



LL3

A wide variety of solutions to your most challenging applications:
SICK's fiber-optic cables

SICK
Sensor Intelligence.



Technical data overview

Functional principle detail

Consisting of a sender and a receiver

Product description

For any application-oriented sensor solution, a suitable fiber-optic cable must be chosen. At SICK, the broad range of fiber-optic cables made from plastic and glass fibers permits optimal automation solutions. This applies in particular to tasks for which the fiber-optic cable requires application-specific adaption, where flexible cable installation is crucial, where high temperatures prevail, or a particular material compatibility is important. While the fibers of plastic fiber-optic cables are characterized, among other things, by the smallest of bend radii and maximum flexibility, and can also be shortened to any length, the glass fiber-optic cables are more chemically resistant and suitable for a higher temperature range. The wide variety of end sleeve options or individual special sleeves enable virtually any installation possibility. Depending on the application, the fiber-optic cable's protective cladding can be made from plastic, metal, or Teflon for exposure to aggressive chemicals.

At a glance

- Very large selection of plastic and glass fiber-optic cables.
- Fiber-optic cables resistant to chemicals and high temperature
- Threaded and smooth sleeves, bands of light (array), 90° reflection versions available
- Focused optics
- Proximity and through-beam versions available
- Plastic, protective metal or Teflon sheathing available

Your benefits

- Very large selection of fiber-optic cables with plastic and glass fibers, giving users more application flexibility
- Resistant to damage caused by mechanical and chemical stress, as well as high temperatures
- Standard and customer-specific types
- Simple installation saves time
- For detection of objects, surfaces, leading edges, and fluid levels

Ordering information

Other models and accessories → www.sick.com/LL3

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Thread diameter (housing):** M6
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
1,000 mm	LL3-DK06-01	5326997
3,000 mm	LL3-DK063000	5338135
2,000 mm	LL3-DK06	5313019
10,000 mm	LL3-DB01-10	5308075
2,000 mm	LL3-DB03	5313021
	LL3-DK67	5313025
3,000 mm	LL3-DB01-3	5322552
30,000 mm	LL3-DB01-30	5324662

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no

Thread diameter (housing)	Fiber length	Type	Part no.
M3	2,000 mm	LL3-DK08	5350097
		LL3-DR022000	5350148
		LL3-DT01S02	5342826
	5,000 mm	LL3-DT01S03	5342827
		2,000 mm	LL3-DS06
	LL3-DB07		5325988
	LL3-DT01		5308076
	500 mm	LL3-DK21	5313023
	1,000 mm	LL3-DR02	5308079
	2,000 mm	LL3-DR08	5326037
	5,000 mm	LL3-DT01-05	5309087

Thread diameter (housing)	Fiber length	Type	Part no.
M4	3,000 mm	LL3-DM02-3	5327029
	2,000 mm	LL3-DM01	5308071
		LL3-DK66	5313024
		LL3-DR06	5308082
M6	2,000 mm	LL3-DK06-S01	5327794

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type
- **Jacket material:** stainless steel
- **Integrated lens:** no
- **Angle of dispersion < 60°:** no

Type	Part no.
LL3-DL01	1068060
LL3-DL08	1100925

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** special design
- **Fiber material:** glass
- **Jacket material:** stainless steel
- **Fiber head material:** stainless steel

Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
No	Yes	No	2,000 mm	LL3-DL07	1094996

- **For fiber-optic sensor:** GLL170(T), WLL180, KTL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Thread diameter (housing):** M4
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
500 mm	LL3-DM02500	5342216
5,000 mm	LL3-DM025000	5344076
2,000 mm	LL3-DM02	5308077

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Integrated lens:** no
- **Angle of dispersion < 60°:** no

Thread diameter (housing)	Compatibility with infrared light (1,450 nm)	Fiber length	Type	Part no.
M3	No	1,000 mm	LL3-KD021000	5343661
M6	-	2,000 mm	LL3-DH01	5308091
			LL3-DH02	5308092
		3,000 mm	LL3-DH01-03	5321260

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no

Fiber length	Type	Part no.
14,000 mm	LL3-KX0214000	5343663
3,000 mm	LL3-KX023000	5343928
9,000 mm	LL3-KX029000	5343662

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Flat type, 90° deflection, Array
- **Jacket material:** plastic
- **Fiber head material:** Aluminum
- **Fiber-optic cable cuttable:** ✓

Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Type	Part no.
No	No	No	LL3-TS15S01	1069692

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve
- **Jacket material:** plastic
- **Fiber-optic cable cuttable:** ✓

Thread diameter (housing)	Integrated lens	Angle of dispersion < 60°	Type	Part no.
M12	Yes	Yes	LL3-TX0410	1072949

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** plastic
- **Jacket material:** stainless steel
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓

Thread diameter (housing)	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
M3	No	No	No	1,000 mm	LL3-DJ01	5325989

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, KTL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Thread diameter (housing):** M6
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no
- **Fiber length:** 2,000 mm

Type	Part no.
LL3-DB01	5308074
LL3-DB04	5325990

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** plastic
- **Jacket material:** stainless steel
- **Fiber head material:** brass
- **Fiber-optic cable cuttable:** ✓

Thread diameter (housing)	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
M6	No	No	No	1,000 mm	LL3-DJ02	5325992

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** brass
- **Fiber-optic cable cuttable:** ✓
- **Thread diameter (housing):** M6
- **Compatibility with infrared light (1,450 nm):** no
- **Fiber length:** 2,000 mm

Integrated lens	Angle of dispersion < 60°	Type	Part no.
-	-	LL3-DH09	5326030

Integrated lens	Angle of dispersion < 60°	Type	Part no.
No	No	LL3-DR01	5308078

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Smooth sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no

Smooth sleeve diameter	Fiber length	Type	Part no.
1.5 mm	1,000 mm	LL3-DR04	5308081
2.5 mm	2,000 mm	LL3-DT03	5308072
3 mm	4,000 mm	LL3-DR034000	5345731
	2,000 mm	LL3-DB10	5325999
		LL3-DR11	5326000
		LL3-DK4Z	5313026
		LL3-DR03	5308080
5 mm	1,000 mm	LL3-DK051000	5342636

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Smooth sleeve
- **Fiber material:** glass
- **Jacket material:** plastic

Smooth sleeve diameter	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
7 mm	Yes	Yes	Yes	1,000 mm	LL3-LM401000	2082375

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Smooth sleeve, Long end sleeve
- **Fiber material:** glass
- **Jacket material:** plastic
- **Fiber head material:** Aluminum
- **Smooth sleeve diameter:** 5.8 mm
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** yes
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
2,200 mm	LL3-LT312200	2073487
150 mm	LL3-LM31150	2073483
1,500 mm	LL3-LM311500	2073486
300 mm	LL3-LM31300	2079212

Fiber length	Type	Part no.
450 mm	LL3-LM31450	2073484
750 mm	LL3-LM31750	2073485

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Smooth sleeve, Long end sleeve
- **Fiber material:** glass
- **Smooth sleeve diameter:** 5.8 mm
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** yes
- **Angle of dispersion < 60°:** no
- **Fiber length:** 450 mm

Type	Part no.
LL3-LT31450	2077269
LL3-LT31450S01	2088456

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Smooth sleeve, Long end sleeve
- **Fiber material:** glass
- **Fiber head material:** Aluminum

Smooth sleeve diameter	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
5.8 mm	No	Yes	No	750 mm	LL3-LT31750	2074450

- **For fiber-optic sensor:** GLL170(T), WLL180, KTL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Smooth sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓

Smooth sleeve diameter	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
3 mm	No	No	No	2,000 mm	LL3-DK04	5313020

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Smooth sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no

Smooth sleeve diameter	Fiber length	Type	Part no.
2 mm	1,000 mm	LL3-DP01	5325998
3 mm	500 mm	LL3-DR05	5308087

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Smooth sleeve, Long end sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Smooth sleeve diameter:** 3 mm
- **Compatibility with infrared light (1,450 nm):** no
- **Fiber length:** 2,000 mm

Integrated lens	Angle of dispersion < 60°	Type	Part no.
-	-	LL3-DV02	5308089
Yes	Yes	LL3-DR12	5326001

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** brass
- **Fiber-optic cable cuttable:** ✓

Thread diameter (housing)	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
M3	No	No	No	1,000 mm	LL3-DV08	5336171

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, KTL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber-optic cable cuttable:** ✓

Thread diameter (housing)	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
M6	No	No	No	2,000 mm	LL3-DB09	5325991

