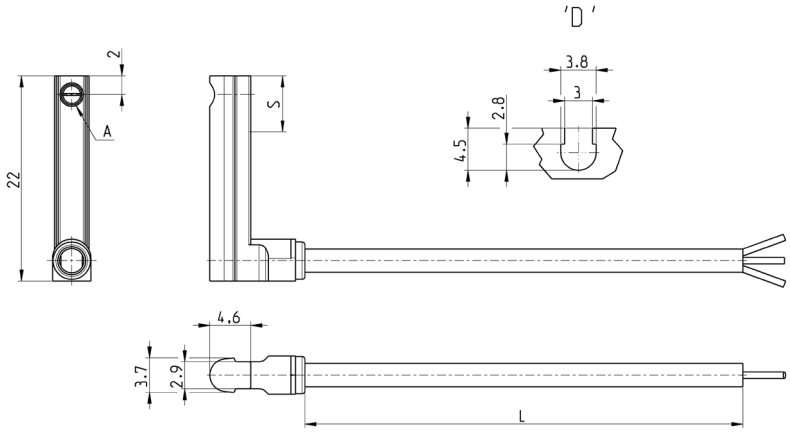
Magnetic proximity switches, male M8 3-pin conn., D-slot, straight



A = Fixing screw
B = Led indicator
S = Sensing point
L = Length cable

Mod.	Operation	Connection	Voltage	Output	Max. current	Max Load	Protection	L	S	LED colour
CSD-D-364	Magnetoresistive	3 wires with M8 connector	10 ÷ 27 V DC	PNP	200 mA	6 W	Against polarity reversing and overvoltage	0,3 m	6 mm	Red
CSD-D-384	Magnetoresistive	3 wires with M8 connector	10 ÷ 27 V DC	NPN	200 mA	6 W	Against polarity reversing and overvoltage	0,3 m	6 mm	Red

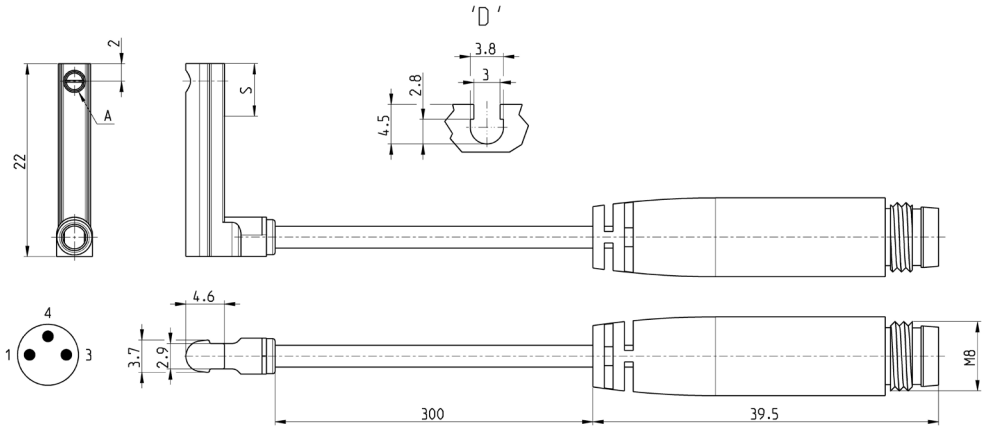
Magnetic proximity switches, 3-wire cable, D-slot with 90° cable



A = Fixing screw
B = Led indicator
S = Sensing point
L = Length cable

Mod.	Operation	Connections	Voltage	Output	Max. current	Max Load	Protection	L	S	LED colour
CSD-H-334	Magnetoresistive	3 wires	10 ÷ 27 V DC	PNP	200 mA	6 W	Against polarity reversing and overvoltage	2 m	6 mm	Red
CSD-H-334-5	Magnetoresistive	3 wires	10 ÷ 27 V DC	PNP	200 mA	6 W	Against polarity reversing and overvoltage	5 m	6 mm	Red
CSD-H-374	Magnetoresistive	3 wires	10 ÷ 27 V DC	NPN	200 mA	6 W	Against polarity reversing and overvoltage	2 m	6 mm	Red
CSD-H-374-5	Magnetoresistive	3 wires	10 ÷ 27 V DC	NPN	200 mA	6 W	Against polarity reversing and overvoltage	5 m	6 mm	Red

