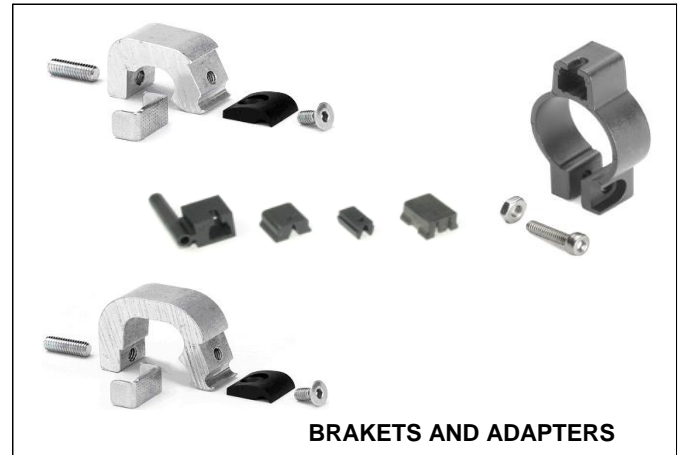


MAGNETIC SENSOR - generalities -



Magnetic sensors are magnetic switch which respond to the presence of a magnetic field.

The sensors fit externally the cylinder and detect the magnetic field generated by the magnetically polarised piston giving its exact position or passage.

This signal is utilised to open or close an electrical circuit, as required.

The range of magnetic sensors we propose, assures the possibility to fit the different types of cylinders existing on the market and satisfy the needs of different electrical circuits and the various requires of circuits and machinery constructors.

They are usually used with electric contact normally open (N.A.)

On request we can supply normally close version but only for series DSM.

RANGE OF MAGNETIC SENSORS

DSM series : sensors with various electrical circuits, fixed to pneumatic cylinders with particular brackets (for cylinders with round profile, with tie rods or with extruded profile).

DCB series : thanks to its reduced dimensions, it's primarily utilised for all the types of short-stroke cylinders. It can replace DSM series sensors fixing to all the types of cylinders a specific adapter included in the package. The package includes also other adapters for the different dimensions of the grooves of the short stroke cylinders profiles that are on the market

DSL series : sensors of particularly reduced dimensions that can be fixed without brackets directly in the grooves of the cylinders profiles. Available on request **DSC** series. They must be length-wise inserted from the end cap of the cylinder.

DSA series : evolution of the DSL series, that can be utilised without brackets and that can be directly inserted from above into the grooves of the cylinders profile.

DSS series: sensors of particularly reduced dimensions that can be fixed without brackets directly in grooves with the round section of hand grips or other pneumatic manipulation elements. Available on request **DSN** series.

new **ATEX Sensors SICK**: are suitable for mounting on all cylinders and pneumatic actuators with "T" slots in the ATEX zone **category 3G and 3D**.

TECHNICAL CHARACTERISTICS

Sensors are available either with attached flying leads or with plug connector (M8 or M12) that facilitates the maintenance disconnecting all the voltage.

Both the versions are supplied with 2,5 m. cable wire length as standard. The plug connector type is also available: with 30 cm cable wire lenght and connector at the end of cable, or with 2.5 m cable lenght with connector inside sensor body. Different types are well illustrated in the following pages.

Sensors are impregnated with epoxy resin in order to give protection, (from IP67 up to IP68) , with excellent resistance to impacts and to extreme working temperatures (-20° C + 80° C).

MAGNETIC SENSORS - generalities -

CHOICE OF CIRCUIT

In deciding which type of circuit to utilise, first of all, you must distinguish the two currently available systems for detecting the magnetic field emitted by the cylinder.

REED SWITCH : metal reeds contained in a glass tube are mutually influenced when within a magnetic field, thus changing the circuit.

The sensor is available with glass tube + protection + indicator, in both normally open and normally closed versions (only for DSM series). REED version is available also with 3 wires with PNP electronic circuit. When connecting several sensor with indicators at 24V, the utilisation of a suitable circuit (D2) is recommended, which overcomes problems caused by voltage drop across the LED's, supplying it with a third cable wire.

- Advantage : these sensors can be used with AC or DC circuits.
- Limit : mechanical working and electrical life shorter than other systems life (10 7 operations).

HALL EFFECT MAGNETO-RESISTIVE : an integrated electrical circuit detects electronically the presence of a magnetic field giving a signal to an amplification system.

- Advantage : electronic system without moving parts with extended functional life (10 9 operations).
- Limit : it works only with DC circuits, max tension 30V.

Available both PNP version and NPN version.

NOTES FOR GUIDANCE

In no self-supplied circuits with Reed indicator (LED), avoid to connect in series several sensors.

Use the shortest possible connection cable because it could damage the good working of the switch due to the capacitance of the cable that is directly proportional to its length. In doubtful cases, it's better to connect in series an inductor to avoid the effects of the cable capacitance.

Avoid close proximity to electric cables and large iron masses as they could affect the sensor because of the effects of the mutual induction.

The sensors are able to detect a magnetic signal at a speed of 10 m / sec. at an actuation distance proportional to the power of the magnet.

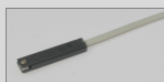
CHOICE OF SENSORS

The choice of sensors is wide and their codes are the synthesis of the possible combinations.

The finished product code is formed by several alphanumeric codes; each-one of them has got its own characteristic, hereby exhaustively described.

