Series SR - SU - SQ - ST

The limit switches of magnetic sensors must be mounted on cylinders fitted with magnetic pistons.
These, are activated by the magnetic field generated by the magnetic piston as it approaches and closes the circuit sending an electrical signal to either a relay, solenoid valve or converses with the electrical control system of the machine. There are both ampulla or Hall effect magnetic sensors available which are attached to the cylinder using a suitable cylinder clamp/adaptor or mounted in a suitable slot on the cylinder. The switch may also include an activation LED indicator.

Note: The magnetic sensors are in accordance with the **Directive 2014/30/EU** and following amendments

Instruction on how to use the sensors

Particular attention needs to be paid to ensure that you do not exceed the operating characteristics shown in the following pages. Its important to note; 2 wire sensors should not be connected to the supply voltage if a load is not connected in series. Failure to do so may result in damage to the sensor. Furthermore, please consider that the 'inrush' (loading) current absorbed by the sensors might be up to 50% higher than rated.
For direct currents (DC), The polarity of the connection must be observed: The brown cable must be connected to the live (+) and the blue wire connected to the negative (-).
For all sensor applications, particular attention must be paid to the external factors such as nearby live cables, electromagnetic fields generated by electric motors as well as nearby metallic bodies as these can affect the magnetic field generated by the magnetic piston which in turn can cause malfunctions.
Electrical cable length must be kept below 10 meters in order to guarantee proper functioning.
If needed, 10 meters cable length can be exceeded; Pneumax suggests the use of an inductor or resistor in series to the load in order to reduce the capacitive behavior of the cable.
In this case, the customer is responsible for the selection of the inductor or resistor value. Pneumax assume no responsibility in case of malfunction.
When using a 2-wire reed type sensor, always ensure that the correct load is applied in series on any of the two wires.
In case two or more sensors need to be connected in series, pay attention to the voltage drop generated (around 3V for each sensor), and, in case, use the version designed for in series connection.
Hall effect sensors are longer lasting if compare to reed switched as they do not include any moving parts.

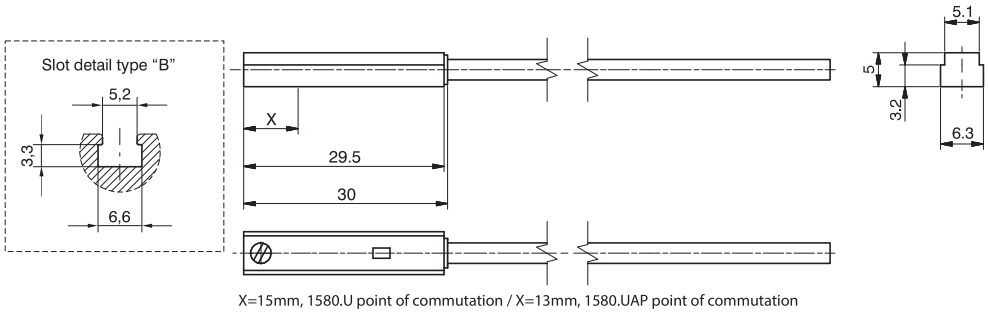
Universal sensor with cable

Coding: 1580.U(V)

Technical characteristics	1580.U	1580.UAP
Permanent maximum current	100mA	500mA
Permanent maximum power	10W	
Output type	/	PNP
Voltage field	5 ... 240V DC/AC	10 ... 30V DC/AC
Working temperature	-10°C ... 70°C	
Maximum voltage drop	3,5V	0.1V @100mA **
Cable length	2,5m	
Cable colour	Light grey	
External cable section	Ø3,3mm	
Cover material	PUR	
Number of wires in the cable	2	3
Wires section	0,14 mm²	
Connection type	Open end	
Protection degree	IP67	
Contact type	N.O.	
Directive	CE as set out in Directive 2014/30/EU	
Fixing	With screw	
Weight	27g	
With LED indication	With LED	
LED color	Red	Yellow

	VERSION
(V)	= 2 wires
	AP = 3 wires, PNP

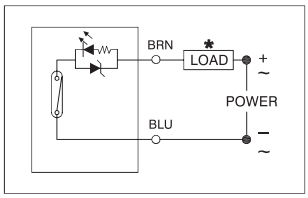
*** Test conditions: 24V DC, ambient temperature 25°C, cable length 2 meters.*



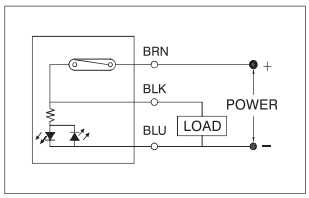
X=15mm, 1580.U point of commutation / X=13mm, 1580.UAP point of commutation

Diagrams and connections

With REED bulb, 2 wires



With REED bulb, 3 wires



***The load (LOAD) can be connected either to negative or positive pole.**

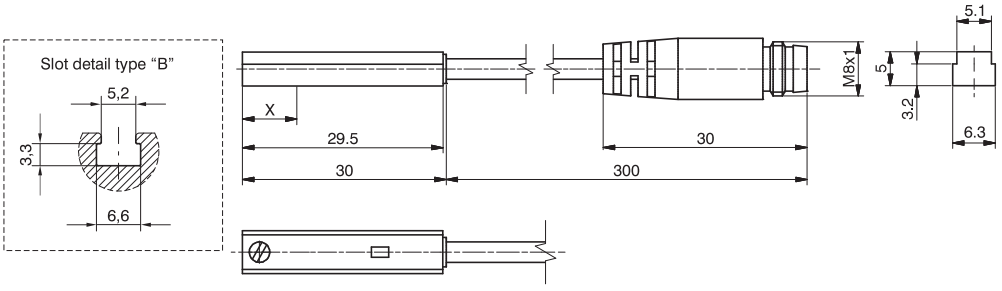
Universal sensor with M8 connection cable

