

New miniature photoelectric sensor line

Small, accurate and self contained



D04 & M05 Miniature Sales Story

➤ D04 & M05 Series overview

- Small Ø4 x 35 mm or M5 x 35 mm stainless steel housing
- Diffuse and through-beam operating principles
- Visible red light on all types
- Sensing range, diffuse: up to 120 mm
- Sensing range, through-beam: up to 600 mm

➤ Competitive Advantages

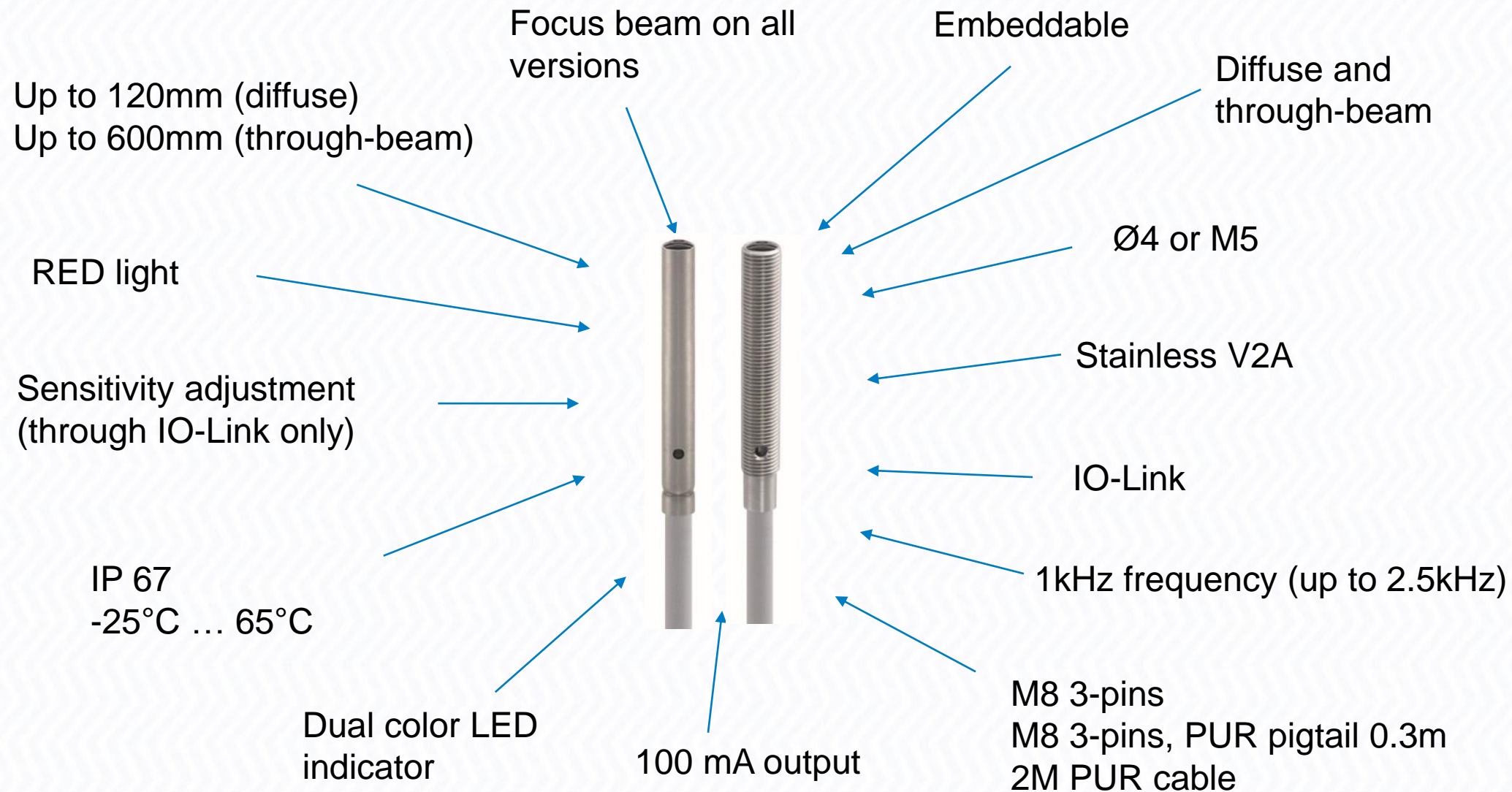
- First-class sensing ranges
- Switching frequency up to 2.5kHz
- Smallest self contained solution on market with IO-Link
- IO-Link, ready for Industry 4.0 and Industrial Internet of Things
- Sensitivity adjustment (through IO-Link only)
- Embeddable thanks to a focused beam