<u>Series</u>	<u>Connection</u>	<u>Circuit type</u>	<u>Max power supply</u>
DSM	1 = 2 wires cable	C = 2 wires REED with LED+VDR	2 = 24 V ac/dc
DCB	2 = 2 wires M8 snap connector	D = 3 wires REED PNP (selfsupply LED)	4 = 110 V ac
DSL	3 = 3 wires M8 snap connector	H = 2 wires NC REED with LED+VDR	5 = 250 V ac
DSA	4 = 3 wires cable	M = magneto-resostive NPN (Hall)	
DSS	5 = 2 wires M12 snap connector	N = magneto-resostivePNP (Hall)	<u>Standard cable length</u>
	6 = 3 wires M12 snap connector	P = NC magneto-resostivePNP (Hall)	00 = 0 meter
	7 = 2 wires cable for IP68	L = NC magneto-resostiveNPN (Hall)	0,3 = 0,3 m
	8 = 3 wires AU M8 snap connector	S = exchange REED N.O. + N.C.	25 = 2,5 m
	9 = 3 wires AU M12 snap connector		50 = 5 m

EXAMPLES>>> code DSL1C225



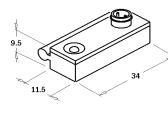
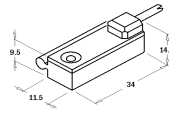
Series: DSL
Connection: 2 wires cable
Circuit type: 2 wires REED
Power supply: 24 V ac/cc
Cable length: 2,5 m

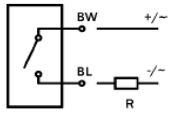
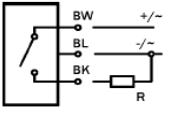
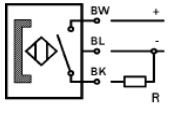
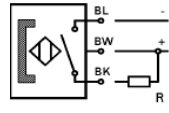
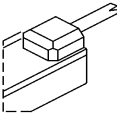
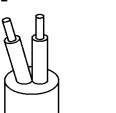
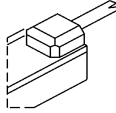
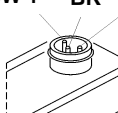
code DSM2C500



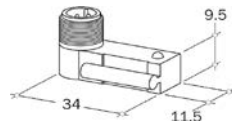
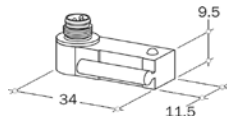
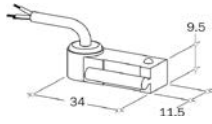
Series: DSM
Connection: M8 connector 2 wires
Circuit type: 2 wires REED
Power supply: 250 V ac/cc
Without cable

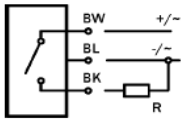
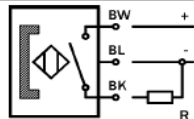
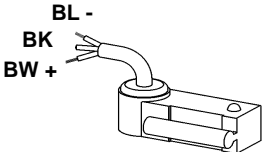
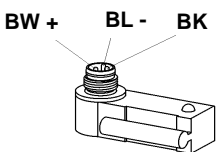
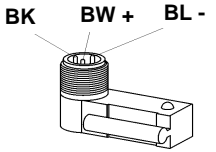
MAGNETIC SENSOR Series DSM



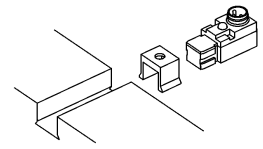
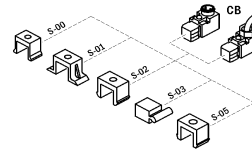
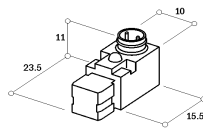
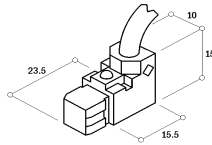
SENSOR WITH CABLE	DSM1C525	DSM4D225	DSM4N225	DSM4M225
SENSOR WITH M8 CONNECTOR SNAP IN	DSM2C500	DSM3D200	DSM3N200	DSM3M200
Sensor type	2 wires REED N.O.	3 wires REED PNP N.O.	Magneto-resistive PNP N.O.	Magneto-resistive NPN N.O.
Wiring schematics				
Power supply	3 ÷ 250 Vac / cc	3 ÷ 24 Vac / cc	6 ÷ 30 Vdc	
Switching current	0,5 A	1 A	0,25 A	
Power rating (ohmic load)	10 W		6 W	
ON voltage drop	< 3 V	//	< 1 V	
Nominal operate point	20 ÷ 25 AT		15 Gauss (11 ÷ 22 Gauss)	
On-OFF differential	5 ÷ 10 AT		4 ÷ 7 Gauss	
ON response time (EXCITEMENT)	0,5 ms		0,8 µs	
OFF response time (DISEXCITEMENT)	0,1 ms		0,3 µs	
Working temperature	- 10° ÷ 70° C			
Working frequency	500 Hz		200 KHz	
Life time	10 ⁷ imp.		10 ⁹ imp.	
Speed piston	10 m/s			
Polarity-reversal protection	yes			
Environmental protection degree	IP 67			
Body materials	PA; AISI 303; OT63			
Cable standard lenght	2,5 m for flying cable	2,5 m. with SNAP-IN for M8 / 5 M. with SNAP IN for M8		
Brown BW (+) Blue BL (-) Black BK (OUT)				
Sheath-isolation	PVC CEI 20-22II O.R.			
Conductors	0,25 mm ² / AWG 26 / 32 x 0,10 mm ²			
M8 conn. Material	PUR / gold plated brass			
CE reference norms	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11			

