



## TABLE OF CONTENT

<b>Designation code</b>	
How to read sensor designations	3
<b>Circuit diagrams</b>	
Connection according to EN 60947-5-2	4
<b>Functional description</b>	
Operating mode of capacitive sensors	5
<b>Applications</b>	
Application areas of capacitive sensors	6
<b>Sensors</b>	
Cylinder G6,5 DC	7
Cylinder M8 DC	8
Cylinder M12 DC	9
Cylinder M18 DC	11
Cylinder M18 AC/DC	13
Cylinder M30 DC	14
Cylinder M30 AC/DC	16
Cylinder G34 DC	17
Square Q40 DC	18
<b>Product overview</b>	
All sensors at a glance	20



## NOTES

---





# CAPACITIVE SENSORS

## DESIGNATION CODE

Example: **K C 10 - M 30 M B 45 - D P S - V1 - X0000**

┆
┆
┆
┆
┆
┆
┆
┆
┆
┆
┆
┆
┆
┆

1
2
3
4
5
6
7
8
9
10
11
12

### 1 = Working principle

<b>A</b>	Acoustic
<b>B</b>	Acceleration sensor
<b>C</b>	Capacitive
<b>D</b>	Strain gauge sensor
<b>H</b>	Hall-effect
<b>J</b>	Inductive
	<b>JR</b> Inductive ring
	<b>JF</b> Inductive surface
	<b>JG</b> Inductive slot
	<b>JD</b> Metalface
<b>M</b>	Magnetoresistive
<b>N</b>	Inclination sensor
<b>R</b>	Reed-contact
<b>W</b>	Angle sensor

### 2 = Switching distance / range

### 3 = Design

<b>D</b>	Ring housing
<b>G</b>	Cylindrical housing without thread
<b>M</b>	Cylindrical housing with metrical thread
<b>Q</b>	Square housing

### 4 = Housing diameter / edge length

### 5 = Housing material

<b>A</b>	Aluminium
<b>E</b>	Stainless steel
<b>K</b>	Plastic
<b>M</b>	Brass, nickel plated
<b>T</b>	PTFE

### 6 = Installation

<b>B</b>	Shielded
<b>N</b>	Non shielded

### 7 = Tube length

### 8 = Operating voltage

<b>AZ</b>	AC alternating current voltage
<b>D</b>	DC direct current voltage
<b>VZ</b>	AC/DC all voltages

### 9 = Type of output signal

<b>AN</b>	Analog	<b>ANI</b>	Current output
		<b>ANU</b>	Voltage output
<b>CAN</b>	CAN-bus interface		
<b>N</b>	NPN		
<b>NA</b>	Namur		
<b>P</b>	PNP		
<b>Z</b>	Two wire		

### 10 = Function

<b>A</b>	Changeover
<b>I</b>	Impulse output
<b>Ö</b>	N.C.
<b>S</b>	N.O.
<b>U</b>	Switchable

### 11 = Connection

<b>V1</b>	M8 screw-/snap-in
<b>V2</b>	M12 metal
<b>V2/1</b>	M12 plastic
<b>V3</b>	M5 metal
<b>V4</b>	Amphenol Tuchel
<b>V6</b>	Brad Harrison
<b>V7</b>	Valve connector type A
<b>V8</b>	M8 snap-in only
<b>V9</b>	Torson
<b>V10</b>	Valve connector type C
<b>V11</b>	AC connector 1/2" UNF
<b>V12</b>	M18 plastic
<b>VE</b>	Euchner connector
<b>RS232</b>	Data interface
<b>PG</b>	Thread joint PG
<b>Mxx</b>	Thread joint metrical

others as requested

### 12 = Additional marks

<b>AM</b>	Sensing face in centre
<b>FE</b>	Reduction 1 to steel / iron
<b>HT</b>	High temperature
<b>NF</b>	Reduction 1 to nonferrous metal
<b>SF</b>	Weld field immune
<b>T</b>	Enlarged temperature range
<b>W</b>	Angled sensing face / angled cable exit
<b>X</b>	Customized design with detailed description



# CAPACITIVE SENSORS

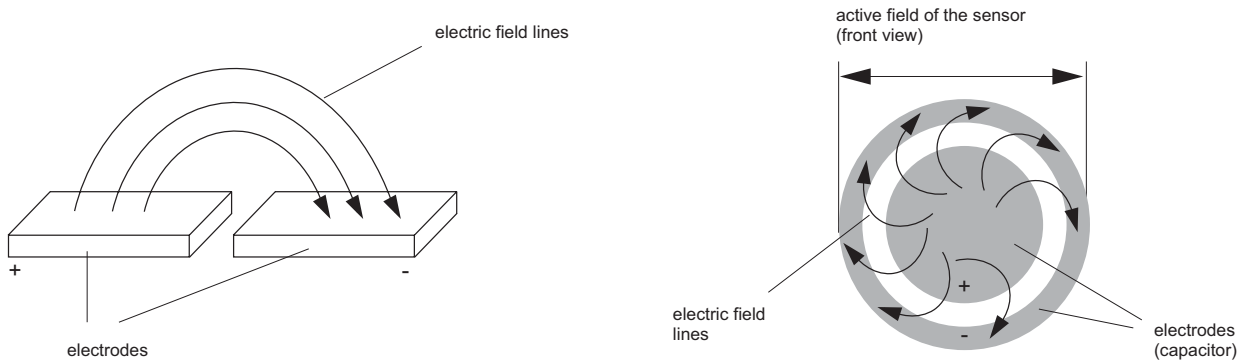
## CIRCUIT DIAGRAMS

Circuit diagram for	Cable / clamp connection	Connector V1 ... V9
DPS DC PNP N.O.		
DPÖ DC PNP N.C.		
DPA DC PNP changeover		
DPU DC NO/NC switchable		
DNS DC NPN N.O.		
DNÖ DC NPN N.C.		
DNA DC NPN changeover		
DNU DC NO/NC switchable		
NA Namur EN 60947-5-6		
DZS DC two-wire N.O.		
DZÖ DC two-wire N.C.		
AZS/VZS AC/DC two-wire N.O.		
AZÖ/VZÖ AC/DC two-wire N.C.		
Analog		



## FUNCTIONAL DESCRIPTION

Capacitive sensors detect metallic and non-metallic, solid and fluid materials. They are used for object counting tasks, fill level measurement or for the detection of positions and objects. The functional principle of capacitive sensors is based on the variation of capacitance in the active field of the sensor due to the approach of the target. This active field consists of two electrodes. The design of the electrodes can be adapted to the design of the sensor. Illustration 1 shows electrodes in concentric arrangement.



