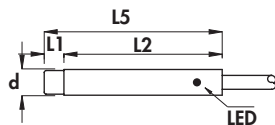
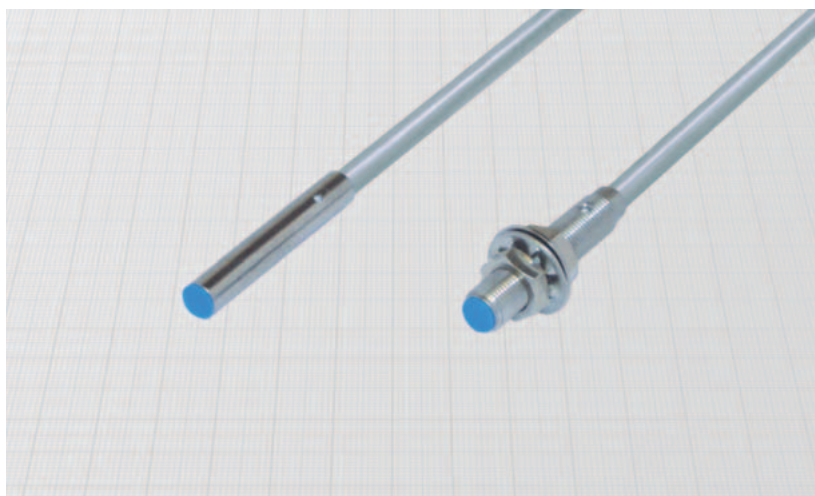
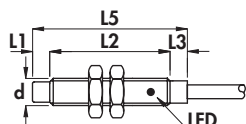


Diameters 4 - 5 mm •
 Amplified in d.c. 3 wires •
 Cable output •

Housing A-3



Housing B-6



Diameter	M5 x 0,5	
Nut	Size	SW7
	Thickness mm	2,5
Max tightening torque Nm	2	

Materials:

- Cable: 2 m PVC CEI 20 - 22 II; 90°C; 300 V; O.R.
- Housing: stainless steel
- Sensing face: plastic

Technical data:

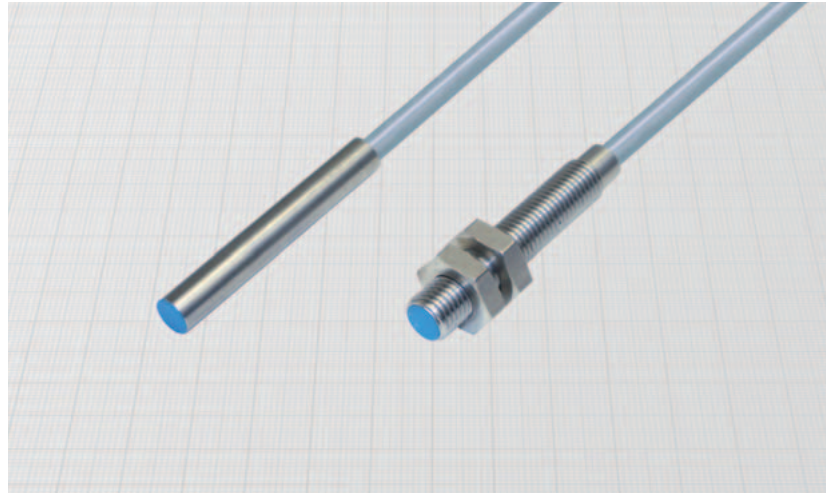
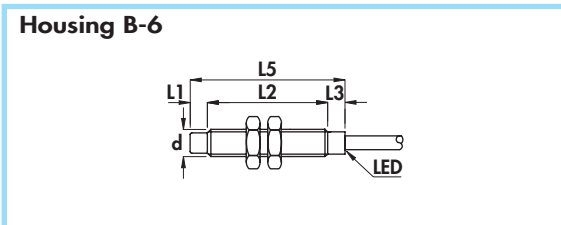
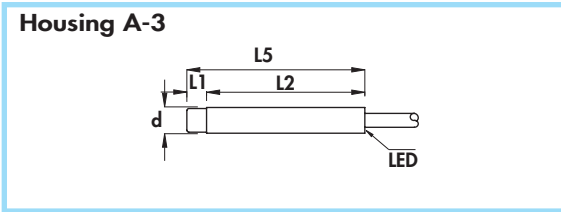
- Supply voltage (U_B): 7 ÷ 30 Vdc
- Max ripple: 10%
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): ≤ 1,5 V
- Temperature range: -25° ÷ +70°C
- Max thermal drift of sensing distance S_r : ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Cable conductor cross section: 0,15 mm²
- Protected against short-circuit and overload (versions with letter K)
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

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Housing	Flush mounting Non flush mounting	L1	L2	L3	L5	Cable diameter	Body diameter (d)	Max switching frequency (f)	Rated operational current (I_e)	Nominal sensing distance (S_n) ± 10%	ORDERING REFERENCES		
											PNP (positive switching)		
A-3	•	-	25	-	25	3	4	5	200	0,8			
A-3	•	3	22	-	25	3	4	5	200	1,4			
A-3	•	-	30	-	30	3	4	5	200	1			
A-3	•	3	27	-	30	3	4	5	200	1,4			
B-6	•	-	20	5	25	3	M5 x 0,5	5	200	0,8			
B-6	•	3	17	5	25	3	M5 x 0,5	5	200	1,4			
B-6	•	-	25	5	30	3	M5 x 0,5	5	200	1			
B-6	•	3	22	5	30	3	M5 x 0,5	5	200	1,4			
NPN (negative switching)													
Use the above mentioned part number changing the last number 9 with 8 (ie. DCA4/4608LS)													

CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- Diameters 6,5 - 8 mm
- Amplified in d.c. 3 and 4 wires
- Cable output



Diameter	M8 x 1	
Nut	Size	SW13
	Thickness mm	4
Max tightening torque Nm	10	

Materials:

- Cable: 2 m PVC CEI 20 - 22 II; 90°C; 300 V; O.R.
- Housing: stainless steel
- Sensing face: plastic

Technical data:

- Supply voltage (U_B): 7 ÷ 30 Vdc
- Max ripple: 10%
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): ≤ 1,5 V
- Temperature range: - 25° ÷ + 70°C
- Max thermal drift of sensing distance S_s : ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Cable conductor cross section: 0,15 mm² on 4 wires versions
0,22 mm² on 3 wires versions

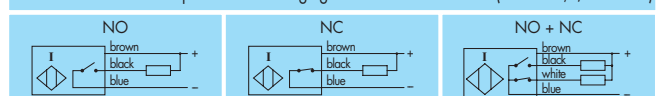
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27



Housing	Flush mounting Non flush mounting	L1	L2	L3	L5	Cable diameter	Body diameter (d)	Max switching frequency (f)	No-load supply current (I_0)	Nominal sensing distance (S_n) ±10%	ORDERING REFERENCES		
											PNP (positive switching)		
A - 3	•	-	45	-	45	3,5	6,5	4	200	1,5			
A - 3	•	5	40	-	45	3,5	6,5	3	200	2,5	DCA6,5/4609LKS DCA6,5/5609LKS	DCA6,5/4619LKS DCA6,5/5619LKS	DCA6,5/4629LKS DCA6,5/5629LKS
A - 3	•	-	45	-	45	3,5	8	4	200	1,5			
B - 6	•	-	40	5	45	3,5	M8 x 1	4	200	1,5	DCA8/4609LKS DCA8/4609KS	DCA8/4619LKS DCA8/4619KS	DCA8/4629LKS DCA8/4629KS
A - 3	•	5	40	-	45	3,5	8	3	200	2,5	DCA8/5609LKS DCA8/5609KS	DCA8/5619LKS DCA8/5619KS	DCA8/5629LKS DCA8/5629KS
B - 6	•	5	35	5	45	3,5	M8 x 1	3	200	2,5	DCA8/5609LKS DCA8/5609KS	DCA8/5619LKS DCA8/5619KS	DCA8/5629LKS DCA8/5629KS

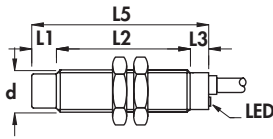
NPN (negative switching)

Use the above mentioned part number changing the last number 9 with 8 (ie. DCA6,5/4608LKS)

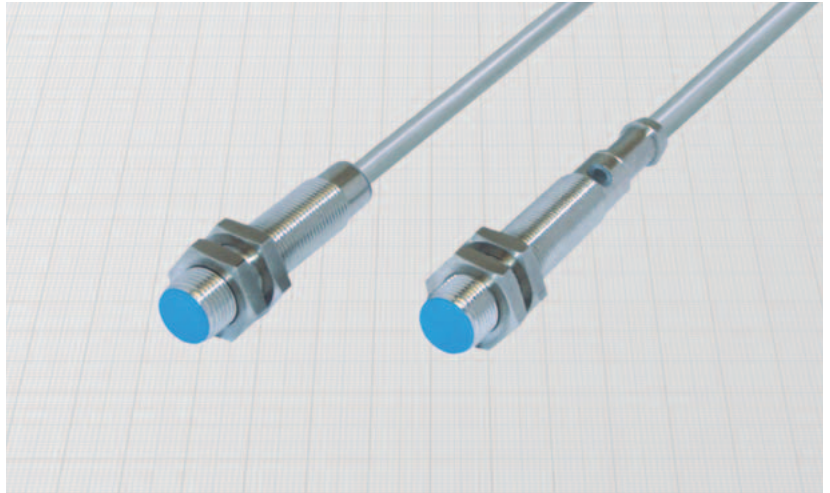
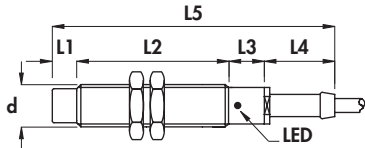


Diameters 12 mm •
Amplified in d.c. 3 and 4 wires •
Cable output •

Housing B-3



Housing D



Diameter		M12 x 1	M14 x 1	M16 x 1
Nut	Size	SW17	SW17	SW22
	Thickness mm	4	4	4
Max tightening torque Nm		15	20	25

Materials:

- Cable: 2 m PVC CEI 20 - 22 II; 90°C; 300 V; O.R.
- Housing: nickel plated brass
- Sensing face: plastic

Technical data:

- Supply voltage (U_B): 5 ÷ 40 Vdc
- Max ripple: 10%
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): ≤ 1,5 V
- Temperature range: -25° ÷ +75°C
- Max thermal drift of sensing distance S_r : ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Cable conductor cross section: 0,35 mm² on 3 wires
0,25 mm² on 4 wires

- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

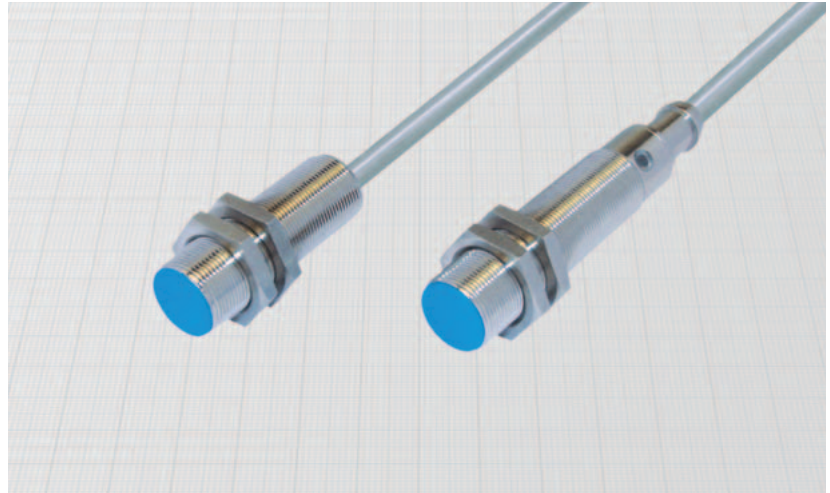
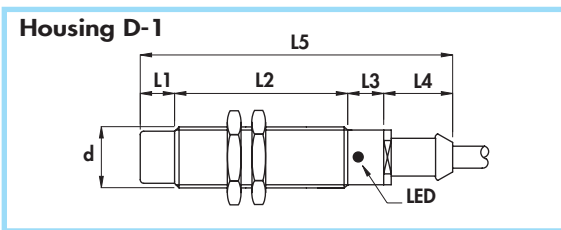
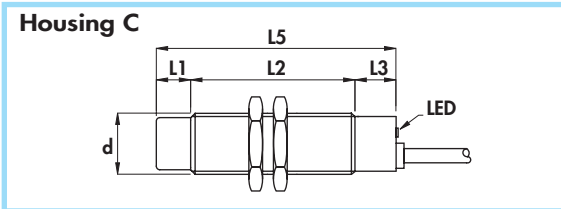
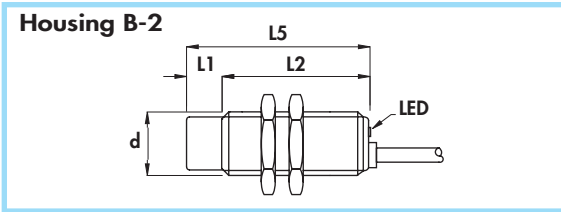
Housing	Flush mounting Non flush mounting	L1	L2	L3	L4	L5	Cable diameter	Body diameter (d)	Max switching frequency (f)	Rated operational current (I _e)	Nominal sensing distance (S _n) ± 10%	ORDERING REFERENCES		
												PNP (positive switching)		
B-3	•	-	43	7	-	50	4	M12 x 1	2	200	2			
D	•	-	50	10	20	80	4	M12 x 1	2	200	2	DCA12/4609KS	DCA12/4619KS	DCA12/4629KS
B-3	•	7	36	7	-	50	4	M12 x 1	1,5	200	4	DCA12/4709KS	DCA12/4719KS	DCA12/4729KS
D	•	7	43	10	20	80	4	M12 x 1	1,5	200	4	DCA12/5609KS	DCA12/5619KS	DCA12/5629KS

NPN (negative switching)

Use the above mentioned part number changing the last number 9 with 8 (ie DCA12/4608KS)

CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- Diameters 18 mm
- Amplified in d.c. 3 and 4 wires
- Cable output



Diameter	M18 x 1	
Nut	Size	SW24
	Thickness mm	4
Max tightening torque Nm	35	

Materials:

- Cable: 2 m PVC CEI 20 - 22 II; 90°C; 300 V; O.R.
- Housing: nickel plated brass
- Sensing face: plastic

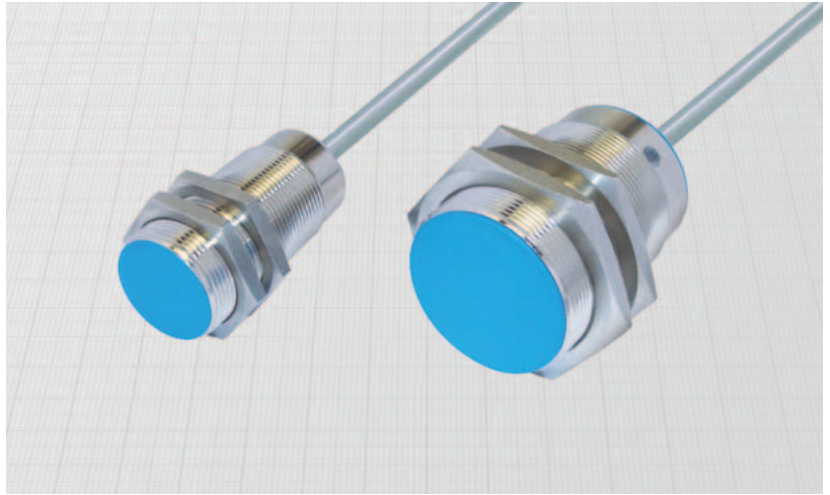
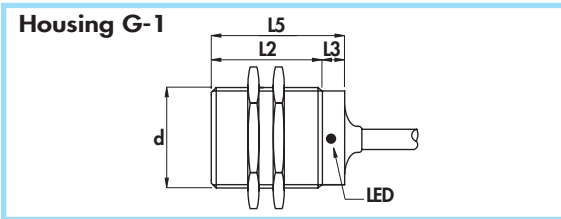
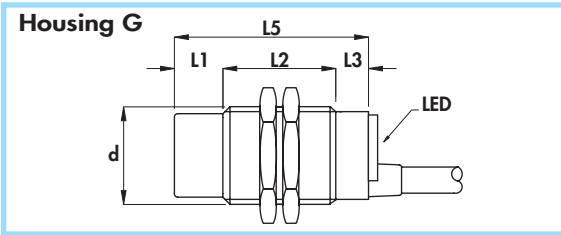
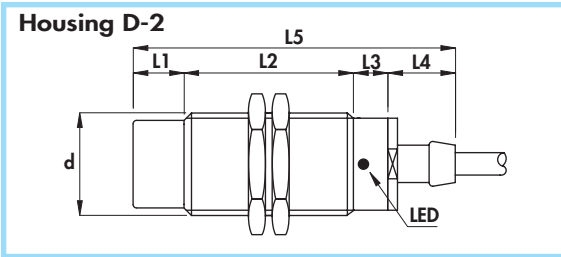
Technical data:

- Supply voltage (U_B): 5 ÷ 60 V
- Max ripple: 10%
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): ≤ 2,2 V
- Temperature range: - 25° ÷ + 75°C
- Max thermal drift of sensing distance S_s : ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Cable conductor cross section: 0,50 mm²
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

Housing	Flush mounting Non flush mounting	L1	L2	L3	L4	L5	Cable diameter	Body diameter (d)	Max switching frequency (f)	No-load supply current (I ₀)	Nominal sensing distance (S _n) ± 10%	ORDERING REFERENCES		
												PNP (positive switching)		
												NO	NC	NO + NC
												brown black blue	brown black blue	brown black white blue
B-2	•	-	50	-	-	50	5	M18 x 1	1	400	5	DCA18/4A09KS	DCA18/4A19KS	DCA18/4A29KS
B-2	•	10	40	-	-	50	5	M18 x 1	1	400	8	DCA18/5A09KS	DCA18/5A19KS	DCA18/5A29KS
C	•	-	58	12	-	70	5	M18 x 1	1	400	5	DCA18/4609KS	DCA18/4619KS	DCA18/4629KS
D-1	•	-	60	12	20	92	6	M18 x 1	1	400	5	DCA18/4709KS	DCA18/4719KS	DCA18/4729KS
C	•	10	48	12	-	70	5	M18 x 1	1	400	8	DCA18/5609KS	DCA18/5619KS	DCA18/5629KS
D-1	•	10	50	12	20	92	6	M18 x 1	1	400	8	DCA18/5709KS	DCA18/5719KS	DCA18/5729KS
												NPN (negative switching)		
												Use the above mentioned part number changing the last number 9 with 8 (ie DCA18/4A08KS)		
												NO	NC	NO + NC
												brown black blue	brown black blue	brown black white blue

CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- Diameters 30 - 45 mm •
- Amplified in d.c. 3 and 4 wires •
- Cable output •



Diameter	M30 x 1,5	M45 x 1,5
Nut	Size	SW36
	Thickness mm	5
Max tightening torque Nm	80	70

Materials:

- Cable: 2 m PVC CEI 20 - 22 II; 90°C; 300 V; O.R.
- Housing: nickel plated brass
- Sensing face: plastic

Technical data:

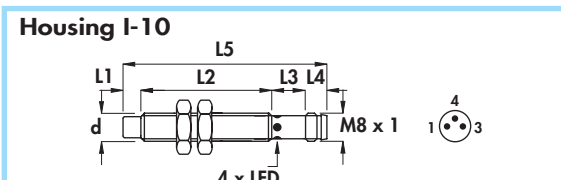
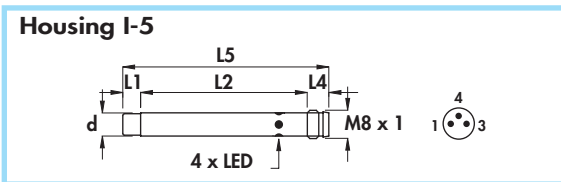
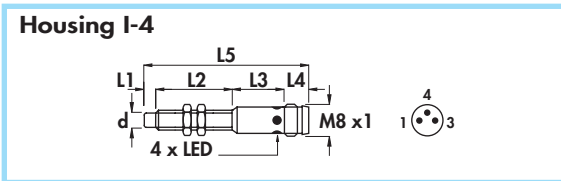
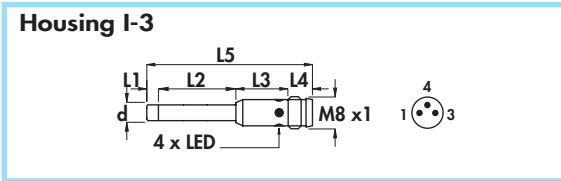
- Supply voltage (U_B): 7 ÷ 60 Vdc
- Max ripple: 10%
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): ≤ 2,2 V
- Temperature range: -25° ÷ +75°C
- Max thermal drift of sensing distance S_T : ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Cable conductor cross section: 0,50 mm²
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

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Housing	Flush mounting Non flush mounting	L1	L2	L3	L4	L5	Cable diameter	Body diameter (d)	Max switching frequency (f)	No-load supply current (I ₀)	Nominal sensing distance (S _n) ± 10%	ORDERING REFERENCES		
												PNP (positive switching)		
												NO	NC	NO + NC
												brown black blue	brown black blue	brown black white blue
												mm	mm	mm
G	•	-	50	10	-	60	6	M30 x 1,5	0,8	400	10	DCA30/4609KS	DCA30/4619KS	DCA30/4629KS
D-2	•	-	65	10	20	95	6	M30 x 1,5	0,8	400	10	DCA30/4709KS	DCA30/4719KS	DCA30/4729KS
G	•	15	35	10	-	60	6	M30 x 1,5	0,4	400	15	DCA30/5609KS	DCA30/5619KS	DCA30/5629KS
D-2	•	15	50	10	20	95	6	M30 x 1,5	0,4	400	15	DCA30/5709KS	DCA30/5719KS	DCA30/5729KS
G-1	•	-	50	10	-	60	6	M45 x 1,5	0,15	400	20	DCA45/4609KS	DCA45/4619KS	DCA45/4629KS
												NPN (negative switching)		
												Use the above mentioned part number changing the last number 9 with 8 (ie DCA30/4608KS)		
												NO	NC	NO + NC
												brown black blue	brown black blue	brown black white blue

CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- Diameters 4 - 5 - 6,5 - 8 mm
- Amplified in c.c.
- Connector output M8 x 1



Diameter	M5x0,5	M8 x 1
Nut	Size	SW7
	Thickness mm	4
Max tightening torque Nm	2	10

Materials:

- Housing: stainless steel
- Sensing face: plastic

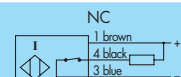
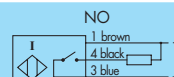
Technical data:

- Supply voltage (U_B): 7 ÷ 30 Vdc
- Max ripple: 10%
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): ≤ 1,5 V
- Temperature range: -25° ÷ +70°C
- Max thermal drift of sensing distance S_s : ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

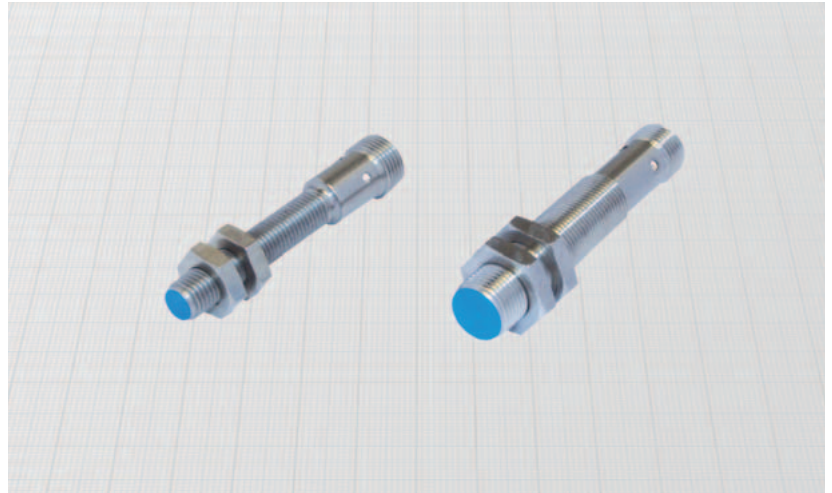
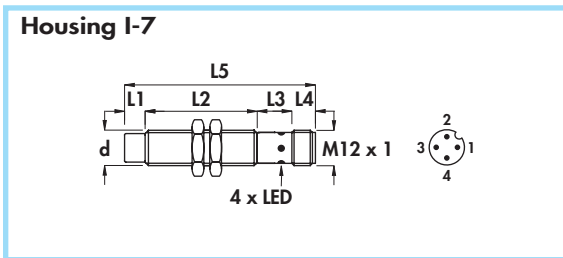
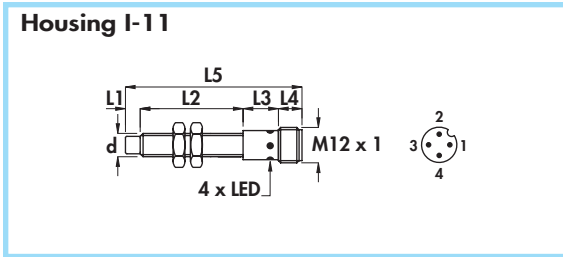
Housing	Flush mounting Non flush mounting	L1	L2	L3	L4	L5	Female connector	Body diameter (d)	Max switching frequency (f _s)	Rated operational current (I _o)	Nominal sensing distance (S _s) ± 10%	ORDERING REFERENCES	
		mm	mm	mm	mm	mm						n°	mm
I-3	•	-	22	12	5,5	39,5	11-12	4	5	200	1		
I-3	•	3	19	12	5,5	39,5	11-12	4	5	200	1,4		
I-4	•	-	22	12	5,5	39,5	11-12	M5 x 0,5	5	200	1		
I-4	•	3	19	12	5,5	39,5	11-12	M5 x 0,5	5	200	1,4		
I-5	•	-	48,5	-	5,5	54	11-12	6,5	4	200	1,5		
I-5	•	5	43,5	-	5,5	54	11-12	6,5	3	200	2,5		
I-10	•	-	40	8,5	5,5	54	11-12	M8 x 1	4	200	1,5		
I-10	•	5	35	8,5	5,5	54	11-12	M8 x 1	3	200	2,5		

NPN (negative switching)

Use the above mentioned part number changing the last number 9 with 8 (ie. DCA4/4908LKS)



Diameters 8 - 12 mm •
 Amplified in d.c. •
 Connector output M12 x 1 •



Diameter		M8 x 1	M12 x 1
Nut	Size	SW13	SW17
	Thickness mm	4	4
Max tightening torque Nm		10	15

Materials:

- Housing diametro 8 mm: stainless steel
- Housing diametro 12 mm: nickel plated brass
- Sensing face: plastic

Technical data:

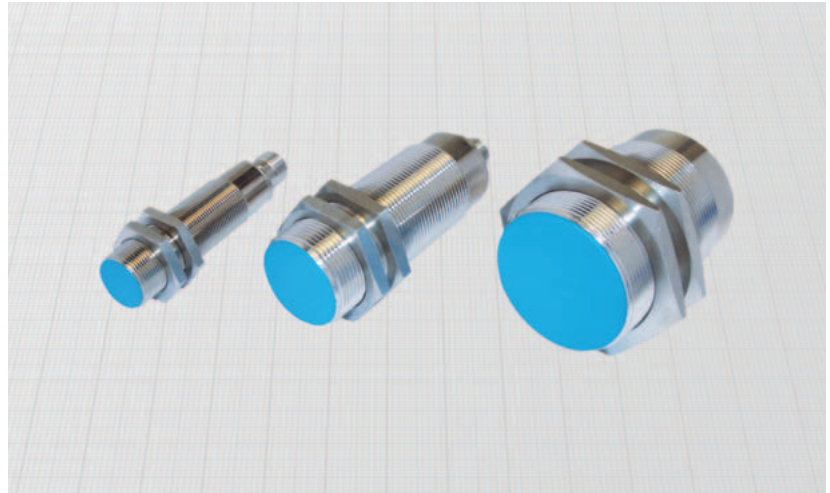
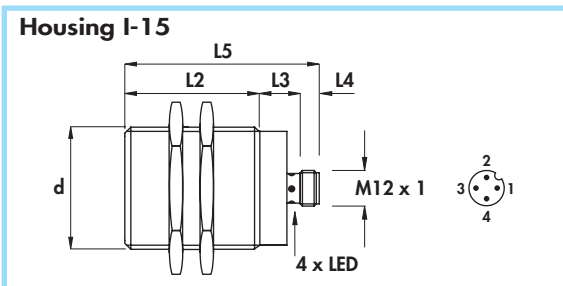
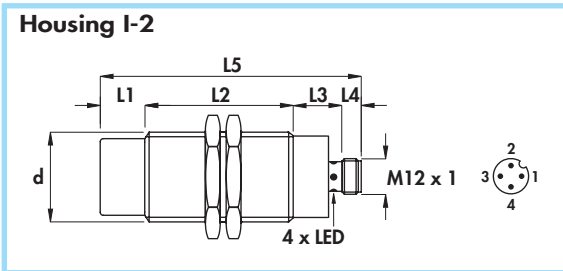
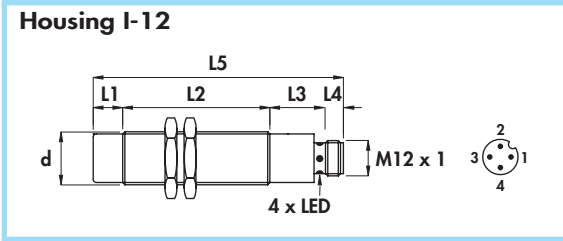
- Supply voltage (U_B): diameter 8 mm 7 ÷ 30 Vdc
 diameter 12 mm 5 ÷ 40 Vdc
- Max ripple: 10%
- No-load supply current (I_o): ≤ 10 mA
- Voltage drop (U_d): ≤ 1,5 V
- Temperature range: -25° ÷ +75°C
- Max thermal drift of sensing distance S_s : ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

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Housing	Flush mounting Non flush mounting	L1	L2	L3	L4	L5	Female connector	Body diameter (d)	Max switching frequency (f)	Rated operational current (I _e)	Nominal sensing distance (S _n) ± 10%	ORDERING REFERENCES		
												PNP (positive switching)		
												NO	NC	NO + NC
												1 brown 4 black 3 blue	1 brown 2 white 3 blue	1 brown 4 black 2 white 3 blue
I-11	•	-	40	12	8	60	6-8B-10	M8 x 1	4	200	1,5	DCA8/4309KS	DCA8/43C9KS	DCA8/4329KS
I-11	•	5	35	12	8	60	6-8B-10	M8 x 1	3	200	2,5	DCA8/5309KS	DCA8/53C9KS	DCA8/5329KS
I-7	•	-	43	15	8	66	6-8B-10	M12 x 1	2	200	2	DCA12/4309KS	DCA12/43C9KS	DCA12/4329KS
I-7	•	7	36	15	8	66	6-8B-10	M12 x 1	1,5	200	4	DCA12/5309KS	DCA12/53C9KS	DCA12/5329KS
												NPN (negative switching)		
												Use the above mentioned part number changing the last number 9 with 8 (ie DCA8/4308KS)		
												NO	NC	NO + NC
												1 brown 4 black 3 blue	1 brown 2 white 3 blue	1 brown 4 black 2 white 3 blue

CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- Diameters 18 - 30 - 45 mm
- Amplified in d.c.
- Connector output M12 x 1



Diameter	M18 x 1	M30 x 1,5	M45 x 1,5
Nut	Size	SW24	SW36
	Thickness mm	4	5
Max tightening torque Nm	35	80	70

Materials:

- Housing: nickel plated brass
- Sensing face: plastic

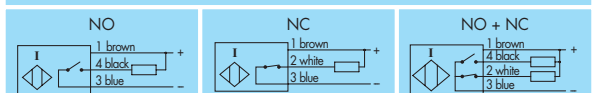
Technical data:

- Supply voltage (U_B):
 - diameter 18 mm $5 \div 60$ Vdc
 - diameters 30 and 45 mm $7 \div 60$ Vdc
- Max ripple: 10%
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): $\leq 2,2$ V
- Temperature range: $-25^\circ \div +75^\circ\text{C}$
- Max thermal drift of sensing distance S_T : $\pm 10\%$
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

Housing	Flush mounting Non flush mounting	L1	L2	L3	L4	L5	Female connector	Body diameter (d)	Max switching frequency (f)	Rated operational current (I _e)	Nominal sensing distance (S _n) ±10%	ORDERING REFERENCES		
												PNP (positive switching)		
I-12	•	-	50	19	8	77	6-8B-10	M18 x 1	1	400	5			
I-12	•	10	50	19	8	87	6-8B-10	M18 x 1	1	400	8	DCA18/4309KS	DCA18/43C9KS	DCA18/4329KS
I-12	•	-	65	17	8	90	6-8B-10	M30 x 1,5	0,8	400	10	DCA30/4309KS	DCA30/43C9KS	DCA30/4329KS
I-12	•	15	50	17	8	90	6-8B-10	M30 x 1,5	0,4	400	15	DCA30/5309KS	DCA30/53C9KS	DCA30/5329KS
I-15	•	-	50	19	8	77	6-8B-10	M45 x 1,5	0,15	400	20	DCA45/4309KS	DCA45/43C9KS	DCA45/4329KS

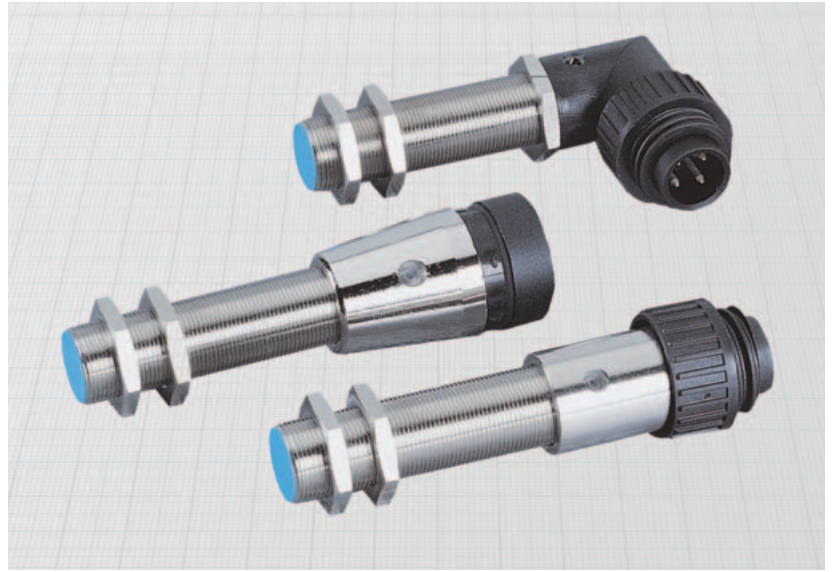
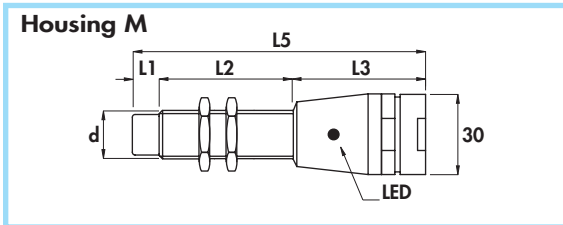
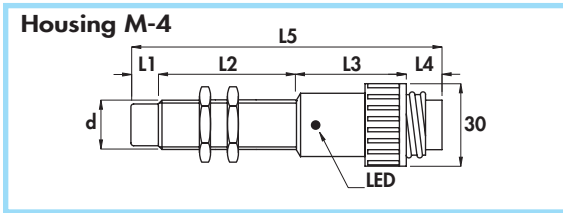
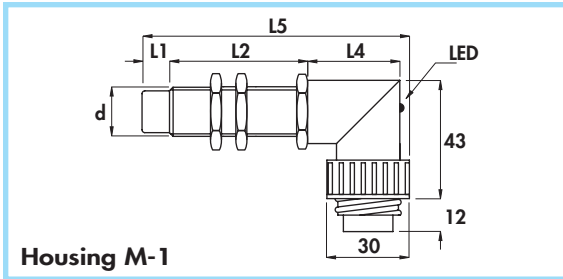
NPN (negative switching)