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓
- **Thread diameter (housing):** M6
- **Integrated lens:** yes
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** yes
- **Fiber length:** 2,000 mm

Type	Part no.
LL3-DV05	5322549
LL3-DV06	5322550
LL3-DV07	5322551

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓
- **Compatibility with infrared light (1,450 nm):** no

Integrated lens	Angle of dispersion < 60°	Fiber length	Type	Part no.
-	-	2,000 mm	LL3-DC07	5326019
		1,000 mm	LL3-DC08	5326029
Yes	Yes	1,000 mm	LL3-DE01	5325285
		2,000 mm	LL3-DE03	5325986
			LL3-DC06	5326017
		3,000 mm	LL3-DC04	5326018
		2,000 mm	LL3-DC39	5322513

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
2,000 mm	LL3-DE04	5325987
1,000 mm	LL3-DE02	5324497

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓
- **Compatibility with infrared light (1,450 nm):** no

Integrated lens	Angle of dispersion < 60°	Fiber length	Type	Part no.
-	-	2,000 mm	LL3-DR09	5325528
Yes	Yes	4,000 mm	LL3-DC03	5326020
		2,000 mm	LL3-RR01	5326008

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type
- **Fiber material:** glass
- **Jacket material:** stainless steel
- **Fiber head material:** plastic

Compatibility with infrared light (1,450 nm)	Fiber length	Type	Part no.
Yes	3,000 mm	LL3-DH10	5326023

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type
- **Fiber material:** plastic
- **Jacket material:** stainless steel
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓

Compatibility with infrared light (1,450 nm)	Fiber length	Type	Part no.
No	3,000 mm	LL3-DH11	5326024

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type
- **Fiber material:** plastic
- **Jacket material:** chemical-resistant plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓

Compatibility with infrared light (1,450 nm)	Fiber length	Type	Part no.
Yes	2,000 mm	LL3-DH08	5326025

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type, 90° deflection
- **Fiber material:** glass
- **Jacket material:** stainless steel
- **Fiber head material:** stainless steel

Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
Yes	Yes	No	2,000 mm	LL3-DH06	5326026

- **For fiber-optic sensor:** GLL170(T), WLL180, KTL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓

Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
Yes	No	Yes	2,000 mm	LL3-DC09	5326028

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓

Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
No	No	No	2,000 mm	LL3-DC47	5324268

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Flat type, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓

Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
No	No	No	2,000 mm	LL3-DC57	5324269

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve, Long end sleeve, Bendable sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Thread diameter (housing):** M6
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
10,000 mm	LL3-DB02-10	5328568
2,000 mm	LL3-DB06	5326006
	LL3-DB02	5308083

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve, Long end sleeve, Bendable sleeve
- **Fiber material:** glass
- **Jacket material:** stainless steel
- **Fiber head material:** brass
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** yes
- **Angle of dispersion < 60°:** no

Thread diameter (housing)	Fiber length	Type	Part no.
M4	1,000 mm	LL3-DH055000	5340697
		LL3-DH05	5326021
M6	2,000 mm	LL3-DH04	5326022

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve, Long end sleeve, Bendable sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no
- **Fiber length:** 2,000 mm

Thread diameter (housing)	Type	Part no.
M3	LL3-DM04	5337948
M4	LL3-DM03-3	5326721
	LL3-DM03	5308084

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Smooth sleeve, Long end sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Smooth sleeve diameter:** 5 mm
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
9,000 mm	LL3-DV019000	5335399
2,000 mm	LL3-DV01	5308088
	LL3-DK33	5313031

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Smooth sleeve, Ø 6 mm, length 32 mm
- **Smooth sleeve diameter:** 6 mm
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
500 mm	LL3-KD01500	5345834
750 mm	LL3-KD01750	5345835

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve, Long end sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel

Thread diameter (housing)	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
M3	No	No	No	1,000 mm	LL3-DB05	5326002

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve, Long end sleeve, Bendable sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** brass
- **Fiber-optic cable cuttable:** ✓
- **Thread diameter (housing):** M4
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no
- **Fiber length:** 2,000 mm

Type	Part no.
LL3-DB08	5326004
LL3-DR10	5326005

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve, Long end sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no

Thread diameter (housing)	Fiber length	Type	Part no.
M3	500 mm	LL3-DT02	5308085
		LL3-DT04	5308086
M4	2,000 mm	LL3-DK63Z	5313027
		LL3-DT05	5313028