Functional principle opened capacitor plates

Application in capacitive sensors

*Illustration 1: Arrangement of electrodes in capacitive sensors*

The approach of a target on the active field of the sensor causes a variation of capacitance in the electric field of the sensor (illstr. 1). There are two different working principles for capacitive sensors

Principle 1 uses the damping of the electric field which is caused by the target. The target withdraws energy from the field. The degree of this loss of energy depends on the relative permittivity of the targets' material. The bigger this constant, the more energy is withdrawn from the field. The electronics in the sensor registers this variation and switches when a certain threshold is attained.

Principle 2 is based on the stimulation of vibrations in a RC-oscillator by the approach of the target. The oscillator excites a high-frequency oscillation. When an object enters in this electric field the relative permittivity and the vibration behaviour of the oscillator change. The electronics in the sensor evaluates the emerging vibration and switches the sensor on, when a certain threshold is exceeded.

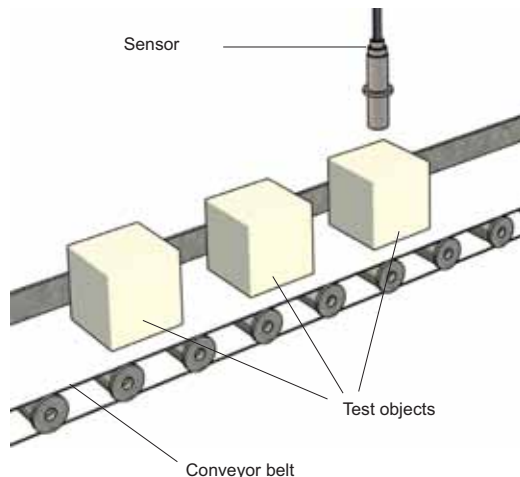
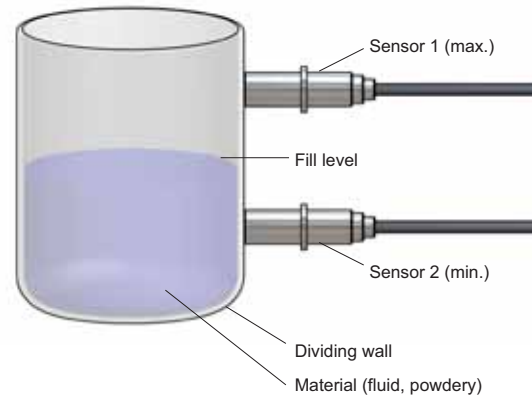
Capacitive sensors from Pulsotronic are available in N- and P-switching design and as normally closed or normally open contact. The sensitivity for different target materials and environmental conditions is adjusted via a potentiometer. The realisable switching distance depends on the target material.



## APPLICATIONS

### Fill level measurement

Measuring fill levels capacitive sensors provide a yes/no statement about the presence or absence of the test material. Targets can be fluid, powdery or granulated. Sensor 1 is situated outside of the filling zone and does not switch. Sensor 2 is situated below the fill level. The presence of material causes an activation of the oscillator. The sensor electronics evaluates that and switches. This arrangement allows a min-max-analysis. The interconnection of further sensors enables to user to achieve a finer grading of his measuring results. The sensors can be mounted shielded in non-metallic dividing walls. In metallic dividing walls non-shielded mounting is required.

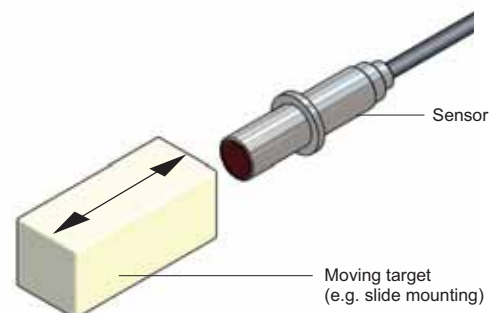


### Counting tasks

The target entering in the electric field of the sensor causes a variation of the capacitance. The oscillator is excited respectively energy is withdrawn from the field. The sensor switches. When the test object leaves the sensing range, the oscillator takes its' normal value. The bigger the relative permittivity of the target material, the bigger the realisable switching distance in the application. The capacitive sensor provides unspecific, not material-related information. A statement concerning material, dimension or surface characteristics of the target is not possible with capacitive sensors.

### Detection of positions

Objects moving in front of the sensor are detected when they reach a certain position. When the object enters in the electric field, the capacitance changes in dependence of the relative permittivity of the target material. The sensor switches.