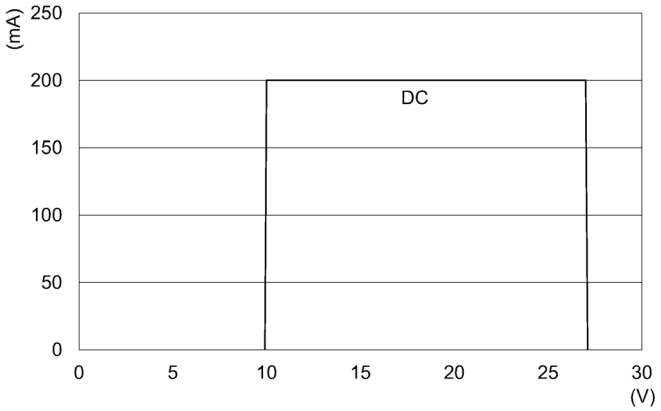
Magnetic proximity switches, male M8 3-pin conn., D-slot, 90°



A = Fixing screw
B = Led indicator
S = Sensing point
L = Length cable

Mod.	Operation	Connection	Voltage	Output	Max. current	Max Load	Protection	L	S	LED colour
CSD-H-364	Magnetoresistive	3 wires with M8 connector	10 ÷ 27 V DC	PNP	200 mA	6 W	Against polarity reversing and overvoltage	0,3 m	6 mm	Red
CSD-H-384	Magnetoresistive	3 wires with M8 connector	10 ÷ 27 V DC	NPN	200 mA	6 W	Against polarity reversing and overvoltage	0,3 m	6 mm	Red

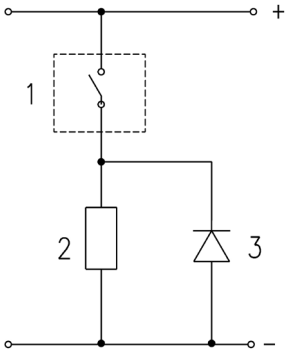
Load curves of sensors Mod. CSD



Electric circuit with protection against voltage spikes

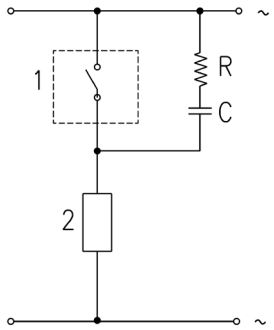
There is no protection on the Reed sensors on the inductive load, therefore it is advisable to use an electric ciruit with protection against the voltage spikes.
See picture for a typical example.

DC applications



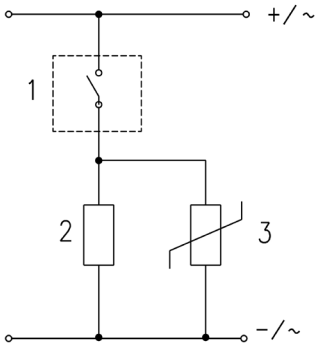
Legend:
1 = Sensor
2 = Load
3 = Protection diode

AC applications



Legend:
1 = Sensor
2 = Load
C + R = Series of resistor and protection capacitor

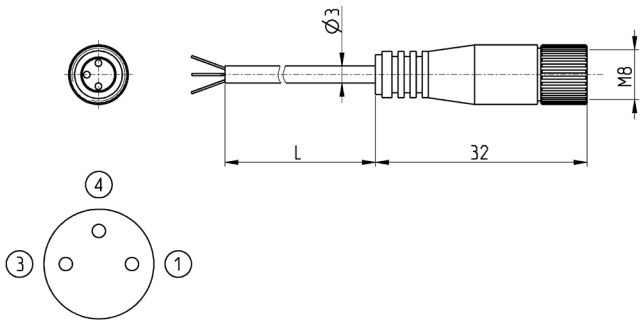
DC and AC applications



Legend:
1 = Sensor
2 = Load
3 = Protection varistor

3-wire extension with M8 3-pin female connector

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

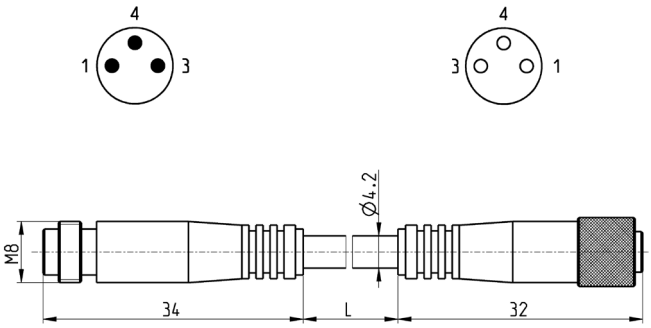


1 BN = Brown +/-
4 BK = Black +/-
3 BU = Blue NC

Mod.	Cable length [mm]
CS-2	2
CS-5	5
CS-10	10

Extension with M8 connector, 3 pin male/female (Non shielded)

Non shielded
General Purpose Input/
Output (GPIO)



Mod.	Description	Type of connector	Connection	L (cable length) [m]
CS-DW03HB-C250	Moulded cable	Straight	M8 3 pin male / female	2,5
CS-DW03HB-C500	Moulded cable	Straight	M8 3 pin male / female	5