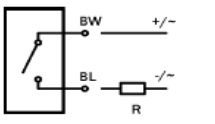
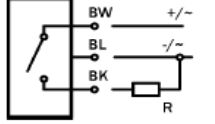
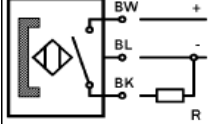
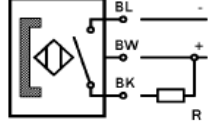
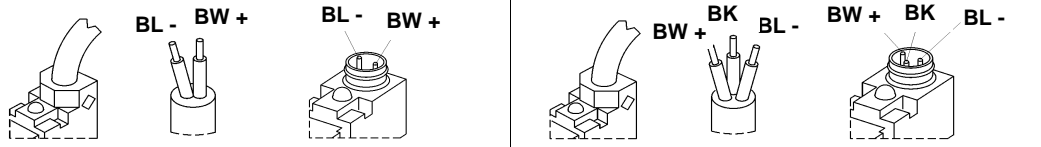
MAGNETIC SENSOR Series DSM IP68



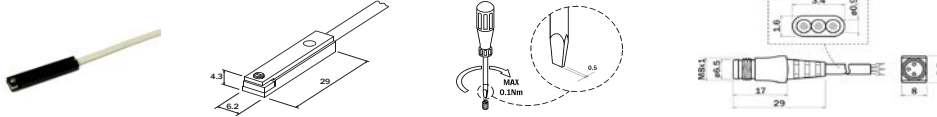
SENSOR WITH CABLE	DSM7D225	SM7N225
SENSOR WITH M8 CONNECTOR	DSM8D200	SM8N200
SENSOR WITH M12 CONNECTOR	DSM9D200	SM9N200
Sensor type	3 wires PNP REED N.O.	Magneto-resistive PNP Magneto-resistivo N.O.
Wiring schematics		
Power supply	3 ÷ 30 Vac / dc	6 ÷ 30 Vdc
Switching current	0,2 A	
Power rating (ohmic load)	6 W	
ON voltage drop	//	< 1 V
Nominal operate point	20 ÷ 25 AT	40 Gauss (34 ÷ 46 Gauss)
On-OFF differential	5 ÷ 10 AT	5 ÷ 15 Gauss
ON response time (EXCITEMENT)	0,5 ms	0,8 µs
OFF response time (DISEXCITEMENT)	0,1 ms	0,3 µs
Working temperature	- 10° ÷ 70° C	
Working frequency	500 Hz	200 KHz
Life time	10 ⁷ imp.	10 ⁹ imp.
Speed piston	10 m/s	
Polarity-reversal protection	yes	
Environmental protection degree	IP 68 (If IP68 connector matched)	
Body materials	PA	
Cable standard lenght	2,5 m for flying cable; please order separately for connector M8 ed M12	
		
		
Sheath-isolation	PVC CEI 20-22II O.R.	
Conductors	0,14 mm ² / AWG 26 / 36 x 0,07 mm ²	
M8 conn. Material	gold plated brass + AU	
CE reference norms	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11	

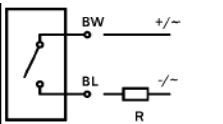
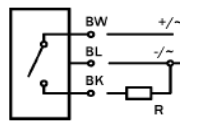
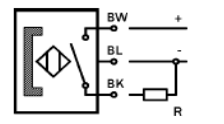
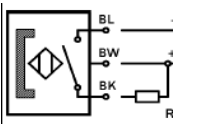
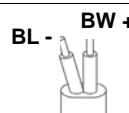
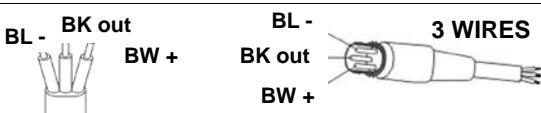
MAGNETIC SENSOR Series DCB



SENSOR WITH CABLE	DCB1C425	DCB4D225	DCB4N225	DCB4M225
SENSOR WITH M8 CONNECTOR SNAP IN	DCB2C400	DCB3D200	DCB3N200	DCB3M200
Sensor type	2 wires REED N.O.	3 wires PNP REED N.O.	Magneto-resistive PNP N.O.	Magneto-resistive NPN N.O.
Wiring schematics				
Power supply	3 ÷ 110 Vac / dc	3 ÷ 24 Vac / dc	6 ÷ 30 Vdc	
Switching current	0,3 A	1 A	0,25 A	
Power rating (ohmic load)	10 W		6 W	
ON voltage drop	< 3 V	//	< 1 V	
Nominal operate point	20 ÷ 25 AT		20 Gauss (11 ÷ 22 Gauss)	
On-OFF differential	5 ÷ 10 AT		4 ÷ 7 Gauss	
ON response time (EXCITEMENT)	0,5 ms		0,8 µs	
OFF response time (DISEXCITEMENT)	0,1 ms		0,3 µs	
Working temperature	- 10° ÷ 70° C			
Working frequency	500 Hz		200 KHz	
Life time	10 ⁷ imp.		10 ⁹ imp.	
Speed piston	10 m/s			
Polarity-reversal protection	yes			
Environmental protection degree	IP 67			
Body materials	PA; AISI 303; OT63			
Cable standard lenght	2,5 m for flying cable; 2,5 m. with SNAP-IN for M8 / 5 m with SNAP IN for M8			
Brawn BW (+) Blue BL (-) Black BK (OUT)				
Sheath-isolation	PVC CEI 20-22II O.R.			
Conductors	0,25 mm ² / AWG 26 / 32 x 0,10 mm ²			
M8 conn. Material	PUR / gold plated brass			
CE reference norms	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11			