## CAPACITIVE SENSORS

### CYLINDER G6,5 DC





#### General data

Operating voltage $U_b$	10 ... 30V DC
Ripple voltage $U_b$	$\leq 10\%$
Voltage drop $U_d$	$\leq 2V$
Max. load current $I_e$	200mA
Off-state current $I_o$	$\leq 10mA$
Residual current $I_r$	$\leq 10\mu A$
Max. switching frequency $f$	100Hz
Hysteresis $H$	$\leq 15\%$
Repeatability $R$	$\leq 5\%$
Operating temperature $T_a$	$-25^\circ C \dots +70^\circ C$
Temperature drift	$\leq 10\%$
Protection class	IP67
EMV-standard	according to EN 60947-5-2
Switching state	LED
Housing material	brass, nickel-plated
Front cap	POM
Connection	2m cable PUR 3 x 0,15mm <sup>2</sup>

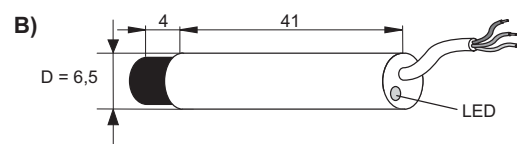
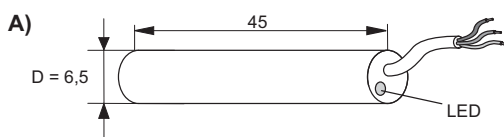


Other cable lengths as requested.

#### Selection chart

Article number	Designation	Mounting	Output signal	Switching distance in mm	Drawing
08323650151	<b>SC1,5-G6,5MB45-DPS</b>	shielded	PNP 	1,5	A
08323650152	<b>SC1,5-G6,5MB45-DPÖ</b>	shielded	PNP 	1,5	A
08323650310	<b>SC3-G6,5MN45-DPS</b>	non shielded	PNP 	3	B
08323650320	<b>SC3-G6,5MN45-DPÖ</b>	non shielded	PNP 	3	B

#### Dimensions



all data in mm



## CYLINDER M8 DC

### General data

Operating voltage $U_b$	10 ... 30V DC
Ripple voltage $U_b$	$\leq 10\%$
Voltage drop $U_d$	$\leq 2V$
Max. load current $I_e$	200mA
Off-state current $I_o$	$\leq 10mA$
Residual current $I_r$	$\leq 10\mu A$
Max. switching frequency $f$	100Hz
Hysteresis $H$	$\leq 15\%$
Repeatability $R$	$\leq 5\%$
Operating temperature $T_a$	-25°C ... +70°C
Temperature drift	$\leq 10\%$
Protection class	IP67
EMV-standard	according to EN 60947-5-2
Switching state	LED
Housing material	brass, nickel-plated
Front cap	POM
Connection	2m cable PUR 3 x 0,15mm <sup>2</sup>



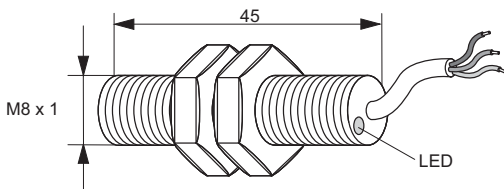
Other cable lengths as requested.

### Selection chart

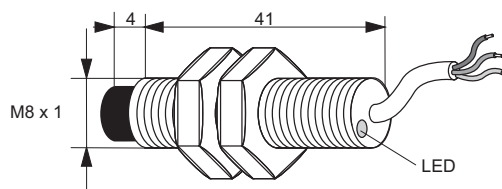
Article number	Designation	Mounting	Output signal	Switching distance in mm	Drawing
08323080151	SC1,5-M8MB45-DPS	shielded	PNP	1,5	A
08323080152	SC1,5-M8MB45-DPÖ	shielded	PNP	1,5	A
08323080310	SC3-M8MN45-DPS	non shielded	PNP	3	B
08323080320	SC3-M8MN45-DPÖ	non shielded	PNP	3	B

### Dimensions

A)



B)



all data in mm





## CYLINDER M12 DC

### General data

Operating voltage $U_b$	10 ... 30V DC
Ripple voltage $U_r$	$\leq 10\%$
Voltage drop $U_d$	SC... $\leq 2V$ KC... $\leq 3V$
Max. load current $I_e$	200mA
Off-state current $I_o$	KC... $\leq 20mA$ SC... $\leq 10mA$
Residual current $I_r$	$\leq 10\mu A$
Max. switching frequency $f$	KC... 15Hz SC... 100Hz
Hysteresis $H$	$\leq 15\%$
Repeatability $R$	$\leq 5\%$
Operating temperature $T_a$	-25°C ... +70°C
Temperature drift	$\leq 10\%$
Protection class	IP67
EMV-standard	according to EN 60947-5-2
Switching state	LED
Housing material	KC... PA 6.6 SC... brass, nickel-plated
Front cap	SC4... POM SC8... PBT



The drawings of these sensors are shown on the following page.