➤ Applications

- Pharma
- Semiconductor industry
- Logistics and warehouse

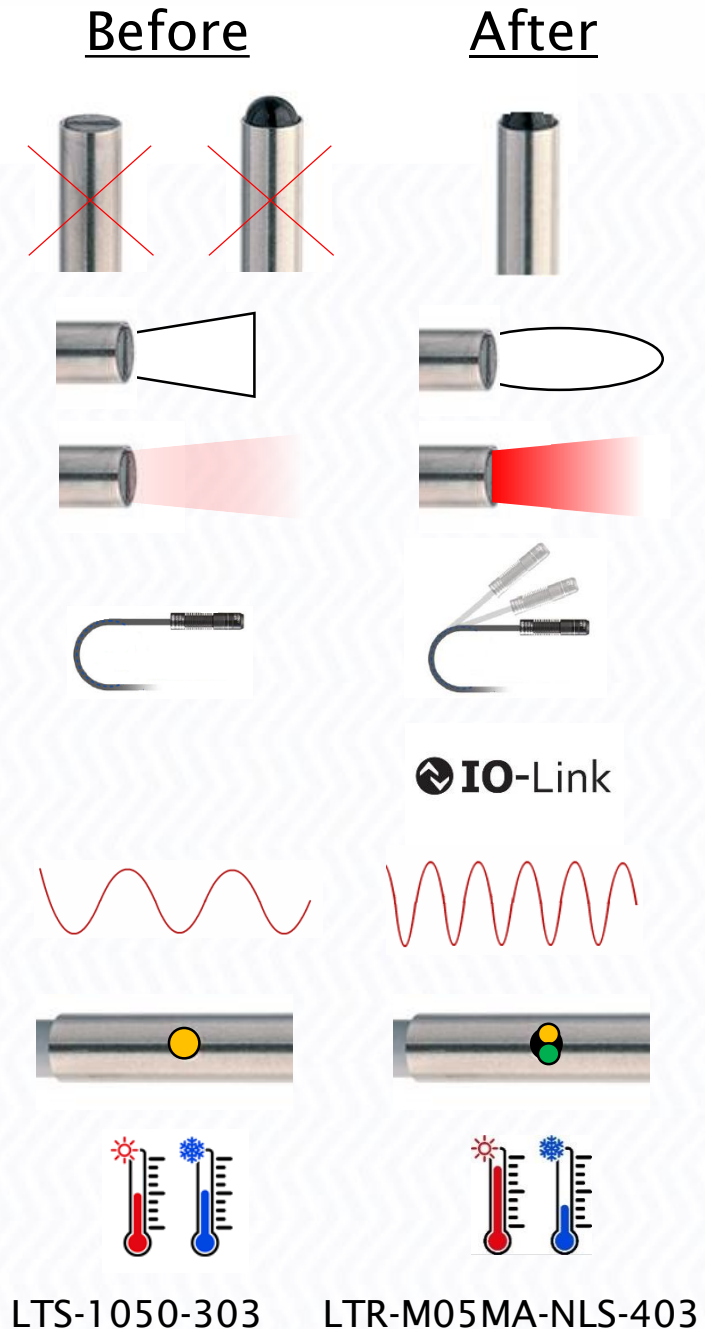


D04 and M05 specifications



What has changed?

