

TYPE CODE INDUCTIVE SENSORS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	+
K	I	N	-	T	1	2	N	S	/	0	0	4	-	K	L	2			
Product group			Type of enclosure			Output		Sensing distance			Options								

Product group		
1	K	Non-contact proximity switch
2	I	Inductive
3	B	Flush mount
	N	Non-flush mount
	R	Ring sensor
4	-	Dash (fixed)

Type of enclosure		
5	M	Metric thread (metal enclosure)
	T	Metric thread (plastic enclosure)
	D	Round enclosure (metal)
	R	Round enclosure (plastic)
	Q	Cuboid enclosure (metal)
	P	PG thread (metal)
	E	Rectangular enclosure (plastic)
	S	Slot proximity switch (plastic)
	N	Standard mounting (to DIN 50025/50037)
	C	Compact enclosure
6 - 7		Two-digit number for:
		Round types = Ø as specified
		Threaded types = standard designation
		Rectangular types = consecutive type numbers

Design examples		
	D08	Ø 8 mm (metal)
	R22	Ø 22 mm (plastic)
	M12	Threaded barrel M12 x 1
Rectangular and other types		
	E16	16 x 5 x 5 mm
	E27	27 x 10 x 5,5 mm
	E28	28 x 16 x 11 mm
	E40	40 x 26 x 12 mm
	E50	50 x 25 x 10 mm
	E68	68 x 30 x 15 mm
	G00	Tube thread, general
	N44	41,5 x 41,5 x 120 mm
	Q05	5 x 5 x 25 mm
	Q08	8 x 8 x 40 mm, Side active
	Q12	12 x 12 x 55 mm

Output		
8	P	PNP
	N	NPN
	A	AC 2-wire
	E	NAMUR
	Z	DC 2-wire
	R	Relay
	G	Push-pull
	D	Dual output stage (NPN/PNP selectable)
9	S	NO contact
	Ö	NC contact
	P	Programmable
	A	Analogue
	U	Antivalent (selectable)
10	/	Slash (fixed)

Sensing distance		
11 - 13	e.g. 1,5	1,5 mm
	e.g.002	2,0 mm
	e.g. 040	40 mm
14	-	Dash (fixed)
Options		
15 - 17		See type code "OPTIONS", p. 245

TYPE CODE CAPACITIVE SENSORS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	+
K	C	N	-	T	1	2	N	S	/	0	0	4	-	K	L	P	2		
Product group			Type of enclosure			Output		Sensing distance			Options								

Product group		
1	K	Non-contact proximity switch
2	C	Capacitive
3	B	Flush mount
	N	Non-flush mount
4	-	Dash (fixed)

Type of enclosure		
5	M	Metric thread (metal enclosure)
	T	Metric thread (plastic enclosure)
	D	Round enclosure (metal)
	R	Round enclosure (plastic)
	Q	Cuboid enclosure (metal)
	P	PG thread (metal)
	E	Rectangular enclosure (plastic)
	N	Standard mounting (to DIN 50025/50037)
6 - 7		Two-digit number for:
		Round types = Ø as specified
		Threaded types = standard designation
		Rectangular types = consecutive type numbers

Design examples		
	12	Thread M12 x 1
	18	Thread M18 x 1
	30	Thread M30 x 1,5
	32	Thread M32 x 1,5
	34	Ø 34 mm (metal/plastic)
	20	Ø 20 mm (plastic)
	22	Ø 22 mm (plastic)
	50	50 x 25 x 10 mm
	68	68 x 30 x 15 mm
	44	41.5 x 41.5 x 120 mm (Euro standard enclosure)

Output		
8	p	PNP
	N	NPN
	A	AC 2-wire
	E	NAMUR
	Z	DC 2-wire
	R	Relay
	G	Push-pull
	D	Dual output stage (NPN/PNP selectable)