Coding: MRS.U(V)

Technical characteristics	MRS.U	MRS.UAP
Permanent maximum current	100mA	500mA
Permanent maximum power	10W	
Output type	/	PNP
Voltage field	5 ... 240V DC/AC	10 ... 30V DC/AC
Working temperature	-10°C ... 70°C	
Maximum voltage drop	3,5V	0.1V @100mA **
Cable length	300mm	
Cable colour	Light grey	
External cable section	Ø3,3mm	
Cover material	PUR	
Number of wires in the cable	2	3
Wires section	0,14 mm²	
Connection type	With M8 male connector	
Protection degree	IP67	
Contact type	N.O.	
Directive	CE as set out in Directive 2014/30/EU	
Fixing	With screw	
Weight	15g	
With LED indication	With LED	
LED color	Red	Yellow

(V)	VERSION
	= 2 wires
	AP = 3 wires, PNP

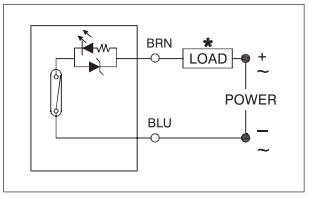
*** Test conditions: 24V DC, ambient temperature 25°C, cable length 2 meters.*



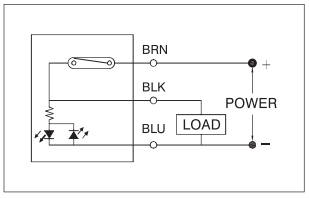
X=15mm, MRS.U point of commutation / X=13mm, MRS.UAP point of commutation

Diagrams and connections

With REED bulb, 2 wires



With REED bulb, 3 wires



***The load (LOAD) can be connected either to negative or positive pole.**

Technical data

Connection 2 wires

Connector / Sensor

1 Brown (+)
4 Blue (-)
3 Not used

Connection 3 wires

Connector / Sensor

1 Brown (+)
4 Black (signal)
3 Blue (-)

Connectors to use		
Sensor	MRS.U	MRS.UAP
Connectors	2 wires: MC1, MC2,MC3 3 wires: MCH1, MCH2, MCH3	

M8 connector with 2 wires cable

Coding: MC(L)

Technical characteristics	MC1	MC2	MC3
Cable colour	Light grey		
External cable section	Ø2,6mm		
Cover material	PUR		
Number of wires in the cable	2 wires		
Wires section	0,15 mm²		

(L)	CABLE LENGTH
	1 = 2.5m cable 2 wires
	2 = 5m cable 2 wires
	3 = 10m cable 2 wires

M8 connector with 3 wires cable

Coding: MCH(L)

Technical characteristics	MCH1	MCH2	MCH3
Cable colour	Light grey		
External cable section	Ø2,6mm		
Cover material	PUR		
Number of wires in the cable	3 wires		
Wires section	0,15 mm²		

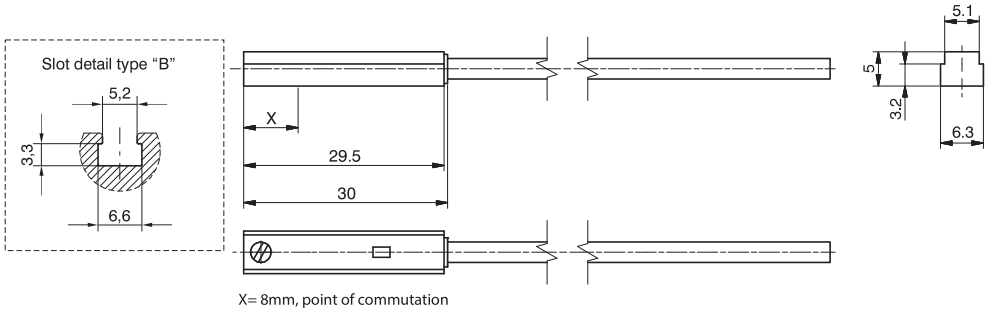
(L)	CABLE LENGTH
	1 = 2,5 meters
	2 = 5 meters
	3 = 10 meters

Cable sensor

Coding: 1580.HA(V)

Technical characteristics		
	1580.HAP	1580.HAN
Permanent maximum current	100mA	
Permanent maximum power	3W	
Output type	PNP	NPN
Voltage field	10 ... 30V DC	
Working temperature	-10°C ... 70°C	
Maximum voltage drop	1.5V	
Cable length	2,5m	
Cable colour	Light grey	
External cable section	Ø3,3mm	
Cover material	PUR	
Number of wires in the cable	3	
Wires section	0,14 mm²	
Connection type	Open end	
Protection degree	IP67	
Contact type	N.O.	
Directive	CE as set out in Directive 2014/30/EU	
Fixing	With screw	
Weight	27g	
With LED indication	With LED	
LED color	Yellow	Red

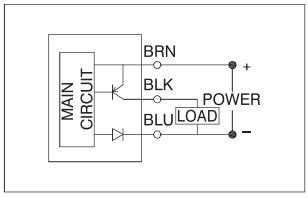
(V)	VERSION
	P = 3 wires PNP
	N = 3 wires NPN