- Front face not flat but slightly curved. Plastic PMMA instead of sapphire or glass
- Focused beam on all versions (embeddable)
- Emitting LED red instead of infrared
- PUR cable instead of PVC, pigtail available
- IO-Link is available (PNP versions)
- Switching frequency is increased to 1 kHz (normal)
- Dual color (Green/Orange) LED indicator
- Temperature range increased (-25...+65°C)
- Designation



D04 & M05 Miniature

➤ D04 & M05 Series overview

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| ➤ D04 PNP 0..12mm Light-on PUR-2m-3draht | LTR-D04MA-NSK-403 #620-600-362 |
| D04 PNP 0..24mm Light-on PUR-2m-3draht | LTR-D04MA-NMK-403 #620-600-363 |
| D04 PNP 0..60mm Light-on PUR-2m-3draht | LTR-D04MA-NLK-403 #620-600-361(einstellbar IO-Link 30..60mm) |
| D04 PNP 0..120mm Light-on PUR-2m-4draht | LTR-D04MA-WXK-403 #620-600-365 (teach wire) |
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| ➤ D04 PNP 0..12mm Light-on Pigtail, M8 3-polig | LTR-D04MA-NSV-403 #620-600-373 |
| D04 PNP 0..24mm Light-on Pigtail, M8 3-polig | LTR-D04MA-NMV-403 #620-600-374 |
| D04 PNP 0..60mm Light-on Pigtail, M8 3-polig | LTR-D04MA-NLV-403 #620-600-372(einstellbar IO-Link 30..60mm) |
| D04 PNP 0..120mm Light-on Pigtail, M8 4-polig | LTR-D04MA-WXV-403 #620-600-376 (teach wire) |
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| ➤ M05 PNP 0..12mm Light-on PUR-2m-3draht | LTR-M05MA-NSK-403 #620-600-340 |
| M05 PNP 0..24mm Light-on PUR-2m-3draht | LTR-M05MA-NMK-403 #620-600-341 |
| M05 PNP 0..60mm Light-on PUR-2m-3draht | LTR-M05MA-NLK-403 #620-600-339(einstellbar IO-Link 30..60mm) |
| M05 PNP 0..120mm Light-on PUR-2m-4draht | LTR-M05MA-WXK-403 #620-600-343 (teach wire) |
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| ➤ M05 PNP 0..12mm Light-on Pigtail, M8 3-polig | LTR-M05MA-NSV-403 #620-600-351 |
| M05 PNP 0..24mm Light-on Pigtail, M8 3-polig | LTR-M05MA-NMV-403 #620-600-352 |
| M05 PNP 0..60mm Light-on Pigtail, M8 3-polig | LTR-M05MA-NLV-403 #620-600-350(einstellbar IO-Link 30..60mm) |
| M05 PNP 0..120mm Light-on Pigtail, M8 4-polig | LTR-M05MA-WXV-403 #620-600-354 (teach wire) |