Use the above mentioned part number changing the last number 9 with 8 (ie DCA18/4308KS)



CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- Diameter 18 mm •**
- Amplified in d.c. •**
- Connector output C1 - C2 •**



Diameter	M18 x 1	
Nut	Size	SW24
	Thickness mm	4
Max tightening torque Nm	35	

Materials:

- Housing: nickel plated brass
- Sensing face and socket connector: plastic

Technical data:

- Supply voltage (U_B): $5 \div 60$ Vdc
- Max ripple: 10%
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): $\leq 2,2$ V
- Temperature range: $-25^\circ \div +75^\circ$ C
- Max thermal drift of sensing distance S_T : $\pm 10\%$
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP65
- Switch status indicator: yellow LED
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

Housing	Mounting	L1	L2	L3	L4	L5	Female connector	Body diameter (d)	Max switching frequency (f)	Rated operational current (I _e)	Nominal sensing distance (S _T) ±10%	ORDERING REFERENCES	
												PNP (positive switching)	
M-1	Flush mounting	-	60	-	33	96	1	M18 x 1	1	400	5		
M-4	Non flush mounting	-	60	40	13	113	1	M18 x 1	1	400	5	DCA18/4209KS	DCA18/4219KS
M-1	•	10	50	-	33	96	1	M18 x 1	1	400	8	DCA18/4409KS	DCA18/4419KS
M-4	•	10	50	40	13	113	1	M18 x 1	1	400	8	DCA18/5209KS	DCA18/5219KS
												DCA18/5409KS	DCA18/5419KS

NPN (negative switching)
Use the above mentioned part number changing the last number 9 with 8 (ie DCA18/4208KS)

		NO		NC	

PNP (positive switching)

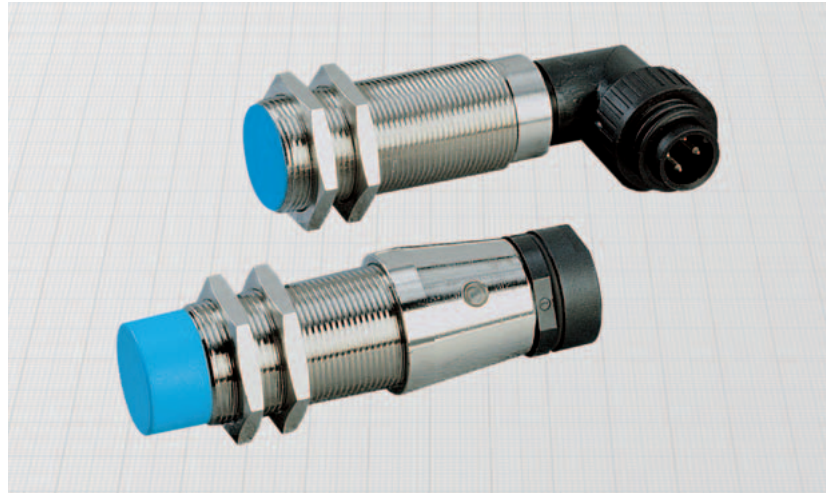
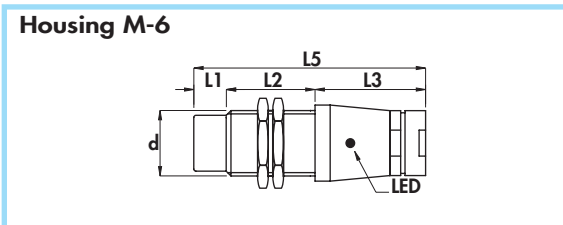
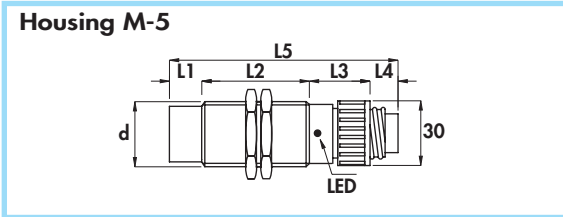
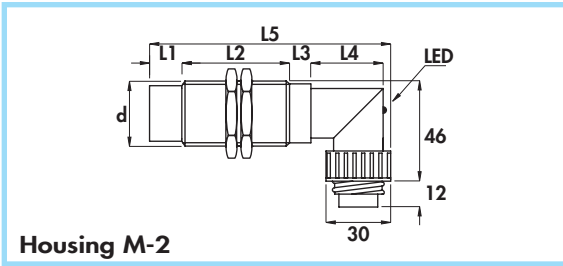
		NO		NC		NO + NC								
M	•	-	60	50	-	110	2	M18 x 1	1	400	5	DCA18/4E09KS	DCA18/4E19KS	DCA18/4E29KS
M	•	10	50	50	-	110	2	M18 x 1	1	400	8	DCA18/5E09KS	DCA18/5E19KS	DCA18/5E29KS

NPN (negative switching)
Use the above mentioned part number changing the last number 9 with 8 (ie DCA18/4E08KS)

		NO		NC		NO + NC	

CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- Diameter 30 mm
- Amplified in d.c.
- Connector output C1 - C2



Diameter	M30 x 1,5	
Nut	Size	SW36
	Thickness mm	5
Max tightening torque Nm	80	

Materials:

- Housing: nickel plated brass
- Sensing face and socket connector: plastic

Technical data:

- Supply voltage (U_b): 7 ÷ 60 Vdc
- Max ripple: 10%
- No-load supply current (I_o): ≤ 10 mA
- Voltage drop (U_d): ≤ 2,2 V
- Temperature range: - 25° ÷ + 75°C
- Max thermal drift of sensing distance S_T : ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP65
- Switch status indicator: yellow LED
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

Housing	Flush mounting Non flush mounting	L1	L2	L3	L4	L5	Female connector	Body diameter (d)	Max switching frequency (f)	No-load supply current (I _o)	Nominal sensing distance (S _T) ±10%	ORDERING REFERENCES			
		mm	mm	mm	mm	mm						n°	mm	KHz	mA
M-2	•	-	65	10	40	115	1	M30 x 1,5	0,8	400	10			DCA30/4209KS	DCA30/4219KS
M-5	•	-	65	28	13	106	1	M30 x 1,5	0,8	400	10			DCA30/4409KS	DCA30/4419KS
M-2	•	15	50	10	40	115	1	M30 x 1,5	0,4	400	15			DCA30/5209KS	DCA30/5219KS
M-5	•	15	50	28	13	106	1	M30 x 1,5	0,4	400	15			DCA30/5409KS	DCA30/5419KS

NPN (negative switching)

Use the above mentioned part number changing the last number 9 with 8 (ie DCA30/4208KS)

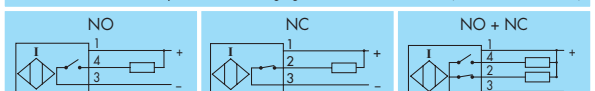


PNP (positive switching)

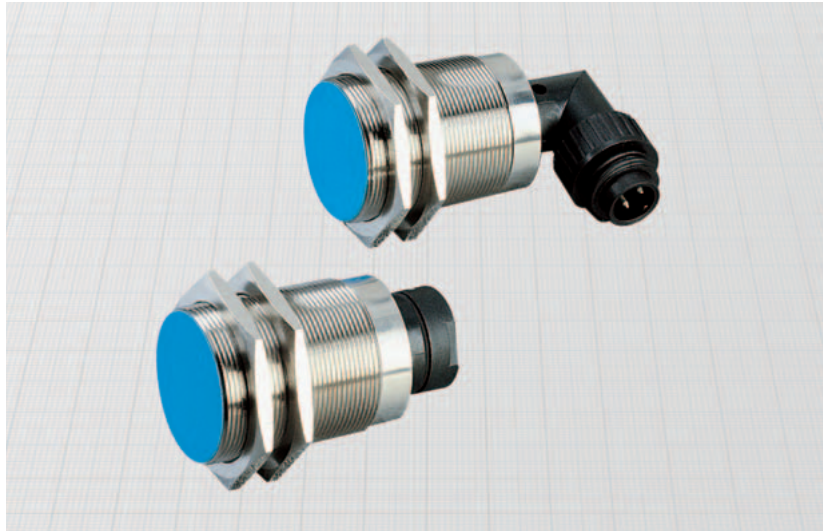
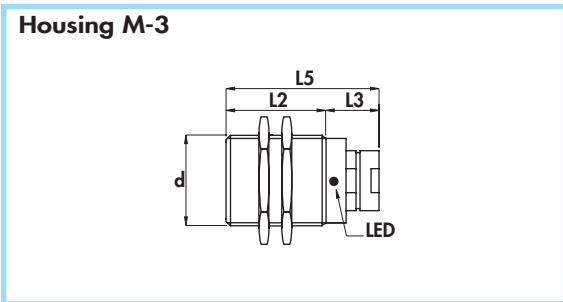
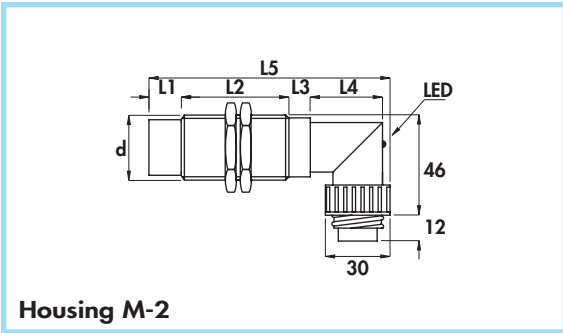
Housing	Flush mounting Non flush mounting	L1	L2	L3	L4	L5	Female connector	Body diameter (d)	Max switching frequency (f)	No-load supply current (I _o)	Nominal sensing distance (S _T) ±10%	ORDERING REFERENCES					
		mm	mm	mm	mm	mm						n°	mm	KHz	mA	mm	NO
M-6	•	-	56	51	-	107	2	M30 x 1,5	0,8	400	10				DCA30/4E09KS	DCA30/4E19KS	DCA30/4E29KS
M-6	•	15	41	51	-	107	2	M30 x 1,5	0,4	400	15				DCA30/5E09KS	DCA30/5E19KS	DCA30/5E29KS

NPN (negative switching)

Use the above mentioned part number changing the last number 9 with 8 (ie. DCA30/4E08KS)



Diameter 45 mm •
 Amplified in d.c. •
 Connector output C1 - C2 •



Diameter	M45 x 1,5	
Nut	Size	SW55
	Thickness mm	5
Max tightening torque Nm	70	

Materials:

- Housing: nickel plated brass
- Sensing face and socket connector: plastic

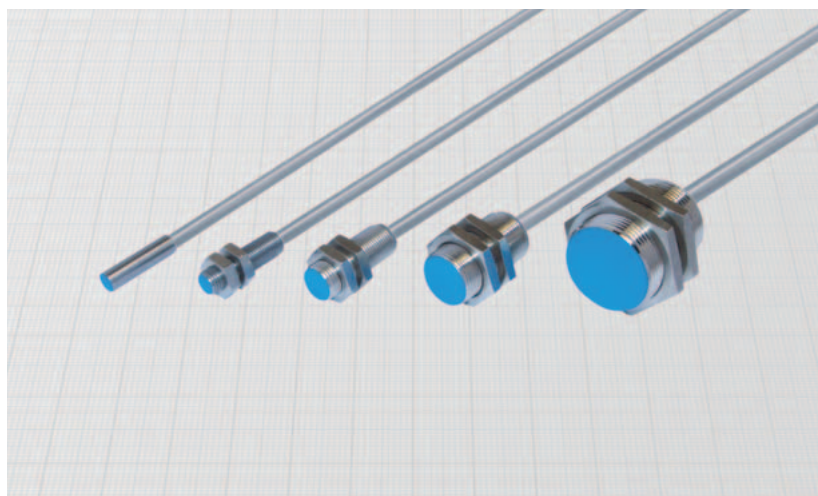
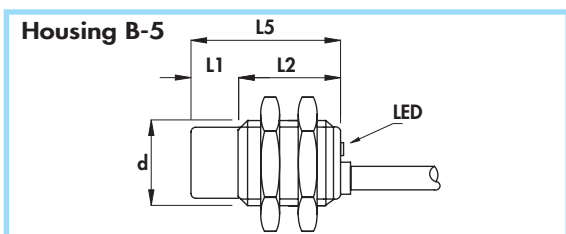
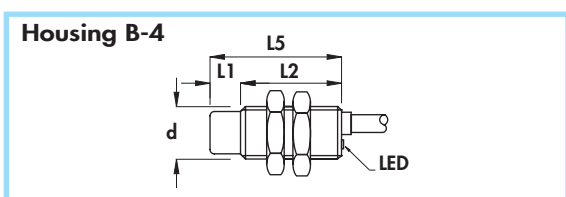
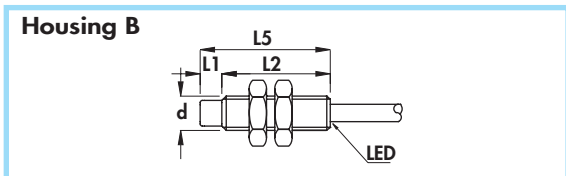
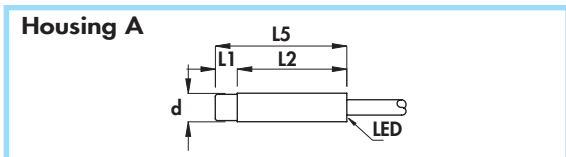
Technical data:

- Supply voltage (U_B): 7 ÷ 60 Vdc
- Max ripple: 10%
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): ≤ 2,2 V
- Temperature range: -25° ÷ +75°C
- Max thermal drift of sensing distance S_T : ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP65
- Switch status indicator: yellow LED
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

Housing	Flush mounting Non flush mounting	L1	L2	L3	L4	L5	Female connector	Body diameter (d)	Max switching frequency (f)	Rated operational current (I _e)	Nominal sensing distance (S _T) ± 10%	ORDERING REFERENCES		
												PNP (positive switching)		
M-2	•	-	50	10	42	102	1	M45 x 1,5	0,15	400	20			
												DCA45/4209KS	DCA45/4219KS	
												NPN (negative switching) Use the above mentioned part number changing the last number 9 with 8 (ie DCA45/4208KS)		
												PNP (positive switching)		
M-3	•	-	50	28	-	78	2	M45 x 1,5	0,15	400	20	DCA45/4E09KS	DCA45/4E19KS	DCA45/4E29KS
												NPN (negative switching) Use the above mentioned part number changing the last number 9 with 8 (ie DCA45/4E08KS)		

CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- **SHORT SERIES**
- **Amplified in d.c. 3 wires**
- **Cable output**



Diameter		M8 x 1	M12 x 1	M18 x 1	M30 x 1,5
Nut	Size	SW13	SW17	SW24	SW36
	Thickness mm	4	4	4	5
Max tightening torque Nm		10	15	35	80

Materials:

- Cable: 2 m PVC CEI 20 - 22 II; 90°C; 300 V; O.R.
- Housing 6,5 and 8 mm: stainless steel
- Housing 12 ÷ 30 mm: nickel plated brass
- Sensing face: plastic

Technical data:

- Supply voltage (U_B): see ordering references
- Max ripple: 10%
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): $\leq 1,5$ V
- Temperature range: $-25^\circ \div +70^\circ\text{C}$
- Max thermal drift of sensing distance S_s : $\pm 10\%$
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Cable conductor cross section: 0,22 mm² on 6,5 and 8 mm
0,35 mm² on 12 mm
0,50 mm² on 18 and 30 mm

- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

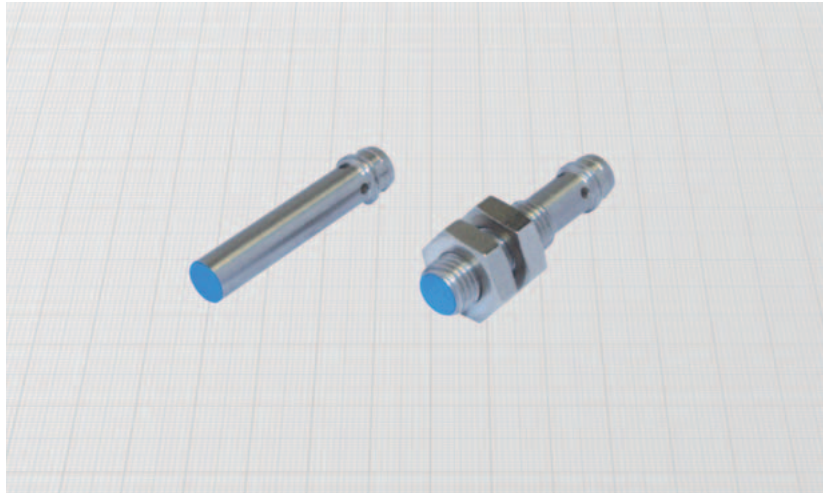
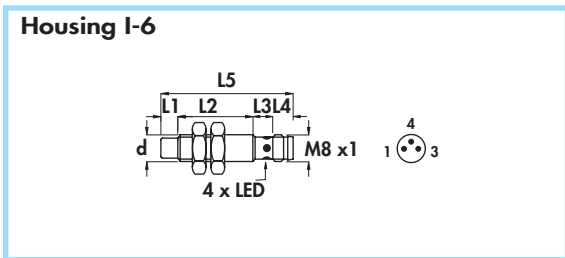
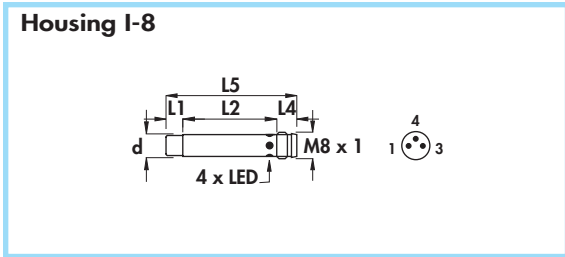
Housing	Flush mounting Non flush mounting	L1	L2	L3	L4	L5	Cable diameter	Body diameter (d)	Supply voltage (U_B)	Max switching frequency (f)	No-load supply current (I_0)	Nominal sensing distance ($S_n \pm 10\%$)	ORDERING REFERENCES	
													PNP (positive switching)	
		mm	mm	mm	mm	mm	mm	mm	V (min - max)	KHz	mA	mm		
A	•	-	30	-	-	30	3,5	6,5	7 ÷ 30	4	200	1,5	DSA6,5/4609LKS	DSA6,5/4619LKS
A	•	5	25	-	-	30	3,5	6,5	7 ÷ 30	3	200	2,5	DSA6,5/5609LKS	DSA6,5/5619LKS
B	•	-	30	-	-	30	3,5	M8 x 1	7 ÷ 30	4	200	1,5	DSA8/4609KS	DSA8/4619KS
B	•	5	25	-	-	30	3,5	M8 x 1	7 ÷ 30	3	200	2,5	DSA8/5609KS	DSA8/5619KS
B-4	•	-	30	-	-	30	4	M12 x 1	7 ÷ 40	2	200	2	DSA12/4609KS	DSA12/4619KS
B-4	•	7	23	-	-	30	4	M12 x 1	7 ÷ 40	1,5	200	4	DSA12/5609KS	DSA12/5619KS
B-5	•	-	30	-	-	30	5	M18 x 1	5 ÷ 40	0,8	200	5	DSA18/4609KS	DSA18/4619KS
B-5	•	10	20	-	-	30	5	M18 x 1	5 ÷ 40	0,6	200	8	DSA18/5609KS	DSA18/5619KS
B-5	•	-	35	-	-	35	6	M30 x 1,5	7 ÷ 40	0,8	200	10	DSA30/4609KS	DSA30/4619KS
B-5	•	15	20	-	-	35	6	M30 x 1,5	7 ÷ 40	0,4	200	15	DSA30/5609KS	DSA30/5619KS