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Smooth sleeve, Long end sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓

Smooth sleeve diameter	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
3 mm	No	No	No	1,000 mm	LL3-DR07	5326007

- **For fiber-optic sensor:** WLL80
- **Functional principle:** Proximity system
- **Compatibility with infrared light (1,450 nm):** no

Smooth sleeve diameter	Fiber length	Type	Part no.
-	2,000 mm	LL3-RB01	5326010
		LL3-RB02	5326011
		LL3-RG01	5326012
2.5 mm	500 mm	LL3-DK22	5313029

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Smooth sleeve, Long end sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓

Smooth sleeve diameter	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
4 mm	No	No	No	2,000 mm	LL3-DK43	5313030

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve, Long end sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓

Thread diameter (housing)	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
M6	No	No	No	2,000 mm	LL3-DV03	5308090

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type, Array
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** brass
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
10,000 mm	LL3-DZ0210000	5334006
2,000 mm	LL3-DZ02	5326014

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, KTL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type, Array
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓

Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
Yes	No	Yes	2,000 mm	LL3-DZ01	5326013

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type, 90° deflection, Array
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** brass
- **Fiber-optic cable cuttable:** ✓

Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
No	No	No	2,000 mm	LL3-DZ03	5326015

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** glass
- **Jacket material:** stainless steel
- **Fiber head material:** brass
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** yes
- **Angle of dispersion < 60°:** no

Thread diameter (housing)	Fiber length	Type	Part no.
M4	2,000 mm	LL3-DH072000	5342745
	1,000 mm	LL3-DH07	5326031
M6	3,000 mm	LL3-DH03-03	5324788
	750 mm	LL3-DH03750	5340698
	2,000 mm	LL3-DH03	5324787

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type, 90° deflection
- **Fiber material:** glass
- **Jacket material:** stainless steel
- **Fiber head material:** Aluminum
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** yes
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
10,000 mm	LL3-DH5010000	2106741

Fiber length	Type	Part no.
500 mm	LL3-DH50500	2083802

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** glass
- **Jacket material:** stainless steel
- **Fiber head material:** stainless steel
- **Thread diameter (housing):** M6
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** yes
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
10,000 mm	LL3-DW0110000	5343668
2,500 mm	LL3-DW012500	5344273
3,000 mm	LL3-DW013000	5344274
5,000 mm	LL3-DW01-5	5326221
1,000 mm	LL3-DW01	5315234
2,000 mm	LL3-DW01-2	5324789

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Smooth sleeve
- **Fiber material:** plastic
- **Jacket material:** chemical-resistant plastic
- **Fiber head material:** chemical-resistant plastic
- **Fiber-optic cable cuttable:** ✓

Smooth sleeve diameter	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
6 mm	No	No	No	4,000 mm	LL3-DB114000	5338927

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Smooth sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** chemical-resistant plastic
- **Fiber head material:** chemical-resistant plastic
- **Fiber-optic cable cuttable:** ✓
- **Smooth sleeve diameter:** 6 mm
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no
- **Fiber length:** 4,000 mm

Type	Part no.
LL3-DV114000	5338928
LL3-DV114000S01	5345836

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, KTL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Smooth sleeve
- **Fiber material:** plastic
- **Jacket material:** chemical-resistant plastic
- **Fiber head material:** chemical-resistant plastic
- **Fiber-optic cable cuttable:** ✓

Smooth sleeve diameter	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
6 mm	No	No	No	2,000 mm	LL3-DY01	5308093

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓

Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
Yes	No	Yes	3,000 mm	LL3-DC05	5326016

- **For fiber-optic sensor:** GLL170(T), WLL180, KTL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓

Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
Yes	No	Yes	2,000 mm	LL3-DC38	5322472

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** special design
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** chemical-resistant plastic
- **Fiber-optic cable cuttable:** ✓
- **Smooth sleeve diameter:** 5 mm
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
234 mm	LL3-DF02-S03	5329354
2,000 mm	LL3-DF02-S01	5321924

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** special design
- **Fiber material:** plastic
- **Jacket material:** chemical-resistant plastic
- **Fiber head material:** chemical-resistant plastic
- **Fiber-optic cable cuttable:** ✓

Compatibility with infrared light (1,450 nm)	Fiber length	Type	Part no.
No	2,000 mm	LL3-DF03	5336766