Output		
9	S	NO contact
	Ö	NC contact
	P	Programmable
	A	Analogue
	U	Antivalent (selectable)
10	/	Slash (fixed)
Sensing distance		
11 - 13	e.g. 1,5	1,5 mm
	e.g. 002	2,0 mm
	e.g. 040	40 mm
14	-	Dash (fixed)
Options		
15 - 19		See type code "OPTIONS", p. 245

TYPE CODE MAGNETIC SWITCHES

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
M	A	K	-	0	1	1	2	-	D	-	1	-	S	O	K			
Product group			Type			Contact specifications			Cable length			Special features						

Product group		
1	M	Magnetic switch
2	Type of output	
	A	Reed contact
	R	Relay
3	Enclosure material	
	A	Aluminium
	N	Stainless steel
	M	Brass, nickel-plated
	K	Plastic, general
	O	Other materials
4	-	Dash (fixed)
Type		
5 – 6	01 – 99	Cylindrical and rectangular types (see next page for details)
Contact specifications		
7	Number of contacts	
	e.g. 1	1 Reed contact
	e.g. 2	2 Reed contacts
	...	etc.

8	Contact function	
	1	NC contact
	2	NO contact
	3	Changeover contact
	4	Bistable (ON/OFF)
	5	Bistable (changeover contact)
	6	NC, NO contact; separate contacts
	7	Coded, BG
	8	Currently not used
	9	Currently not used
	0	Other outputs
9	-	Dash (fixed)
10	Contact type/power of reed contacts	
	A	250 VDC ; 0,5 A; 20 VA
	B	250 VDC ; 0,5 A; 10 VA
	C	250 VDC ; 0,5 A; 30 VA
	D	250 VDC ; 0,5 A; 30 VA
	E	250 VDC ; 1,5 A; 30 VA
	F	250 VDC ; 3,0 A; 100 VA
	G	250 VDC ; 5,0 A; 250 VA
	H	250 VDC ; 1,0 A; 60 VA

	K	250 VDC ; 0,5 A; 30 VA
	L	250 VDC ; 1,0 A; 60 VA
	M	250 VDC ; 1,0 A; 80 VA
	N	250 VDC ; 1,0 A; 60 VA
	O	120 VDC ; 0,5 A; 10 VA
	P	250 VDC ; 5,0 A; 250 VA
	R	28 VDC ; 0,25 A; 3 VA
	W	250 VDC ; 1,0 A; 60 VA
	X	100 VDC ; 0,25 A; 5 VA
	Y	100 VDC ; 0,5 A; 10 VA
	TRIAC	
	K	24 – 250 VDC ; 1,5 A a. 300 VA b. 330 VA
	Hall	
11	-	Dash (fixed)

Cable length in metres		
12	e.g. 1	1 m cable
	e.g. 2	2 m cable
	...	etc.
13	-	Dash (fixed)
Special features		
14 – 17	T	Temperature resistant from –40 °C to +150 °C
	SI	With miniature fuse
	VDR	With VDR
	WID	With resistor
	LED	With LED
	SPK	Spiral cable
	SK	Special cable
	SOK	Connector type without head (without device socket)
	SMK	Connector type with head (with device socket)
	PG11	Type of thread
	RZ	Time delay with relay
	220 V	220 Volt version
	24 V	24 Volt version
	STK	Connector

TYPE CODE MAGNETIC SWITCHES

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
M	A	K	-	0	1	1	2	-	D	-	1	-	S	O	K			
Product group				Type		Contact specifications					Cable length			Special features				