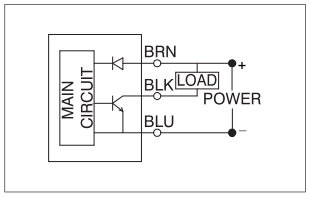
X= 8mm, point of commutation

Diagrams and connections

HALL effect-PNP, 3 wire



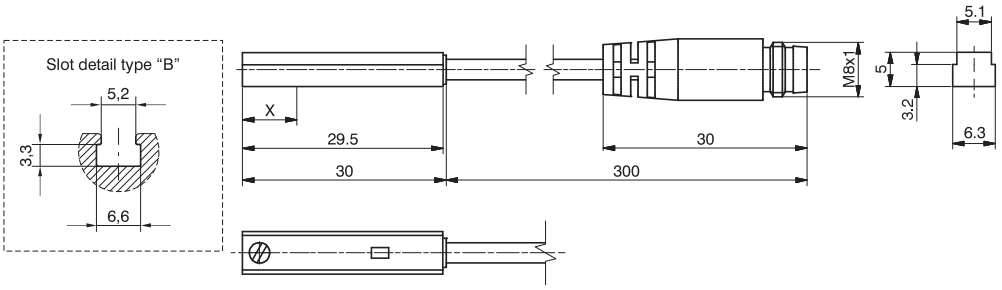
HALL effect-NPN, 3 wire



Sensor with M8 connection cable

Coding: MHS.P

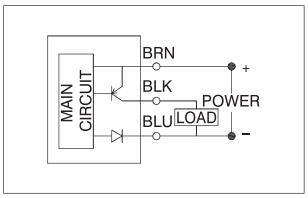
Technical characteristics	
Output type	PNP
Permanent maximum current	100mA
Permanent maximum power	3W
Voltage field	10 ... 30V DC
Working temperature	-10°C ... 70°C
Maximum voltage drop	1.5V
Cable length	300mm
Cable colour	Light grey
External cable section	Ø3,3mm
Cover material	PUR
Number of wires in the cable	3
Wires section	0,14 mm²
Connection type	With M8 male connector
Protection degree	IP67
Contact type	N.O.
Directive	CE as set out in Directive 2014/30/EU
Fixing	With screw
Weight	15g
With LED indication	With LED
LED color	Yellow



X=8mm, point of commutation

Diagrams and connections

HALL effect-PNP, 3 wire



Technical data

Connection 3 wires

1 Brown (+)
4 Black (signal)
3 Blue (-)

Connectors to use	
Sensor	MHS.P
Connectors	MCH1 - MCH2 - MCH3

M8 connector with 3 wires cable

Coding: MCH(L)

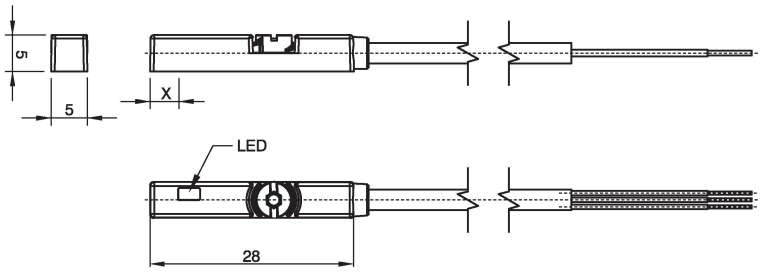
Technical characteristics	MCH1	MCH2	MCH3
Cable colour	Light grey		
External cable section	Ø2,6mm		
Cover material	PUR		
Number of wires in the cable	3 wires		
Wires section	0,15 mm²		

(L)	CABLE LENGTH
	1 = 2,5 meters
	2 = 5 meters
	3 = 10 meters

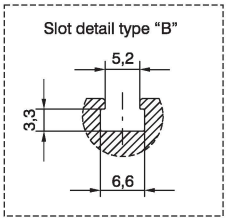
Cable sensor

Coding: 1595.HAP

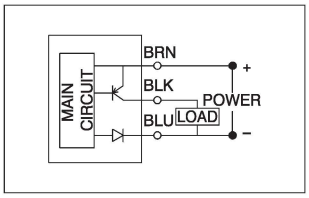
Technical characteristics	
Output type	PNP
Permanent maximum current	100mA
Permanent maximum power	3W
Voltage field	10 ... 28V DC
Working temperature	-10°C ... 70°C
Maximum voltage drop	1,5V
Cable length	2,5m
Cable colour	Black
External cable section	Ø2,8mm
Cover material	PUR
Number of wires in the cable	3
Wires section	0,14 mm²
Connection type	Open end
Protection degree	IP67
Contact type	N.O.
Directive	CE as set out in Directive 2014/30/EU
Fixing	With screw
Weight	23g
With LED indication	With LED
LED color	Yellow



X= 2,3mm, point of commutation



Diagrams and connections



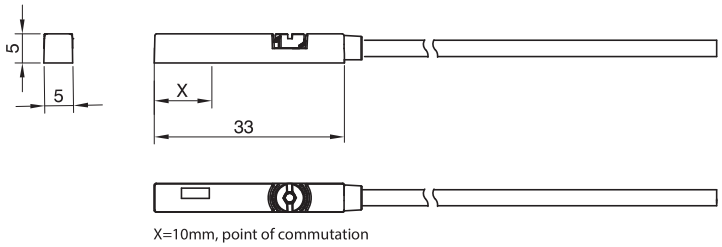
Cable sensor

Coding: 1590.U(V)

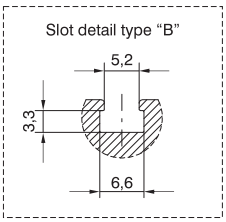
Technical characteristics		
	1590.U	1590.UAP
Output type	-	PNP
Permanent maximum current	100mA	500mA
Permanent maximum power	10W	
Voltage field	5 ... 240V DC/AC	10 ... 30V DC/AC
Working temperature	-10°C ... 70°C	
Maximum voltage drop	3V	0.1V @100mA **
Cable length	2,5m	
Cable colour	Black	
External cable section	Ø2,8mm	
Cover material	PUR	
Number of wires in the cable	2	3
Wires section	0,14 mm²	
Connection type	Open end	
Protection degree	IP67	
Contact type	N.O.	
Directive	CE as set out in Directive 2014/30/EU	
Fixing	With screw	
Weight	27g	
With LED indication	With LED	
LED color	Red	Yellow

