



INDUCTIVE SENSORS SQUARE DC

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INDUCTIVE SENSORS SQUARE DC

DESIGNATION CODE

Example: **K J 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

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

2 = Switching distance / range

3 = Design

- D** Ring housing
- G** Cylindrical housing without thread
- M** Cylindrical housing with metrical thread
- Q** Square housing

4 = Housing diameter / edge length

5 = Housing material

- A** Aluminium
- E** Stainless steel
- K** Plastic
- M** Brass, nickel plated
- T** PTFE

6 = Installation

- B** Shielded
- N** Non shielded

7 = Tube length

8 = Operating voltage

- AZ** AC alternating current voltage
- D** DC direct current voltage
- VZ** AC/DC all voltages

9 = Type of output signal

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

10 = Function

- A** Changeover
- I** Impulse output
- Ö** N.C.
- S** N.O.
- U** Switchable

11 = Type of connection

- V1** M8 screw-/snap-in
 - V2** M12 metal
 - V2/1** M12 plastic
 - V3** M5 metal
 - V4** Amphenol Tuchel
 - V6** Brad Harrison 7/8" UNF
 - V7** Valve connector type A
 - V8** M8 snap-in only
 - V9** Torson
 - V10** Valve connector type C
 - V11** AC connector 1/2" UNF
 - V12** M18 plastic
 - VE** Euchner connector
 - RS232** Data interface
 - PG** Thread joint PG
 - Mxx** Tread joint metrical
- others as requested

12 = Additional marks

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



INDUCTIVE SENSORS SQUARE DC

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		



INDUCTIVE SENSORS SQUARE DC

SQUARE Q5

General data

Mounting	shielded
Operating voltage U_b	10 ... 30V DC
Ripple voltage U_b	$\leq 10\%$
Voltage drop U_d	$\leq 1V$
Max. load current	200mA
Off-state current I_0	$\leq 10mA$
Residual current I_r	$\leq 10\mu A$
Max. switching frequency f	2000Hz
Hysteresis H	$\leq 15\%$
Repeatability R	$\leq 1\%$
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 yellow
Housing material	brass, nickel-plated
Front cap	POM
Connection	2m cable PUR 3 x 0,15mm ²

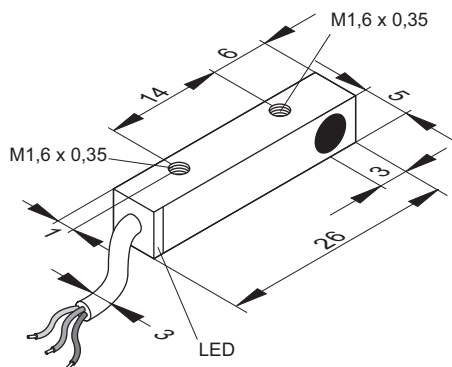


Other cable lengths as requested.

Selection chart

Article number	Designation	Output signal
08313550110	SJ1-Q5MB26-DPS	PNP
08313550120	SJ1-Q5MB26-DPÖ	PNP
08313550130	SJ1-Q5MB26-DNS	NPN
08313550140	SJ1-Q5MB26-DNÖ	NPN

Dimensions



all data in mm



INDUCTIVE SENSORS SQUARE DC

SQUARE Q8

General data

Mounting	shielded
Operating voltage U_b	10 ... 30V DC
Ripple voltage U_b	$\leq 10\%$ (KJ3... $\leq 20\%$)
Voltage drop U_d	$\leq 2,4V^*$
Max. load current	200mA
Off-state current I_0	$\leq 13mA$ (KJ3... $\leq 20mA$)
Residual current I_r	$\leq 10\mu A$ (KJ3... $\leq 100\mu A$)
Max. switching frequency f	1000Hz
Hysteresis H	$\leq 15\%$ (KJ3... $\leq 10\%$)
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 IEC 60947-5-2
Switching state	LED
Housing material	brass nickel-plated, aluminium
Front cap	brass: PCP aluminium: polyamide 6.6



Selection chart brass

Article number	Designation	Output signal	Switching distance in mm	Connection	Drawing (next page)
08317611000	KJ1,5-Q8MB40-DPS	PNP	1,5	2m cable PVC 3 x 0,14mm ²	A
08317611064	KJ1,5-Q8MB60-DPS-V1	PNP	1,5	connector M8 3-pole	B
08317611100	KJ1,5-Q8MB40-DPS-AM	PNP	1,5	2m cable PVC 3 x 0,14mm ²	C
08317611164	KJ1,5-Q8MB60-DPS-V1-AM	PNP	1,5	connector M8 3-pole	D
08317612000	KJ3-Q8MB40-DPS	PNP	3	2m cable PVC 3 x 0,14mm ²	A
08317612064	KJ3-Q8MB60-DPS-V1	PNP	3	connector M8 3-pole	E

Design NPN and other cable lengths as requested.

Selection chart aluminium

Article number	Designation	Output signal	Switching distance in mm	Connection	Drawing (next page)
08310000475	KJ2-Q8AB-DPS	PNP	2	2m cable PVC 3 x 0,14mm ²	F
08310020475	KJ2-Q8AB-DPÖ	PNP	2	2m cable PVC 3 x 0,14mm ²	F
08310000509	KJ2-Q8AB-DPS-V1	PNP	2	connector M8 3-pole	G
0831xxxxxxx	KJ2-Q8AB-DPÖ-V1	PNP	2	connector M8 3-pole	G
08310000440	KJ2-Q8AB-DPS-AM	PNP	2	2m cable PVC 3 x 0,14mm ²	H
08310000074	KJ2-Q8AB-DPÖ-AM	PNP	2	2m cable PVC 3 x 0,14mm ²	H
08310000369	KJ2-Q8AB-DPS-V1-AM	PNP	2	connector M8 3-pole	I
0831xxxxxxx	KJ2-Q8AB-DPÖ-V1-AM	PNP	2	connector M8 3-pole	I
08310001035	KJ2-Q8AB-DPS-V3	PNP	2	connector M5 4-pole	J