NPN (negative switching)

Use the above mentioned part number changing the last number 9 with 8 (ie. DSA6,5/4608LKS)



**SHORT SERIES - diameters 6,5 - 8 mm •
Amplified in d.c. •
Connector output M8 x 1 •**



Diameter	M8 x 1	
Nut	Size	SW13
	Thickness mm	4
Max tightening torque Nm	10	

Materials:

- Housing: stainless steel
- Sensing face: plastic

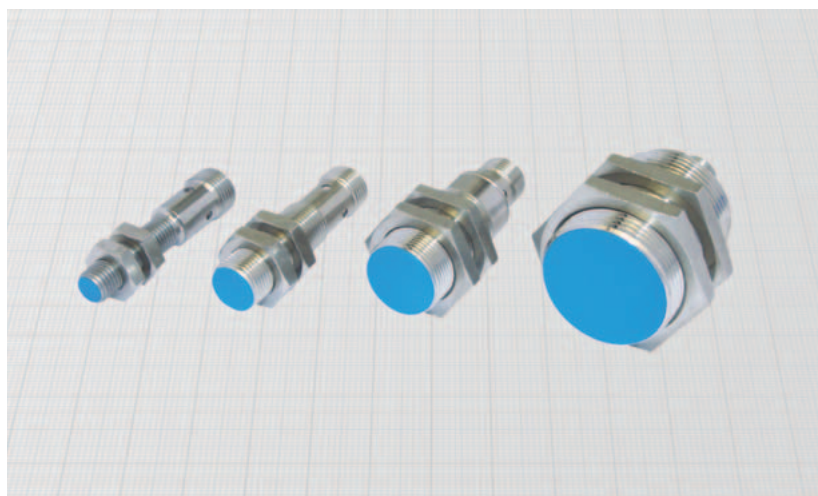
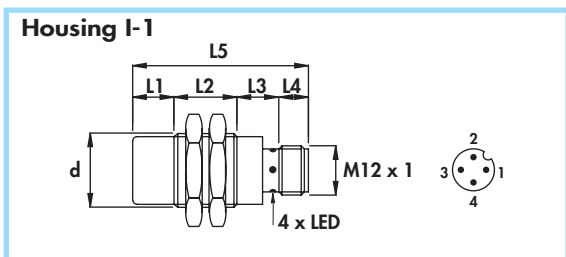
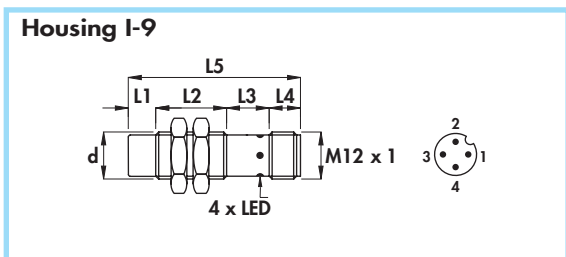
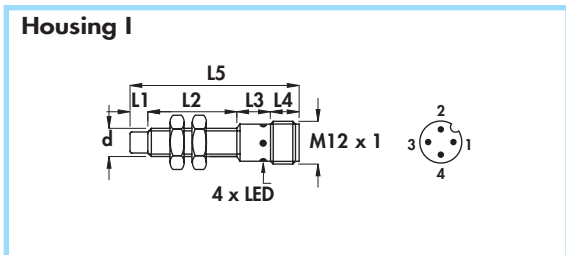
Technical data:

- Supply voltage (U_B): $7 \div 30$ Vdc
- Max ripple: 10%
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): $\leq 1,5$ V
- Temperature range: $-25^\circ \div +70^\circ\text{C}$
- Max thermal drift of sensing distance S_r : $\pm 10\%$
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

Housing	Flush mounting Non flush mounting	L1	L2	L3	L4	L5	Female connector	Body diameter (d)	Max switching frequency (f)	Rated operational current (I _e)	Nominal sensing distance (S _n) ± 10%	ORDERING REFERENCES	
												PNP (positive switching)	
												NO	NC
I-8	•	-	29,5	-	5,5	35	11 - 12	6,5	4	200	1,5		
I-8	•	5	24,5	-	5,5	35	11 - 12	6,5	3	200	2,5	DSA6,5/4909LKS DSA6,5/5909LKS	DSA6,5/4919LKS DSA6,5/5919LKS
I-6	•	-	21	8,5	5,5	35	11 - 12	M8 x 1	4	200	1,5		
I-6	•	5	16	8,5	5,5	35	11 - 12	M8 x 1	3	200	2,5	DSA8/4909KS DSA8/5909KS	DSA8/4919KS DSA8/5919KS
												NPN (negative switching)	
												Use the above mentioned part number changing the last number 9 with 8 (ie. DCA45/4E08KS)	

CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- **SHORT SERIES** - diameters 8 - 12 - 18 - 30 mm
- **Amplified in d.c.**
- Connector output M12 x 1



Diameter	M8 x 1	M12 x 1	M18 x 1	M30 x 1,5
Nut	Size	SW13	SW17	SW24
	Thickness mm	4	4	5
Max tightening torque Nm	10	15	35	80

Materials:

- Housing 8 mm: stainless steel
- Housing 12 ÷ 30 mm: nickel plated brass
- Sensing face: plastic

Technical data:

- Supply voltage (U_b): see ordering references
- Max ripple: 10%
- No-load supply current (I_o): ≤ 10 mA
- Voltage drop (U_d): $\leq 1,5$ V
- Temperature range: $-25^\circ \div +70^\circ$ C
- Max thermal drift of sensing distance S_r : $\pm 10\%$
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

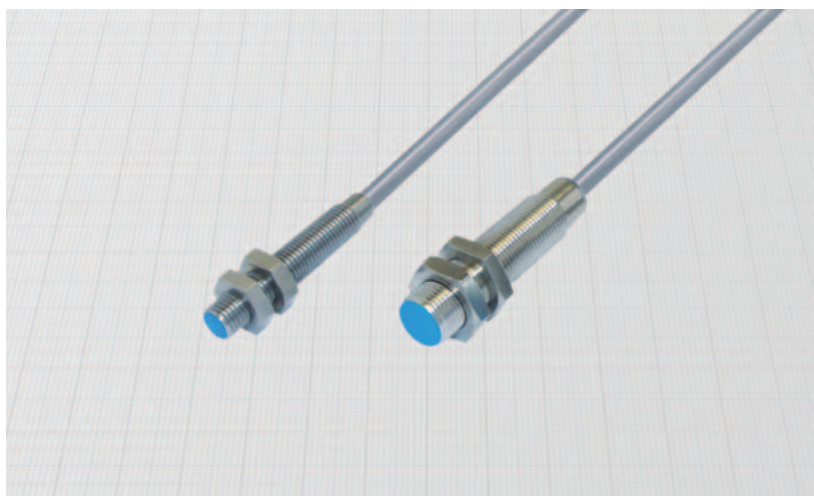
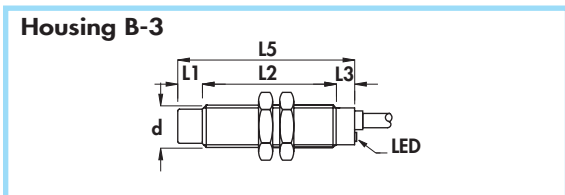
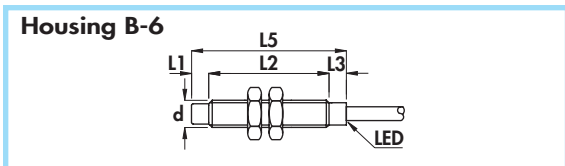
Housing	Flush mounting Non flush mounting	L1	L2	L3	L4	L5	Female connector	Body diameter (d)	Supply voltage (U_b)	Max switching frequency (f)	Rated operational current (I_e)	Nominal sensing distance (S_n) $\pm 10\%$	ORDERING REFERENCES	
													PNP (positive switching)	
I	•	-	26	13	8	47	6-8B-10	M8 x 1	7 ÷ 30	4	200	1,5	 DSA8/4309KS DSA8/5309KS	 DSA8/43C9KS DSA8/53C9KS
	•	5	21	13	8	47	6-8B-10	M8 x 1	7 ÷ 30	3	200	2,5		
I-9	•	-	30	10	8	48	6-8B-10	M12 x 1	7 ÷ 40	2	200	2	 DSA12/4309KS DSA12/5309KS	 DSA12/43C9KS DSA12/53C9KS
	•	7	23	10	8	48	6-8B-10	M12 x 1	7 ÷ 40	1	200	4		
I-1	•	-	25	16	8	49	6-8B-10	M18 x 1	5 ÷ 40	0,8	200	5	 DSA18/4309KS DSA18/5309KS	 DSA18/43C9KS DSA18/53C9KS
	•	10	15	16	8	49	6-8B-10	M18 x 1	5 ÷ 40	0,6	200	8		
I-1	•	-	25	17	8	50	6-8B-10	M30 x 1,5	7 ÷ 40	0,8	200	10	 DSA30/4309KS DSA30/5309KS	 DSA30/43C9KS DSA30/53C9KS
	•	15	25	17	8	65	6-8B-10	M30 x 1,5	7 ÷ 40	0,4	200	15		

NPN (negative switching)

Use the above mentioned part number changing the last number 9 with 8 (ie. DSA8/4308KS)



Extended sensing distance - diameters 8 - 12 mm •
 Amplified in d.c. 3 wires •
 Cable output •



Diameter	M8 x 1	M12 x 1
Nut	Size	SW13
	Thkns mm	4
Max tightening torque Nm	10	15

Materials:

- Cable: 2 m PVC CEI 20 - 22 II; 90°C; 300 V; O.R.
- Housing 8 mm: stainless steel
- Housing 12 mm: nickel plated brass
- Sensing face: plastic

Technical data:

- Supply voltage (U_B): see ordering references
 - Max ripple: 10%
 - No-load supply current (I_0): ≤ 10 mA
 - Voltage drop (U_d): $\leq 1,5$ V
 - Temperature range: $-20^\circ \div +70^\circ\text{C}$
 - Max thermal drift of sensing distance S_T : $\pm 10\%$
 - Repeat accuracy (R): 4%
 - Switching hysteresis (H): 10%
 - Degree of protection: IP67
 - Switch status indicator: yellow LED
 - Cable conductor cross section: 0,22 mm² on 8 mm
0,35 mm² on 12 mm
- Protected against short-circuit and overload
 - Protected against any wrong connection
 - Suppression of initial false impulse
 - Electromagnetic compatibility (EMC) according to EN60947-5-2
 - Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

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Housing	Flush mounting (*) Non flush mounting	L1	L2	L3	L4	L5	Cable diameter	Body diameter (d)	Supply voltage (U_B)	Max switching frequency (f)	Rated operational current (I_e)	Nominal sensing distance (S_n) $\pm 10\%$	ORDERING REFERENCES	
													PNP (positive switching)	
		mm	mm	mm	mm	mm	mm	mm	V (min - max)	Hz	mA	mm		
B-6	•	-	40	5	-	45	3,5	M8 x 1	7÷30	800	200	2	DCAE8/4609KS	DCAE8/4619KS
B-6	•	-	40	5	-	45	3,5	M8 x 1	7÷30	800	200	2,5	DCE8/4609KS	DCE8/4619KS
B-6	•	5	35	5	-	45	3,5	M8 x 1	7÷30	400	200	3	DCAE8/5609KS	DCAE8/5619KS
B-6	•	5	35	5	-	45	3,5	M8 x 1	7÷30	400	200	3,5	DCE8/5609KS	DCE8/5619KS
B-3	•	-	43	7	-	50	4	M12 x 1	7÷40	800	200	3	DCAE12/4609KS	DCAE12/4619KS
B-3	•	-	43	7	-	50	4	M12 x 1	7÷40	800	200	4	DCE12/4609KS	DCE12/4619KS
B-3	•	7	36	7	-	50	4	M12 x 1	7÷40	600	200	5	DCAE12/5609KS	DCAE12/5619KS
B-3	•	7	36	7	-	50	4	M12 x 1	7÷40	600	200	6	DCE12/5609KS	DCE12/5619KS

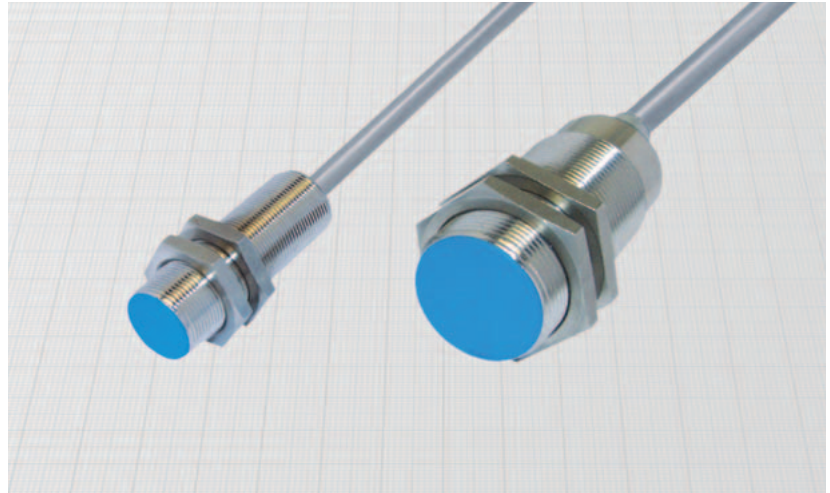
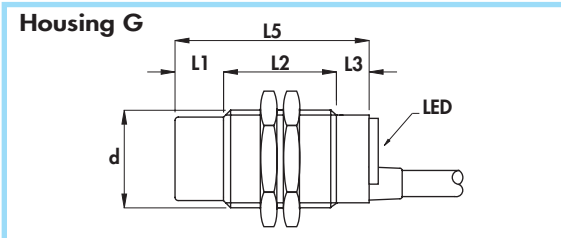
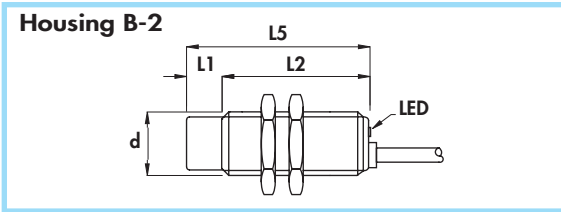
(*) Note: See mounting precautions (pag. 22)

NPN (negative switching)
 Use the above mentioned part number changing the last number 9 with 8 (ie. DCE8/4608KS)



CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- Extended sensing distance - diameters 18 - 30 mm
- Amplified in d.c. 3 wires
- Cable output



Diameter		M18 x 1	M30 x 1,5
Nut	Size	SW24	SW36
	Thkns mm	4	5
Max tightening torque Nm		35	80

Materials:

- Cable: 2 m PVC CEI 20 - 22 II; 90°C; 300 V; O.R.
- Housing: nickel plated brass
- Sensing face: plastic

Technical data:

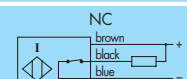
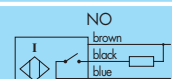
- Supply voltage (U_B): see ordering references
- Max ripple: 10%
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): $\leq 1,5$ V
- Temperature range: $-20^\circ \div +70^\circ\text{C}$
- Max thermal drift of sensing distance S_s : $\pm 10\%$
- Repeat accuracy (R): 4%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Cable conductor cross section: 0,50 mm²
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

Housing	Flush mounting (*) Non flush mounting	L1	L2	L3	L4	L5	Cable diameter	Body diameter (d)	Supply voltage (U_B)	Max switching frequency (f)	Rated operational current (I_e)	Nominal sensing distance (S_n) $\pm 10\%$	ORDERING REFERENCES	
													PNP (positive switching)	
B - 2	•	-	50	-	-	50	5	M18 x 1	7÷40	300	200	8		
B - 2	•	-	50	-	-	50	5	M18 x 1	7÷40	300	200	10	DCAE18/4A09KS	DCAE18/4A19KS
B - 2	•	10	40	-	-	50	5	M18 x 1	7÷40	200	200	12	DCE18/4A09KS	DCE18/4A19KS
B - 2	•	10	40	-	-	50	5	M18 x 1	7÷40	200	200	14	DCAE18/5A09KS	DCAE18/5A19KS
B - 2	•	10	40	-	-	50	5	M18 x 1	7÷40	200	200	14	DCE18/5A09KS	DCE18/5A19KS
G	•	-	50	10	-	60	6	M30 x 1,5	7÷40	100	200	15	DCAE30/4609KS	DCAE30/4619KS
G	•	-	50	10	-	60	6	M30 x 1,5	7÷40	100	200	20	DCE30/4609KS	DCE30/4619KS
G	•	15	35	10	-	60	6	M30 x 1,5	7÷40	100	200	20	DCAE30/5609KS	DCAE30/5619KS
G	•	15	35	10	-	60	6	M30 x 1,5	7÷40	100	200	28	DCE30/5609KS	DCE30/5619KS