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Array
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
10,000 mm	LL3-DF0710000	5340780
5,000 mm	LL3-DF075000	5338077
2,000 mm	LL3-DF07	5326033

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** special design
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no
- **Fiber length:** 2,000 mm

Type	Part no.
LL3-DF05	5326034
LL3-DF04	5326035

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** special design
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** chemical-resistant plastic
- **Fiber-optic cable cuttable:** ✓

Compatibility with infrared light (1,450 nm)	Fiber length	Type	Part no.
No	5,000 mm	LL3-DW02	5325608

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** brass
- **Fiber-optic cable cuttable:** ✓
- **Thread diameter (housing):** M4
- **Compatibility with infrared light (1,450 nm):** no

Integrated lens	Angle of dispersion < 60°	Fiber length	Type	Part no.
-	-	2,000 mm	LL3-TH17	5325967
No	No	5,000 mm	LL3-TR015000	5345737
		2,000 mm	LL3-TK77	5313035
			LL3-TR01	5308052
		5,000 mm	LL3-TR01-05	5322198
			LL3-TH01-05	5329380
		2,000 mm	LL3-TH01	5308064

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Compatibility with infrared light (1,450 nm):** no

Thread diameter (housing)	Integrated lens	Angle of dispersion < 60°	Fiber length	Type	Part no.
M12	Yes	Yes	20,000 mm	LL3-TX01S01	5343641
				LL3-TX02	5325046
			1,000 mm	LL3-TX02-01	5328256
			10,000 mm	LL3-TX02-10	5326380
			20,000 mm	LL3-TX01	5324173
M4	No	No	2,000 mm	LL3-TB01	5308050
			10,000 mm	LL3-TB01-10	5308051
			30,000 mm	LL3-TB01-30	5315499
			2,000 mm	LL3-TB02	5308048
			1,000 mm	LL3-TJ01	5325915
			5,000 mm	LL3-TH02-05	5329394
			2,000 mm	LL3-TH02	5308065

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** plastic
- **Jacket material:** stainless steel
- **Fiber head material:** stainless steel

Thread diameter (housing)	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
M12	Yes	No	Yes	1,000 mm	LL3-TX03-01	5328257

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Thread diameter (housing):** M3
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no
- **Fiber length:** 2,000 mm

Type	Part no.
LL3-TR02	5308053
LL3-TM01	5308068
LL3-TM02	5308069

- **For fiber-optic sensor:** WLL80
- **Functional principle:** Through-beam system

Thread diameter (housing)	Smooth sleeve diameter	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
-	5.5 mm	-	No	-	2,500 mm	LL3-TY04	5325981
M14	-	-	No	-	10,000 mm	LL3-TB08	5325917
M4	-	No	Yes	No	195 mm, 545 mm	LL3-TH08S01	5337056

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Smooth sleeve, Long end sleeve
- **Fiber material:** glass
- **Jacket material:** plastic
- **Fiber head material:** Aluminum
- **Smooth sleeve diameter:** 5.8 mm
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** yes
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
450 mm	LL3-LM32450	2073499

Fiber length	Type	Part no.
750 mm	LL3-LM32750	2073500

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Smooth sleeve
- **Fiber material:** glass
- **Jacket material:** plastic
- **Fiber head material:** Aluminum
- **Smooth sleeve diameter:** 5.8 mm
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** yes
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
150 mm	LL3-LM35150	2073488
450 mm	LL3-LM35450	2073489
750 mm	LL3-LM35750	2073490

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Smooth sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Compatibility with infrared light (1,450 nm):** no

Smooth sleeve diameter	Integrated lens	Angle of dispersion < 60°	Fiber length	Type	Part no.
-	Yes	Yes	2,000 mm	LL3-TG03	5325942
1 mm	No	No	500 mm	LL3-TR04	5325918
2.5 mm	No	No	2,000 mm	LL3-TB07	5325919
3 mm	No	No	4,000 mm	LL3-TK054000	5339333
			2,000 mm	LL3-TS07	5308049
				LL3-TK05	5313034
	Yes	Yes	2,000 mm	LL3-TR10	5325920

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Smooth sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no

Smooth sleeve diameter	Fiber length	Type	Part no.
1.5 mm	1,000 mm	LL3-TR03	5308054
	2,000 mm	LL3-TR03-2	5308055
		LL3-TM03	5308070
3 mm	2,000 mm	LL3-TT01	5308057