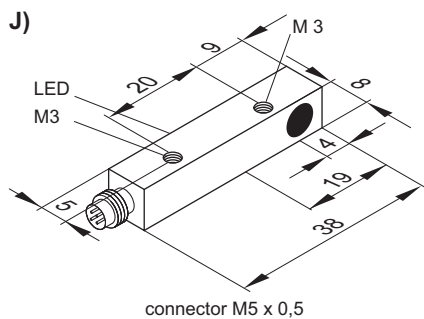
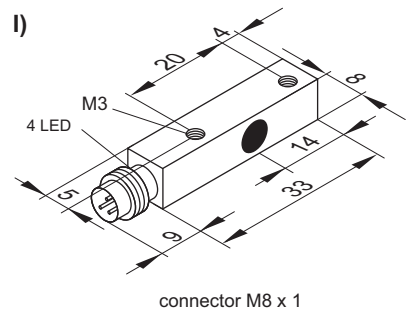
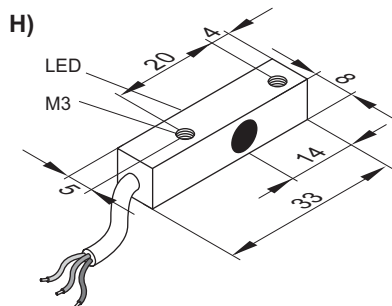
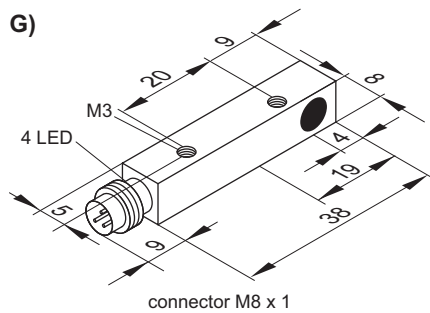
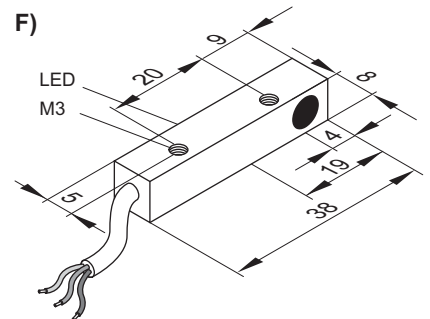
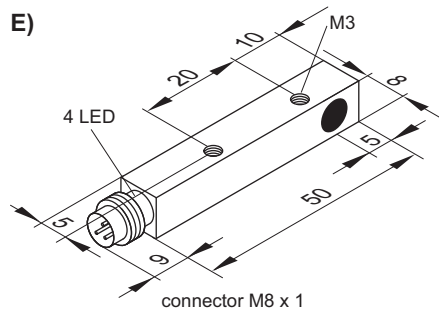
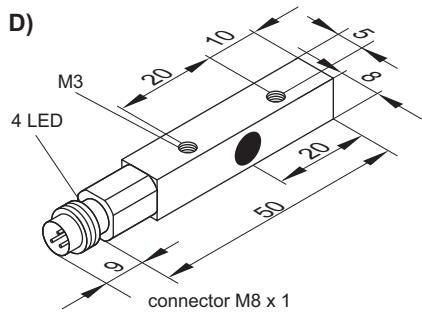
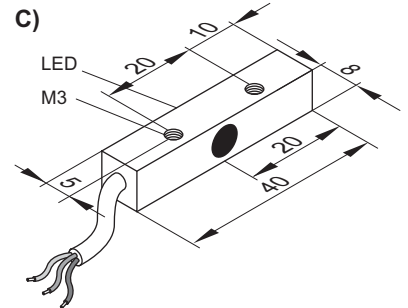
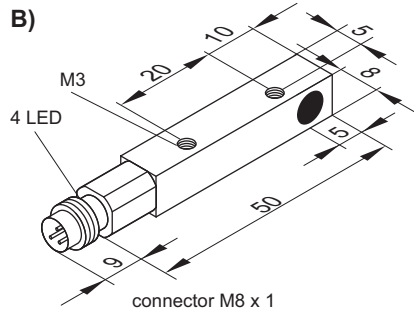
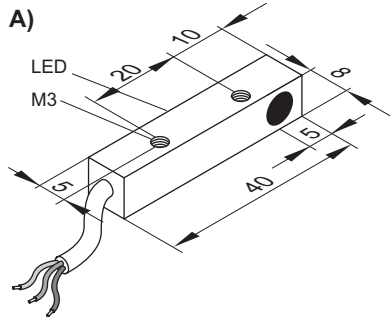
Design NPN and other cable lengths as requested.



INDUCTIVE SENSORS SQUARE DC

SQUARE Q8

Dimensions



all data in mm



INDUCTIVE SENSORS SQUARE DC

SQUARE Q9,9

General data

Mounting	shielded
Switching distance	2mm
Operating voltage U_b	10 ... 30V DC
Ripple voltage U_b	$\leq 10\%$
Voltage drop U_d	$\leq 2,4V$
Max. load current	200mA
Off-state current I_0	$\leq 13mA$
Residual current I_r	$\leq 10\mu A$
Max. switching frequency f	1000Hz
Hysteresis H	$\leq 15\%$
Repeatability R	$\leq 2\%$
Operating temperature T_a	$-25^\circ C \dots +75^\circ C$
Temperature drift	$\leq 10\%$
Protection class	IP67
EMV-standard	according to IEC 60947-5-2
Switching state	LED
Housing material	aluminium
Front cap	polyamide 6.6
Connection	2m cable PVC 3 x 0,14mm ²

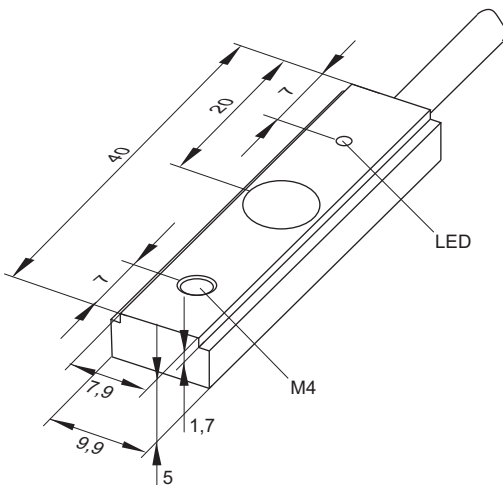


Design NPN and other cable lengths as requested.