(*) Note: See mounting precautions (pag. 22)

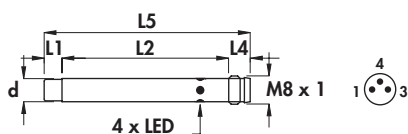
NPN (negative switching)

Use the above mentioned part number changing the last number 9 with 8 (ie. DCE8/4608KS)

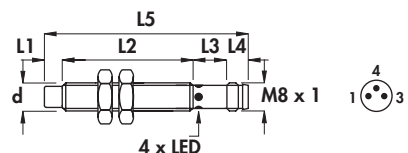


- Extended sensing distance •
- Amplified in d.c. •
- Connector output M8 x 1 •

Housing I-5



Housing I-10



Diameter	M8 x 1	
Nut	Size	SW13
	Thickness mm	4
Max tightening torque Nm	10	

Materials:

- Housing: stainless steel
- Sensing face: plastic

Technical data:

- Supply voltage (U_B): 7 ÷ 30 Vdc
- Max ripple: 10%
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): ≤ 1,5 V
- Temperature range: -20° ÷ +70°C
- Max thermal drift of sensing distance S_T : ± 10%
- Repeat accuracy (R): 4%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

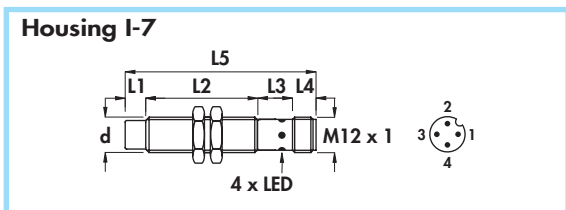
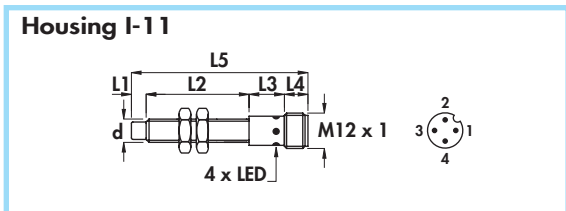
Housing	Flush mounting (*) Non flush mounting	L1	L2	L3	L4	L5	Female connector	Body diameter (d)	Max switching frequency (f)	Rated operational current (I _e)	Nominal sensing distance (S _n) ± 10%	ORDERING REFERENCES	
												PNP (positive switching)	
I-5	•	-	48,5	-	5,5	54	11 - 12	6,5	800	200	2		
I-5	•	-	48,5	-	5,5	54	11 - 12	6,5	800	200	2,5	DCAE6,5/4909LKS DCE6,5/4909LKS DCAE6,5/5909LKS DCE6,5/5909LKS	DCAE6,5/4919LKS DCE6,5/4919LKS DCAE6,5/5919LKS DCE6,5/5919LKS
I-5	•	5	43,5	-	5,5	54	11 - 12	6,5	400	200	3		
I-5	•	5	43,5	-	5,5	54	11 - 12	6,5	400	200	3,5		
I-10	•	-	40	8,5	5,5	54	11 - 12	M8 x 1	800	200	2		
I-10	•	-	40	8,5	5,5	54	11 - 12	M8 x 1	800	200	2,5		
I-10	•	5	35	8,5	5,5	54	11 - 12	M8 x 1	400	200	3		
I-10	•	5	35	8,5	5,5	54	11 - 12	M8 x 1	400	200	3,5		

(*) Note: See mounting precautions (pag. 22)

NPN (negative switching)	
Use the above mentioned part number changing the last number 9 with 8 (ie. DCAE6,5/4908LKS)	

CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- Extended sensing distance - diameter 8 - 12 mm
- Amplified in d.c.
- Connector output M12 x 1



Diameter	M8 x 1	M12 x 1
Nut	Size	SW13
	Thkns mm	4
Max tightening torque Nm	10	15

Materials:

- Housing 8 mm: stainless steel
- Housing 12 mm: nickel plated brass
- Sensing face: plastic

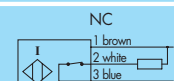
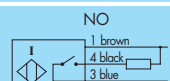
Technical data:

- Supply voltage (U_B): see ordering references
- Max ripple: 10%
- Rated operational current (I_o): 200 mA
- No-load supply current (I_o): ≤ 10 mA
- Voltage drop (U_d): $\leq 1,5$ V
- Temperature range: $-20^\circ \div +70^\circ\text{C}$
- Max thermal drift of sensing distance S_p : $\pm 10\%$
- Repeat accuracy (R): 4%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

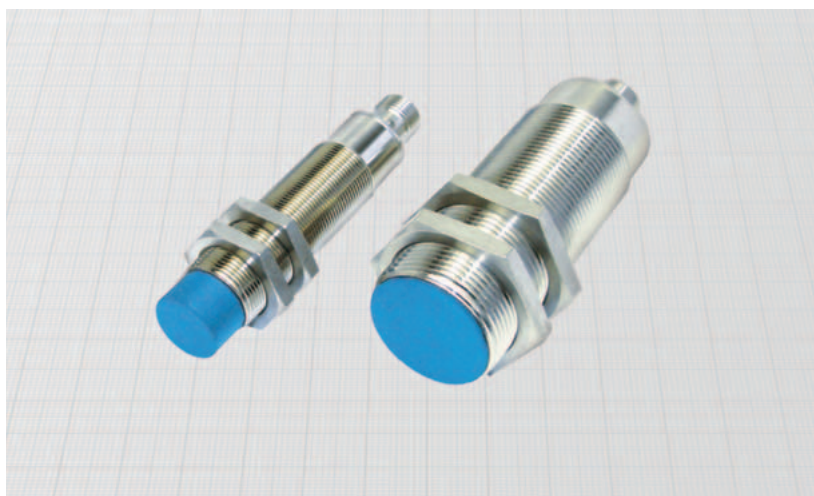
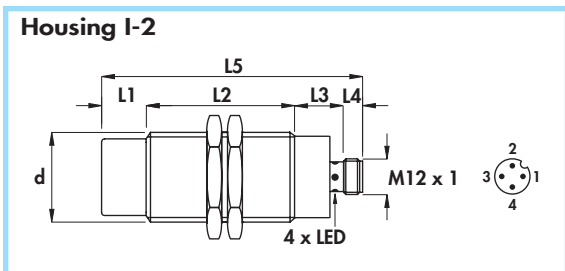
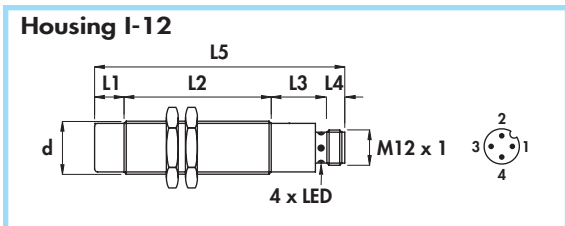
Housing	Flush mounting (*) Non flush mounting	L1	L2	L3	L4	L5	Female connector	Body diameter (d)	Supply voltage (U_B)	Max switching frequency (f)	Nominal sensing distance (S_n) $\pm 10\%$	ORDERING REFERENCES	
		mm	mm	mm	mm	mm						n°	mm
I-11	•	-	40	12	8	60	6-8B-10	M8 x 1	7 ÷ 30	800	2		
I-11	•	-	40	12	8	60	6-8B-10	M8 x 1	7 ÷ 30	800	2,5	DCAE8/4309KS	DCAE8/43C9KS
I-11	•	5	35	12	8	60	6-8B-10	M8 x 1	7 ÷ 30	400	3	DCE8/4309KS	DCE8/43C9KS
I-11	•	5	35	12	8	60	6-8B-10	M8 x 1	7 ÷ 30	400	3,5	DCAE8/5309KS	DCAE8/53C9KS
I-11	•	5	35	12	8	60	6-8B-10	M8 x 1	7 ÷ 30	400	3,5	DCE8/5309KS	DCE8/53C9KS
I-7	•	-	43	15	8	66	6-8B-10	M12 x 1	7 ÷ 40	800	3	DCAE12/4309KS	DCAE12/43C9KS
I-7	•	-	43	15	8	66	6-8B-10	M12 x 1	7 ÷ 40	800	4	DCE12/4309KS	DCE12/43C9KS
I-7	•	7	36	15	8	66	6-8B-10	M12 x 1	7 ÷ 40	600	5	DCAE12/5309KS	DCAE12/53C9KS
I-7	•	7	36	15	8	66	6-8B-10	M12 x 1	7 ÷ 40	600	6	DCE12/5309KS	DCE12/53C9KS

(*) Note: See mounting precautions (pag. 22)

NPN (negative switching)
Use the above mentioned part number changing the last number 9 with 8 (ie. DCE8/4308KS)



Extended sensing distance - diameters 18 - 30 mm •
 Amplified in d.c. •
 Connector output M12 x 1 •



Diameter	M18 x 1	M30 x 1,5
Nut	Size	SW24
	Thkns mm	4
Max tightening torque Nm	35	80

Materials:

- Housing: nickel plated brass
- Sensing face: plastic

Technical data:

- Supply voltage (U_B): see ordering references
- Max ripple: 10%
- Rated operational current (I_B): 200 mA
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): $\leq 1,5$ V
- Temperature range: $-20^\circ \div +70^\circ\text{C}$
- Max thermal drift of sensing distance S_r : $\pm 10\%$
- Repeat accuracy (R): 4%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

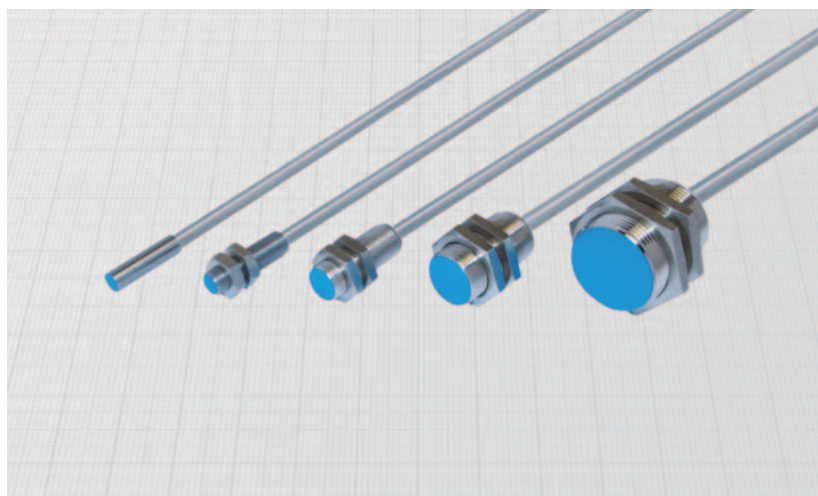
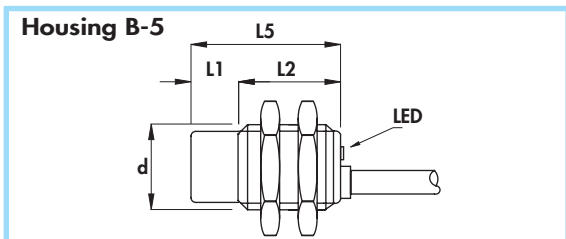
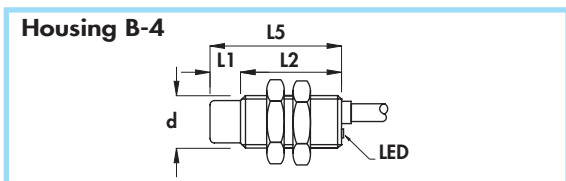
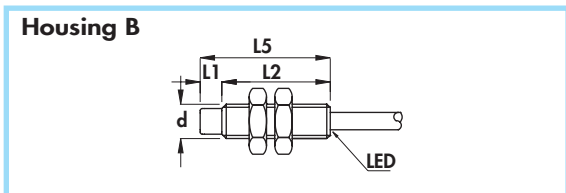
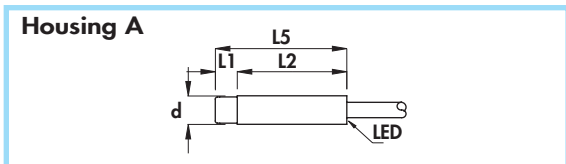
Housing	Flush mounting (*) Non flush mounting	L1	L2	L3	L4	L5	Female connector	Body diameter (d)	Supply voltage (U_B)	Max switching frequency (f)	Nominal sensing distance (S_n) $\pm 10\%$	ORDERING REFERENCES	
												PNP (positive switching)	
I-12	•	-	50	19	8	77	6-8B-10	M18 x 1	7 ÷ 40	300	10		
I-12	•	-	50	19	8	77	6-8B-10	M18 x 1	7 ÷ 40	300	10		
I-12	•	10	50	19	8	87	6-8B-10	M18 x 1	7 ÷ 40	200	14		
I-12	•	10	50	19	8	87	6-8B-10	M18 x 1	7 ÷ 40	200	14		
I-2	•	-	65	17	8	90	6-8B-10	M30 x 1,5	7 ÷ 40	100	20		
I-2	•	-	65	17	8	90	6-8B-10	M30 x 1,5	7 ÷ 40	100	20		
I-2	•	15	50	17	8	90	6-8B-10	M30 x 1,5	7 ÷ 40	100	28		
I-2	•	15	50	17	8	90	6-8B-10	M30 x 1,5	7 ÷ 40	100	28		

(*) Note: See mounting precautions (pag. 22)

NPN (negative switching)	
Use the above mentioned part number changing the last number 9 with 8 (ie. DCE8/4308KS)	

CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- **SHORT SERIES - Extended sensing distance**
- **Amplified in d.c. 3 wires**
- **Cable output**



Diameter	M8 x 1	M12 x 1	M18 x 1	M30 x 1,5
Nut	Size	SW13	SW17	SW24
	Thickness mm	4	4	4
Max tightening torque Nm	10	15	35	80

Materials:

- Cable: 2 m PVC CEI 20 - 22 II; 90°C; 300 V; O.R.
- Housing 6,5 and 8 mm: stainless steel
- Housing 12 ÷ 30 mm: nickel plated brass
- Sensing face: plastic

Technical data:

- Supply voltage (U_b): see ordering references
- Max ripple: 10%
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): $\leq 1,5$ V
- Temperature range: $-20^\circ \div +70^\circ\text{C}$
- Max thermal drift of sensing distance S_T : $\pm 10\%$
- Repeat accuracy (R): 4%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Cable conductor cross section: 0,22 mm² on 6,5 and 8 mm
0,35 mm² on 12 mm
0,50 mm² on 18 and 30 mm

- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

Housing	Flush mounting (*) Non flush mounting	L1	L2	L3	L4	L5	Cable diameter	Body diameter (d)	Supply voltage (U_b)	Max switching frequency (f)	Rated operational current (I_e)	Nominal sensing distance (S_n) $\pm 10\%$	ORDERING REFERENCES		
		mm	mm	mm	mm	mm							PNP (positive switching)		
A	•	-	30	-	-	30	3,5	6,5	7 ÷ 30	800	200	2,5		DSE6,5/4609LKS	DSE6,5/4619LKS
B	•	-	30	-	-	30	3,5	M8 x 1	7 ÷ 30	800	200	2,5		DSE8/4609KS	DSE8/4619KS
B-4	•	-	30	-	-	30	4	M12 x 1	7 ÷ 30	800	200	4		DSE12/4609KS	DSE12/4619KS
B-4	•	7	23	-	-	30	4	M12 x 1	7 ÷ 30	600	200	6		DSE12/5609KS	DSE12/5619KS
B-5	•	-	35	-	-	35	5	M18 x 1	7 ÷ 40	300	200	10		DSE18/4609KS	DSE18/4619KS
B-5	•	10	25	-	-	35	5	M18 x 1	7 ÷ 40	200	200	14		DSE18/5609KS	DSE18/5619KS
B-5	•	-	35	-	-	35	6	M30 x 1,5	7 ÷ 40	100	200	20		DSE30/4609KS	DSE30/4619KS
B-5	•	15	20	-	-	35	6	M30 x 1,5	7 ÷ 40	100	200	28		DSE30/5609KS	DSE30/5619KS

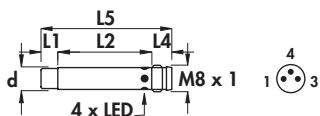
(*) Note: See mounting precautions (pag. 22)

NPN (negative switching)
Use the above mentioned part number changing the last number 9 with 8 (ie. DSE6,5/4608LKS)

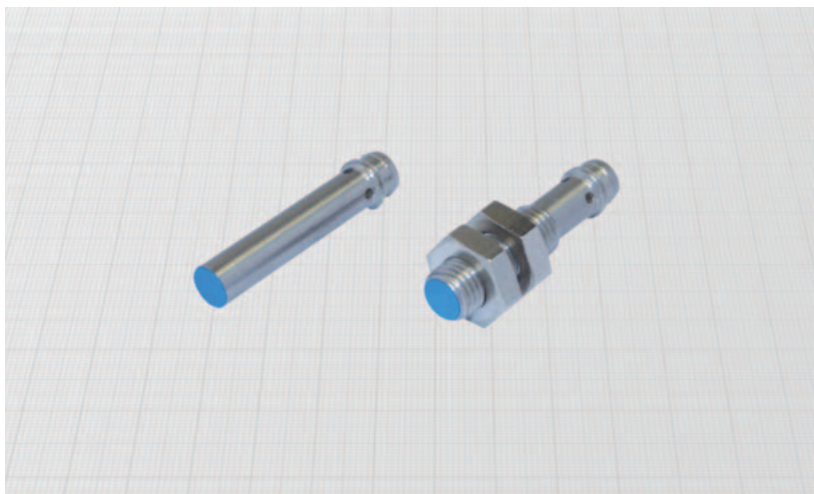
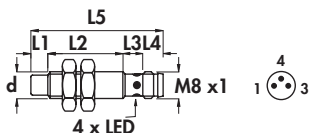