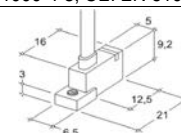
MAGNETIC SENSOR Series DSL



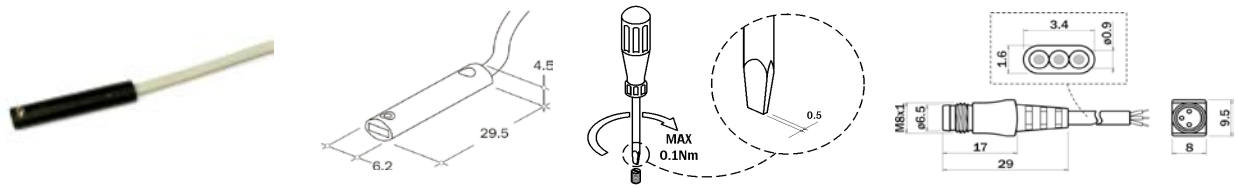
SENSOR WITH CABLE	DSL1C225	DSL4D225	DSL4N225	DSL4M225
SENSOR WITH CABLE AND M8 CONNECTOR	DSL2C203	DSL3D203	DSL3N203	DSL3M203
Sensor type	2 wires REED N.O.	3 wires PNP REED N.O.	PNP Magneto-resistive N.O.	NPN Magneto-resistive N.O.
Wiring schematics				
Power supply	3 ÷ 30 Vac / dc		6 ÷ 30 Vdc	
Switching current	0,2 A			
Power rating (ohmic load)	6 W			
ON voltage drop	< 3 V	//	< 1 V	
Nominal operate point	20 ÷ 25 AT		40 Gauss (34 ÷ 46 Gauss)	
On-OFF differential	5 ÷ 10 AT		5 ÷ 15 Gauss	
ON response time (EXCITEMENT)	0,5 ms		0,8 µs	
OFF response time (DISEXCITEMENT)	0,1 ms		0,3 µs	
Working temperature	- 10° ÷ 70° C			
Working frequency	500 Hz		200 KHz	
Life time	10 ⁷ imp.		10 ⁹ imp.	
Speed piston	10 m/s			
Polarity-reversal protection	YES			
Environmental protection degree	IP 67			
Body materials	PA; AISI 303; OT63			
Cable standard length	2,5 m for flying cable;		0,3 m for cable with M8 connector	
Brown BW (+) Blue BL (-) Black BK (OUT)				
Sheath-isolation	PVC CEI 20-22II O.R.			
Conductors	0,14 mm ² / AWG 26/ 36 x 0,07 mm ²			
M8 conn. Material	PUR / gold plated brass			
CE reference norms	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11			

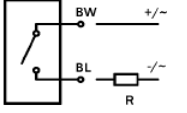
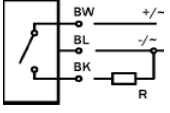
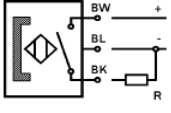
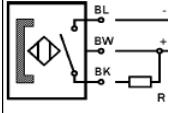
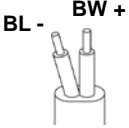



ON REQUEST: MODEL WITH VERTICAL CABLE AVAILABLE
Series DSC

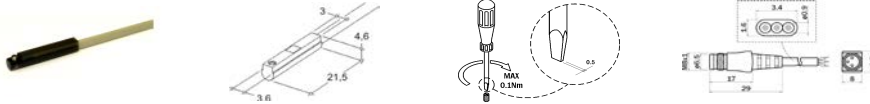


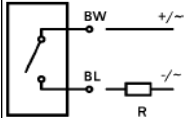
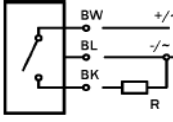
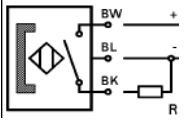
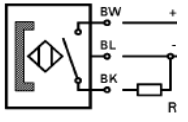
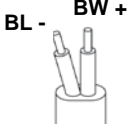

MAGNETIC SENSOR Series DSA



SENSOR WITH CABLE	DSA1C225	DSA4D225	DSA4N225	DSA4M225
SENSOR WITH CABLE AND M8 CONNECTOR	DSA2C203	DSA3D203	DSA3N203	DSA3M203
Sensor type	2 wires REED N.O.	3 wires PNP REED N.O.	PNP Magneto-resistive N.O.	NPN Magneto-resistive N.O.
Wiring schematics				
Power supply	3 ÷ 30 Vac / cc		6 ÷ 30 Vcc	
Switching current	0,2 A			
Power rating (ohmic load)	6 W			
ON voltage drop	< 3 V	//	< 1 V	
Nominal operate point	20 ÷ 25 AT		40 Gauss (34 ÷ 46 Gauss)	
On-OFF differential	5 ÷ 10 AT		5 ÷ 15 Gauss	
ON response time (EXCITEMENT)	0,5 ms		0,8 µs	
OFF response time (DISEXCITEMENT)	0,1 ms		0,3 µs	
Working temperature	- 10° ÷ 70° C			
Working frequency	500 Hz		200 KHz	
Life time	10 ⁷ imp.		10 ⁹ imp.	
Speed piston	10 m/s			
Polarity-reversal protection	yes			
Environmental protection degree	IP 67			
Body materials	PA; AISI 303; OT63			
Cable standard lenght	2,5 m for flying ; 0,3 m for cable with M8 connector			
Brawn BW (+) Blue BL (-) Black BK (OUT)	 <p>2 WIRES</p>		 <p>3 WIRES</p>	
Sheath-isolation	PVC CEI 20-22II O.R.			
Conductors	0,14 mm ² / AWG 26 / 36 x 0,07 mm ²			
M8 conn. Material	PUR / gold plated brass			
CE reference norms	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11			