D04 portfolio

Old article number	Material description	New article number	New material description	PNP/NPN	IO-Link	Housing dimension	Sensing range	Output 1	Output 2	Operating principle	Light source	Sensitivity adjustment	Switching frequency max. [Hz]	Connection
620-200-062	LLK-1040-202	620-600-355	LLR-D04MA-NMK-302	NPN	No	Ø 4	0...600 mm	Dark-on	0	Through-beam	Red	No	2000	PUR, 2 m, 3 wire
620-200-066	LLK-1040-204	620-600-356	LLR-D04MA-NMK-404	PNP	Yes	Ø 4	0...600 mm	Dark-on	0	Through-beam	Red	10...600 mm, IO-Link	2000	PUR, 2 m, 3 wire
620-200-811	LLK-1040-200	620-600-357	LLR-D04MA-NMK-400	Emitter	Yes	Ø 4	0...600 mm	0	0	Through-beam	Red	No	2000	PUR, 2 m, 3 wire
620-200-768	LTK-1040-301	620-600-358	LTR-D04MA-NLK-301	NPN	No	Ø 4	0...60 mm	Light-on	0	Diffuse	Red	No	2500	PUR, 2 m, 3 wire
620-200-774	LTK-1040-301-505	620-600-359	LTR-D04MA-NSK-301	NPN	No	Ø 4	0...12 mm	Light-on	0	Diffuse	Red	No	2500	PUR, 2 m, 3 wire
620-200-778	LTK-1040-301-506	620-600-360	LTR-D04MA-NMK-301	NPN	No	Ø 4	0...24 mm	Light-on	0	Diffuse	Red	No	2500	PUR, 2 m, 3 wire
620-200-780	LTK-1040-303	620-600-361	LTR-D04MA-NLK-403	PNP	Yes	Ø 4	0...60 mm	Light-on	0	Diffuse	Red	30...60 mm, IO-Link	2500	PUR, 2 m, 3 wire
620-200-786	LTK-1040-303-505	620-600-362	LTR-D04MA-NSK-403	PNP	Yes	Ø 4	0...12 mm	Light-on	0	Diffuse	Red	No	2500	PUR, 2 m, 3 wire
620-200-790	LTK-1040-303-506	620-600-363	LTR-D04MA-NMK-403	PNP	Yes	Ø 4	0...24 mm	Light-on	0	Diffuse	Red	No	2500	PUR, 2 m, 3 wire
		620-600-364	LTR-D04MA-WXK-301	NPN	No	Ø 4	0...120 mm	Light-on	Teach wire	Diffuse	Red	30...120 mm, teach wire	2500	PUR, 2 m, 4 wire
		620-600-365	LTR-D04MA-WXK-403	PNP	Yes	Ø 4	0...120 mm	Light-on	Teach wire	Diffuse	Red	30...120 mm, teach wire	2500	PUR, 2 m, 4 wire
(620-200-064)	(LLS-1040-202)	620-600-366	LLR-D04MA-NMV-302	NPN	No	Ø 4	0...600 mm	Dark-on	0	Through-beam	Red	No	2000	Pigtail, M8 3-pin
(620-200-068)	(LLS-1040-204)	620-600-367	LLR-D04MA-NMV-404	PNP	Yes	Ø 4	0...600 mm	Dark-on	0	Through-beam	Red	10...600 mm, IO-Link	2000	Pigtail, M8 3-pin
(620-200-812)	(LLS-1040-200)	620-600-368	LLR-D04MA-NMV-400	Emitter	Yes	Ø 4	0...600 mm	0	0	Through-beam	Red	No	2000	Pigtail, M8 3-pin