**SHORT SERIES - Extended sensing distance •
Amplified in d.c. •
Connector output M8 x 1 •**

Housing I-8



Housing I-6



Diameter	M8 x 1	
Nut	Size	SW13
	Thickness mm	4
Max tightening torque Nm	10	

Materials:

- Housing: stainless steel
- Sensing face: plastic

Technical data:

- Supply voltage (U_B): $7 \div 30$ Vdc
- Max ripple: 10%
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): $\leq 1,5$ V
- Temperature range: $-20^\circ \div +70^\circ$ C
- Max thermal drift of sensing distance S_r : $\pm 10\%$
- Repeat accuracy (R): 4%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

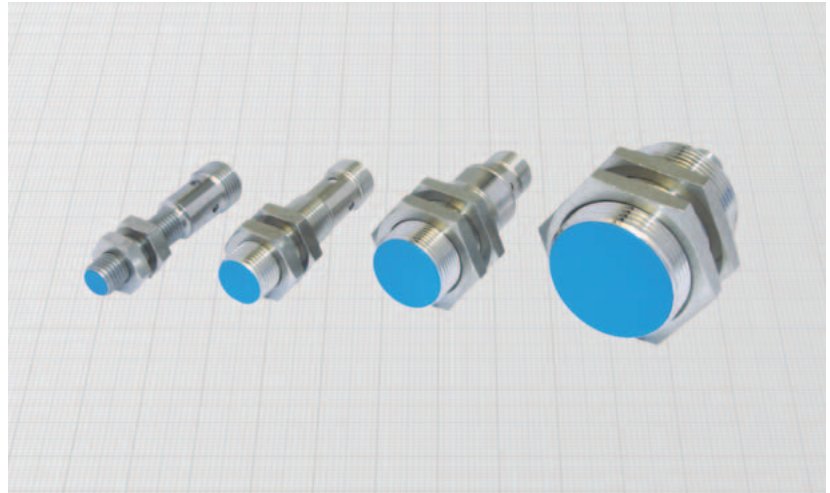
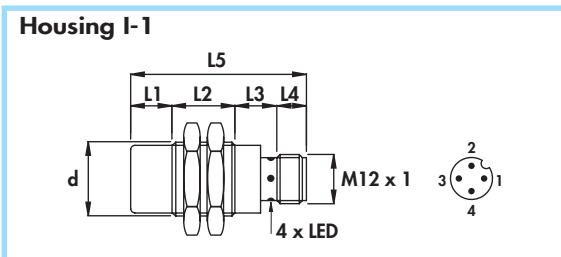
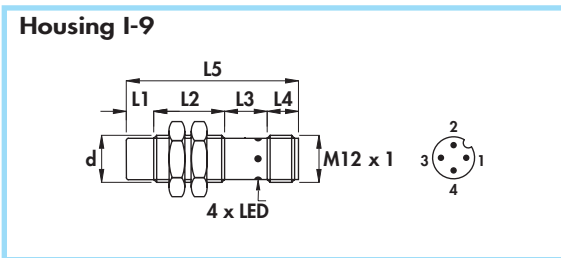
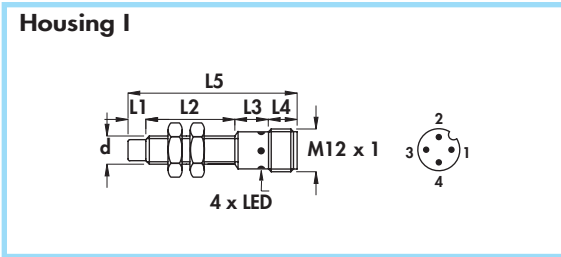
Housing	Flush mounting (*) Non flush mounting	L1	L2	L3	L4	L5	Female connector	Body diameter (d)	Max switching frequency (f)	Rated operational current (I _e)	Nominal sensing distance (S _n ±10%)	ORDERING REFERENCES	
												PNP (positive switching)	
I-8	•	-	29,5	-	5,5	35	11 - 12	6,5	800	200	2,5	 DSE6,5/4909LKS	 DSE6,5/4919LKS
I-6	•	-	21	8,5	5,5	35	11 - 12	M8 x 1	800	200	2,5	 DSE8/4909KS	 DSE8/4919KS

(*) Note: See mounting precautions (pag. 22)

NPN (negative switching)	
Use the above mentioned part number changing the last number 9 with 8 (ie. DSE6,5/4908LKS)	
 DSE6,5/4908LKS	 DSE6,5/4918LKS

CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- **SHORT SERIES** - Extended sensing distance
- **Amplified in d.c.**
- Connector output M12 x 1



Diameter	M8 x 1	M12 x 1	M18 x 1	M30 x 1,5
Nut	Size	SW13	SW17	SW24
	Thickness mm	4	4	4
Max tightening torque Nm	10	15	35	80

Materials:

- Housing 8 mm: stainless steel
- Housing 12 ÷ 30 mm: nickel plated brass
- Sensing face: plastic

Technical data:

- Supply voltage (U_B): see ordering references
- Max ripple: 10%
- Rated operational current (I_o): 200 mA
- No-load supply current (I_o): ≤ 10 mA
- Voltage drop (U_d): $\leq 1,5$ V
- Temperature range: $-20^\circ \div +70^\circ\text{C}$
- Max thermal drift of sensing distance S_T : $\pm 10\%$
- Repeat accuracy (R): 4%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

Housing	Flush mounting (*) Non flush mounting	L1	L2	L3	L4	L5	Female connector	Body diameter (d)	Supply voltage (U_B)	Max switching frequency (f)	Nominal sensing distance (S_n) $\pm 10\%$	ORDERING REFERENCES	
												PNP (positive switching)	
I	•	-	26	13	8	47	6-8B-10	M8 x 1	7 ÷ 30	800	2,5	NO	NC
												DSE8/4309KS	DSE8/43C9KS
I-9	•	-	30	10	8	48	6-8B-10	M12 x 1	7 ÷ 30	800	4	DSE12/4309KS	DSE12/43C9KS
												DSE12/5309KS	DSE12/53C9KS
I-1	•	-	30	19	8	57	6-8B-10	M18 x 1	7 ÷ 40	300	10	DSE18/4309KS	DSE18/43C9KS
												DSE18/5309KS	DSE18/53C9KS
I-1	•	-	25	17	8	50	6-8B-10	M30 x 1,5	7 ÷ 40	100	20	DSE30/4309KS	DSE30/43C9KS
												DSE30/5309KS	DSE30/53C9KS

(*) Note: See mounting precautions (pag. 22)

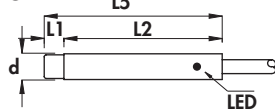
NPN (negative switching)
Use the above mentioned part number changing the last number 9 with 8 (ie. DSE8/4308KS)



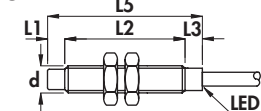
CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- With extended temperature range (- 40° ÷ + 85°C) •
- Amplified in d.c. 3 and 4 wires •
- Cable output •

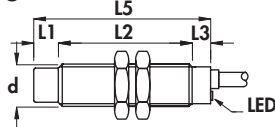
Housing A-3



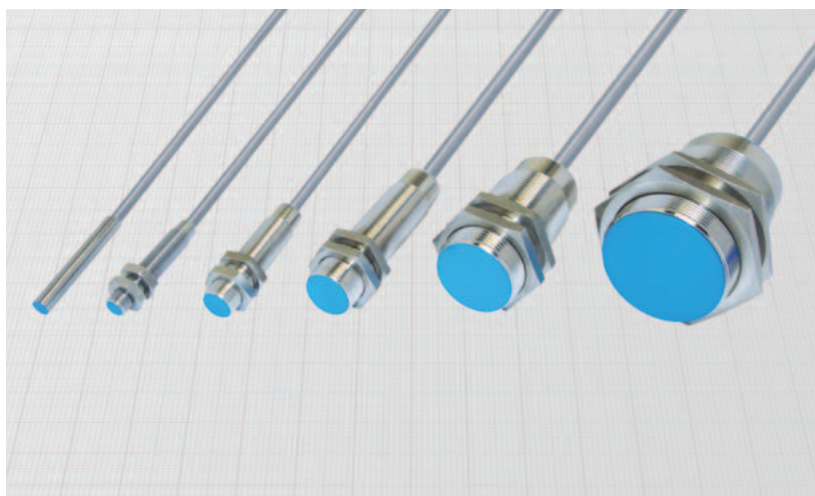
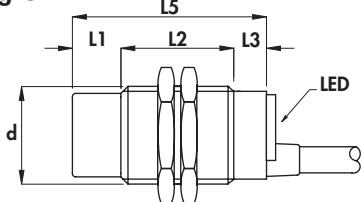
Housing B-6



Housing B-3



Housing G



Diameter		M8 x 1	M12 x 1	M18 x 1	M30 x 1,5	M45 x 1,5
Nut	Size	SW13	SW17	SW24	SW36	SW55
	Thkns mm	4	4	4	5	5
Max tightening torque Nm		10	15	35	80	70

Materials:

- Cable: 2 m thermoplastic 140°C; 300 V; O.R.
- Housing 6,5 and 8 mm: stainless steel
- Housing 12 ÷ 45 mm: nickel plated brass
- Sensing face: plastic

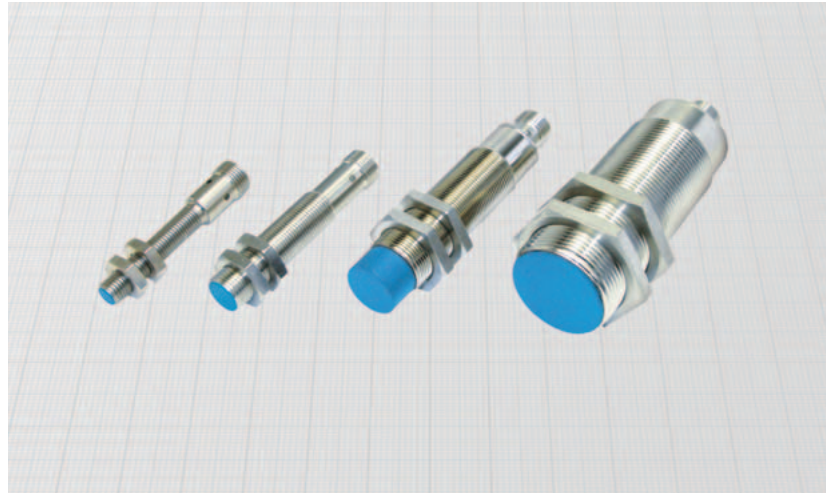
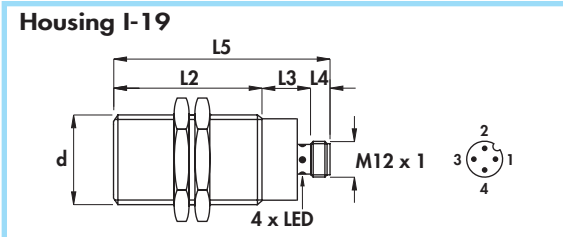
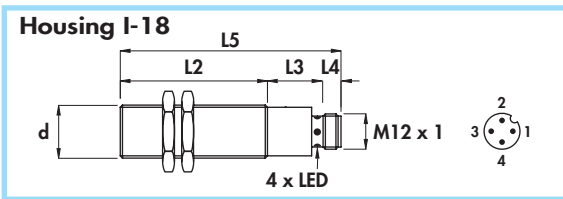
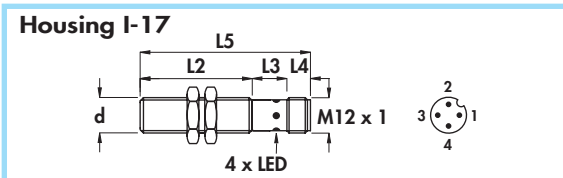
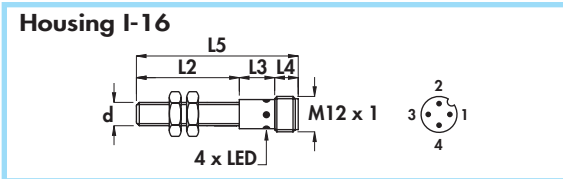
Technical data:

- Supply voltage (U_B): 10 ÷ 30 Vdc
- Max ripple: 10%
- No-load supply current (I₀): ≤ 10 mA
- Voltage drop (U_d): see ordering references
- Temperature range: - 40° ÷ + 85°C
- Max thermal drift of sensing distance S_r: ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Cable conductor cross section: 0,35 mm² on 6,5 - 8 - 12 mm
0,50 mm² on 18, 30 and 45 mm
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

Housing	Flush mounting Non flush mounting	L2	L3	L5	Cable diameter	Body diameter (d)	Voltage drop (U _d)	Max switching frequency (f)	Rated operational current (I _e)	Nominal sensing distance (S _n) ± 10%	ORDERING REFERENCES			
											PNP (positive switching)			
		mm	mm	mm	mm	mm	V	KHz	mA	mm	NO	NC	NO + NC	
A-3	•	45	-	45	4	6,5	1,5	4	150	1,5				
B-6	•	40	5	45	4	M8 x 1	1,5	4	150	1,5				
B-3	•	43	7	50	4	M12 x 1	1,5	2	150	2				
B-3	•	58	12	70	5	M18 x 1	2,2	1	250	5				
G	•	50	10	60	6	M30 x 1,5	2,2	0,8	250	10				
G	•	50	10	60	6	M45 x 1,5	2,2	0,15	250	20				
												NPN (negative switching)		
												Use the above mentioned part number changing the last number 9 with 8 (ie. DCA6,5/4608LKST)		
		mm	mm	mm	mm	mm	V	KHz	mA	mm	NO	NC	NO + NC	

CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- With extended temperature range (-40° ÷ + 85°C)
- Amplified in d.c. 3 and 4 wires
- Connector output M12 x 1



Diameter	M8 x 1	M12 x 1	M18 x 1	M30 x 1,5	M45 x 1,5	
Nut	Size	SW13	SW17	SW24	SW36	SW55
	Thkns mm	4	4	4	5	5
Max tightening torque Nm	10	15	35	80	70	

Materials:

- Housing 8 mm: stainless steel
- Housing 12 ÷ 45 mm: nickel plated brass
- Sensing face: plastic

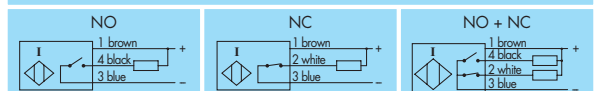
Technical data:

- Supply voltage (U_B): 10 ÷ 30 Vdc
- Max ripple: 10%
- No-load supply current (I₀): ≤ 10 mA
- Voltage drop (U_d): see ordering references
- Temperature range: -40° ÷ + 85°C
- Max thermal drift of sensing distance S_r: ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

Housing	Flush mounting Non flush mounting	L2	L3	L4	L5	Female connector (see pag. H-1)	Body diameter (d)	Voltage drop (U _d)	Max switching frequency (f _y)	Rated operational current (I _o)	Nominal sensing dist. (S _r) ± 10%	ORDERING REFERENCES			
												PNP (positive switching)			
												NO	NC	NO + NC	
I-16	•	40	12	8	60	8B-10...T	M8 x 1	1,5	4	150	1,5				-
I-17	•	43	15	8	66	8B-10...T	M12 x 1	1,5	2	150	2				DCA12/4329KST
I-18	•	50	19	8	77	8B-10...T	M18 x 1	2,2	1	250	5				DCA18/4329KST
I-19	•	65	17	8	90	8B-10...T	M30 x 1,5	2,2	0,8	250	10				DCA30/4329KST
I-19	•	50	19	8	77	8B-10...T	M45 x 1,5	2,2	0,15	250	20				DCA45/4329KST

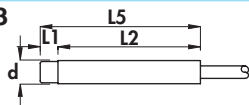
NPN (negative switching)

Use the above mentioned part number changing the last number 9 with 8 (ie. DCA8/4308KST)

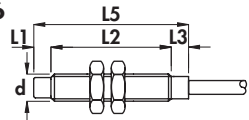


For high temperatures (-25° ÷ +125°C) •
 Amplified in d.c. 3 and 4 wires •
 Cable output •

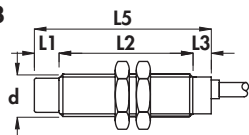
Housing A-3



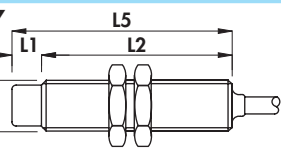
Housing B-6



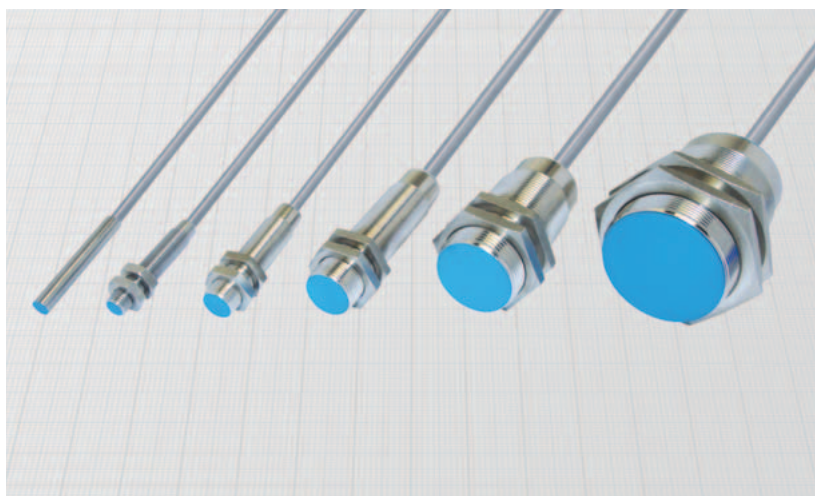
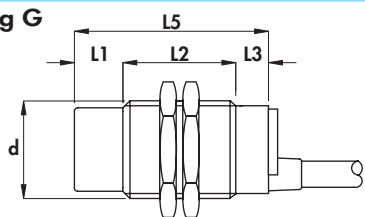
Housing B-3



Housing B-7



Housing G



Diameter		M8 x 1	M12 x 1	M18 x 1	M30 x 1,5	M45 x 1,5
Nut	Size	SW13	SW17	SW24	SW36	SW55
	Thickness mm	4	4	4	5	5
Max tightening torque Nm		10	15	35	80	70