MAGNETIC SENSOR Series DSS

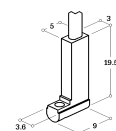


SENSOR WITH CABLE	DSS1C225	DSS4D225	DSS4N225	DSS4M225
SENSOR WITH CABLE AND M8 CONNECTOR	DSS2C203	DSS3D203	DSS3N203	DSS3M203
Sensor type	2 wires REED N.O.	3 wires REED PNP N.O.	Magneto-resistive PNP N.O.	Magneto-resistive NPN N.O.
Wiring schematics				
Power supply	3 ÷ 30 Vac / dc		6 ÷ 30 Vdc	
Switching current	0,2 A			
Power rating (ohmic load)	6 W			
ON voltage drop	< 3 V	//	< 1 V	
Nominal operate point	20 ÷ 25 AT		28 Gauss (21 ÷ 35 Gauss)	
On-OFF differential	5 ÷ 10 AT		5 ÷ 15 Gauss	
ON response time (EXCITEMENT)	0,5 ms		0,8 µs	
OFF response time (DISEXCITEMENT)	0,1 ms		0,3 µs	
Working temperature	- 10° ÷ 70° C			
Working frequency	500 Hz		200 KHz	
Life time	10 ⁷ imp.		10 ⁹ imp.	
Speed piston	10 m/s			
Polarity-reversal protection	yes			
Environmental protection degree	IP 67			
Body materials	PA; AISI 303; OT63			
Cable standard lenght	2,5 m for flying cable ; 0,3 m for cable with M8 connector			
Brawn BW (+) Blue BL (-) Black BK (OUT)	 2 WIRES		 3	
Sheath-isolation	PVC CEI 20-22II O.R.			
Conductors	0,14 mm ² / AWG 26 / 36 x 0,07 mm ²			
M8 conn. Material	PUR / gold plated brass			
CE reference norms	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11			



ON REQUEST: MODEL WITH VERTICAL CABLE AVAILABLE

Series DSN only PNP and NPN electronic versions.

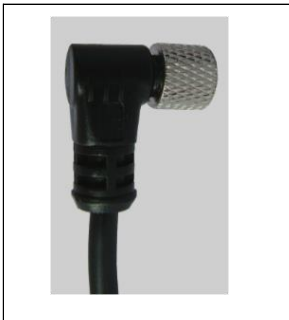


MAGNETIC SENSOR - cables -



CABLE WITH CONNECTOR M8 SNAP IN for sensor series DSM-DCB

DESCR.	CONNECT.	MODEL	POLES	CONDUCTORS	CABLE LENGHT	CODE
M8	F	90°	2	2x 0,25 mm	2,5 m.	08FY2N2E
M8	F	90°	2	2x 0,25 mm	5 m.	08FY2N5Z
M8	F	90°	2	2x 0,25 mm	10 m.	08FY2N10Z
M8	F	90°	3	3x 0,25 mm	2,5 m.	08FY3N2E
M8	F	90°	3	3x 0,25 mm	5 m.	08FY3N5Z
M8	F	90°	3	3x 0,25 mm	10 m.	08FY3N10Z



CABLE WITH CONNECTOR M8 LOCKRING for sensor series DSM IP68

DESCR.	CONNECT.	MODEL	POLES	CONDUCTORS	CABLE LENGHT	CODE
M8	F	90°	3	3x 0,25 mm	2,5 m.	08FA3N2E
M8	F	90°	3	3x 0,25 mm	5 m.	08FA3N5Z



CABLE WITH CONNECTOR M12 LOCKRING for sensor series DSM IP68

DESCR.	CONNECT.	MODEL	POLES	CONDUCTORS	CABLE LENGHT	CODE
M12	F	90°	3	3x 0,34 mm	2,5 m.	12FA3N2E
M12	F	90°	3	3x 0,34 mm	5 m.	12FA3N5Z



CABLE WITH CONNECTOR M8 for sensor series DSA-DSS (type DSA-DSS....203)

DESCR.	CONNECT.	MODEL	POLES	CONDUCTORS	CABLE LENGHT	CODE
M8	F	STRAIGHT	3	3x 0,25 mm	2 m.	08FD3A2Z
M8	F	STRAIGHT	3	3x 0,25 mm	5 m.	08FD3A5Z
M8	F	STRAIGHT	3	3x 0,25 mm	10 m.	08FD3A10Z

new **MAGNETIC SENSOR - ATEX CATEGORY 3GD** **new**

Magnetic sensors series **MZT8 ATEX** from SICK, suitable for mounting on pneumatic actuators with " T " slots , are the best and flexible solution for magnetic position detection , in ATEX zone, inside cylinders, grippers and pneumatic actuators in general.

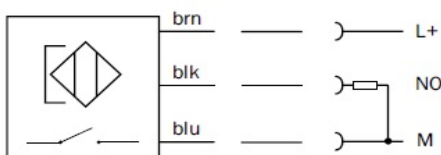
MAIN FEATURES:

- magnetic sensors suitable for all cylinders and actuators " T "slots
- magneic sensors can be used in **ATEX** zone **category 3G** and **3D**
- magnetic sensors with quick and easy mounting using Allen wrench or flat head screwdriver
- magnetic sensors with enclosure rating **IP67**