(620-200-769)	(LTS-1040-301)	620-600-369	LTR-D04MA-NLV-301	NPN	No	Ø 4	0...60 mm	Light-on	0	Diffuse	Red	No	2500	Pigtail, M8 3-pin
(620-200-775)	(LTS-1040-301-505)	620-600-370	LTR-D04MA-NSV-301	NPN	No	Ø 4	0...12 mm	Light-on	0	Diffuse	Red	No	2500	Pigtail, M8 3-pin
(620-200-779)	(LTS-1040-301-506)	620-600-371	LTR-D04MA-NMV-301	NPN	No	Ø 4	0...24 mm	Light-on	0	Diffuse	Red	No	2500	Pigtail, M8 3-pin
(620-200-781)	(LTS-1040-303)	620-600-372	LTR-D04MA-NLV-403	PNP	Yes	Ø 4	0...60 mm	Light-on	0	Diffuse	Red	30...60 mm, IO-Link	2500	Pigtail, M8 3-pin
(620-200-787)	(LTS-1040-303-505)	620-600-373	LTR-D04MA-NSV-403	PNP	Yes	Ø 4	0...12 mm	Light-on	0	Diffuse	Red	No	2500	Pigtail, M8 3-pin
(620-200-791)	(LTS-1040-303-506)	620-600-374	LTR-D04MA-NMV-403	PNP	Yes	Ø 4	0...24 mm	Light-on	0	Diffuse	Red	No	2500	Pigtail, M8 3-pin
		620-600-375	LTR-D04MA-WXV-301	NPN	No	Ø 4	0...120 mm	Light-on	Teach wire	Diffuse	Red	30...120 mm, teach wire	2500	Pigtail, M8 3-pin
		620-600-376	LTR-D04MA-WXV-403	PNP	Yes	Ø 4	0...120 mm	Light-on	Teach wire	Diffuse	Red	30...120 mm, teach wire	2500	Pigtail, M8 3-pin
620-200-064	LLS-1040-202	620-600-386	LLR-D04MA-NMS-302	NPN	No	Ø 4	0...600 mm	Dark-on	0	Through-beam	Red	No	2000	M8 3-pin
620-200-068	LLS-1040-204	620-600-387	LLR-D04MA-NMS-404	PNP	Yes	Ø 4	0...600 mm	Dark-on	0	Through-beam	Red	10...600 mm, IO-Link	2000	M8 3-pin
620-200-812	LLS-1040-200	620-600-388	LLR-D04MA-NMS-400	Emitter	Yes	Ø 4	0...600 mm	0	0	Through-beam	Red	No	2000	M8 3-pin
620-200-769	LTS-1040-301	620-600-389	LTR-D04MA-NLS-301	NPN	No	Ø 4	0...60 mm	Light-on	0	Diffuse	Red	No	2500	M8 3-pin
620-200-775	LTS-1040-301-505	620-600-390	LTR-D04MA-NSS-301	NPN	No	Ø 4	0...12 mm	Light-on	0	Diffuse	Red	No	2500	M8 3-pin
620-200-779	LTS-1040-301-506	620-600-391	LTR-D04MA-NMS-301	NPN	No	Ø 4	0...24 mm	Light-on	0	Diffuse	Red	No	2500	M8 3-pin
620-200-781	LTS-1040-303	620-600-392	LTR-D04MA-NLS-403	PNP	Yes	Ø 4	0...60 mm	Light-on	0	Diffuse	Red	30...60 mm, IO-Link	2500	M8 3-pin
620-200-787	LTS-1040-303-505	620-600-393	LTR-D04MA-NSS-403	PNP	Yes	Ø 4	0...12 mm	Light-on	0	Diffuse	Red	No	2500	M8 3-pin
620-200-791	LTS-1040-303-506	620-600-394	LTR-D04MA-NMS-403	PNP	Yes	Ø 4	0...24 mm	Light-on	0	Diffuse	Red	No	2500	M8 3-pin