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Smooth sleeve, Long end sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Compatibility with infrared light (1,450 nm):** no
- **Fiber length:** 2,000 mm

Smooth sleeve diameter	Integrated lens	Angle of dispersion < 60°	Type	Part no.
2 mm	-	-	LL3-TG05	5325921
2.5 mm	No	No	LL3-TV02	5308059

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Smooth sleeve, Long end sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Compatibility with infrared light (1,450 nm):** no
- **Fiber length:** 2,000 mm

Smooth sleeve diameter	Integrated lens	Angle of dispersion < 60°	Type	Part no.
2 mm	Yes	Yes	LL3-TV08	5325922
3 mm	No	No	LL3-TV01	5308058

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Smooth sleeve, Long end sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber-optic cable cuttable:** ✓

Smooth sleeve diameter	Fiber length	Type	Part no.
2.5 mm	1,000 mm	LL3-TH06	5325926

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Proximity system
- **Fiber-optic head design:** Flat type, 90° deflection
- **Fiber material:** glass
- **Jacket material:** plastic
- **Fiber head material:** Aluminum
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** yes
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
1,000 mm	LL3-LM361000	2073494
1,250 mm	LL3-LM361250	2073495
150 mm	LL3-LM36150	2073491
450 mm	LL3-LM36450	2073492
750 mm	LL3-LM36750	2073493
150 mm	LL3-LM37150	2073496
450 mm	LL3-LM37450	2073497
750 mm	LL3-LM37750	2073498

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Flat type, 90° deflection
- **Fiber material:** glass
- **Jacket material:** plastic
- **Fiber head material:** Aluminum
- **Compatibility with infrared light (1,450 nm):** yes

Integrated lens	Angle of dispersion < 60°	Fiber length	Type	Part no.
No	No	150 mm	LL3-LM38150	2073501
		450 mm	LL3-LM38450	2073502
			LL3-LM39450	2073505
		750 mm	LL3-LM39750	2073506
			LL3-LM38750	2073503
Yes	Yes	750 mm	LL3-LM38751	2073504

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber-optic cable cuttable:** ✓
- **Thread diameter (housing):** M4
- **Compatibility with infrared light (1,450 nm):** no

Integrated lens	Angle of dispersion < 60°	Fiber length	Type	Part no.
No	No	10,000 mm	LL3-TR0810000	5334038
		2,000 mm	LL3-TV77	5326557
			LL3-TR08	5325984

Integrated lens	Angle of dispersion < 60°	Fiber length	Type	Part no.
Yes	Yes	5,000 mm	LL3-TR095000	5336564
		2,000 mm	LL3-TR09	5325985

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓
- **Thread diameter (housing):** M4
- **Integrated lens:** yes
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** yes

Fiber length	Type	Part no.
10,000 mm	LL3-TV0510000	5337026
3,000 mm	LL3-TV05-3	5326073
5,000 mm	LL3-TV055000	5336527
2,000 mm	LL3-TV05	5322546
	LL3-TV06	5322547
	LL3-TV07	5322548

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Smooth sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** chemical-resistant plastic
- **Fiber head material:** chemical-resistant plastic
- **Fiber-optic cable cuttable:** ✓
- **Smooth sleeve diameter:** 5 mm
- **Integrated lens:** yes
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** yes

Fiber length	Type	Part no.
6,000 mm	LL3-TY036000	5336504
3,000 mm	LL3-TY03	5325982

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓

Thread diameter (housing)	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
M4	No	No	No	2,000 mm	LL3-TB06	5325916

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Smooth sleeve, 90° deflection
- **Fiber material:** glass
- **Jacket material:** stainless steel
- **Fiber head material:** brass
- **Smooth sleeve diameter:** 4 mm
- **Integrated lens:** yes
- **Compatibility with infrared light (1,450 nm):** yes
- **Angle of dispersion < 60°:** no
- **Fiber length:** 2,000 mm

Type	Part no.
LL3-TH15	5325975
LL3-TH16	5325976

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Smooth sleeve, 90° deflection
- **Fiber material:** glass
- **Jacket material:** stainless steel
- **Fiber head material:** stainless steel

Smooth sleeve diameter	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
4 mm	No	Yes	No	2,000 mm	LL3-TH07	5325977