(V)	VERSION
	= 2 wires
	AP = 3 wires, PNP

*** Test conditions: 24V DC, ambient temperature 25°C, cable length 2 meters.*

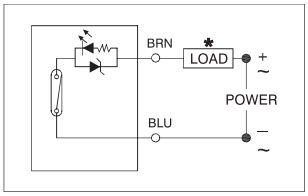


X=10mm, point of commutation

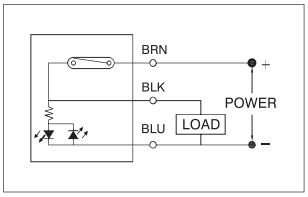


Diagrams and connections

With REED bulb, 2 wires



With REED bulb, 3 wires



***The load (LOAD) can be connected either to negative or positive pole.**

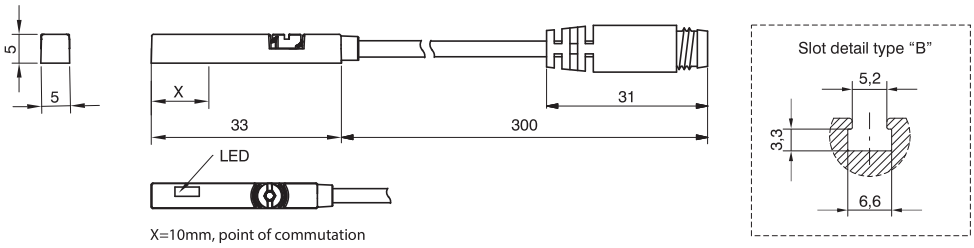
Sensor with M8 connection cable

Coding: LRS.U(V)

Technical characteristics		
	LRS.U	LRS.UAP
Output type	-	PNP
Permanent maximum current	100mA	500mA
Permanent maximum power	10W	
Voltage field	5 ... 240V DC/AC	10 ... 30V DC/AC
Working temperature	-10°C ... 70°C	
Maximum voltage drop	3V	0.1V @100mA **
Cable length	300mm	
Cable colour	Black	
External cable section	Ø2,8mm	
Cover material	PUR	
Number of wires in the cable	2	3
Wires section	0,14 mm²	
Connection type	With M8 male connector	
Protection degree	IP67	
Contact type	N.O.	
Directive	CE as set out in Directive 2014/30/EU	
Fixing	With screw	
Weight	15g	
With LED indication	With LED	
LED color	Red	Yellow

(V)	VERSION
	= 2 wires
	AP = 3 wires, PNP

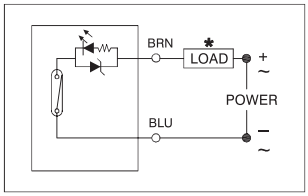
*** Test conditions: 24V DC, ambient temperature 25°C, cable length 2 meters.*



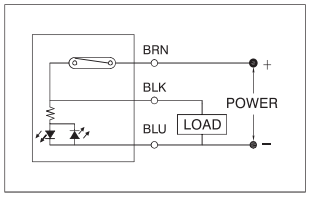
X=10mm, point of commutation

Diagrams and connections

With REED bulb, 2 wires



With REED bulb, 3 wires



***The load (LOAD) can be connected either to negative or positive pole.**

Technical data

Connection 2 wires

Connector / Sensor

1 Brown (+)
4 Blue (-)
3 Not used

Connection 3 wires

Connector / Sensor

1 Brown (+)
4 Black (signal)
3 Blue (-)

Connectors to use		
Sensors	LRS.U	LRS.UAP
Connectors	MC1 - MC2 - MC3	MCH1 - MCH2 - MCH3

M8 connector with 2 wires cable

Coding: MC(L)

Technical characteristics	MC1	MC2	MC3
Cable colour	Light grey		
External cable section	Ø2,6mm		
Cover material	PUR		
Number of wires in the cable	2 wires		
Wires section	0,15 mm²		

(L)	CABLE LENGTH
	1 = 2.5m cable 2 wires
	2 = 5m cable 2 wires
	3 = 10m cable 2 wires

M8 connector with 3 wires cable

Coding: MCH(L)

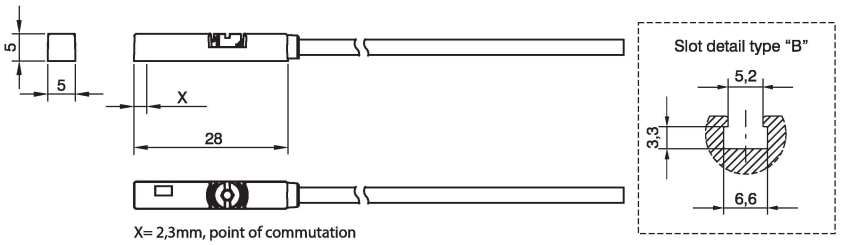
Technical characteristics	MCH1	MCH2	MCH3
Cable colour	Light grey		
External cable section	Ø2,6mm		
Cover material	PUR		
Number of wires in the cable	3 wires		
Wires section	0,15 mm²		

(L)	CABLE LENGTH
	1 = 2.5m 3-wire cable
	2 = 5m 3-wire cable
	3 = 10m 3-wire cable

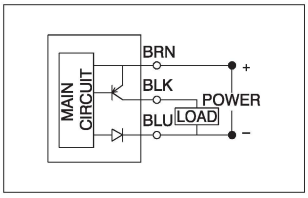
Cable sensor

Coding: 1590.HAP

Technical characteristics	
Output type	PNP
Permanent maximum current	200mA
Permanent maximum power	5.5W
Voltage field	10 ... 28V DC
Working temperature	-10°C ... 70°C
Maximum voltage drop	1,5V
Cable length	2,5m
Cable colour	Black
External cable section	Ø2,8mm
Cover material	PUR
Number of wires in the cable	3
Wires section	0,14 mm²
Connection type	Open end
Protection degree	IP67
Contact type	N.O.
Directive	CE as set out in Directive 2014/30/EU
Fixing	With screw
Weight	27g
With LED indication	With LED
LED color	Yellow