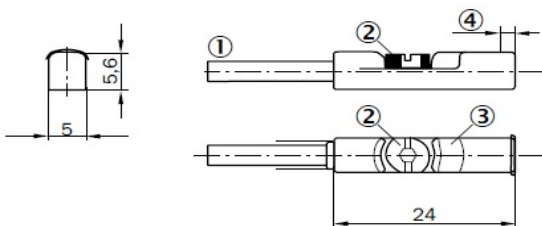


MAGNETIC SENSOR ATEX ZONE 3G e 3D PNP 3 WIRES N.O. - CABLE 2m - AXIAL CABLE	
CODE	MZT8-03VPS-KWX (standard on stock)
SENSOR TYPE	PNP 3 wires N.O.
SLOT'S TYPE OF CYLINDER	" T " slot
ATEX CATEGORY	category 3G ÷ 3D
ATEX CERTIFICATION	II 3G Ex nA op is IIC T4 Gc X II 3D Ex tc IIIC T135°C Dc X
SUPPLY VOLTAGE	10V DC ÷ 26V DC
VOLTAGE DROP	≤ 2,2V
SWITCHING FREQUENCY	1000 Hz
WORKING TEMPERATURE	- 20°C ÷ + 50°C
REVERSE POLARITY PROTECTION	YES
SHORT-CIRCUIT PROTECTION	YES
POWER-UP PULSE PROTECTION	YES
ENCLOSURE RATING	IP 67
HOUSING CAP MATERIAL	Poliammide PA12
CABLE MATERIAL	PVC
CONDUCTOR CROSS-SECTION	0,14 mm ²
ELECTROMAGNETIC COMPATIBILITY	according to EN 60947-5-2

ELECTRIC CIRCUIT:



DIMENSIONS:



- ① Connection
- ② Fixing screw
- ③ LED indicator
- ④ Position sensor element : overrun distance
 - short : 2 mm
 - long : 1,7 mm

REMARK:

On demand - for particular quantity - it's possible to supply also magnetic sensor **MZT8-03VPS-KRX** from SICK, with same electric features and certification as above mentioned, but with 0,3 mt cable with male connctor M8 with 3 poles with knurled nuts

MAGNETIC SENSOR - fixing brackets -

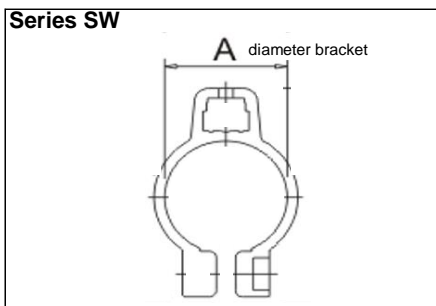
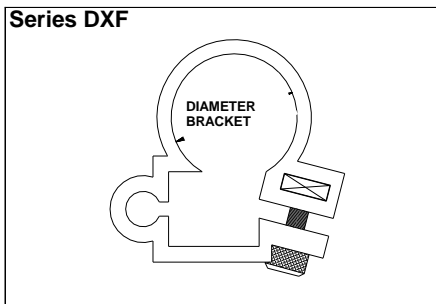
Magnetic sensors (supplied with their specific adapter contained in the package) need adequate brackets to be permanently and securely fixed to the pneumatic cylinders. Brackets have been projected for the different kinds of pneumatic cylinders and for the various types of available extruded profiles.

Mounting brackets are planned in order to mount all series of magnetic sensors both of directly and with fixing adapters as we show in the following pages.

There are three types of brackets.

- **SERIES DXF** to externally lock a round and without tie rods cylinder barrel
- **SERIES SW** (es. MICROCYLINDER SO 6432)

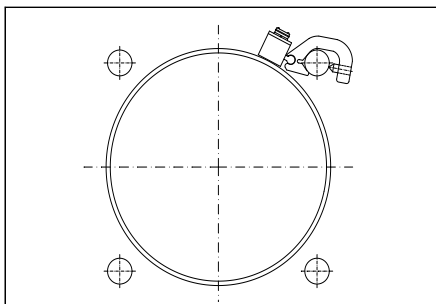
(made of polyamide)



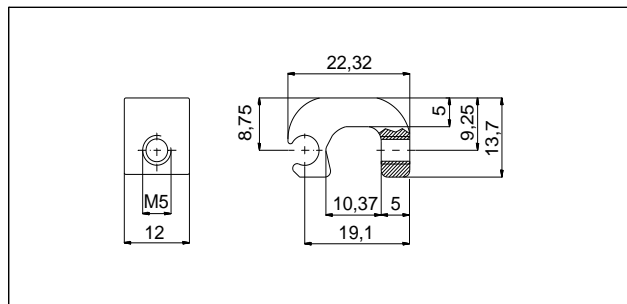
BRACKET CODE Series SW	BRACKET CODE Series DXF	DIAMETER BRACKET	CYLINDER BORE	
SW08	DXF09	9,3 mm.	8 mm.	FOR MICRO-CYLINDERS ISO 6432
SW10	DXF11	11,3 mm.	10 mm.	
SW12	DXF13	13,3 mm.	12 mm.	
SW16	DXF17	17,3 mm.	16 mm.	
SW20	DXF21	21,3 mm.	20 mm.	
SW25	DXF26	26,3 mm.	25 mm.	FOR CYLINDERS SERIES EUROPA
	DXF33	33,6 mm.	32 mm.	
	DXF41	41,6 mm.	40 mm.	
	DXF52	52,4 mm.	50 mm.	
	DXF65	65,4 mm.	63 mm.	

REMARK: the package included serretion screw of bracket

- **SERIE S :** to be fixed to an external tie rod of the cylinders (for ISO 15552 - CNOMO - CETOP)
- (made of aluminium)



with external tie rod



S10

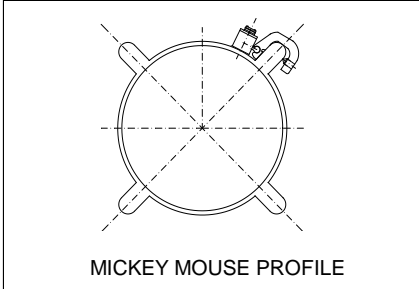
CODE BRACKET	DIAMETER TIE ROD	BORE CYLINDER
S10	5 ÷ 10 mm.	32 - 63 mm.

REMARK The kit includes the bracket installation screw.

