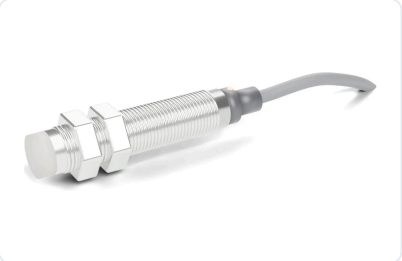
M12 Non-Flush Capacitive Proximity Sensors 1–8 mm



M12 non-flush capacitive proximity sensors. Rated sensing distances adjustable 1–6 mm, 1–8 mm, 2–6 mm; NPN, PNP outputs; 2 m cable, M12 connector. 35 part numbers, each a fixed SEGMENsensor order code.

Sensing distance **1–8 mm** Outputs **NPN • PNP**

Connection **2 m cable • M12 connector** Part numbers **35**

Key facts

- Rated sensing distances: adjustable 1–6 mm, 1–8 mm, 2–6 mm.
- Supply: 10–30 V DC.
- Outputs: NPN, PNP. 12 NPN/PNP models have complementary NO + NC outputs.
- Connections: 2 m cable (23), M12 connector (12). Housing: Nickel-plated brass (23), PBT (12).
- Qualification samples of 1–5 pcs ship in 5–7 days; production is planned around your annual volume.

Family data

Housing	M12 thread, Nickel-plated brass (23), PBT (12)
Mounting	Non-flush (non-embeddable)
Rated sensing distance	adjustable 1–6 mm, 1–8 mm, 2–6 mm
Outputs	NPN, PNP
Supply	10–30 V DC
Connection	2 m cable, M12 connector
Targets	Metal and non-metal materials
Other electrical data	Per part-number datasheet, sent with the quotation

Reading the part number

SGC-GP12U-A080PA-C2

SGC SEGMENsensor capacitive

12 · U M12 non-flush (S = flush)

P · A PNP • NO (N = NPN, P = PNP, D = DC 2-wire, J = AC 2-wire, U = AC/DC; A = NO, B = NC, C = NO + NC)

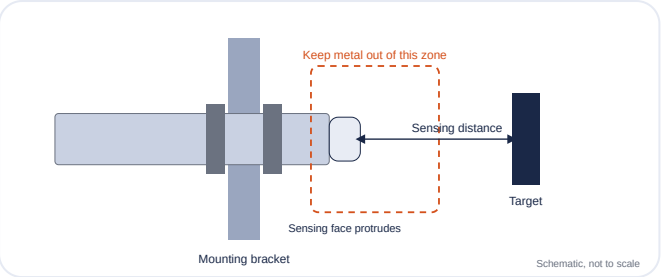
+ PL = plastic housing

GP General-purpose series

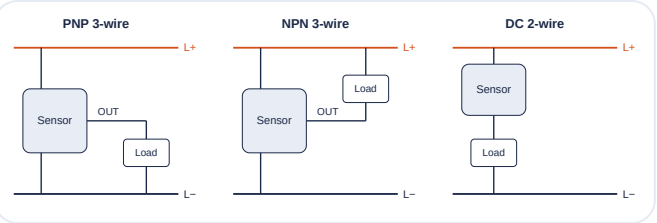
A080 Sensing distance in 0.1 mm: 1–8 mm (adj.); A = adjustable