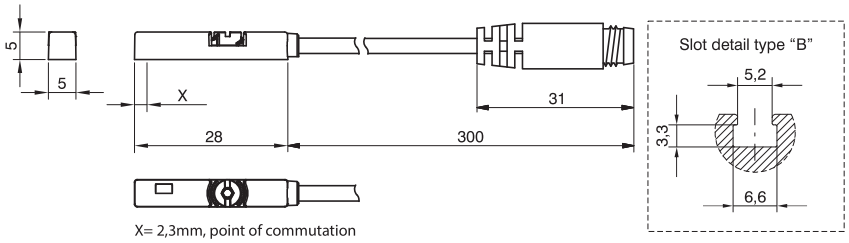
Diagrams and connections



Sensor with M8 connection cable

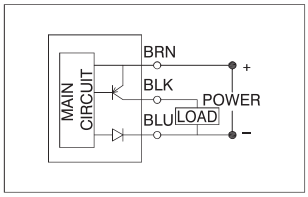
Coding: LHS.P

Technical characteristics	
Output type	PNP
Permanent maximum current	200mA
Permanent maximum power	5.5W
Voltage field	10 ... 28V DC
Working temperature	-10°C ... 70°C
Maximum voltage drop	1,5V
Cable length	300mm
Cable colour	Black
External cable section	Ø2,8mm
Cover material	PUR
Number of wires in the cable	3
Wires section	0,14 mm²
Connection type	With M8 male connector
Protection degree	IP67
Contact type	N.O.
Directive	CE as set out in Directive 2014/30/EU
Fixing	With screw
Weight	15g
With LED indication	With LED
LED color	Yellow



X= 2,3mm, point of commutation

Diagrams and connections



Technical data

Connection 3 wires

Connector

Sensor

1 Brown (+)
4 Black (signal)
3 Blue (-)

Connectors to use	
Sensors	LHS.P
Connectors	MCH1 - MCH2 - MCH3

M8 connector with 3 wires cable

Coding: MCH L

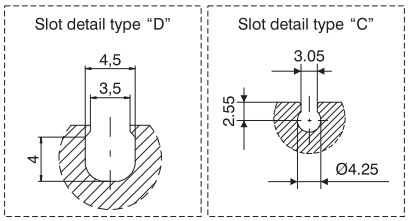
L	CABLE LENGTH
	1 = 2.5m 3-wire cable
	2 = 5m 3-wire cable
	3 = 10m 3-wire cable

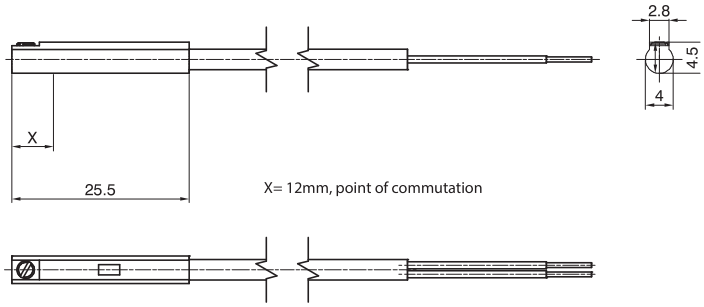
Technical characteristics	MCH1	MCH2	MCH3
Cable colour	Light grey		
External cable section	Ø2,6mm		
Cover material	PUR		
Number of wires in the cable	3 wires		
Wires section	0,15 mm²		

Universal sensor with cable

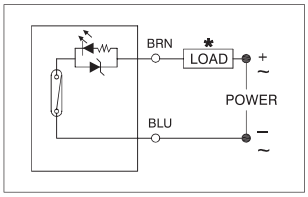
Coding: 1581.U

Technical characteristics	
Permanent maximum current	100mA
Permanent maximum power	10W
Voltage field	5 ... 120V DC/AC
Working temperature	-10°C ... 70°C
Maximum voltage drop	3,5V
Cable length	2,5m
Cable colour	Light grey
External cable section	Ø2,8mm
Cover material	PUR
Number of wires in the cable	2
Wires section	0,14 mm²
Connection type	Open end
Protection degree	IP67
Contact type	N.O.
Directive	CE as set out in Directive 2014/30/EU
Fixing	With screw
Weight	27g
With LED indication	With LED
LED color	Red





Diagrams and connections

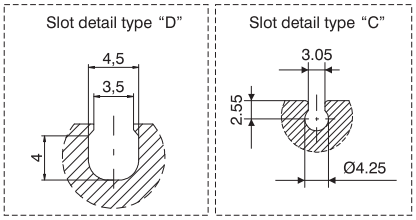


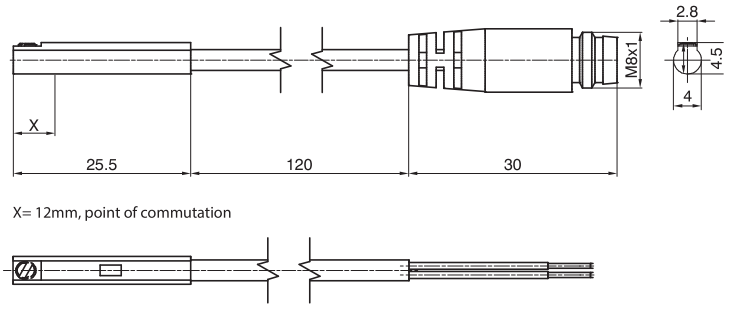
***The load (LOAD) can be connected either to negative or positive pole.**