Type		
5-6	01-99	Cylindrical and rectangular types
	01	45 x 13 x 9 mm [MA-01] PA
	02	80 x 20 x 15 mm [MA-02] PA/AL
	03	110 x 58 x 29 mm [MA-03] AL
	04	∅ 15.5 x 87 mm [MA-04] PC
	05	Currently not used
	06	∅ 12 x 81 mm [MA-06] AL
	07-10	Currently not used
	11	28.6 x 18 x 6.4 mm [MA-11] PA
	12	80 x 20 x 15 mm [MA-12] PA
	13	68 x 30 x 15 mm [MA-13] PC
	14	Currently not used
	15	∅ 12 x 81 mm [MA-15] PA
	16	∅ 12 x 81 mm [MA-13] VA
	17	PG9 x 60 mm [MA-17] PA
	18	M12 x 1 x 60 mm [MA-18] Ms
	19	M18 x 1 x 80 mm [MA-19] Ms
	20	Currently not used
	21	PG9 x 80 mm [MA-21] PA
	22	Currently not used

	23	M12 x 1 x 80 mm [MA-23] Ms
	24/25	Currently not used
	26	∅ 12 x 81 mm [MA-26] PA
	27	Currently not used
	28	M12 x 1 x 60 mm [MA-28] PA
	29	M18 x 1 x 80 mm [MA-29] PA
	30	∅ 6 x 30 mm [MA-30] PA
	31	Currently not used
	32	85 x 26 x 26 mm [MA-32] PBT
	33	M12 x 1 x 80 mm [MA-33] PA
	34/35	Currently not used
	36	∅ 13 x 96 mm [MA-36] PA
	37-39	Currently not used
	40	M10 x 1 x 40 mm [MA-40] PPE
	41	50 x 31 x 11 mm [MA-41] PA
	42	88 x 25 x 13 mm [MA-42] PA
	43	PG9 x 80 mm [MA-43] Ms
	44	80 x 30 x 15 mm [MA-44] PA
	45	45 x 25.5 x 9 mm [MA-45] PA
	46	∅ 6.5 x 39.34 mm [MA-46] PA
	47	Currently not used
	48	80 x 30 x 15 mm [MA-48] PA

	49-51	Currently not used
	52	43 x 26 x 13 mm [MA-52] PBT
	53	M30 x 1.5 mm [MA-53] PA
	54	Currently not used
	55	12 x 12 x 55 mm [MA-55] S
	56-59	Currently not used
	60	M8 x 1 mm [MA-60] S
	61	M10 x 1 mm [MA-61] S
	62	M12 x 1 mm [MA-62] S
	63	M18 x 1 mm [MA-63] S
	64	M30 x 1.5 mm [MA-64] S
	65-69	Currently not used
	70	∅ 6.5 mm [MA-70] S
	71/72	Currently not used
	73	68 x 30 x 15 mm [MA-73] S
	74-79	Currently not used
	80	8 x 8 x 40 mm [MA-80] S
	81-98	Currently not used
	99	other [MA-99] S

TYPE CODE MAGNETIC SENSORS / CYLINDER SENSORS ELEKTRONIC / TEACHABLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15					
M	E	K	-	M	1	2	P	S	/	H	1	0	-	K	L	2			
Product group			Type of enclosure			Output		Sensitivity			Options								

Product group		
1	M	Magnetic sensor
2	E	Electronic
3	K	Plastic
	M	Brass
	N	Stainless steel
4	-	Dash (fixed)
Type of enclosure		
5	M	Metric thread
	D	Round enclosure
	E	Rectangular enclosure
	Q	Cuboid enclosure
6-7		Two-digit number for:
		Metric enclosure = standard designation
		Round enclosure = Ø as specified
		Rectangular enclosure = enclosure width
		Cuboid enclosure = edge length

Output		
8	P	PNP
	N	NPN
9	S	NO contact
	Ö	NC contact
	B	Bistable
	A	Analogue
	D	Speed
10	/	Slash (fixed)
Sensitivity		
11	H	Hall
	M	Magneto-resistive
12-13		Sensitivity in mT
	z. B. 10	10 mT
	z. B. 01	1 mT
14	-	Dash (fixed)
Options		
15		See type code "OPTIONS", p. 245