### Selection chart

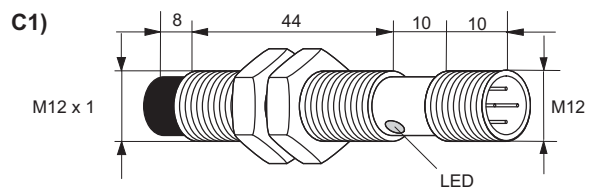
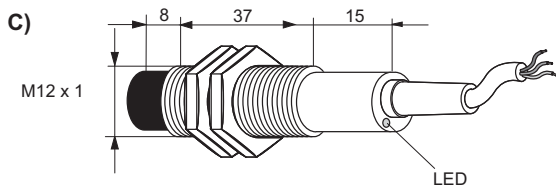
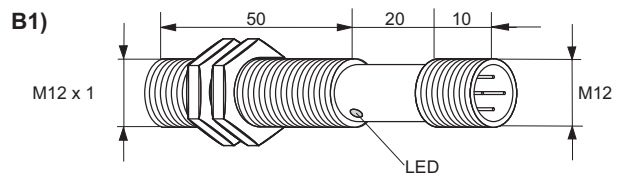
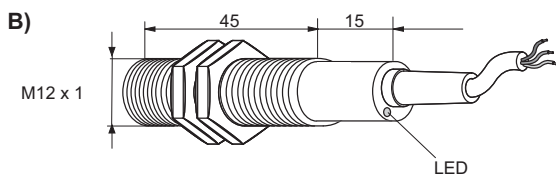
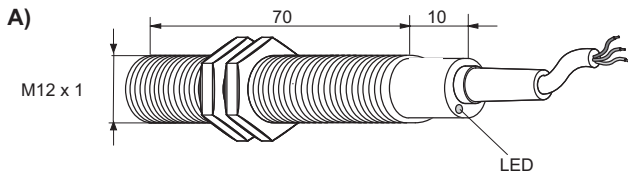
Article number	Designation switching distance 4mm	Mounting	Output signal	Connection	Drawing (next page)
0832000003	<b>KC4-M12KN-DPS</b>	non shielded	PNP	2m cable PVC 3 x 0,34mm <sup>2</sup>	A
0832000019	<b>KC4-M12KN-DPÖ</b>	non shielded	PNP	2m cable PVC 3 x 0,34mm <sup>2</sup>	A
08323120410	<b>SC4-M12MB60-DPS</b>	shielded	PNP	2m cable PVC 3 x 0,34mm <sup>2</sup>	B
08323120420	<b>SC4-M12MB60-DPÖ</b>	shielded	PNP	2m cable PVC 3 x 0,34mm <sup>2</sup>	B
08323120412	<b>SC4-M12MB80-DPS-V2</b>	shielded	PNP	connector M12 4-pole	B1
08323120422	<b>SC4-M12MB80-DPÖ-V2</b>	shielded	PNP	connector M12 4-pole	B1
	Designation switching distance 8mm				
08323120810	<b>SC8-M12MN60-DPS</b>	non shielded	PNP	2m cable PVC 3 x 0,34mm <sup>2</sup>	C
08323120820	<b>SC8-M12MN60-DPÖ</b>	non shielded	PNP	2m cable PVC 3 x 0,34mm <sup>2</sup>	C
08323120812	<b>SC8-M12MN80-DPS-V2</b>	non shielded	PNP	connector M12 4-pole	C1
08323120822	<b>SC8-M12MN80-DPÖ-V2</b>	non shielded	PNP	connector M12 4-pole	C1



# CAPACITIVE SENSORS

## CYLINDER M12 DC

### Dimensions



all data in mm



## CYLINDER M18 DC

### General data

Operating voltage $U_b$	10 ... 30V DC
Ripple voltage $U_b$	$\leq 10\%$
Voltage drop $U_d$	SC... $\leq 2V$ KC... $\leq 3V$
Max. load current $I_e$	200mA
Off-state current $I_o$	KC... $\leq 20mA$ SC... $\leq 10mA$
Residual current $I_r$	$\leq 10\mu A$
Max. switching frequency $f$	KC... 10Hz SC... 100Hz
Hysteresis $H$	$\leq 15\%$
Repeatability $R$	$\leq 5\%$
Operating temperature $T_a$	-25°C ... +70°C
Temperature drift	$\leq 10\%$
Protection class	IP67
EMV-standard	according to EN 60947-5-2
Switching state	LED
Housing material	KC... PA 6.6 SC... brass, nickel-plated
Front cap	SC... PBT



The drawings of these sensors are shown on the following page.

Other cable lengths as requested.

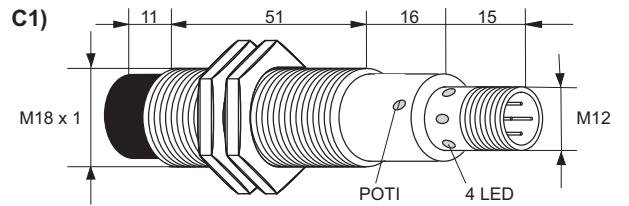
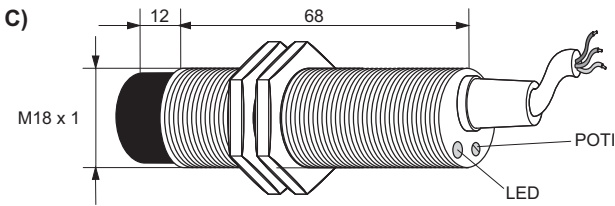
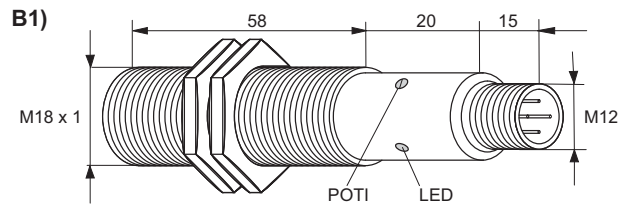
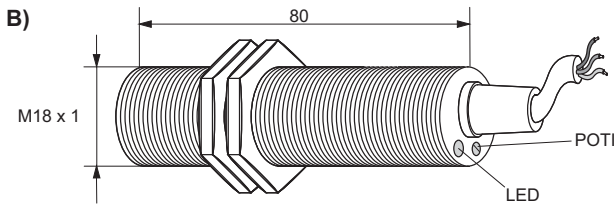
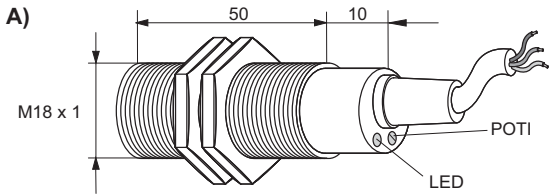
### Selection chart