C2 C2 = 2 m cable, Q4 = M12 connector

Mounting



Wiring



All part numbers

Part number	Sensing distance	Output	Supply	Connection	Housing
SGC-GP12U-A060NA-C2	2–6 mm (adj.)	NPN NO	10–30 V DC	2 m cable	Nickel-plated brass
SGC-GP12U-A060NA-C2-PL	1–6 mm (adj.)	NPN NO	10–30 V DC	2 m cable	PBT
SGC-GP12U-A060NA-Q4	1–6 mm (adj.)	NPN NO	10–30 V DC	M12 connector	Nickel-plated brass
SGC-GP12U-A060NB-C2	1–6 mm (adj.)	NPN NC	10–30 V DC	2 m cable	Nickel-plated brass
SGC-GP12U-A060NB-C2-PL	1–6 mm (adj.)	NPN NC	10–30 V DC	2 m cable	PBT
SGC-GP12U-A060NB-Q4	1–6 mm (adj.)	NPN NC	10–30 V DC	M12 connector	Nickel-plated brass
SGC-GP12U-A060NC-C2	1–6 mm (adj.)	NPN NO + NC	10–30 V DC	2 m cable	Nickel-plated brass
SGC-GP12U-A060NC-C2-PL	1–6 mm (adj.)	NPN NO + NC	10–30 V DC	2 m cable	PBT
SGC-GP12U-A060NC-Q4	1–6 mm (adj.)	NPN NO + NC	10–30 V DC	M12 connector	Nickel-plated brass
SGC-GP12U-A060PA-C2	1–6 mm (adj.)	PNP NO	10–30 V DC	2 m cable	Nickel-plated brass
SGC-GP12U-A060PA-C2-PL	1–6 mm (adj.)	PNP NO	10–30 V DC	2 m cable	PBT
SGC-GP12U-A060PA-Q4	1–6 mm (adj.)	PNP NO	10–30 V DC	M12 connector	Nickel-plated brass
SGC-GP12U-A060PB-C2-PL	1–6 mm (adj.)	PNP NC	10–30 V DC	2 m cable	PBT
SGC-GP12U-A060PB-Q4	1–6 mm (adj.)	PNP NC	10–30 V DC	M12 connector	Nickel-plated brass
SGC-GP12U-A060PC-C2	1–6 mm (adj.)	PNP NO + NC	10–30 V DC	2 m cable	Nickel-plated brass
SGC-GP12U-A060PC-C2-PL	1–6 mm (adj.)	PNP NO + NC	10–30 V DC	2 m cable	PBT
SGC-GP12U-A060PC-Q4	1–6 mm (adj.)	PNP NO + NC	10–30 V DC	M12 connector	Nickel-plated brass
SGC-GP12U-A080NA-C2	1–8 mm (adj.)	NPN NO	10–30 V DC	2 m cable	Nickel-plated brass
SGC-GP12U-A080NA-C2-PL	1–8 mm (adj.)	NPN NO	10–30 V DC	2 m cable	PBT
SGC-GP12U-A080NA-Q4	1–8 mm (adj.)	NPN NO	10–30 V DC	M12 connector	Nickel-plated brass
SGC-GP12U-A080NB-C2	1–8 mm (adj.)	NPN NC	10–30 V DC	2 m cable	Nickel-plated brass
SGC-GP12U-A080NB-C2-PL	1–8 mm (adj.)	NPN NC	10–30 V DC	2 m cable	PBT
SGC-GP12U-A080NB-Q4	1–8 mm (adj.)	NPN NC	10–30 V DC	M12 connector	Nickel-plated brass
SGC-GP12U-A080NC-C2	1–8 mm (adj.)	NPN NO + NC	10–30 V DC	2 m cable	Nickel-plated brass
SGC-GP12U-A080NC-C2-PL	1–8 mm (adj.)	NPN NO + NC	10–30 V DC	2 m cable	PBT
SGC-GP12U-A080NC-Q4	1–8 mm (adj.)	NPN NO + NC	10–30 V DC	M12 connector	Nickel-plated brass
SGC-GP12U-A080PA-C2	1–8 mm (adj.)	PNP NO	10–30 V DC	2 m cable	Nickel-plated brass
SGC-GP12U-A080PA-C2-PL	1–8 mm (adj.)	PNP NO	10–30 V DC	2 m cable	PBT
SGC-GP12U-A080PA-Q4	1–8 mm (adj.)	PNP NO	10–30 V DC	M12 connector	Nickel-plated brass
SGC-GP12U-A080PB-C2	1–8 mm (adj.)	PNP NC	10–30 V DC	2 m cable	Nickel-plated brass

Part number	Sensing distance	Output	Supply	Connection	Housing
SGC-GP12U-A080PB-C2-PL	1–8 mm (adj.)	PNP NC	10–30 V DC	2 m cable	PBT
SGC-GP12U-A080PB-Q4	1–8 mm (adj.)	PNP NC	10–30 V DC	M12 connector	Nickel-plated brass
SGC-GP12U-A080PC-C2	1–8 mm (adj.)	PNP NO + NC	10–30 V DC	2 m cable	Nickel-plated brass
SGC-GP12U-A080PC-C2-PL	1–8 mm (adj.)	PNP NO + NC	10–30 V DC	2 m cable	PBT
SGC-GP12U-A080PC-Q4	1–8 mm (adj.)	PNP NO + NC	10–30 V DC	M12 connector	Nickel-plated brass

Questions and answers

What can an M12 capacitive proximity sensor detect?

Capacitive sensors detect both metal and non-metal targets, for example liquids, wood, plastics and paper. The switching distance depends on the target material, so test with your actual material before fixing the position.

What does non-flush mean for an M12 sensor?

A non-flush (unshielded) sensor has a protruding sensing face and needs a metal-free zone around it, but reaches further than a flush model of the same size.

Which sensing distances are available?

This family has 35 part numbers with these rated sensing distances: adjustable 1–6 mm, 1–8 mm, 2–6 mm.

Which supply voltages are available?

Supply ranges in this family: 10–30 V DC.

Which connections are available?

Connection options: 2 m cable (23 models), M12 connector (12 models).

Can I order with the SEGMENsensor part number?

Yes. Each part number is one fixed configuration. Click Quote in the model table or enter the part number in the form; the datasheet and lead time are confirmed with the quotation.

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