TYPE CODE **OPTIONS**

1	2	3	4	5	6	7	8	9	10	11	12	13	14				
K	L	2	E	V	P	S	N	T	F	Z	I	D	G				

1	K	Short circuit-proof
2	L	LED
3	2	Cable length in m
4	E	Extended sensing distance (sn large)
5	V	Shortened type
6	P	Potentiometer
7	S	Device connector (terminals)
	PU	PUR cable
	SD	Connector to DIN 43650 (including socket)
	SM	Mini snap-in device connector
	S8	M8 device connector with union nut
	S12	M12 device connector with union nut
	SM8	Mini snap-in / M8 screw-on device connector
	S12A	M12 device connector with union nut, AC version

	S16S	M16 device connector with union nut and dust cap
	S12U	M12 Ultra-Lock device connector
	S5	M5 x 0,5 device connector Screw-connection with cable
8	N	Stainless steel enclosure
9	T	Extended temperature range
10	F	Extended switching frequency
11	Z	Time-delayed
12	I	Programmable (intelligent)
13	D	ATEX products, dust Ex
14	G	ATEX products, gas Ex

TYPE CODE **CABLE CONNECTORS**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			
W	D	K	-	M	1	2	P	S	/	L	L	2	-	2	P	U			
Device specifications				Type of connection			Classification				LEDs			Cable length	Options				

Device specifications		
1		Cable output
	W	Elbow
	G	Straight
2		Product group
	D	Socket
	S	Connector (the sensor connections should always be used as the basis for connecting lines with different outputs)
	A	Adapter (socket and connector)
3		Preassembly
	K	Fixed cable
	A	Connection space, self-configurable
	V	Connecting line (extension)
4	-	Dash (fixed)

Type of connection		
5 - 7		Always related to the socket / connector
	M12	Union nut M12 x 1
	M08	Union nut M8 x 1
	R06	Round snap-in connection Ø 6.5 mm
	R12	Round snap-in connection, Ultra-Lock M12
	M05	M5 x 0.5 screw-on connection

Classification		
8		Configuration for switch output
	P	PNP (LED to negative)
	N	N = NPN (LED to positive)
	U	Universal (no LED)
	A	AC (M12 special coding Pin 1 + 2)
9		Pin assignments of cable sockets for switch output
	S	NO contact 1 - 3 - 4 for M12 1 - 3 - 2 for Mini 1 - 2 for M12 AC
	Ö	NC contact 1 - 3 - 2 for M12
	A	Antivalent 1 - 3 - 4 - 2 for M12
	N	NAMUR 1 - 3 for M12
	U	More than 4 connections
	T	Teach-in function
10	/	Slash (fixed)
Manufacturer		
11		Internal information

LEDs		
12	L	Integrated LED
	O	Without LED
13		Number of LEDs
	0	No LED
	1	1 LED
	2	2 LEDs etc.
14	-	Dash (fixed)
Cable length		
15		In m (moulded cable)
Options		
16 - 17	PU	Polyurethane cable
	HF	Highly flexible cable
	SD	Connector/socket
	BD	Socket both ends
	R	Vibration safeguard
	Without	PVC cable

TYPE CODE MOUNTING MATERIAL

1	2	3	4	5	6	7	8	9												
B	K	S	-	D	2	0	P	A												
Product group				Type group			Material													

Product group		
1	B	Mounting material
2		Type of product
	K	Retaining bracket
	W	Mounting bracket
	H	Retaining plate
3		Specification
	S	Bracket, 2-piece
	B	Block, 1-piece
	R	Reducer
	N	90° elbow
4	-	Dash (fixed)

Type group		
5 - 7		For clips:
		Diameter in mm corresponding to matching sensor
		For elbows:
		Type group
	z. B. L05	Light barrier OR05
	z. B. M06	Magnetic switch M06
Material		
8 - 9		Material
	ST	Steel
	NI	Stainless steel
	AL	Aluminium
	PA	Polyamide
	PP	Polypropylene