Article number	Designation switching distance 8mm	Mounting	Output signal	Connection	Drawing (next page)
08320000397	<b>KC8-M18KN-DPS</b>	non shielded	PNP	2m cable PVC 3 x 0,34mm <sup>2</sup>	A
08320000407	<b>KC8-M18KN-DPÖ</b>	non shielded	PNP	2m cable PVC 3 x 0,34mm <sup>2</sup>	A
08323180810	<b>SC8-M18MB80-DPS</b>	shielded	PNP	2m cable PVC 3 x 0,34mm <sup>2</sup>	B
08323180820	<b>SC8-M18MB80-DPÖ</b>	shielded	PNP	2m cable PVC 3 x 0,34mm <sup>2</sup>	B
08323180812	<b>SC8-M18MB95-DPS-V2</b>	shielded	PNP	connector M12 4-pole	B1
08323180822	<b>SC8-M18MB95-DPÖ-V2</b>	shielded	PNP	connector M12 4-pole	B1
	<b>Designation switching distance 15mm</b>				
08323181510	<b>SC15-M18MN80-DPS</b>	non shielded	PNP	2m cable PVC 3 x 0,34mm <sup>2</sup>	C
08323181520	<b>SC15-M18MN80-DPÖ</b>	non shielded	PNP	2m cable PVC 3 x 0,34mm <sup>2</sup>	C
08323181512	<b>SC15-M18MN95-DPS-V2</b>	non shielded	PNP	connector M12 4-pole	C1
08323181522	<b>SC15-M18MN95-DPÖ-V2</b>	non shielded	PNP	connector M12 4-pole	C1



# CYLINDER M18 DC

## Dimensions



all data in mm



## CAPACITIVE SENSORS

### CYLINDER M18 AC/DC

#### General data

Operating voltage $U_b$	20 ... 250V AC/DC
Voltage frequency	50/60Hz
Voltage drop $U_d$	$\leq 10V$ DC / 8V AC
Max. load current $I_e$	200mA
Min. load current $I_{emin}$	5mA
Residual current $I_r$	$\leq 2,5mA$
Peak current $I_k$	2,2A (20ms)
Max. switching frequency $f$	AC 25Hz / DC 40Hz
Hysteresis H	$\leq 15\%$
Repeatability R	$\leq 1\%$
Operating temperature $T_a$	-25°C ... +70°C
Temperature drift	$\leq 1 - 15\%$
Protection class	IP67
EMV-standard	according to EN 60947-5-2
Switching state	LED
Housing material	brass, nickel-plated
Front cap	PBT
Connection	2m cable PVC 3 x 0,34mm <sup>2</sup>

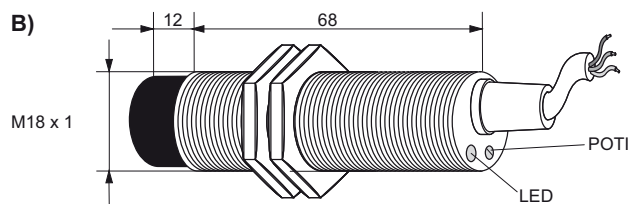
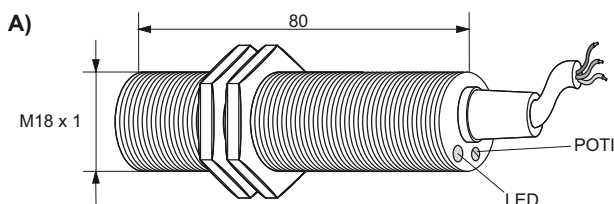


Other cable lengths as requested.

#### Selection chart

Article number	Designation switching distance 8mm	Mounting	Ausgangs- funktion	Connection	Drawing
08323180870	SC8-M18MB80-VZS	shielded	AC/DC	2m cable PVC 3 x 0,34mm <sup>2</sup>	A
08323180880	SC8-M18MB80-VZÖ	shielded	AC/DC	2m cable PVC 3 x 0,34mm <sup>2</sup>	A
	Designation switching distance 15mm				
08323181570	SC15-M18MN80-VZS	non shielded	AC/DC	2m cable PVC 3 x 0,34mm <sup>2</sup>	B
08323181580	SC15-M18MN80-VZÖ	non shielded	AC/DC	2m cable PVC 3 x 0,34mm <sup>2</sup>	B

#### Dimensions



all data in mm



# CAPACITIVE SENSORS

## CYLINDER M30 DC

### General data

<b>Operating voltage <math>U_b</math></b>	10 ... 30V DC
<b>Voltage frequency</b>	$\leq 10\%$
<b>Voltage drop <math>U_d</math></b>	SC... $\leq 2V$ KC... $\leq 3V$
<b>Max. load current <math>I_e</math></b>	200mA
<b>Off-state current <math>I_0</math></b>	KC... $\leq 20mA$ SC... $\leq 10mA$
<b>Residual current <math>I_r</math></b>	$\leq 10\mu A$
<b>Max. switching frequency <math>f</math></b>	KC... 10Hz SC... 100Hz
<b>Hysteresis H</b>	$\leq 15\%$
<b>Repeatability R</b>	$\leq 5\%$
<b>operating temperature <math>T_a</math></b>	$-25^\circ C \dots +70^\circ C$
<b>Temperature drift</b>	$\leq 10\%$
<b>Protection class</b>	IP67
<b>EMV-standard</b>	according to EN 60947-5-2
<b>Switching state</b>	LED
<b>Housing material</b>	KC... PA 6.6 SC... brass, nickel-plated
<b>Front cap</b>	SC... PBT



The drawings of these sensors are shown on the following page.

Other cable lengths as requested.