Selection chart

Article number	Designation	Output signal
08310000208	KJ2-Q9,9AB-DPS	PNP
08310000454	KJ2-Q9,9AB-DPÖ	PNP

Dimensions



all data in mm



INDUCTIVE SENSORS SQUARE DC

SQUARE Q12

General data

Operating voltage U_b	10 ... 30V DC
Ripple voltage U_b	$\leq 10\%$
Voltage drop U_d	$\leq 2,4V$
Max. load current	200mA
Off-state current I_0	$\leq 13mA$
Residual current I_r	$\leq 10\mu A$
Max. switching frequency f	1000Hz
Hysteresis H	$\leq 15\%$
Repeatability R	$\leq 2\%$
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	PBT

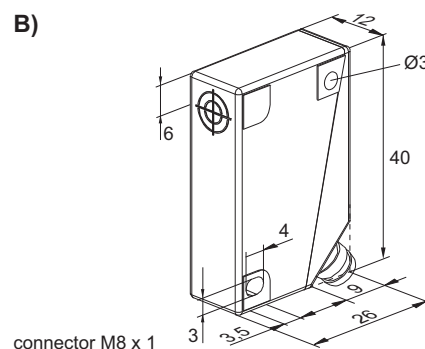
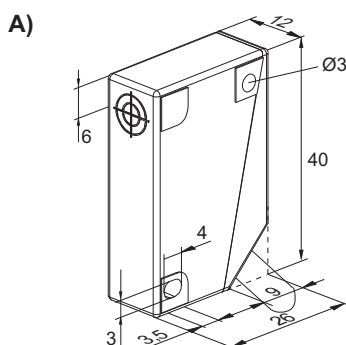


Selection chart

Article number	Designation	Mounting	Output signal	Switching distance in mm	Connection	Drawing
08317613000	KJ2-Q12KB-DPS	shielded	PNP	2	2m cable PVC 3 x 0,34mm ²	A
08317613400	KJ2-Q12KB-DPÖ	shielded	PNP	2	2m cable PVC 3 x 0,34mm ²	A
08317613064	KJ2-Q12KB-DPS-V1	shielded	PNP	2	connector M8 3-pole	B
08317613464	KJ2-Q12KB-DPÖ-V1	shielded	PNP	2	connector M8 3-pole	B
08317613200	KJ4-Q12KN-DPS	non shielded	PNP	4	2m cable PVC 3 x 0,34mm ²	A
08317613600	KJ4-Q12KN-DPÖ	non shielded	PNP	4	2m cable PVC 3 x 0,34mm ²	A
08317613264	KJ4-Q12KN-DPS-V1	non shielded	PNP	4	connector M8 3-pole	B
08317613664	KJ4-Q12KN-DPÖ-V1	non shielded	PNP	4	connector M8 3-pole	B
08310000527	KJ4-Q12KN-DPA	non shielded	PNP	4	2m cable PVC 4 x 0,34mm ²	C
0831xxxxxxx	KJ6-Q12KN-DPS	non shielded	PNP	6	2m cable PVC 4 x 0,34mm ²	A
0831xxxxxxx	KJ6-Q12KN-DPS-V1	non shielded	PNP	6	connector M8 3-pole	B

Design NPN and other cable lengths as requested.

Dimensions



all data in mm



INDUCTIVE SENSORS SQUARE DC

SQUARE Q25

General data

Operating voltage U_b	10 ... 30V DC
Ripple voltage U_b	$\leq 10\%$
Voltage drop U_d	$\leq 2,4V$
Max. load current	200mA
Off-state current I_o	$\leq 13mA$
Residual current I_r	$\leq 10\mu A$
Max. switching frequency f	1000Hz (KJ8... 800Hz)
Hysteresis H	$\leq 15\%$
Repeatability R	$\leq 2\%$
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	polyamide 6.6, aluminium



Selection chart polyamide

Article number	Designation	Mounting	Output signal	Switching distance in mm	Connection	Drawing (next page)
08310000772	KJ5-Q25KB-DPS	shielded	PNP	5	2m cable PVC 3 x 0,34mm ²	A
0831xxxxxxx	KJ5-Q25KB-DPÖ	shielded	PNP	5	2m cable PVC 3 x 0,34mm ²	A
08310000203	KJ5-Q25KB-DPS-V1	shielded	PNP	5	connector M8 3-pole	B
08310000472	KJ5-Q25KB-DPÖ-V1	shielded	PNP	5	connector M8 3-pole	B
08310000901	KJ5-Q25KB-DPA	shielded	PNP	5	2m cable PVC 4 x 0,25mm ²	A
08310000056	KJ8-Q25KN-DPS	non shielded	PNP	8	2m cable PVC 3 x 0,34mm ²	A
0831xxxxxxx	KJ8-Q25KN-DPÖ	non shielded	PNP	8	2m cable PVC 3 x 0,34mm ²	A
08310000508	KJ8-Q25KN-DPS-V1	non shielded	PNP	8	connector M8 3-pole	B
0831xxxxxxx	KJ8-Q25KN-DPÖ-V1	non shielded	PNP	8	connector M8 3-pole	B
08310001079	KJ8-Q25KN-DPA	non shielded	PNP	8	2m cable PVC 4 x 0,25mm ²	A

Design NPN and other cable lengths as requested.

Selection chart aluminium

Article number	Designation	Mounting	Output signal	Switching distance in mm	Connection	Drawing (next page)
08310000229	KJ5-Q25AB-DPS	shielded	PNP	5	2m cable PVC 3 x 0,34mm ²	A
0831xxxxxxx	KJ5-Q25AB-DPÖ	shielded	PNP	5	2m cable PVC 3 x 0,34mm ²	A

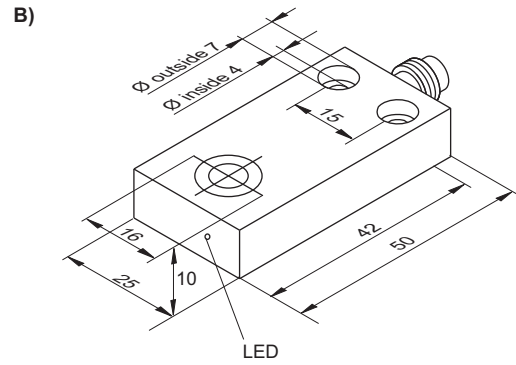
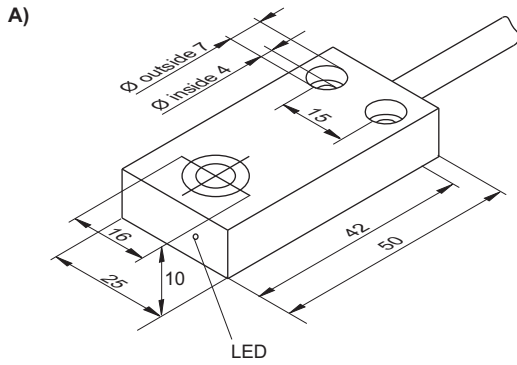
Design NPN and other cable lengths as requested.