MAGNETIC SENSOR - brackets -

- **SERIE DST** to be fixed to cylinders with extruded aluminium barrel with MICKEY MOUSE.
- **SERIE ST** (for cylinders ISO 15552- CNOMO - CETOP)

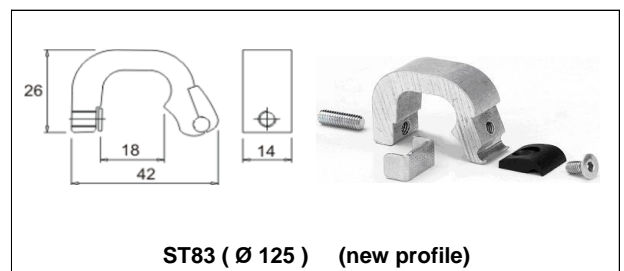
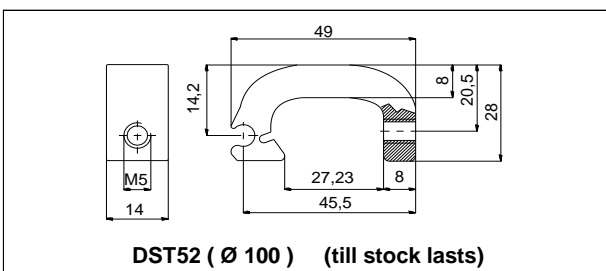
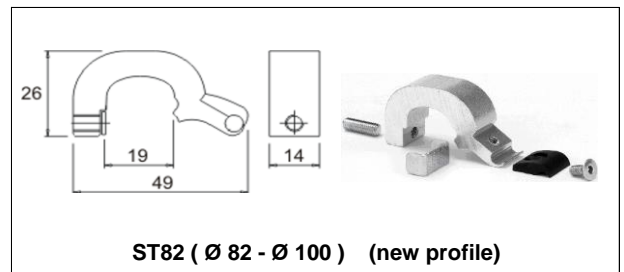
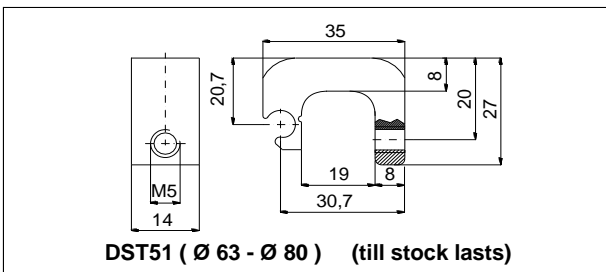
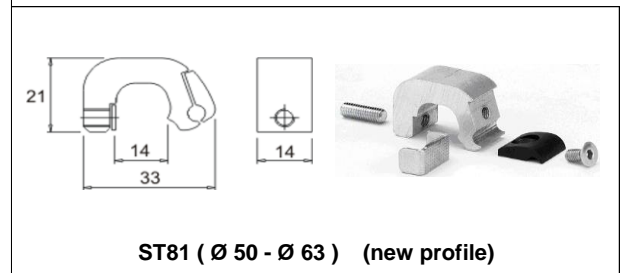
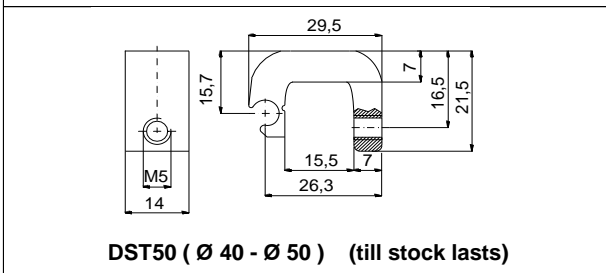
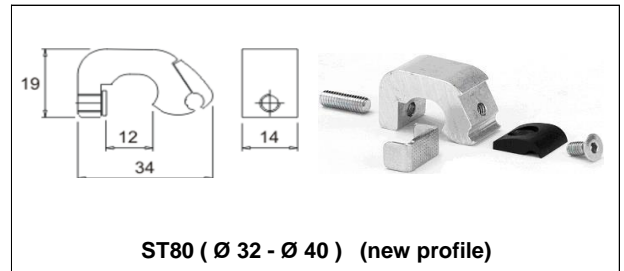
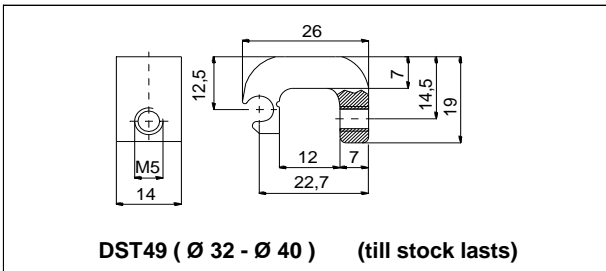
(made of aluminium)



BRACKET CODE	CYLINDER BORE
DST49	32 - 40 mm.
DST50	40 - 50 mm.
DST51	63 - 80 mm.
DST52	100 mm.
TILL STOCK LASTS	

BRACKET CODE	CYLINDER BORE
ST80	32 - 40 mm.
ST81	50 - 63 mm.
ST82	82 - 100 mm.
ST83	125 mm.
NEW PROFILE	

REMARK: The kit includes the dowel an the protection for the aluminium barrel



MAGNETIC SENSOR - slot adapters -

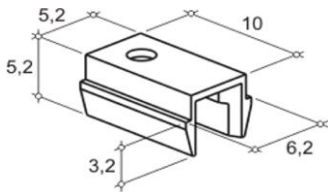
The adaptors for magnetic sensor have the purpose of to allow you to use a series of switches using fixing brackets standard if necessary.
 All this in order to reduce cost about stock and to improve the manage of the stock.
 Adaptors are normally supplied with kit : this kit contains different type of adaptors that are multifunctional.

