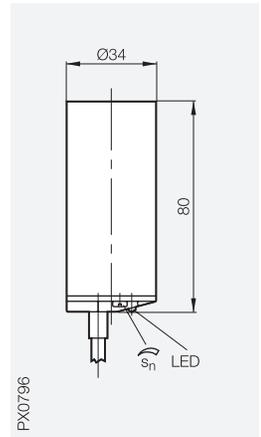
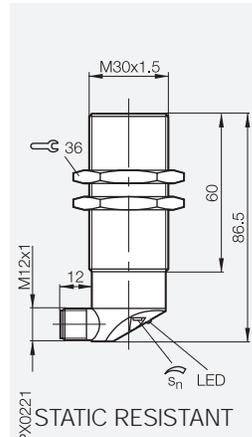
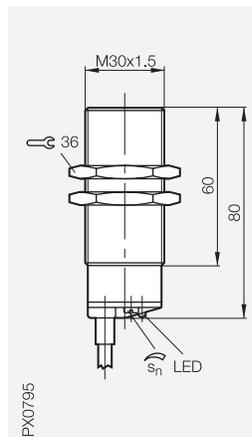
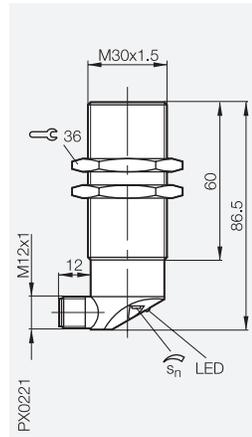


# Capacitive Proximity Sensors

DC 3-wire  
 Ø 34 mm, M30  
 $s_r$  1.6...16.2, 0.8...8.1, 2.4...32.4 mm

Housing size	<b>M30</b>	<b>M30</b>	<b>M30</b>	<b>Ø 34 mm</b>
Mounting	non-flush	non-flush	flush	non-flush
Effective operating distance $s_r$	<b>2...20 mm adj.</b>	<b>2...20 mm adj.</b>	<b>1...10 mm adj</b>	<b>3...40 mm adj.</b>
Assured operating distance $s_a$	1.6...16.2 mm adj.	1.6...16.2 mm adj.	0.8...8.1 mm adj.	2.4...32.4 mm adj.



PNP	Normally-open	BCS-030-PS-1-C-S4 <sup>3</sup>	BCS-030-PS-1-C- <sup>1,3</sup>	BCS-030-PS-1AS-C-S4 <sup>3</sup>	BCS-034-PS-1-C- <sup>3</sup>
	Normally-closed	BCS-030-PO-1-C-S4 <sup>3</sup>	BCS-030-PO-1-C- <sup>1,3</sup>	BCS-030-PO-1AS-C-S4 <sup>2,3</sup>	BCS-034-PO-1-C- <sup>3</sup>
	Complementary	BCS-030-GA-1-C-S4 <sup>4,3</sup>			

NPN	Normally-open	BCS-030-NS-1-C-S4 <sup>3</sup>	BCS-030-NS-1-C- <sup>1,3</sup>	BCS-030-NS-1AS-C-S4 <sup>3</sup>	BCS-034-NS-1-C- <sup>3</sup>
	Normally-closed	BCS-030-NO-1-C-S4 <sup>2,3</sup>	BCS-030-NO-1-C- <sup>1,3</sup>	BCS-030-NO-1AS-C-S4 <sup>2,3</sup>	BCS-034-NO-1-C- <sup>3</sup>
	Complementary	BCS-030-GA-1-C-S4 <sup>4,3</sup>			

Rated operational voltage $U_e$	24 V DC	24 V DC	24 V DC	24 V DC
Supply voltage $U_B$	15...30 V DC	15...30 V DC	15...30 V DC	15...30 V DC
Voltage drop $U_a$ at $I_e$	≤3.5 V	≤3.5 V	≤3.5 V	≤3.5 V
Insulation voltage rating $U_i$	75 V DC	250 V AC□	250 V AC□	250 V AC□
Rated operational current $I_e$	250 mA	250 mA	250 mA	250 mA
Minimum operating current $I_m$	100µA	100µA	100µA	100µA
No-load current draw $I_0$	≤8 mA	≤8 mA	≤8 mA	≤8 mA
Leakage current, output off $I_l$	≤50 µA	≤50 µA	≤50 µA	≤50 µA
Protected against short circuit	yes	yes	yes	yes
Protected against polarity reversal	yes	yes	yes	yes
Load capacitance	≤1 µF	≤1 µF	≤1 µF	≤1 µF
Repeat accuracy R	≤10%	≤10%	≤10%	≤10%
Ambient temperature range $T_a$	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C
Switching frequency, max	100 Hz	100 Hz	100 Hz	100 Hz
Utilization categories	DC 13	DC 13	DC 13	DC 13
LED display	power,output on	output on	power,output on	output on
Degree of protection per IEC 60529	IP 67	IP 67	IP 67	IP 67
Housing material	PBT	PBT	PBT	PBT
Sensing face material	PBT	PBT	PBT	PBT
Connection	M12 DC micro	cable	M12 DC micro	cable
No. of wires × gauge		3 x 22 AWG		3 x 22 AWG

- Add suffix for cable material and length.  
 Example **03** = PVC 3.0 meters, **PU-05** = PUR 5.0 meters
- Consult factory for availability
- Part number will transition from -Y- to -C- during 2001
  - M18-Ø34mm Y models have thermal SCP.
  - M18-Ø34mm C models have pulsing SCP.
- PNP or NPN outputs Connect load to (-) supply for PNP, (+) supply for NPN

See pages **3.4-3.5** for wiring diagrams.