INDUCTIVE SENSORS SQUARE DC

SQUARE Q25

Dimensions



connector M8 x 1



INDUCTIVE SENSORS SQUARE DC

SQUARE Q28

General data

Operating voltage U_b	10 ... 30V DC
Ripple voltage U_b	$\leq 10\%$
Voltage drop U_d	$\leq 2,4V$
Max. load current	200mA
Off-state current I_0	$\leq 13mA$
Residual current I_r	$\leq 10\mu A$
Max. switching frequency f	1000Hz (KJ4... 800Hz)
Hysteresis H	$\leq 15\%$
Repeatability R	$\leq 2\%$
Operating temperature T_a	$-25^\circ C \dots +70^\circ C$
Temperature drift	$\leq 10\%$
Protection class	IP67
EMV-standard	according to IEC 60947-5-2
Switching state	LED
Housing material	polyamide 6.6

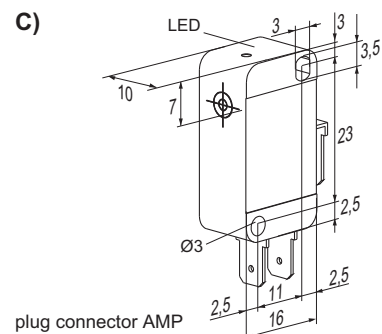
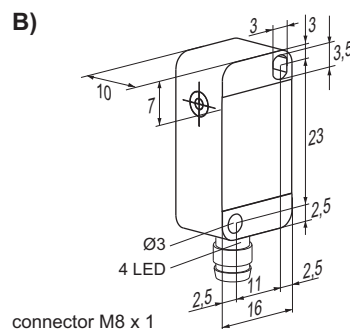
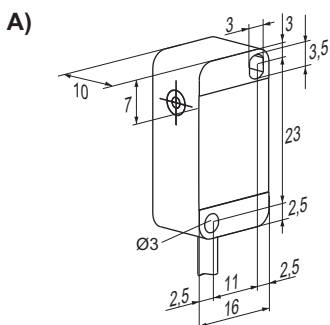


Selection chart

Article number	Designation	Mounting	Output signal	Switching distance in mm	Connection	Drawing
0831000042	KJ2-Q28KB-DPS	shielded	PNP	2	2m cable PVC 3 x 0,14mm ²	A
08310000437	KJ2-Q28KB-DPÖ	shielded	PNP	2	2m cable PVC 3 x 0,14mm ²	A
08310000608	KJ2-Q28KB-DPS-V1	shielded	PNP	2	connector M8 3-pole	B
08310000632	KJ2-Q28KB-DPÖ-V1	shielded	PNP	2	connector M8 3-pole	B
08310006008	KJ2-Q28KB-DPS-AMP	shielded	PNP	2	3 x plug connector AMP	C
08310001094	KJ2-Q28KB-DNS-AMP	shielded	NPN	2	3 x plug connector AMP	C
08310000610	KJ4-Q28KN-DPS	non shielded	PNP	4	2m cable PVC 3 x 0,14mm ²	A
08310002041	KJ4-Q28KN-DPÖ	non shielded	PNP	4	2m cable PVC 3 x 0,14mm ²	A
08310000609	KJ4-Q28KN-DPS-V1	non shielded	PNP	4	connector M8 3-pole	B
08310020184	KJ4-Q28KN-DPÖ-V1	non shielded	PNP	4	connector M8 3-pole	B
08310000100	KJ6-Q28KN-DPS-V1	non shielded	PNP	6	connector M8 3-pole	B
08310001247	KJ6-Q28KN-DPÖ-V1	non shielded	PNP	6	connector M8 3-pole	B

Design NPN and other cable lengths as requested.

Dimensions



all data in mm



INDUCTIVE SENSORS SQUARE DC

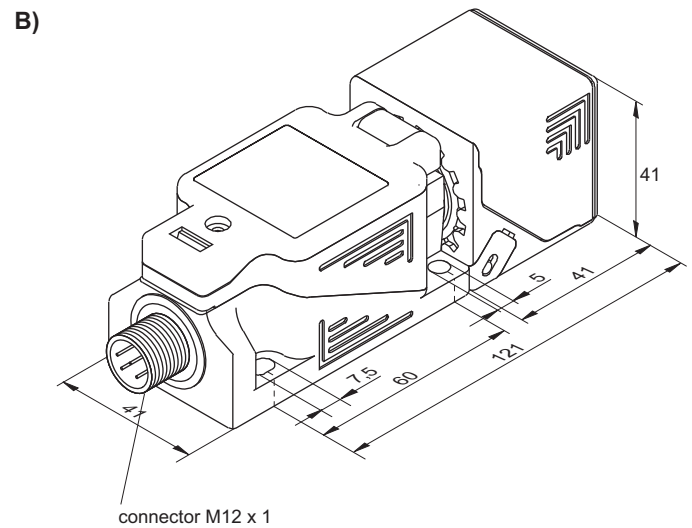
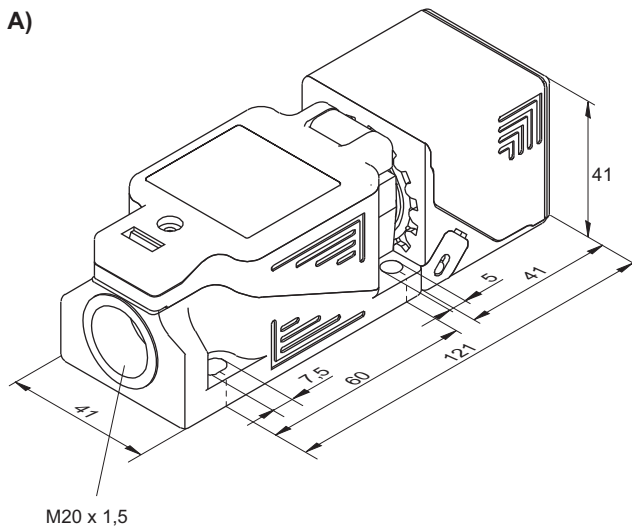
SQUARE Q40

General data

Operating voltage U_b	10 ... 30V DC
Ripple voltage U_b	$\leq 10\%$
Voltage drop U_d	$\leq 2,4V$
Max. load current	see selection chart
Off-state current I_0	see selection chart
Residual current I_r	$\leq 10\mu A$
Max. switching frequency f	150Hz (KJ40... 70Hz)
Hysteresis H	$\leq 20\%$
Repeatability R	$\leq 5\%$
Operating temperature T_a	$-25^\circ C \dots +70^\circ C$
Temperature drift	$\leq 10\%$
Protection class	IP65
EMV-standard	according to IEC 60947-5-2
Switching state	LED
Housing material	trogamit T, polyamide 6.6