Standard kits are the following:

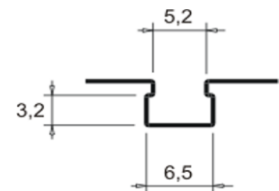
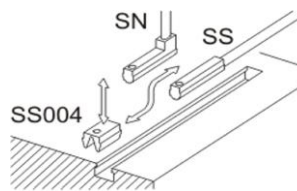
- **K-SENS** with this kit you can use series DSS for all slot brackets and profiles
- **K-SL** with this kit you can use series DSL for all slot brackets and profiles.
- **K-CB** with this kit you can use series DCB in the swallow tail slot with aluminium bracket.

Code **K-SENS** consists of following adaptors:

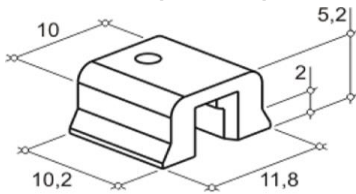
K-SENS (SS-004)



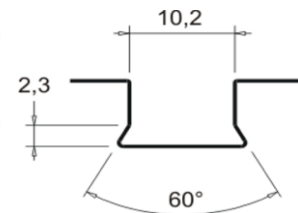
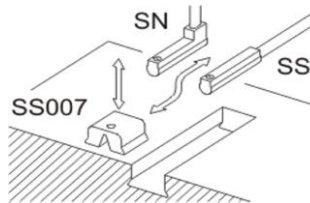
Body material: PA



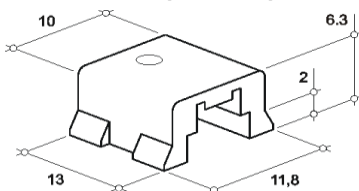
K-SENS (SS-007)



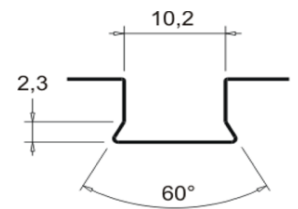
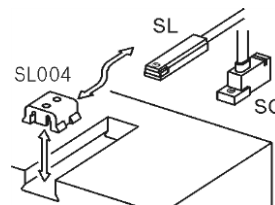
Body material: PA



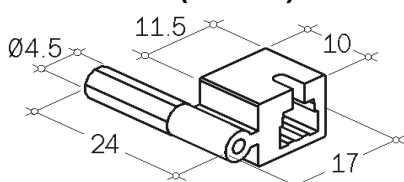
K-SENS (SL-004)



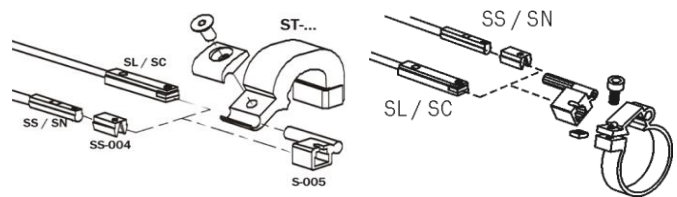
Body material: PA



K-SENS (SS-005)



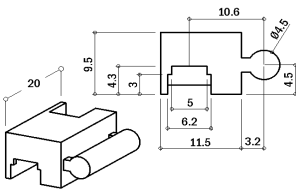
Body material: PA



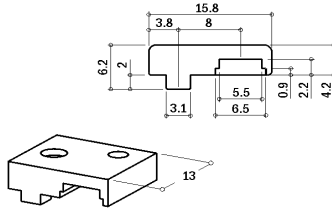
MAGNETIC SENSOR - slot adapters -

Codes **K-SL** consists of following adapters:

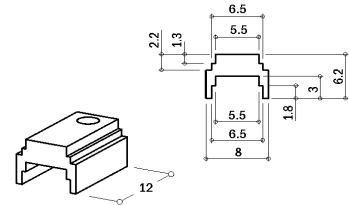
K-SL (SL-005)



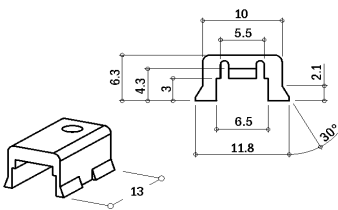
K-SL (SL2)



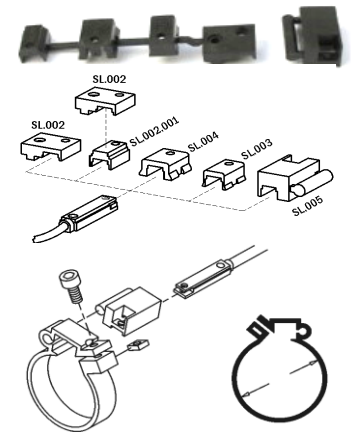
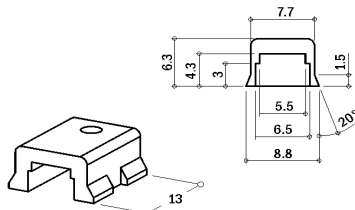
K-SL (SL21)



K-SL (SL4)



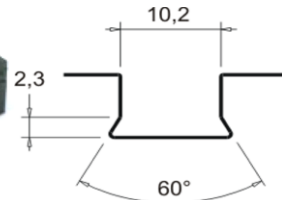
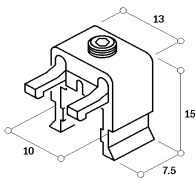
K-SL (SL3)



Body material: PA

Codes **K-CB** consists of following adapters:

K-CB (S06)



Body materials: PA / 60005 A / AISI 303