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Flat type
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓
- **Compatibility with infrared light (1,450 nm):** no

Integrated lens	Angle of dispersion < 60°	Fiber length	Type	Part no.
No	No	1,000 mm	LL3-TE02	5325910
Yes	Yes	2,000 mm	LL3-TR11	5325906
		1,000 mm	LL3-TE01	5325807
		2,000 mm	LL3-TR06	5325912

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Flat type, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓
- **Compatibility with infrared light (1,450 nm):** no
- **Fiber length:** 2,000 mm

Integrated lens	Angle of dispersion < 60°	Type	Part no.
No	No	LL3-TE04	5325911

Integrated lens	Angle of dispersion < 60°	Type	Part no.
Yes	Yes	LL3-TR12	5325907
		LL3-TE03	5325908
		LL3-TR13	5325909
		LL3-TR05	5325808
		LL3-TE05	5325914

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve, Long end sleeve, Bendable sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Thread diameter (housing):** M4
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no
- **Fiber length:** 2,000 mm

Type	Part no.
LL3-TB03S01	5344077
LL3-TB03	5308056

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve, Long end sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓

Thread diameter (housing)	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
M3	No	No	No	2,000 mm	LL3-TV04	5308060

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Smooth sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓

Smooth sleeve diameter	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
3 mm	No	No	No	2,000 mm	LL3-TS08	5308061

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** yes
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** yes
- **Fiber length:** 2,000 mm

Type	Part no.
LL3-TS12	5308062
LL3-TK16	5313038

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve, Long end sleeve, Bendable sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓

Thread diameter (housing)	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
M3	No	No	No	2,000 mm	LL3-TB05	5325924

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Smooth sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** brass
- **Fiber-optic cable cuttable:** ✓

Smooth sleeve diameter	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
3 mm	No	No	No	500 mm	LL3-TP01	5325925

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Flat type, 90° deflection, Array
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓

Compatibility with infrared light (1,450 nm)	Fiber length	Type	Part no.
No	2,000 mm	LL3-TS05	5334043

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Flat type, 90° deflection, Array
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** brass
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
2,000 mm	LL3-TS11	5338673
5,000 mm	LL3-TS115000	5341038
2,000 mm	LL3-TS10	5308063
	LL3-TZ06	5325938

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Flat type, 90° deflection, Array
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** yes
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** yes

Fiber length	Type	Part no.
5,000 mm	LL3-TS40-5	5328527
2,000 mm	LL3-TS40	5323971

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Flat type, 90° deflection, Array
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** brass
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** yes
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** yes
- **Fiber length:** 2,000 mm

Type	Part no.
LL3-TZ09	5326598
LL3-TZ10	5326599

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Flat type, Array
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** brass
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** no
- **Fiber length:** 2,000 mm

Type	Part no.
LL3-TS14	5313039
LL3-TZ05	5325937

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Proximity system

Thread diameter (housing)	Integrated lens	Compatibility with infrared light (1,450 nm)	Fiber length	Type	Part no.
M10	No	No	3,000 mm	LL3-KX01	5343156

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** glass
- **Jacket material:** stainless steel
- **Fiber head material:** brass
- **Thread diameter (housing):** M4
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** yes
- **Angle of dispersion < 60°:** no

Fiber length	Type	Part no.
5,000 mm	LL3-TH08-05	5329554
3,000 mm	LL3-TH08-3	5328051
2,000 mm	LL3-TH12	5325972
	LL3-TH13	5325973
	LL3-TH14	5325974
	LL3-TH08	5325978
	LL3-TH09	5325979

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** glass
- **Jacket material:** stainless steel
- **Fiber head material:** stainless steel

Thread diameter (housing)	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60 °	Fiber length	Type	Part no.
M4	No	No	No	1,300 mm	LL3-TN011300	5338641

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** glass
- **Jacket material:** stainless steel
- **Fiber head material:** stainless steel
- **Thread diameter (housing):** M4
- **Integrated lens:** no
- **Compatibility with infrared light (1,450 nm):** yes
- **Angle of dispersion < 60 °:** no