Dimensions



all data in mm
Selection chart on the next page



INDUCTIVE SENSORS SQUARE DC

SQUARE Q40

Selection chart trogamit T

Article number	Designation	Former order number	Mounting	Output signal	Switching distance in mm	Connection	Drawing
08317633000	KJ15-Q40KB-DPU	9863-3000	shielded	PNP	15	clamps 1,5mm ²	A
08317633300	KJ15-Q40KB-DNU	9863-3300	shielded	NPN	15	clamps 1,5mm ²	A
08317633065	KJ15-Q40KB-DPU-V2	9863-3065	shielded	PNP	15	connector M12 4-pole	B
08317633365	KJ15-Q40KB-DNU-V2	9863-3365	shielded	NPN	15	connector M12 4-pole	B
08317633100	KJ25-Q40KT-DPU	9863-3100	quasi-shielded	PNP	25	clamps 1,5mm ²	A
08317633400	KJ25-Q40KT-DNU	9863-3400	quasi-shielded	NPN	25	clamps 1,5mm ²	A
08317633165	KJ25-Q40KT-DPU-V2	9863-3165	quasi-shielded	PNP	25	connector M12 4-pole	B
08317633465	KJ25-Q40KT-DNU-V2	9863-3465	quasi-shielded	NPN	25	connector M12 4-pole	B
08317633200	KJ40-Q40KN-DPU	9863-3200	non shielded	PNP	40	clamps 1,5mm ²	A
08317633500	KJ40-Q40KN-DNU	9863-3500	non shielded	NPN	40	clamps 1,5mm ²	A
08317633265	KJ40-Q40KN-DPU-V2	9863-3265	non shielded	PNP	40	connector M12 4-pole	B
08317633565	KJ40-Q40KN-DNU-V2	9863-3565	non shielded	NPN	40	connector M12 4-pole	B

Max. load current 400mA

Off-state current ≤ 34mA

Selection chart polyamide 6.6

Article number	Designation	Former order number	Mounting	Output signal	Switching distance in mm	Connection	Drawing
08317832000	KJ20-Q40KB-DPU	9883-2000	shielded	PNP	20	clamps 2,5mm ²	A
08317832300	KJ20-Q40KB-DNU	9883-2300	shielded	NPN	20	clamps 2,5mm ²	A
08317832065	KJ20-Q40KB-DPU-V2	9883-2065	shielded	PNP	20	connector M12 4-pole	B
08317832365	KJ20-Q40KB-DNU-V2	9883-2365	shielded	NPN	20	connector M12 4-pole	B
08317832200	KJ40-Q40KN-DPU	9883-2200	non shielded	PNP	40	clamps 2,5mm ²	A
08317832500	KJ40-Q40KN-DNU	9883-2500	non shielded	NPN	40	clamps 2,5mm ²	A
08317832265	KJ40-Q40KN-DPU-V2	9883-2265	non shielded	PNP	40	connector M12 4-pole	B
08317832565	KJ40-Q40KN-DNU-V2	9883-2565	non shielded	NPN	40	connector M12 4-pole	B

Max. load current 120mA

Off-state current ≤ 10mA

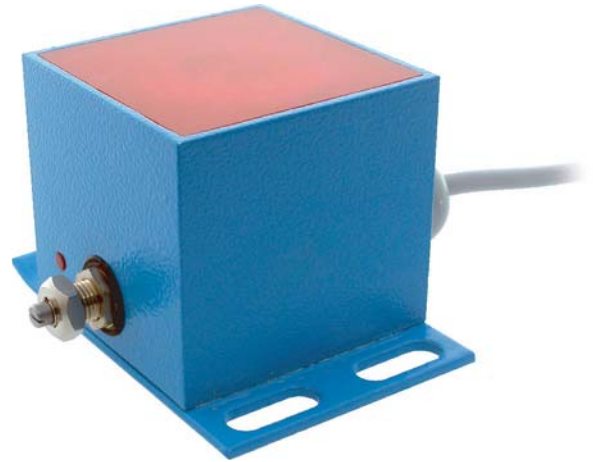


INDUCTIVE SENSORS SQUARE DC

SQUARE Q50

General data

Operating voltage U_b	10 ... 30V DC
Ripple voltage U_b	$\leq 10\%$
Voltage drop U_d	$\leq 2,4V$
Max. load current	400mA
Off-state current I_0	$\leq 18mA$
Residual current I_r	$\leq 10\mu A$
Max. switching frequency f	300Hz
Hysteresis H	$\leq 15\%$
Repeatability R	$\leq 2\%$
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	aluminium
Front cap	drovidur



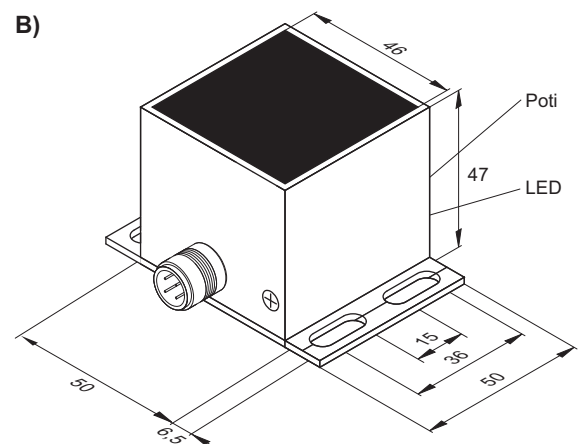
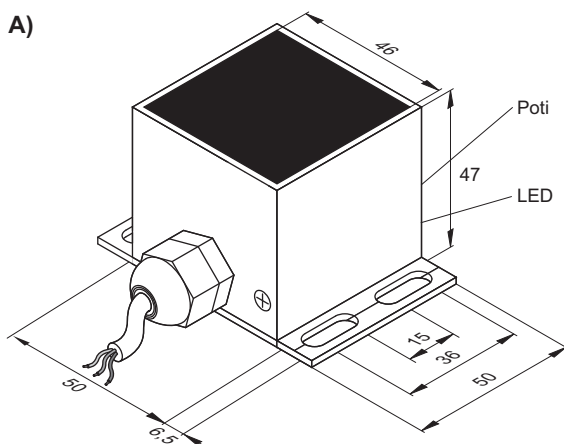
Switching distance adjustable via potentiometer.