### Selection chart

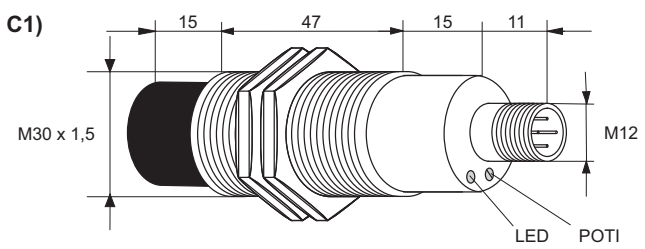
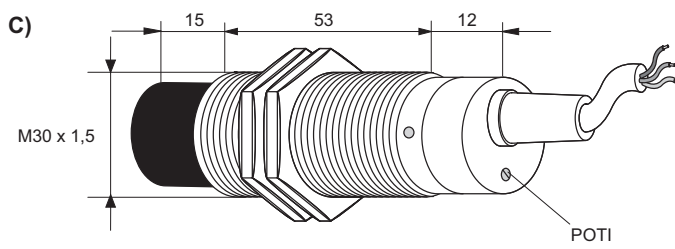
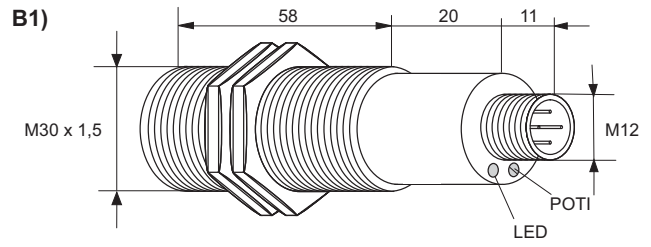
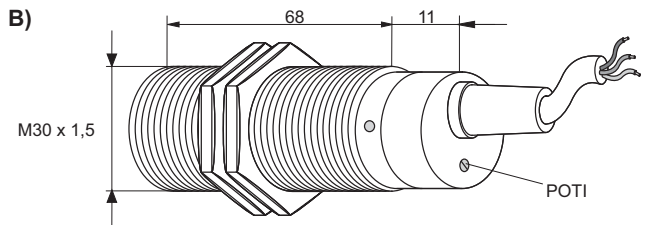
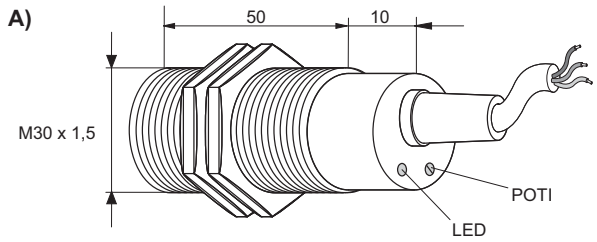
Article number	Designation switching distance 15mm	Mounting	Output signal	Connection	Drawing (next page)
0832000020	<b>KC15-M30KN-DPS</b>	non shielded	PNP	2m cable PVC 3 x 0,34mm <sup>2</sup>	A
0832000035	<b>KC15-M30KN-DPÖ</b>	non shielded	PNP	2m cable PVC 3 x 0,34mm <sup>2</sup>	A
	<b>Designation switching distance 20mm</b>				
08323302010	<b>SC20-M30MB80-DPS</b>	shielded	PNP	2m cable PVC 3 x 0,5mm <sup>2</sup>	B
08323302020	<b>SC20-M30MB80-DPÖ</b>	shielded	PNP	2m cable PVC 3 x 0,5mm <sup>2</sup>	B
08323302012	<b>SC20-M30MB90-DPS-V2</b>	shielded	PNP	connector M12 4-pole	B1
08323302022	<b>SC20-M30MB90-DPÖ-V2</b>	shielded	PNP	connector M12 4-pole	B1
	<b>Designation switching distance 30mm</b>				
08323303010	<b>SC30-M30MN80-DPS</b>	non shielded	PNP	2m cable PVC 3 x 0,5mm <sup>2</sup>	C
08323303020	<b>SC30-M30MN80-DPÖ</b>	non shielded	PNP	2m cable PVC 3 x 0,5mm <sup>2</sup>	C
08323303012	<b>SC30-M30MN90-DPS-V2</b>	non shielded	PNP	connector M12 4-pole	C1
08323303022	<b>SC30-M30MN90-DPÖ-V2</b>	non shielded	PNP	connector M12 4-pole	C1



# CAPACITIVE SENSORS

## CYLINDER M30 DC

### Dimensions



all data in mm



# CAPACITIVE SENSORS

## CYLINDER M30 AC/DC

### General data

Operating voltage $U_b$	20 ... 250V AC/DC
Voltage frequency	50/60Hz
Voltage drop $U_d$	$\leq 10V$ DC / 8V AC
Max. load current $I_e$	200mA
Min. load current $I_{emin}$	5mA
Residual current $I_r$	$\leq 2,5mA$
Peak current $I_k$	2,2A (20ms)
Max. switching frequency $f$	AC 25Hz / DC 40Hz
Hysteresis H	$\leq 15\%$
Repeatability R	$\leq 1\%$
Operating temperature $T_a$	-25°C ... +70°C
Temperature drift	$\leq 1 - 15\%$
Protection class	IP67
EMV-standard	according to EN 60947-5-2
Switching state	LED
Housing material	brass, nickel-plated
Front cap	PBT
Connection	2m cable PVC 2 x 0,34mm <sup>2</sup>

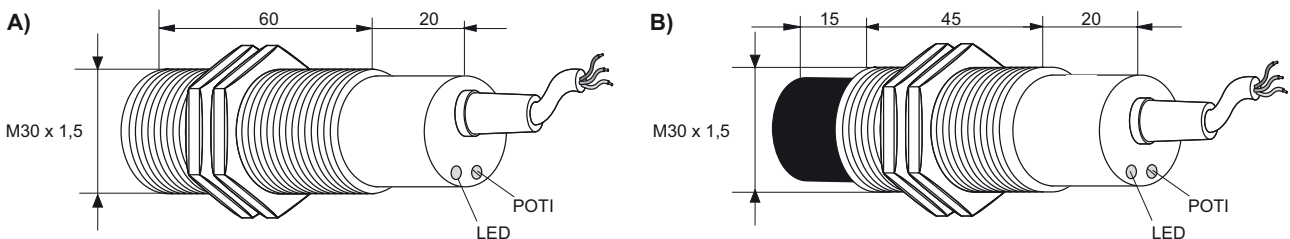


Other cable lengths as requested.