Universal sensor with M8 connection cable

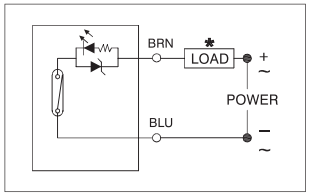
Coding: TRS.U

Technical characteristics	
Permanent maximum current	100mA
Permanent maximum power	10W
Voltage field	5 ... 120V DC/AC
Working temperature	-10°C ... 70°C
Maximum voltage drop	3,5V
Cable length	150mm
Cable colour	Light grey
External cable section	Ø2,8mm
Cover material	PUR
Number of wires in the cable	2
Wires section	0,14 mm²
Connection type	With M8 male connector
Protection degree	IP67
Contact type	N.O.
Directive	CE as set out in Directive 2014/30/EU
Fixing	With screw
Weight	10g
With LED indication	With LED
LED color	Red





Diagrams and connections



Technical data

Connection 2 wires

Connector

Sensor

1 Brown (+)
4 Blue (-)
3 Not used

Connectors to use	
Sensors	TRS.U
Connectors	MC1 - MC2 - MC3

M8 connector with 2 wires cable

Coding: MC(L)

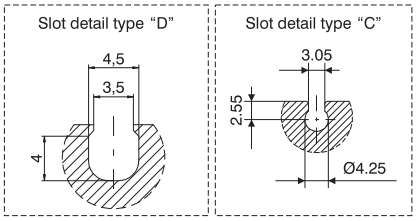
Technical characteristics	MC1	MC2	MC3
Cable colour	Light grey		
External cable section	Ø2,6mm		
Cover material	PUR		
Number of wires in the cable	2 wires		
Wires section	0,15 mm²		

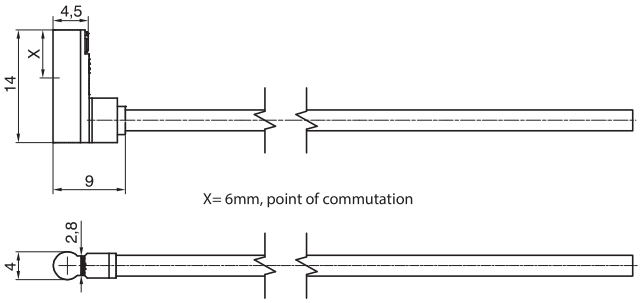
(L)	CABLE LENGTH
	1 = 2.5m cable 2 wires
	2 = 5m cable 2 wires
	3 = 10m cable 2 wires

Sensor with 90° cable

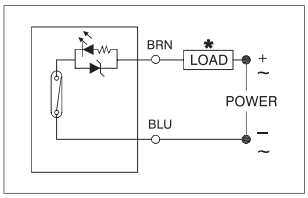
Coding: 1583.DC

Technical characteristics	
Permanent maximum current	50mA
Permanent maximum power	1.5W
Voltage field	5 ... 30V DC
Working temperature	-10°C ... 70°C
Maximum voltage drop	3,5V
Cable length	2m
Cable colour	Black
External cable section	Ø2,6mm
Cover material	PVC
Number of wires in the cable	2
Wires section	0,14 mm²
Connection type	Open end
Protection degree	IP67
Contact type	N.O.
Directive	CE as set out in Directive 2014/30/EU
Fixing	With screw
Weight	22g
With LED indication	With LED
LED color	Red





Diagrams and connections

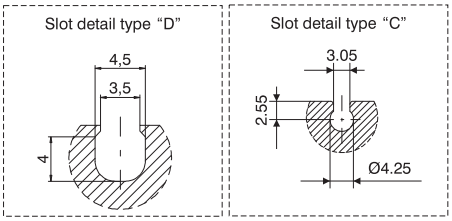


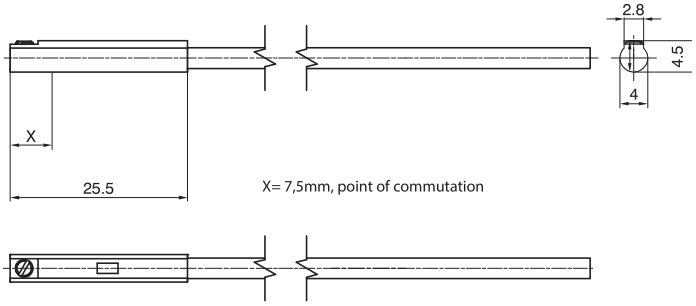
Cable sensor

Coding: 1581.HAP

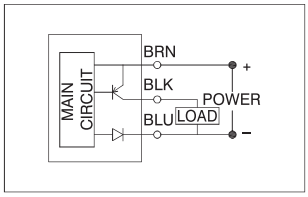
Technical characteristics	
Output type	PNP
Permanent maximum current	200mA
Permanent maximum power	6W
Voltage field	5 ... 30V DC
Working temperature	-10°C ... 70°C
Maximum voltage drop	1V @200mA *
Cable length	2,5m
Cable colour	Black
External cable section	Ø2,8mm
Cover material	PUR
Number of wires in the cable	3
Wires section	0,14 mm²
Connection type	Open end
Protection degree	IP67
Contact type	N.O.
Directive	CE as set out in Directive 2014/30/EU
Fixing	With screw
Weight	22g
With LED indication	With LED
LED color	Green