Selection chart

Article number	Designation	Mounting	Output signal	Switching distance in mm	Connection	Drawing
08317070900	KJ40-Q50AB-DPS	shielded	PNP	40	2m cable PVC 3 x 0,34mm ²	A
08317070100	KJ40-Q50AB-DNS	shielded	NPN	40	2m cable PVC 3 x 0,34mm ²	A
08317070965	KJ40-Q50AB-DPS-V2	shielded	PNP	40	connector M12 4-pole	B
08317070165	KJ40-Q50AB-DNS-V2	shielded	NPN	40	connector M12 4-pole	B

Other cable lengths as requested.

Dimensions



connector M12 x 1

all data in mm



INDUCTIVE SENSORS SQUARE DC

SQUARE Q80

General data

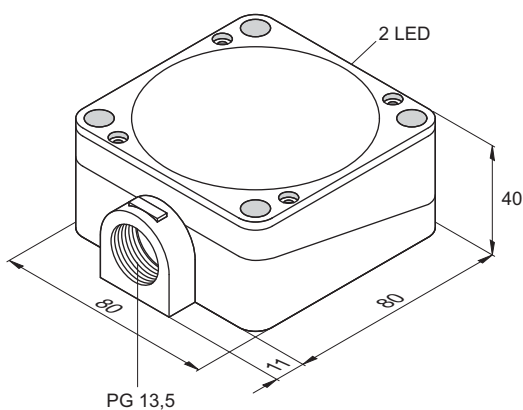
Operating voltage U_b	10 ... 30V DC
Ripple voltage U_b	$\leq 10\%$
Voltage drop U_d	$\leq 3,0V$ (KJ50... $\leq 2,4V$)
Max. load current	200mA
Off-state current I_o	$\leq 22mA$
Residual current I_r	$\leq 10\mu A$
Max. switching frequency f	100Hz
Hysteresis H	$\leq 15\%$
Repeatability R	$\leq 2\%$
Operating temperature T_a	$-25^\circ C \dots +70^\circ C$
Temperature drift	$\leq 10\%$
Protection class	IP67
EMV-standard	according to IEC 60947-5-2
Switching state	LED
Housing material	polycarbonate



Selection chart

Article number	Designation	Mounting	Output signal	Switching distance in mm	Connection
08317651100	KJ40-Q80KB-DPA	shielded	PNP	40	clamping space
08317651000	KJ50-Q80KN-DPA	non shielded	PNP	50	clamping space

Dimensions



all data in mm



INDUCTIVE SENSORS SQUARE DC

SQUARE Q100

General data

Mounting	non shielded
Operating voltage U_b	10 ... 30V DC
Ripple voltage U_b	$\leq 10\%$
Voltage drop U_d	$\leq 2,4V$
Max. load current	400mA
Off-state current I_0	$\leq 12mA$
Residual current I_r	$\leq 10\mu A$
Max. switching frequency f	300Hz*
Hysteresis H	$\leq 15\%$
Repeatability R	$\leq 2\%$
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	aluminium



* For parallel mounting these sensors are available in 5 different frequencies.

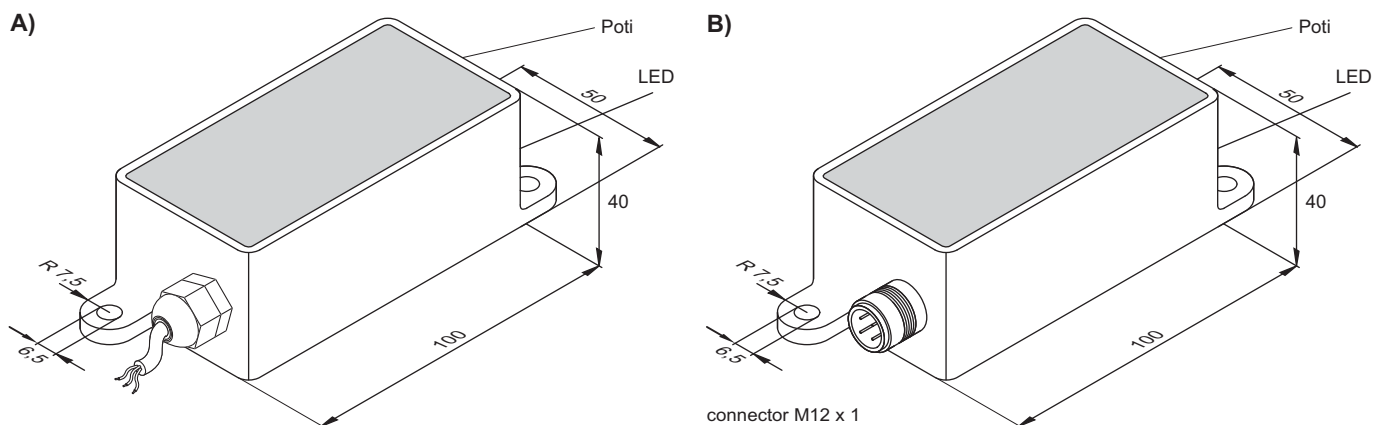
Switching distance adjustable via potentiometer.

Selection chart

Article number	Designation	Output signal	Switching distance in mm	Connection	Drawing
08316090100	KJ70-Q100AN-DPS-F1	PNP	70	2m cable PVC 3 x 0,34mm ²	A
08316090300	KJ70-Q100AN-DNS-F1	NPN	70	2m cable PVC 3 x 0,34mm ²	A
08316090165	KJ70-Q100AN-DPS-V2-F1	PNP	70	connector M12 4-pole	B
08316090365	KJ70-Q100AN-DNS-V2-F1	NPN	70	connector M12 4-pole	B

Other cable lengths as requested.

Dimensions



all data in mm



INDUCTIVE SENSORS MICRO SQUARE

MICRO SQUARE Q6

General data

Operating voltage U_b	10 ... 30V DC
Ripple voltage U_b	$\leq 10\%$
Voltage drop U_d	$\leq 1,0V$
Max. load current	100mA
Off-state current I_o	$\leq 10mA$
Residual current I_r	$\leq 10\mu A$
Max. switching frequency f	400Hz
Hysteresis H	$\leq 15\%$
Repeatability R	$\leq 0,04mm$
Operating temperature T_a	$-25^\circ C \dots +70^\circ C$
Temperature drift	$\leq 10\%$
Protection class	IP67
EMV-standard	according to IEC 60947-5-2
Switching state	LED
Housing material	polycarbonate



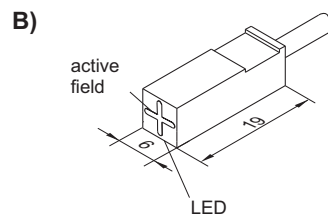
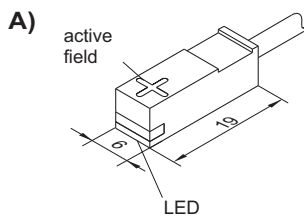
Mounting clamp included in delivery.