Materials:

- Cable: 2 m thermoplastic 140°C; 300 V; O.R.
- Housing 6,5 and 8 mm: stainless steel
- Housing 12 ÷ 45 mm: nickel plated brass
- Sensing face: plastic

Technical data:

- Supply voltage (U_B): 10 ÷ 30 Vdc
- Max ripple: 10%
- No-load supply current (I₀): ≤ 10 mA
- Voltage drop (U_d): see ordering references
- Temperature range: -25° ÷ +125°C
- Max thermal drift of sensing distance S_r: ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Cable conductor cross section: 0,35 mm² on 6,5 - 8 - 12 mm
0,50 mm² on 18 - 30 - 45 mm

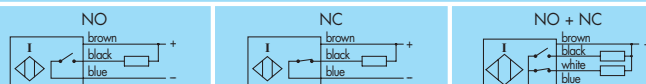
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6



Housing	Flush mounting Non flush mounting	L2	L3	L5	Cable diameter	Body diameter (d)	Voltage drop (U _d)	Max switching frequency (f)	Rated operational current (I _e)	Nominal sensing distance (S _n) ± 10%	ORDERING REFERENCES		
											PNP (positive switching)		
		mm	mm	mm	mm	mm	V	KHz	mA	mm	NO	NC	NO + NC
A-3	•	45	-	45	4	6,5	1,5	4	150	1,5			-
B-6	•	40	5	45	4	M8 x 1	1,5	4	150	1,5			-
B-3	•	43	7	50	4	M12 x 1	1,5	2	150	2			-
B-7	•	65	-	65	5	M18 x 1	2,2	1	250	5			DCA18/4629KT
G	•	50	10	60	6	M30 x 1,5	2,2	0,8	250	10			DCA30/4629KT
G	•	50	10	60	6	M45 x 1,5	2,2	0,15	250	20			DCA45/4629KT

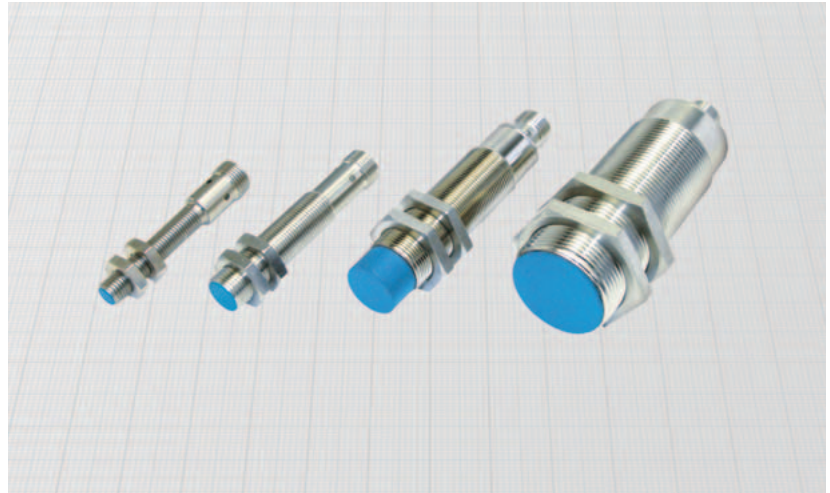
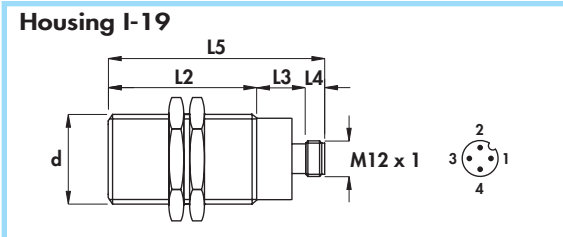
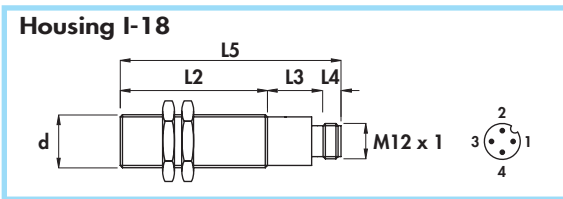
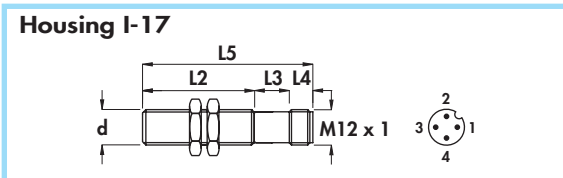
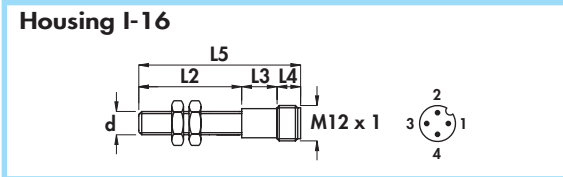
NPN (negative switching)

Use the above mentioned part number changing the last number 9 with 8 (ie. DCA6,5/4608LKT)



CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- For high temperatures (-25° ÷ + 120°C)
- Amplified in d.c. 3 and 4 wires
- Connector output M12 x 1



Diameter		M8 x 1	M12 x 1	M18 x 1	M30 x 1,5
Nut	Size	SW13	SW17	SW24	SW36
	Thickness mm	4	4	4	5
Max tightening torque Nm		10	15	35	80

Materials:

- Housing 8 mm: stainless steel
- Housing 12 ÷ 30 mm: nickel plated brass
- Sensing face: plastic

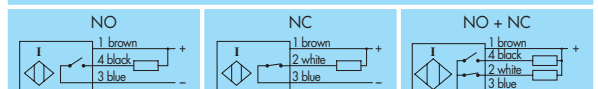
Technical data:

- Supply voltage (U_b): 10 ÷ 30 Vdc
- Max ripple: 10%
- No-load supply current (I_o): ≤ 10 mA
- Voltage drop (U_d): see ordering references
- Temperature range: -25° ÷ +120° C
- Max thermal drift of sensing distance S_T : ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

Housing	Flush mounting Non flush mounting	L2	L3	L4	L5	Female connector (see pag. H - 1)	Body diameter (d)	Voltage drop (U_d)	Max switching frequency (f)	Rated operational current (I_o)	Nominal sensing dist. (S_T) ± 10%	ORDERING REFERENCES		
												PNP (positive switching)		
		mm	mm	mm	mm	n°	mm	V	KHz	mA	mm	NO	NC	NO + NC
I-11	•	40	12	8	60	8B-10...T	M8 x 1	1,5	4	150	1,5			-
I-7	•	43	15	8	66	8B-10...T	M12 x 1	1,5	2	150	2			
I-12	•	50	19	8	77	8B-10...T	M18 x 1	2,2	1	250	5			
I-2	•	65	17	8	90	8B-10...T	M30 x 1,5	2,2	0,8	250	10			
I-2	•	50	19	8	77	8B-10...T	M45 x 1,5	2,2	0,15	250	20			

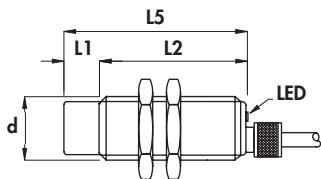
NPN (negative switching)

Use the above mentioned part number changing the last number 9 with 8 (ie. DCA8/4308KT)

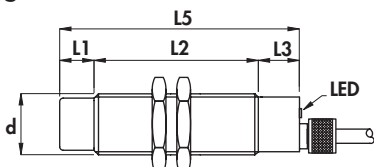


- Degree of protection IP68 •
- Amplified in d.c. 3 and 4 wires •
- Cable and connector output M12 x 1 •

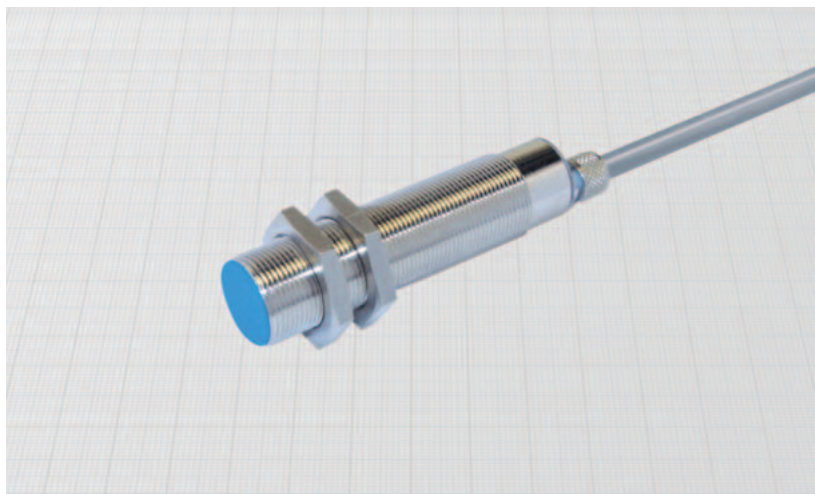
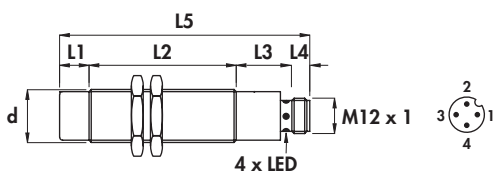
Housing J-1



Housing J-2



Housing I-12



General Features:

This new series solves definitively the problem of the ingress of liquids to the inner parts of the sensors. Thanks to the inner hermetic sealing they can be submitted to no-stop jets of liquids under pressure even in presence of temperature changes. They find application in automatic washing machinery, in machines subject to water jets and in continuous immersion applications.

Technical data:

- Supply voltage (U_b): 7 ÷ 60 Vdc
- Max ripple: 10%
- Rated operational current (I_o): 400 mA
- No-load supply current (I_o): ≤ 10 mA
- Voltage drop (U_d): ≤ 2,2 V
- Temperature range: -25° ÷ +75°C
- Max thermal drift of sensing distance S_r : ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP68
- Switch status indicator: yellow LED
- Cable conductor cross section: 0,50 mm²
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

Diameter	M18 x 1	
Nut	Size	SW24
	Thickness mm	4
Max tightening torque Nm	35	

Materials:

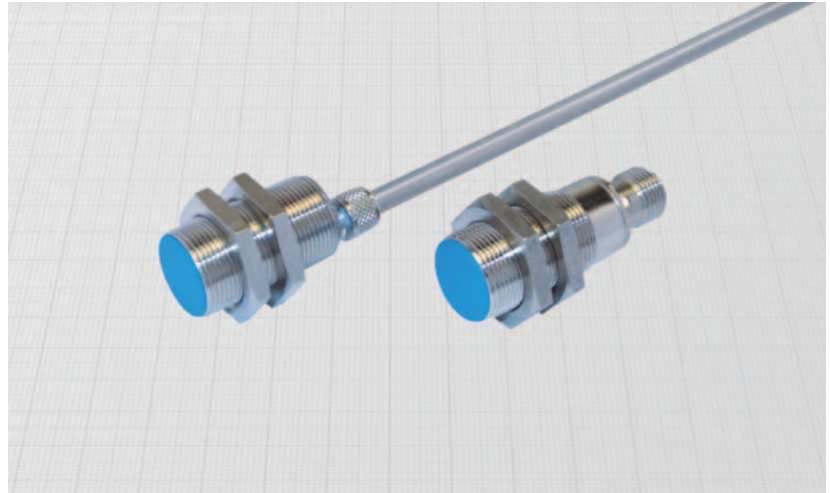
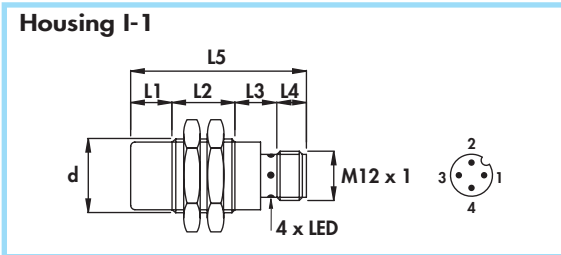
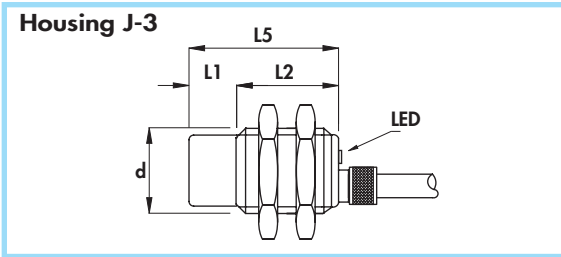
- Cable: 2 m PVC CEI 20 - 22 II; 90°C; 300 V; O.R.
- Housing and gland: nickel plated brass
- Sensing face: plastic

Housing	Mounting	L1	L2	L3	L4	L5	Cable diameter	Female connector	Body diameter (d)	Max switching frequency (f)	Nominal sensing distance (S_n) ± 10%	ORDERING REFERENCES		
												PNP (positive switching)		
												NO	NC	NO + NC
J-1	•	-	50	-	-	50	5	-	M18 x 1	1	5	DCA18/4A09KSJ	DCA18/4A19KSJ	-
J-1	•	10	40	-	-	50	5	-	M18 x 1	1	8	DCA18/5A09KSJ	DCA18/5A19KSJ	-
J-2	•	-	58	12	-	70	5	-	M18 x 1	1	5	DCA18/4609KSJ	DCA18/4619KSJ	DCA18/4629KSJ
J-2	•	10	48	12	-	70	5	-	M18 x 1	1	8	DCA18/5609KSJ	DCA18/5619KSJ	DCA18/5629KSJ
I-12	•	-	50	19	8	77	-	6-8B-10	M18 x 1	1	5	DCA18/4309KSJ	DCA18/43C9KSJ	DCA18/4329KSJ
I-12	•	10	50	19	8	87	-	6-8B-10	M18 x 1	1	8	DCA18/5309KSJ	DCA18/53C9KSJ	DCA18/5329KSJ

NPN (negative switching)		
Use the above mentioned part number changing the last number 9 with 8 (ie. DCA18/4A08KSJ)		
NO	NC	NO + NC
(*) Note: In versions with connector use the white wire.		

CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- **SHORT SERIES - degree of protection IP68**
- **Amplified in d.c. 3 wires**
- Cable and connector output M12 x 1



Diameter	M18 x 1	
Nut	Size	SW24
	Thickness mm	4
Max tightening torque Nm	35	

Materials:

- Cable: 2 m PVC CEI 20 - 22 II; 90°C; 300 V; O.R.
- Housing and gland: nickel plated brass
- Sensing face: plastic

General Features:

This new series solves definitively the problem of the ingress of liquids to the inner parts of the sensors. Thanks to the inner hermetic sealing they can be submitted to no-stop jets of liquids under pressure even in presence of temperature changes. They find application in automatic washing machinery, in machines subject to water jets and in continuous immersion applications.

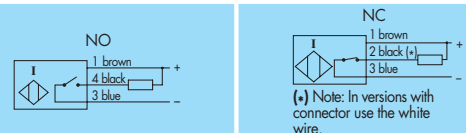
Technical data:

- Supply voltage (U_b): 5 ÷ 40 Vdc
- Max ripple: 10%
- No-load supply current (I_o): ≤ 10 mA
- Voltage drop (U_d): ≤ 1,5 V
- Temperature range: -25° ÷ +70°C
- Max thermal drift of sensing distance S_T : ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP68
- Switch status indicator: yellow LED
- Cable conductor cross section: 0,50 mm²
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

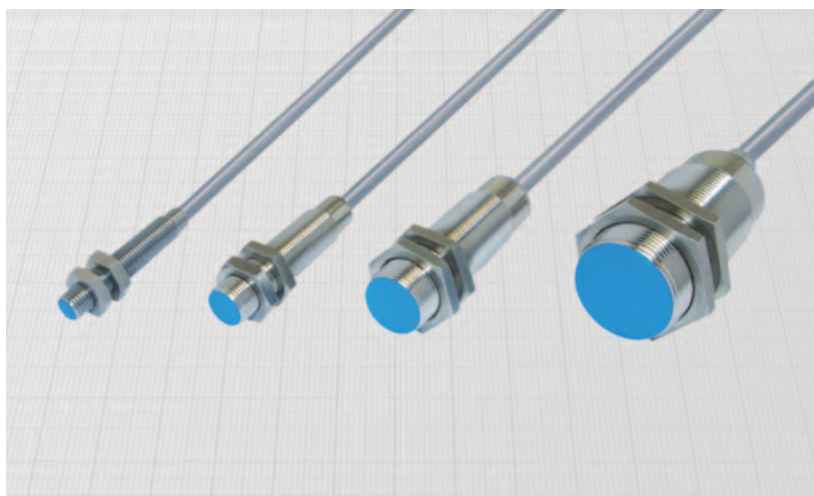
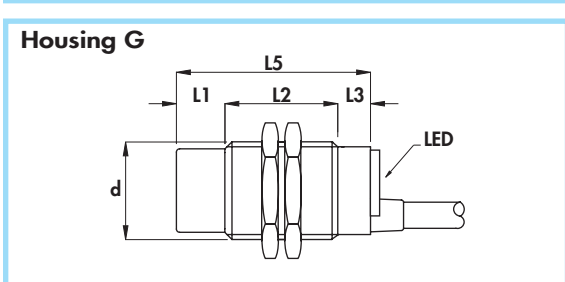
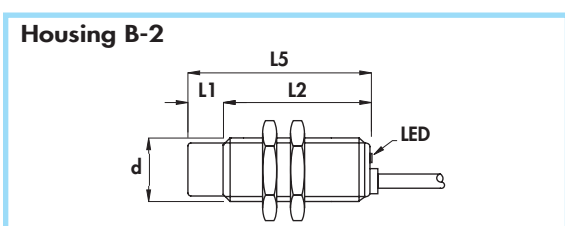
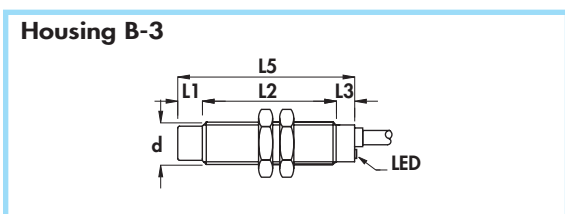
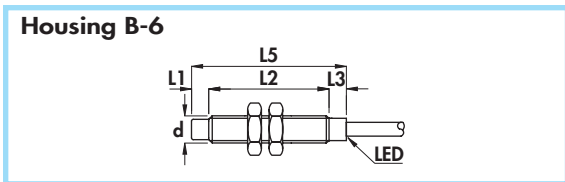
Housing	Flush mounting Non flush mounting	L1	L2	L3	L4	L5	Cable diameter	Female connector	Body diameter (d)	Max switching frequency (f)	Rated operational current (I _e)	Nominal sensing distance (S _n) ± 10%	ORDERING REFERENCES	
													PNP (positive switching)	
J-3	•	-	30	-	-	30	5	-	M18 x 1	0,8	200	5		
J-3	•	10	20	-	-	30	5	-	M18 x 1	0,6	200	8	DSA18/4609KSJ DSA18/5609KSJ	DSA18/4619KSJ DSA18/5619KSJ
I-1	•	-	25	15	8	48	-	6-8B-10	M18 x 1	0,8	200	5		
I-1	•	10	15	15	8	48	-	6-8B-10	M18 x 1	0,6	200	8	DSA18/4309KSJ DSA18/5309KSJ	DSA18/43C9KSJ DSA18/53C9KSJ

NPN (negative switching)

Use the above mentioned part number changing the last number 9 with 8 (ie. DSA18/4608KSJ)



Non polarized •
 Amplified in d.c. 2 wires •
 Cable output •



Diameter		M8 x 1	M12 x 1	M18 x 1	M30 x 1,5
Nut	Size	SW13	SW17	SW24	SW36
	Thickness mm	4	4	4	5
Max tightening torque Nm		10	15	35	80

Materials:

- Cable: 2 m PVC CEI 20 - 22 II; 90°C; 300 V; O.R.
- Housing 8 mm: stainless steel
- Housing 12-18-30 mm: nickel plated brass
- Sensing face: plastic PBT

General Features:

These sensors are not polarized and the load can be connected on both positive and negative lead (function PNP or NPN). So they can replace traditional mechanical microswitches in many applications.