### Selection chart

Article number	Designation switching distance 15mm	Mounting	Output signal	Connection	Drawing
08323301570	SC15-M30MB80-VZS	shielded	AC/DC	2m cable PVC 3 x 0,5mm <sup>2</sup>	A
08323301580	SC15-M30MB80-VZÖ	shielded	AC/DC	2m cable PVC 3 x 0,5mm <sup>2</sup>	A
	Designation switching distance 20mm				
08323302070	SC20-M30MN80-VZS	non shielded	AC/DC	2m cable PVC 3 x 0,5mm <sup>2</sup>	B
08323302080	SC20-M30MN80-VZÖ	non shielded	AC/DC	2m cable PVC 3 x 0,5mm <sup>2</sup>	B

### Dimensions



all data in mm





## CAPACITIVE SENSORS

### CYLINDER G34 DC

#### General data

Operating voltage $U_b$	10 ... 30V DC
Ripple voltage $U_b$	$\leq 10\%$
Voltage drop $U_d$	$\leq 3V$
Max. load current $I_e$	200mA
Min. load current $I_{emin}$	$\leq 20mA$
Residual current $I_r$	$\leq 10\mu A$
Max. switching frequency $f$	10Hz
Hysteresis $H$	$\leq 15\%$
Repeatability $R$	$\leq 5\%$
Operating temperature $T_a$	-25°C ... +70°C
Temperature drift	$\leq 10\%$
Protection class	IP67
EMV-standard	according to IEC 60947-5-2
Switching state	LED
Housing material	PA 6,6

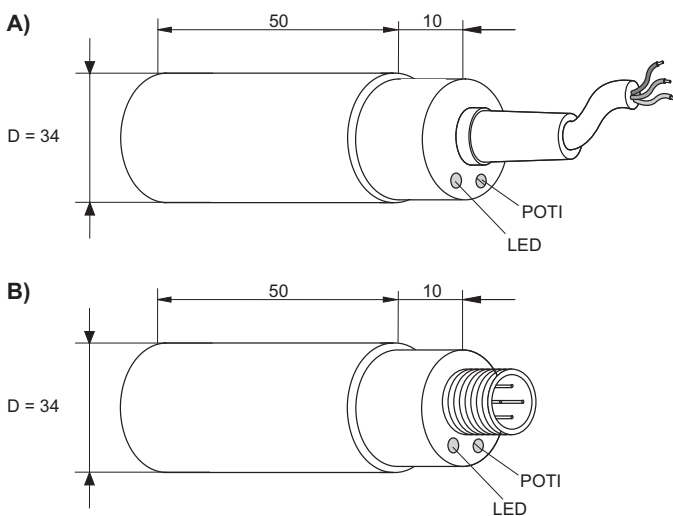


Other cable lengths as requested.

#### Selection chart

Article number	Designation	Mounting	Output signal	Switching distance in mm	Connection	Drawing
08329668400	<b>KC20-G34KN-DPS</b>	non shielded	PNP	20	2m cable PUR 3 x 0,34mm <sup>2</sup>	A
08329668600	<b>KC20-G34KN-DPÖ</b>	non shielded	PNP	20	2m cable PUR 3 x 0,34mm <sup>2</sup>	A
08320000016	<b>KC20-G34KN-DPS-V2/1</b>	non shielded	PNP	20	connector M12	B

#### Dimensions



all data in mm



## CAPACITIVE SENSORS

### SQUARE Q40 DC

#### General data

Operating voltage $U_b$	10 ... 30V DC
Ripple voltage $U_b$	$\leq 10\%$
Voltage drop $U_d$	$\leq 2V$
Max. load current $I_e$	300mA
Off-state current $I_0$	$\leq 10mA$
Residual current $I_r$	$\leq 10\mu A$
Max. switching frequency $f$	100Hz
Hysteresis H	$\leq 15\%$
Repeatability R	$\leq 5\%$
Operating temperature $T_a$	-25°C ... +70°C
Temperature drift	$\leq 10\%$
Protection class	IP67
EMV-standard	according to EN 60947-5-2
Switching state	LED
Housing material	PBT



#### Selection chart

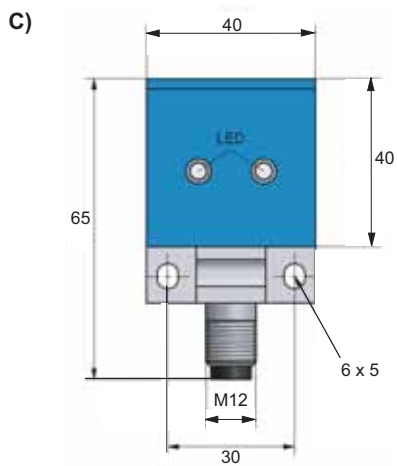
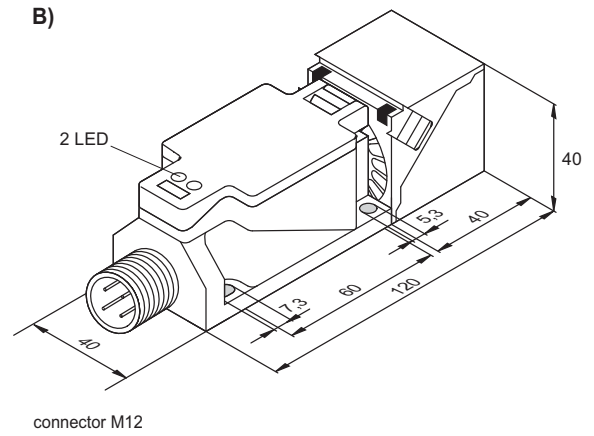
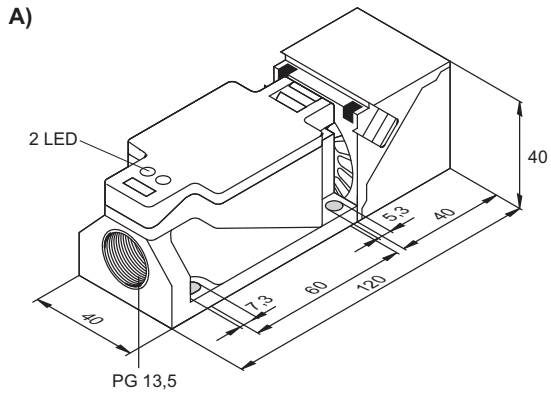
Article number	Designation switching distance 30mm	Mounting	Output signal	Connection	Drawing (next page)
08323443050	SC30-Q40KB-DPA	shielded	PNP	terminals 4 x 0,5mm <sup>2</sup>	A
08323443052	SC30-Q40KB-DPA-V2	shielded	PNP	connector M12 4-pole	B
08323403052	SC30-Q40KB40-DPA-V2	shielded	PNP	connector M12 4-pole	C
	Designation switching distance 40mm				
08323404050	SC40-Q40KN-DPA	non shielded	PNP	terminals 4 x 0,5mm <sup>2</sup>	A
08323404052	SC40-Q40KN-DPA-V2	non shielded	PNP	connector M12 4-pole	B
08323404152	SC40-Q40KN40-DPA-V2	non shielded	PNP	connector M12 4-pole	C