Selection chart

Article number	Designation	Mounting	Output signal	Switching distance in mm	Connection	Drawing
08313661217	SJ1,2-Q6KN19-DPS	non shielded	PNP	1,2	2m cable PVC 3 x 0,15mm ²	A
08313661220	SJ1,2-Q6KN19-DPÖ	non shielded	PNP	1,2	2m cable PVC 3 x 0,15mm ²	A
08313661237	SJ1,2-Q6KN19-DNS	non shielded	NPN	1,2	2m cable PVC 3 x 0,15mm ²	A
08313661240	SJ1,2-Q6KN19-DNÖ	non shielded	NPN	1,2	2m cable PVC 3 x 0,15mm ²	A
08313661219	SJ1,2W-Q6KN19-DPS	non shielded	PNP	1,2	2m cable PVC 3 x 0,15mm ²	B
08313661229	SJ1,2W-Q6KN19-DPÖ	non shielded	PNP	1,2	2m cable PVC 3 x 0,15mm ²	B
0831366xxxx	SJ1,2W-Q6KN19-DNS	non shielded	NPN	1,2	2m cable PVC 3 x 0,15mm ²	B
0831366xxxx	SJ1,2W-Q6KN19-DNÖ	non shielded	NPN	1,2	2m cable PVC 3 x 0,15mm ²	B

Other cable lengths as requested.

Dimensions



all data in mm



INDUCTIVE SENSORS MICRO SQUARE

MICRO SQUARE Q8

General data

Mounting	non shielded
Operating voltage U_b	10 ... 30V DC
Ripple voltage U_b	$\leq 10\%$
Voltage drop U_d	$\leq 1,0V$
Max. load current	100mA
Off-state current I_0	$\leq 10mA$
Residual current I_r	$\leq 10\mu A$
Max. switching frequency f	500Hz
Hysteresis H	$\leq 15\%$
Repeatability R	$\leq 0,04$ mm
Operating temperature T_a	$-25^\circ C \dots +70^\circ C$
Temperature drift	$\leq 10\%$
Protection class	IP67
EMV-standard	according to IEC 60947-5-2
Switching state	LED
Housing material	polycarbonate

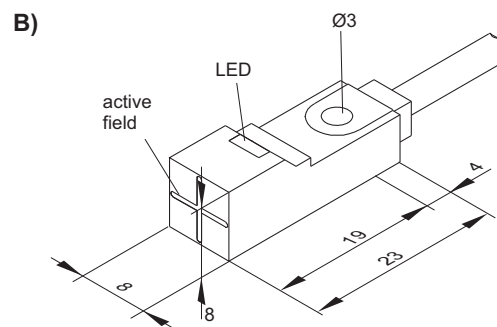
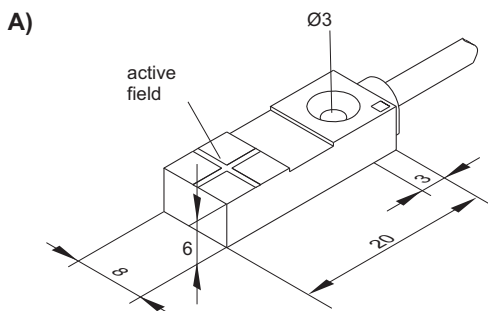


Selection chart

Article number	Designation	Output signal	Switching distance in mm	Connection	Drawing
08313881512	SJ1,5-Q8KN20-DPS	PNP	1,5	2m cable PVC 3 x 0,15mm ²	A
08313881522	SJ1,5-Q8KN20-DPÖ	PNP	1,5	2m cable PVC 3 x 0,15mm ²	A
08313881532	SJ1,5-Q8KN20-DNS	NPN	1,5	2m cable PVC 3 x 0,15mm ²	A
08313881542	SJ1,5-Q8KN20-DNÖ	NPN	1,5	2m cable PVC 3 x 0,15mm ²	A
08313881519	SJ1,5W-Q8KN23-DPS	PNP	1,5	2m cable PVC 3 x 0,15mm ²	B
08313881529	SJ1,5W-Q8KN23-DPÖ	PNP	1,5	2m cable PVC 3 x 0,15mm ²	B
08313881539	SJ1,5W-Q8KN23-DNS	NPN	1,5	2m cable PVC 3 x 0,15mm ²	B
08313881549	SJ1,5W-Q8KN23-DNÖ	NPN	1,5	2m cable PVC 3 x 0,15mm ²	B

Other cable lengths as requested.

Dimensions



all data in mm



INDUCTIVE SENSORS MICRO SQUARE

MICRO SQUARE Q10/Q12

General data

Operating voltage U_b	10 ... 30V DC
Ripple voltage U_b	$\leq 10\%$
Voltage drop U_d	$\leq 1,0V$
Max. load current	100mA
Off-state current I_0	$\leq 10mA$
Residual current I_r	$\leq 10\mu A$
Max. switching frequency f	250Hz (version Q12: 500Hz)
Hysteresis H	$\leq 15\%$
Repeatability R	$\leq 0,04mm$
Operating temperature T_a	$-25^\circ C \dots +70^\circ C$
Temperature drift	$\leq 10\%$
Protection class	IP67
EMV-standard	according to IEC 60947-5-2
Switching state	LED
Housing material	polycarbonate