Technical data:

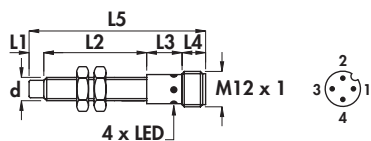
- Supply voltage (U_B): 10 ÷ 55 Vdc
- Max ripple: 10%
- Off-state current (I_o): ≤ 1 mA
- Minimum operational current (I_m): 5 mA
- Voltage drop (U_d) with $I_e = 10$ mA: ≤ 5 V
- Voltage drop (U_d) with $I_e = 100$ mA: ≤ 6 V
- Temperature range: -25° ÷ +70°C
- Max thermal drift of sensing distance S_s : ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Cable conductor cross section: 0,34 mm² on 8 and 12 mm
0,50 mm² on 18 mm
0,75 mm² on 30 mm
- Protected against short-circuit and overload (versions with letter K)
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

Housing	Flush mounting Non flush mounting	L1	L2	L3	L4	L5	Cable diameter	Body diameter (d)	Nominal sensing distance (S_n) ± 10%	Max switching frequency (f)	Rated operational current (I_e)	ORDERING REFERENCES	
		mm	mm	mm	mm	mm						mm	mm
B-6	•	-	40	5	-	45	4	M8 x 1	1,5	1200	100	 DCM8/4600S DCM8/5600S	 DCM8/4610S DCM8/5610S
B-6	•	5	35	5	-	45	4	M8 x 1	2,5	1000	100		
B-3	•	-	43	7	-	50	4	M12 x 1	2	1200	200	 DCM12/4600KS DCM12/5600KS	 DCM12/4610KS DCM12/5610KS
B-3	•	7	36	7	-	50	4	M12 x 1	4	1000	200		
B-2	•	-	50	-	-	50	5	M18 x 1	5	1100	250	 DCM18/4A00KS DCM18/5A00KS	 DCM18/4A10KS DCM18/5A10KS
B-2	•	10	40	-	-	50	5	M18 x 1	8	700	250		
G	•	-	50	10	-	60	6	M30 x 1,5	10	800	250	 DCM30/4600KS DCM30/5600KS	 DCM30/4610KS DCM30/5610KS
G	•	15	35	10	-	60	6	M30 x 1,5	15	400	250		

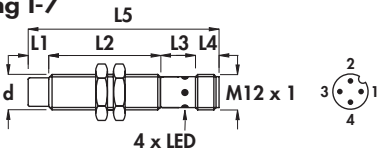
CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- Non polarized
- Amplified in d.c. 2 wires
- Connector output

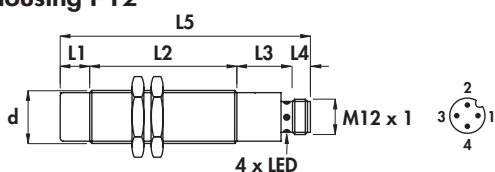
Housing I-11



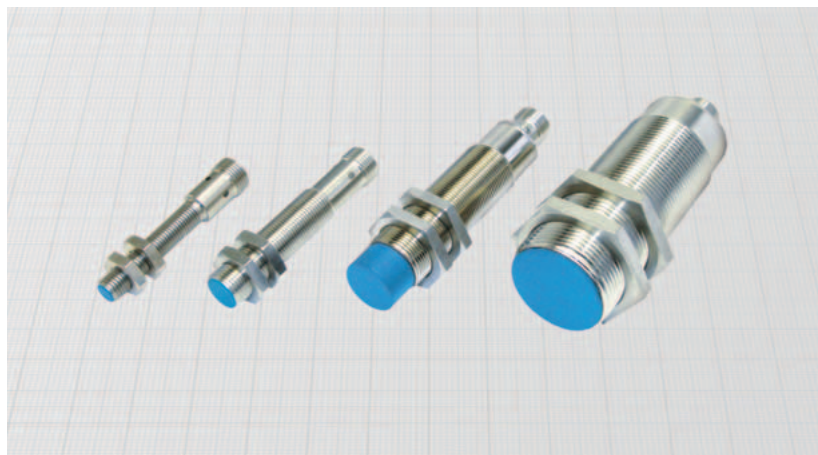
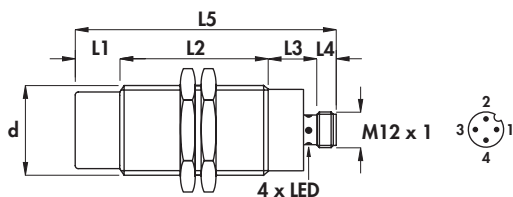
Housing I-7



Housing I-12



Housing I-2



Diameter	M8 x 1	M12 x 1	M18 x 1	M30 x 1,5
Nut	Size SW13	SW17	SW24	SW36
	Thickness mm 4	4	4	5
Max tightening torque Nm	10	15	35	80

Materials:

- Housing 8 mm: stainless steel
- Housing 12- 18 - 30 mm: nickel plated brass
- Sensing face: plastic PBT

www.bdc-electronic.com

General Features:

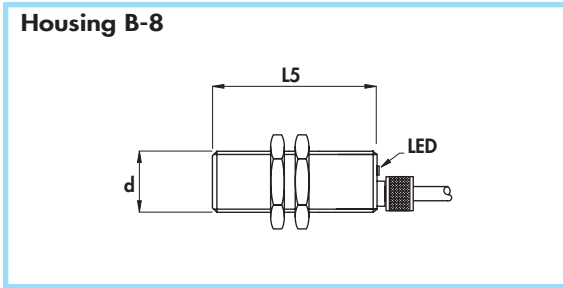
These sensors are not polarized and the load can be connected on both positive and negative sectors (function PNP or NPN). So they can replace traditional mechanical microswitches in many applications. Utilization of connectors without LED is recommended.

Technical data:

- Supply voltage (U_b): 10 ÷ 55 Vdc
- Max ripple: 10%
- Off-state current (I_o): ≤ 1 mA
- Minimum operational current (I_m): 5 mA
- Voltage drop (U_d) with $I_e = 10$ mA: ≤ 5 V
- Voltage drop (U_d) with $I_e = 100$ mA: ≤ 6 V
- Temperature range: - 25° ÷ + 70°C
- Max thermal drift of sensing distance S_r : ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP67
- Switch status indicator: yellow LED
- Protected against short-circuit and overload (versions with letter K)
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

Housing	Flush mounting Non flush mounting	L1	L2	L3	L4	L5	Female connector	Body diameter (d)	Nominal sensing distance (S_r) ± 10%	Max switching frequency (f) in d.c.	Rated operational current (I_e)	ORDERING REFERENCES	
												NO (connectors 3 or 4 wires)	NC (connectors 4 wires)
I-11	•	-	40	12	8	60	6-8B-10	M8 x 1	1,5	1200	100	 DCM8/4300S DCM8/5300S	 DCM8/4310S DCM8/5310S
I-11	•	5	35	12	8	60	6-8B-10	M8 x 1	2,5	1000	100		
I-7	•	-	43	15	8	66	6-8B-10	M12 x 1	2	1200	200	 DCM12/4300KS DCM12/5300KS	 DCM12/4310KS DCM12/5310KS
I-7	•	7	36	15	8	66	6-8B-10	M12 x 1	4	1000	200		
I-12	•	-	50	19	8	77	6-8B-10	M18 x 1	5	1100	250	 DCM18/4300KS DCM18/5300KS	 DCM18/4310KS DCM18/5310KS
I-12	•	10	50	19	8	87	6-8B-10	M18 x 1	8	700	250		
I-2	•	-	65	17	8	90	6-8B-10	M30 x 1,5	10	800	250	 DCM30/4300KS DCM30/5300KS	 DCM30/4310KS DCM30/5310KS
I-2	•	15	50	17	8	90	6-8B-10	M30 x 1,5	15	400	250		

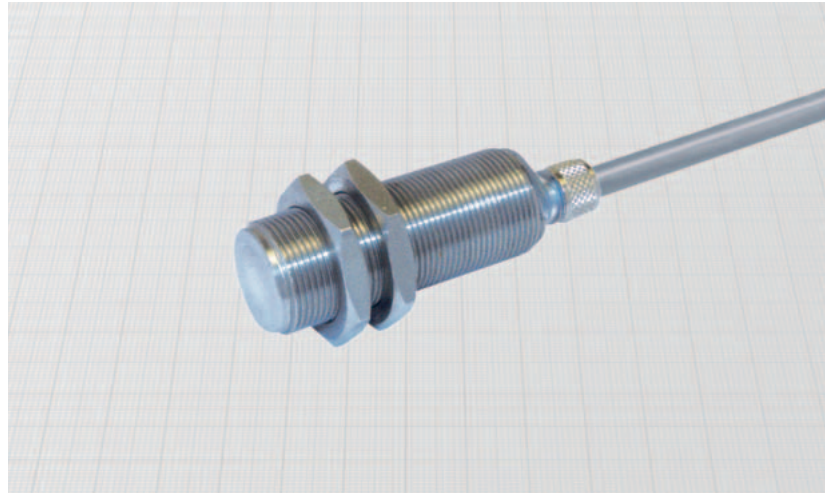
Stainless steel sensing face •
Amplified in d.c. 3 wires •
Cable output •



Diameter		M18 x 1
Nut	Size	SW24
	Thickness mm	4
Max tightening torque Nm		35

Materials:

- Cable: 2 m PVC CEI 20 - 22 II; 90°C; 300 V; O.R.
- Housing: stainless steel
- Sensing face: stainless steel



General Features:

This particular type of sensor has increased mechanical and chemical resistance:

- **fluid ingress resistant**
- **pressure resistant**
- **corrosion resistant**
- **impact resistant**
- **vibration resistant**
- **abrasion and incandescent objects resistant**

These particular characteristics are mainly dependent by the building of the body, which is made from a single solid piece of stainless steel. The absence of junctions doesn't allow the fluid ingress through the sensing face. A very special sealing system on the back side makes of this sensor the ideal solution for the most critical applications.

Technical data:

- Supply voltage (U_B): 7 ÷ 40 Vdc
- Max ripple: 10%
- No-load supply current (I_0): ≤ 10 mA
- Voltage drop (U_d): ≤ 1,5 V
- Temperature range: -25° ÷ +75°C
- Max thermal drift of sensing distance S_r : ± 10%
- Repeat accuracy (R): 2%
- Switching hysteresis (H): 10%
- Degree of protection: IP68
- Max pressure on the front side: 50 bar
- Switch status indicator: yellow LED
- Cable conductor cross section: 0,50 mm²
- Protected against short-circuit and overload
- Protected against any wrong connection
- Suppression of initial false impulse
- Electromagnetic compatibility (EMC) according to EN60947-5-2
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

www.bdc-sensors.com

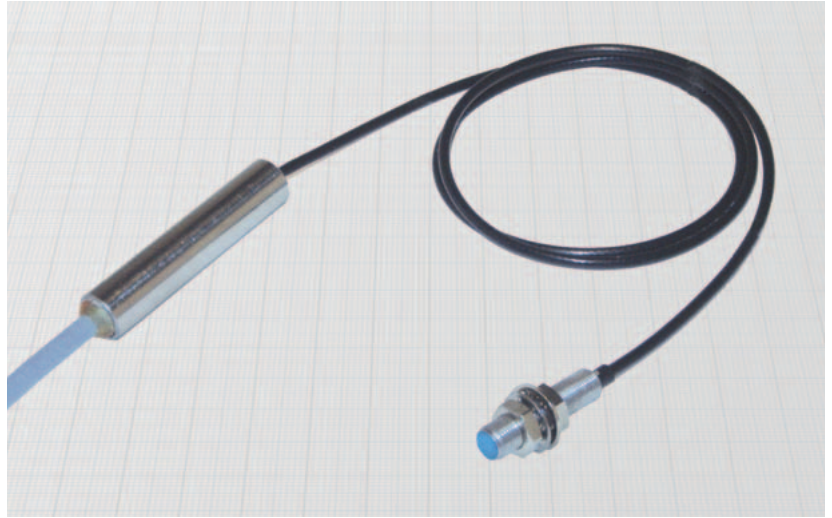
Housing	Flush mounting (*) Non flush mounting	L1	L2	L3	L4	L5	Cable diameter	Body diameter (d)	Max switching frequency (f _f)	Rated operational current (I _e)	Nominal sensing distance (S _n) ± 10%	ORDERING REFERENCES			
												PNP (positive switching)			
B-8	•	-	-	-	-	45	5	M18 x 1	50	200	5			DCA18/4609MKSJ	DCA18/4619MKSJ

(*) Note: See mounting precautions (pag. 22)

NPN (negative switching)	
Use the above mentioned part number changing the last number 9 with 8 (ie. DCA18/4608MKSJ)	

CYLINDRICAL INDUCTIVE SENSORS IN METAL HOUSING

- Amplified in d.c. 3 wires
- High precision
- Switching hysteresis < 1 μm
- Cable output




General Features:

This unique sensor enables the detection of metallic targets with extremely high precision without contact. By using an implemented software algorithm and a laser working process it has a very stable and precise switching point with a hysteresis lower than 1 μm .

Applications:

- Semiconductors industry
- Quality control instruments
- High precision mechanical devices
- Calibration equipments

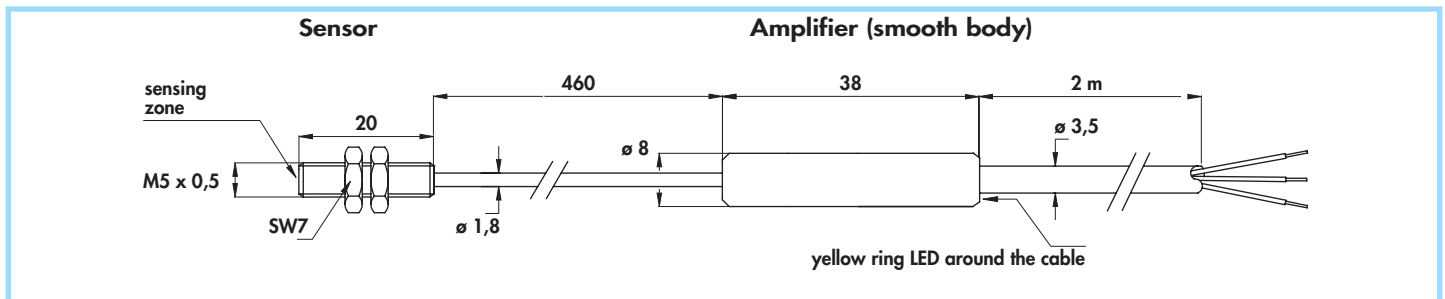
Technical data:

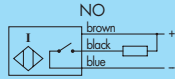
- Supply voltage (U_B): $5 \div 13 \text{ Vdc}$
- Consumption: $\leq 10 \text{ mA}$
- Voltage drop ($I_o = 10 \text{ mA}$): $\leq 0.5 \text{ V}$
- Voltage drop ($I_o = 100 \text{ mA}$): $\leq 1 \text{ V}$
- Output polarity: NPN open collector
- Output logic: normally open
- Repeat accuracy (R): $< \pm 2 \mu\text{m}$
- Switch hysteresis (H): $< 1 \mu\text{m}$
- Temperature range: $10 \div 40^\circ\text{C}$
- Degree of protection: IP67
- Cable conductor cross section: $0,22 \text{ mm}^2$
- Electromagnetic compatibility (EMC) according to EN60947-5-2 
- Shock and vibration resistance according to EN60068-2-27 EN60068-2-6

Diameter	M5 x 0,5	
Nut	Size	SW7
	Thickness mm	2,5
Max tightening torque Nm	2	

Materials:

- Cable: www.khatech.com/Lineart 2 m PVC CEI 20 - 22 II; 90°C
- Housing sensor and amplifier: stainless steel



Flush mounting Non flush mounting	Cable diameter mm	Sensor diameter mm	Amplifier diameter mm	Rated operational current (I_o) mA	Max switching frequency (f) Hz	Nominal sensing distance (S_n) $\pm 10\%$ mm	ORDERING REFERENCES	
							NPN (negative switching)	
								
•	3,5	M5 x 0,5	8	100	100	0,9	IPS05/4608KS	