# CAPACITIVE SENSORS

## SQUARE Q40 DC

### Dimensions



all data in mm



## PRODUCT OVERVIEW

Product group	Designation	Article number	Matchcode	Page
Capacitive	SC1,5-G6,5MB45-DPS	08323650151		7
Capacitive	SC1,5-G6,5MB45-DPÖ	08323650152		7
Capacitive	SC1,5-M8MB45-DPS	08323080151		8
Capacitive	SC1,5-M8MB45-DPÖ	08323080152		8
Capacitive	SC3-G6,5MN45-DPS	08323650310		7
Capacitive	SC3-G6,5MN45-DPÖ	08323650320		7
Capacitive	SC3-M8MN45-DPS	08323080310		8
Capacitive	SC3-M8MN45-DPÖ	08323080320		8
Capacitive	SC4-M12MB60-DPS	08323120410		9
Capacitive	KC4-M12KN-DPS	08320000003		9
Capacitive	SC4-M12MB60-DPÖ	08323120420		9
Capacitive	KC4-M12KN-DPÖ	08320000019		9
Capacitive	SC4-M12MB80-DPS-V2	08323120412		9
Capacitive	SC4-M12MB80-DPÖ-V2	08323120422		9
Capacitive	SC8-M12MN60-DPS	08323120810		9
Capacitive	SC8-M12MN60-DPÖ	08323120820		9
Capacitive	SC8-M12MN80-DPS-V2	08323120812		9
Capacitive	SC8-M12MN80-DPÖ-V2	08323120822		9
Capacitive	SC8-M18MB80-VZS	08323180870		13
Capacitive	SC8-M18MB80-VZÖ	08323180880		13
Capacitive	SC8-M18MB80-DPS	08323180810		11
Capacitive	KC8-M18KN60-DPS	08320000397		11
Capacitive	SC8-M18MB80-DPÖ	08323180820		11
Capacitive	KC8-M18KN60-DPÖ	08320000407		11
Capacitive	SC8-M18MB95-DPS-V2	08323180812		11
Capacitive	SC8-M18MB95-DPÖ-V2	08323180822		11
Capacitive	SC15-M18MN80-VZS	08323181570		13
Capacitive	SC15-M18MN80-VZÖ	08323181580		13
Capacitive	SC15-M18MN80-DPS	08323181510		11
Capacitive	SC15-M18MN80-DPÖ	08323181520		11
Capacitive	SC15-M18MN95-DPS-V2	08323181512		11
Capacitive	SC15-M18MN95-DPÖ-V2	08323181522		11
Capacitive	SC15-M30MB80-VZS	08323301570		16
Capacitive	SC15-M30MB80-VZÖ	08323301580		16
Capacitive	KC15-M30KN60-DPS	08320000020		14
Capacitive	KC15-M30KN-DPÖ	08320000335		14
Capacitive	SC20-M30MN80-VZS	08323302070		16
Capacitive	SC20-M30MN80-VZÖ	08323302080		16
Capacitive	SC20-M30MB80-DPS	08323302010		14
Capacitive	SC20-M30MB80-DPÖ	08323302020		14
Capacitive	SC20-M30MB90-DPS-V2	08323302012		14
Capacitive	SC20-M30MB90-DPÖ-V2	08323302022		14
Capacitive	KC20-G34KN-DPS	08329668400		17
Capacitive	KC20-G34KN-DPÖ	08323768600		17
Capacitive	KC20-G34KN-DPS-V2/1	08320000016	9966-8463	17
Capacitive	SC30-M30MN80-DPS	08323303010		14
Capacitive	SC30-M30MN80-DPÖ	08323303020		14
Capacitive	SC30-M30MN90-DPS-V2	08323303012		14



## PRODUCT OVERVIEW

Product group	Designation	Article number	Matchcode	Page
Capacitive	SC30-M30MN90-DPÖ-V2	08323303022		14
Capacitive	SC30-Q40KB-DPA	08323443050		18
Capacitive	SC30-Q40KB-DPA-V2	08323443052		18
Capacitive	SC30-Q40KB40-DPA-V2	08323403052		18
Capacitive	SC40-Q40KN-DPA	08323404050		18
Capacitive	SC40-Q40KN-DPA-V2	08323404052		18
Capacitive	SC40-Q40KN40-DPA-V2	08323404152		18

all data in mm



## NOTES

---





## NOTES

---





## NOTES

---