Fiber length	Type	Part no.
1,000 mm	LL3-TW011000S07	5338149
15,000 mm	LL3-TW0115000	2115488
2,000 mm	LL3-TW012000S03	5337904
3,000 mm	LL3-TW01-3	5326722
	LL3-TW013000S04	5337905
4,000 mm	LL3-TW014000	5339218
	LL3-TW014000S05	5337906
5,000 mm	LL3-TW015000	2081220
	LL3-TW015000S06	5337907
1,000 mm	LL3-TW01	5315233
2,000 mm	LL3-TW01-2	5321306

- **For fiber-optic sensor:** WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** glass
- **Jacket material:** stainless steel
- **Fiber head material:** stainless steel

Thread diameter (housing)	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60 °	Fiber length	Type	Part no.
M4	No	Yes	No	2,000 mm	LL3-TW012000S01	2092707

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** glass
- **Jacket material:** chemical-resistant plastic
- **Fiber head material:** brass

Thread diameter (housing)	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
M4	No	Yes	No	1,000 mm	LL3-TH10	5325970

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Threaded sleeve
- **Fiber material:** glass
- **Jacket material:** plastic
- **Fiber head material:** brass

Thread diameter (housing)	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
M4	No	Yes	No	1,000 mm	LL3-TH11	5325971

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Smooth sleeve, Long end sleeve
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓

Smooth sleeve diameter	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
3.7 mm	Yes	No	Yes	2,000 mm	LL3-TG01	5325940

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓

Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
Yes	No	Yes	2,000 mm	LL3-TG02	5325943

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber-optic cable cuttable:** ✓

Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
Yes	No	Yes	2,000 mm	LL3-TG04	5324499

- **For fiber-optic sensor:** GLL170(T), GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** 90° deflection, Smooth sleeve, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** stainless steel
- **Fiber-optic cable cuttable:** ✓
- **Integrated lens:** yes
- **Compatibility with infrared light (1,450 nm):** no
- **Angle of dispersion < 60°:** yes
- **Fiber length:** 2,000 mm

Type	Part no.
LL3-TS22	5325944
LL3-TS22M	5325968

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Smooth sleeve
- **Fiber material:** plastic
- **Jacket material:** chemical-resistant plastic
- **Fiber head material:** chemical-resistant plastic
- **Fiber-optic cable cuttable:** ✓

Smooth sleeve diameter	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
6 mm	Yes	No	Yes	2,000 mm	LL3-TY01	5308066

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** 90° deflection
- **Fiber material:** plastic
- **Jacket material:** chemical-resistant plastic
- **Fiber head material:** chemical-resistant plastic
- **Fiber-optic cable cuttable:** ✓

Smooth sleeve diameter	Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
6 mm	Yes	No	Yes	2,000 mm	LL3-TY02	5308067

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL24 Ex, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** Flat type, 90° deflection
- **Fiber material:** plastic
- **Jacket material:** chemical-resistant plastic
- **Fiber head material:** chemical-resistant plastic
- **Fiber-optic cable cuttable:** ✓

Integrated lens	Compatibility with infrared light (1,450 nm)	Angle of dispersion < 60°	Fiber length	Type	Part no.
Yes	No	Yes	2,000 mm	LL3-TY05	5325980

- **For fiber-optic sensor:** GLL170(T), WLL180, WLL80
- **Functional principle:** Through-beam system
- **Fiber-optic head design:** special design
- **Fiber material:** plastic
- **Jacket material:** plastic
- **Fiber head material:** plastic
- **Fiber-optic cable cuttable:** ✓

Integrated lens	Compatibility with infrared light (1,450 nm)	Fiber length	Type	Part no.
Yes	No	2,000 mm	LL3-TF01	5324242

- **Functional principle:** Proximity system

Thread diameter (housing)	Type	Part no.
M3	LL3-DA01	5308127
	LL3-DA02	5308130
	LL3-DA03	5326465
	LL3-DA04	5326466
	LL3-DA08	5334039
M4	LL3-DA05	5326467
	LL3-DA06	5326468
	LL3-DA07	5326469
	LL3-DA09	5334040

- **Functional principle:** Through-beam system

Thread diameter (housing)	Type	Part no.
M2.6	LL3-TA01	5308128
	LL3-TA01IR	5328271
	LL3-TA01S	5326461
	LL3-TA02	5308129
	LL3-TA03	5326462
	LL3-TA05	5326464
	LL3-TA06	5338873
	LL3-TA07	5338642
M4	LL3-TA08	5345738
	LL3-TA04	5326463

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