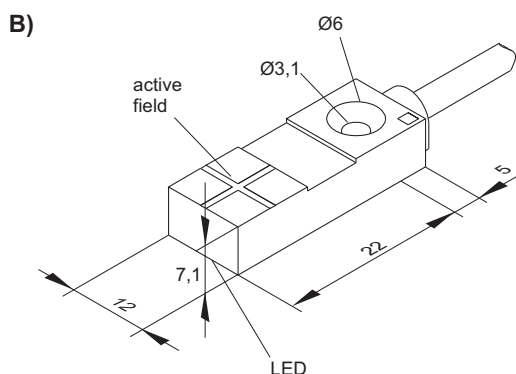
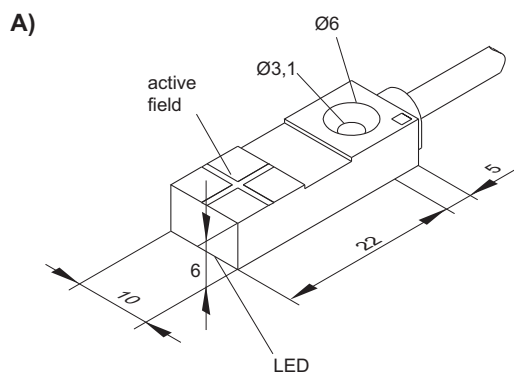


Selection chart

Article number	Designation	Mounting	Output signal	Switching distance in mm	Connection	Drawing
08313021010	SJ2-Q10KN27-DPS	non shielded	PNP	2	2m cable PVC 3 x 0,15mm ²	A
0831xxxxxxx	SJ2-Q10KN27-DPÖ	non shielded	PNP	2	2m cable PVC 3 x 0,15mm ²	A
0831xxxxxxx	SJ2-Q10KN27-DNS	non shielded	NPN	2	2m cable PVC 3 x 0,15mm ²	A
0831xxxxxxx	SJ2-Q10KN27-DNÖ	non shielded	NPN	2	2m cable PVC 3 x 0,15mm ²	A
0831xxxxxxx	SJ2-Q12KN27-DPS	non shielded	PNP	2	2m cable PVC 3 x 0,15mm ²	B
0831xxxxxxx	SJ2-Q12KN27-DPÖ	non shielded	PNP	2	2m cable PVC 3 x 0,15mm ²	B
0831xxxxxxx	SJ2-Q12KN27-DNS	non shielded	NPN	2	2m cable PVC 3 x 0,15mm ²	B
0831xxxxxxx	SJ2-Q12KN27-DNÖ	non shielded	NPN	2	2m cable PVC 3 x 0,15mm ²	B

Other cable lengths as requested.

Dimensions



all data in mm



INDUCTIVE SENSORS MICRO SQUARE

MICRO SQUARE Q15

General data

Mounting	non shielded
Operating voltage U_b	10 ... 30V DC
Ripple voltage U_b	$\leq 10\%$
Voltage drop U_d	$\leq 1,0V$
Max. load current	100mA
Off-state current I_0	$\leq 10mA$
Residual current I_r	$\leq 10\mu A$
Max. switching frequency f	250Hz
Hysteresis H	$\leq 15\%$
Repeatability R	$\leq 0,04$ mm
Operating temperature T_a	$-25^\circ C \dots +70^\circ C$
Temperature drift	$\leq 10\%$
Protection class	IP67
EMV-standard	according to IEC 60947-5-2
Switching state	LED
Housing material	polycarbonate



Selection chart

Article number	Designation	Output signal	Switching distance in mm	Connection	Drawing (next page)
08313150410	SJ4-Q15KN32-DPS	PNP	4	2m cable PVC 3 x 0,15mm ²	A
08313150420	SJ4-Q15KN32-DPÖ	PNP	4	2m cable PVC 3 x 0,15mm ²	A
08313150430	SJ4-Q15KN32-DNS	NPN	4	2m cable PVC 3 x 0,15mm ²	A
08313150440	SJ4-Q15KN32-DNÖ	NPN	4	2m cable PVC 3 x 0,15mm ²	A
08313150419	SJ4W-Q15KN30-DPS	PNP	4	2m cable PVC 3 x 0,15mm ²	B
08313150429	SJ4W-Q15KN30-DPÖ	PNP	4	2m cable PVC 3 x 0,15mm ²	B
08313150439	SJ4W-Q15KN30-DNS	NPN	4	2m cable PVC 3 x 0,15mm ²	B
08313150449	SJ4W-Q15KN30-DNÖ	NPN	4	2m cable PVC 3 x 0,15mm ²	B
08313156410	SJ6,4-Q15KN32-DPS	PNP	6,4	2m cable PVC 3 x 0,15mm ²	A
08313156420	SJ6,4-Q15KN32-DPÖ	PNP	6,4	2m cable PVC 3 x 0,15mm ²	A
08313156430	SJ6,4-Q15KN32-DNS	NPN	6,4	2m cable PVC 3 x 0,15mm ²	A
08313156440	SJ6,4-Q15KN32-DNÖ	NPN	6,4	2m cable PVC 3 x 0,15mm ²	A
08313156419	SJ6,4W-Q15KN30-DPS	PNP	6,4	2m cable PVC 3 x 0,15mm ²	B
08313156429	SJ6,4W-Q15KN30-DPÖ	PNP	6,4	2m cable PVC 3 x 0,15mm ²	B
08313156439	SJ6,4W-Q15KN30-DNS	NPN	6,4	2m cable PVC 3 x 0,15mm ²	B
08313156449	SJ6,4W-Q15KN30-DNÖ	NPN	6,4	2m cable PVC 3 x 0,15mm ²	B

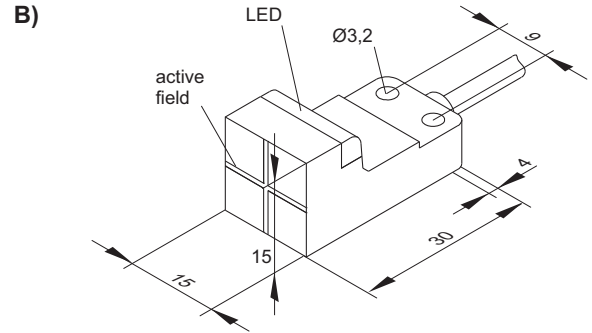
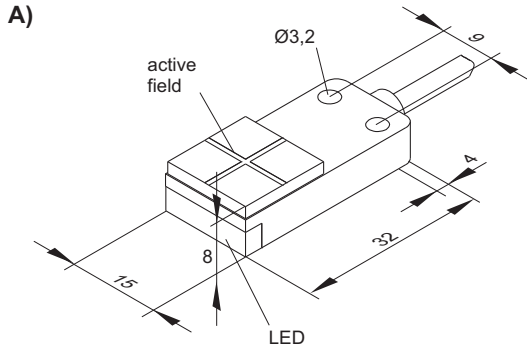
Other cable lengths as requested.



INDUCTIVE SENSORS MICRO SQUARE

MICRO SQUARE Q15

Dimensions



all data in mm