** Test conditions: 24V DC, ambient temperature 25°C, cable length 2 meters.*





Diagrams and connections

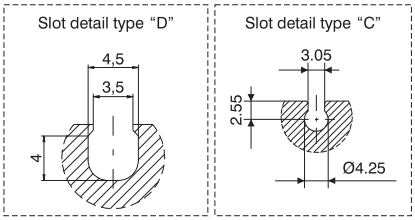


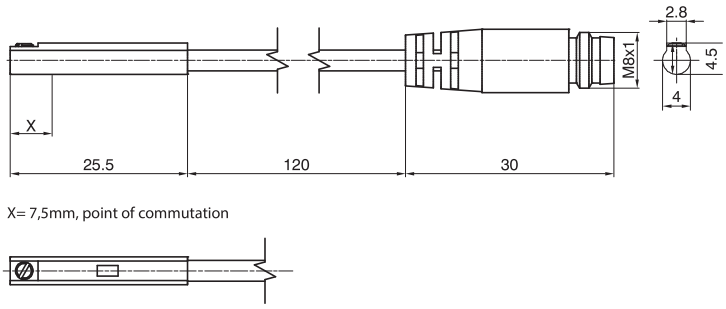
Sensor with M8 connection cable

Coding: THS.P

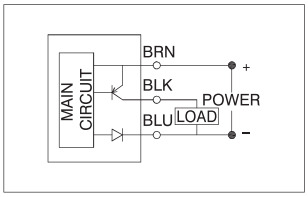
Technical characteristics	
Output type	PNP
Permanent maximum current	200mA
Permanent maximum power	6W
Voltage field	5 ... 30V DC
Working temperature	-10°C ... 70°C
Maximum voltage drop	1V @200mA *
Cable length	150mm
Cable colour	Black
External cable section	Ø2,8mm
Cover material	PUR
Number of wires in the cable	3
Wires section	0,14 mm²
Connection type	With M8 male connector
Protection degree	IP67
Contact type	N.O.
Directive	CE as set out in Directive 2014/30/EU
Fixing	With screw
Weight	10g
With LED indication	With LED
LED color	Green

** Test conditions: 24V DC, ambient temperature 25°C, cable length 2 meters.*





Diagrams and connections



Technical data

Connection 3 wires

1 Brown (+)
4 Black (signal)
3 Blue (-)

Connectors to use	
Sensors	THS.P
Connectors	MCH1 - MCH2 - MCH3

M8 connector with 3 wires cable

Coding: MCH L

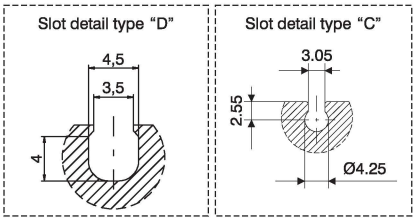
Technical characteristics	MCH1	MCH2	MCH3
Cable colour	Light grey		
External cable section	Ø2,6mm		
Cover material	PUR		
Number of wires in the cable	3 wires		
Wires section	0,15 mm²		

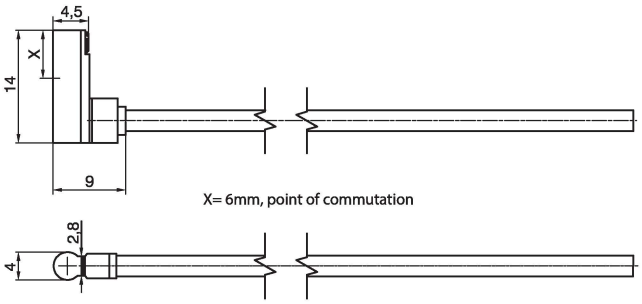
L	CABLE LENGTH
	1 = 2.5m 3-wire cable
	2 = 5m 3-wire cable
	3 = 10m 3-wire cable

Sensor with 90° cable

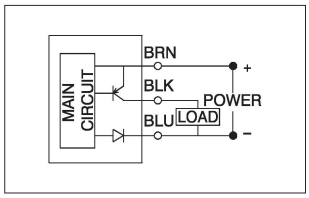
Coding: 1583.HAP

Technical characteristics	
Output type	PNP
Permanent maximum current	50mA
Permanent maximum power	1,5W
Voltage field	4,5 ... 28V DC
Working temperature	-10°C ... 70°C
Maximum voltage drop	0,5V
Cable length	3m
Cable colour	Black
External cable section	Ø2,6mm
Cover material	PVC
Number of wires in the cable	3
Wires section	0,14 mm²
Connection type	Open end
Protection degree	IP67
Contact type	N.O.
Directive	CE as set out in Directive 2014/30/EU
Fixing	With screw
Weight	22g
With LED indication	With LED
LED color	Red





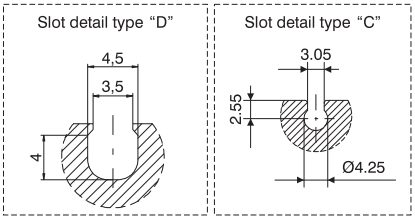
Diagrams and connections

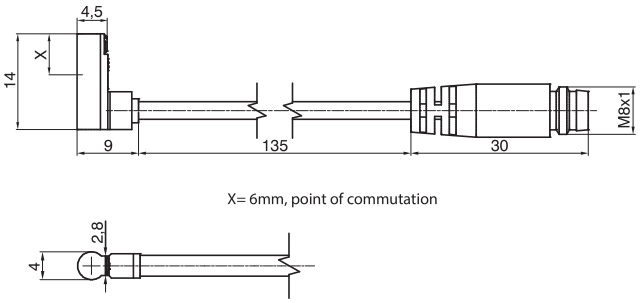


Sensor with 90° cable and M8 connection

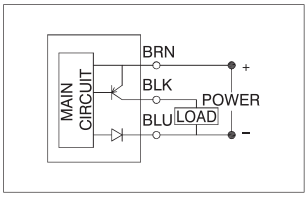
Coding: THR.P

Technical characteristics	
Output type	PNP
Permanent maximum current	50mA
Permanent maximum power	1,5W
Voltage field	4,5 ... 28V DC
Working temperature	-10°C ... 70°C
Maximum voltage drop	0,5V
Cable length	100mm
Cable colour	Black
External cable section	Ø2,6mm
Cover material	PVC
Number of wires in the cable	3
Wires section	0,14 mm²
Connection type	With M8 male connector
Protection degree	IP67
Contact type	N.O.
Directive	CE as set out in Directive 2014/30/EU
Fixing	With screw
Weight	10g
With LED indication	With LED
LED color	Red





Diagrams and connections



Technical data

Connection 3 wires

Connector Sensor

1 Brown (+)
4 Black (signal)
3 Blue (-)

Connectors to use	
Sensors	THR.P
Connectors	MCH1 - MCH2 - MCH3

M8 connector with 3 wires cable

Coding: MCH❶

Technical characteristics	MCH1	MCH2	MCH3
Cable colour	Light grey		
External cable section	Ø2,6mm		
Cover material	PUR		
Number of wires in the cable	3 wires		
Wires section	0,15 mm²		

❶	CABLE LENGTH
	1 = 2.5m 3-wire cable
	2 = 5m 3-wire cable
	3 = 10m 3-wire cable

SR series, rectangular section version (for "B" type slot)		
Series	Description	Assembly
1200	Microbore with threaded end covers and "TECNO-MIR" microbore "MIR" with rolled end covers Microbore "MIR-INOX" with rolled end covers	with clamps code 1260.Ø.FS with clamps code 1280.Ø.FS with clamps code 1280.Ø.FSX
1319 - 1320 1325 - 1345 1330 - 1332 1348 - 1349	for cylinders Ø32 ... Ø40	with bracket code 1320.AS
	for cylinders Ø50 ... Ø63	with bracket code 1320.BS
	for cylinders Ø80 ... Ø100	with bracket code 1320.CS
	for cylinders Ø125	with bracket code 1320.DSC
	for cylinders Ø160	with bracket code 1320.ESC
	for cylinders Ø200	with bracket code 1320.FSC
1386-87 / 1396-97	Cylinders according to standard ISO 15552 ECOPLUS	directly on groove
1390 - 1391	Cylinders according to standard ISO 15552 ECOLIGHT Warning: To use only into the lateral slot, from Ø32 to Ø63 cylinders. (do not use into the 2 slots positioned on the side of feeding connection)	directly on groove
1370 ... 1373	Cylinders ECOFLAT	directly on groove
1500	Short stroke compact cylinders	with adapter code 1380.01F
	Compact cylinders "Europe"	from Ø12 to Ø25: directly on groove
		from Ø32 to Ø50:directly on groove or with adapter 1380.01F
		from Ø63 to Ø100: with adapter cod. 1380.01F
	Compact cylinder according to standard ISO 21287 ECOMPACT	directly on groove
1605	Rodless cylinders	with adapter code 1600.C
6100	Guided compact cylinder (Ø20 - Ø63)	directly on groove
6101	Heavy duty guided shortstroke cylinder	directly on groove
6200	Twin-rod slide units	directly on groove
6210	Through twin-rod slide units	directly on groove
6301	Pneumatic grippers, angular standard version	directly on groove
6303	180° angular gripper rack & pinion style	directly on groove
6310	Parallel style pneumatic grippers standard version (Ø10 - Ø25)	directly on groove
6311	Parallel style pneumatic grippers wide opening	directly on groove
6312	3 finger parallel style pneumatic grippers (Ø32 - Ø125)	directly on groove

SQ-SU series, square section version (for sensor slot type "B")		
Series	Description	Assembly
1319 - 1320 1325 - 1345 1330 - 1332 1348 - 1349	for cylinders Ø32 ... Ø40	with brackets code 1320.ASC
	for cylinders Ø50 ... Ø63	with brackets code 1320.BSC
	for cylinders Ø80 ... Ø100	with brackets code 1320.CSC
	for cylinders Ø125	with bracket code 1320.DSC
	for cylinders Ø160	with bracket code 1320.ESC
	for cylinders Ø200	with bracket code 1320.FSC
1386-87 / 1396-97	Cylinders according to standard ISO 15552 ECOPLUS	directly on groove
1390 - 1391	Cylinders according to standard ISO 15552 ECOLIGHT	directly on groove
1370 ... 1373	Cylinders ECOFLAT	directly on groove
1500	Short stroke compact cylinders	with adapter code 1380.01F
	Compact cylinders "Europe"	from Ø12 to Ø25: directly on groove
		from Ø32 to Ø50: directly on groove
		directly on groove
	Compact cylinder according to standard ISO 21287 ECOMPACT	directly on groove
1605	Rodless cylinders	with adapter code 1600.C
6100	Guided compact cylinder (Ø20 - Ø63)	directly on groove
6101	Heavy duty guided shortstroke cylinder	directly on groove
6200	Twin-rod slide units	directly on groove
6210	Through twin-rod slide units	directly on groove
6301	Pneumatic grippers, angular standard version	directly on groove
6303	180° angular gripper rack & pinion style	directly on groove
6310	Parallel style pneumatic grippers standard version (Ø10 - Ø25)	directly on groove
6311	Parallel style pneumatic grippers wide opening	directly on groove
6312	3 finger parallel style pneumatic grippers (Ø32 - Ø125)	directly on groove
6411	Single rack rotary actuators	directly on groove

ST Series, round section version (for sensor slot type "C" and "D")		
Series	Description	Assembly
6100	Guided compact cylinder (Ø12 - Ø16)	directly on groove
6302	Pneumatic grippers, 180 °angular	directly on groove
6310	Parallel style pneumatic grippers standard version (Ø16 and Ø25)	directly on groove
6312	3 finger parallel style pneumatic grippers (Ø16 ... (Ø25)	directly on groove
6400	Double rack rotary actuators with turn table	directly on groove
6420	Vane type rotary actuators (from Ø10 to Ø40)	directly on groove
6500	Multimount cylinders	directly on groove
6600	Slide cylinders	directly on groove
6700	Guide cylinders	directly on groove

ST Series, 90° round cable section version (for sensor slot type "C" and "D")		
Series	Description	Assembly
6420	Vane type rotary actuators	directly on groove