M05 portfolio

Old article number	Material description	New article number	New material description	PNP/NPN	IO-Link	Housing dimension	Sensing range	Output 1	Output 2	Operating principle	Light source	Sensitivity adjustment	Switching frequency max. [Hz]	Connection
620-200-070	LLK-1050-202	620-600-333	LLR-M05MA-NMK-302	NPN	No	M5	0...600 mm	Dark-on	0	Through-beam	Red	No	2000	PUR, 2 m, 3 wire
620-200-074	LLK-1050-204	620-600-334	LLR-M05MA-NMK-404	PNP	Yes	M5	0...600 mm	Dark-on	0	Through-beam	Red	10...600 mm, IO-Link	2000	PUR, 2 m, 3 wire
620-200-817	LLS-1050-200	620-600-335	LLR-M05MA-NMK-400	Emitter	Yes	M5	0...600 mm	0	0	Through-beam	Red	No	2000	PUR, 2 m, 3 wire
620-200-770	LTK-1050-301	620-600-336	LTR-M05MA-NLK-301	NPN	No	M5	0...60 mm	Light-on	0	Diffuse	Red	No	2500	PUR, 2 m, 3 wire
620-200-772	LTK-1050-301-505	620-600-337	LTR-M05MA-NSK-301	NPN	No	M5	0...12 mm	Light-on	0	Diffuse	Red	No	2500	PUR, 2 m, 3 wire
620-200-776	LTK-1050-301-506	620-600-338	LTR-M05MA-NMK-301	NPN	No	M5	0...24 mm	Light-on	0	Diffuse	Red	No	2500	PUR, 2 m, 3 wire
620-200-782	LTK-1050-303	620-600-339	LTR-M05MA-NLK-403	PNP	Yes	M5	0...60 mm	Light-on	0	Diffuse	Red	30...60 mm, IO-Link	2500	PUR, 2 m, 3 wire
620-200-784	LTK-1050-303-505	620-600-340	LTR-M05MA-NSK-403	PNP	Yes	M5	0...12 mm	Light-on	0	Diffuse	Red	No	2500	PUR, 2 m, 3 wire
620-200-788	LTK-1050-303-506	620-600-341	LTR-M05MA-NMK-403	PNP	Yes	M5	0...24 mm	Light-on	0	Diffuse	Red	No	2500	PUR, 2 m, 3 wire
		620-600-342	LTR-M05MA-WXK-301	NPN	No	M5	0...120 mm	Light-on	Teach wire	Diffuse	Red	30...120 mm, teach wire	2500	PUR, 2 m, 4 wire
		620-600-343	LTR-M05MA-WXK-403	PNP	Yes	M5	0...120 mm	Light-on	Teach wire	Diffuse	Red	30...120 mm, teach wire	2500	PUR, 2 m, 4 wire
(620-200-072)	(LLS-1050-202)	620-600-344	LLR-M05MA-NMV-302	NPN	No	M5	0...600 mm	Dark-on	0	Through-beam	Red	No	2000	Pigtail, M8 3-pin
(620-200-076)	(LLS-1050-204)	620-600-345	LLR-M05MA-NMV-404	PNP	Yes	M5	0...600 mm	Dark-on	0	Through-beam	Red	10...600 mm, IO-Link	2000	Pigtail, M8 3-pin
(620-200-818)	(LLS-1050-200)	620-600-346	LLR-M05MA-NMV-400	Emitter	Yes	M5	0...600 mm	0	0	Through-beam	Red	No	2000	Pigtail, M8 3-pin
(620-200-771)	(LTS-1050-301)	620-600-347	LTR-M05MA-NLV-301	NPN	No	M5	0...60 mm	Light-on	0	Diffuse	Red	No	2500	Pigtail, M8 3-pin
(620-200-773)	(LTS-1050-301-505)	620-600-348	LTR-M05MA-NSV-301	NPN	No	M5	0...12 mm	Light-on	0	Diffuse	Red	No	2500	Pigtail, M8 3-pin
(620-200-777)	(LTS-1050-301-506)	620-600-349	LTR-M05MA-NMV-301	NPN	No	M5	0...24 mm	Light-on	0	Diffuse	Red	No	2500	Pigtail, M8 3-pin
(620-200-783)	(LTS-1050-303)	620-600-350	LTR-M05MA-NLV-403	PNP	Yes	M5	0...60 mm	Light-on	0	Diffuse	Red	30...60 mm, IO-Link	2500	Pigtail, M8 3-pin
(620-200-785)	(LTS-1050-303-505)	620-600-351	LTR-M05MA-NSV-403	PNP	Yes	M5	0...12 mm	Light-on	0	Diffuse	Red	No	2500	Pigtail, M8 3-pin
(620-200-789)	(LTS-1050-303-506)	620-600-352	LTR-M05MA-NMV-403	PNP	Yes	M5	0...24 mm	Light-on	0	Diffuse	Red	No	2500	Pigtail, M8 3-pin
		620-600-353	LTR-M05MA-WXV-301	NPN	No	M5	0...120 mm	Light-on	Teach wire	Diffuse	Red	30...120 mm, teach wire	2500	Pigtail, M8 4-pin
		620-600-354	LTR-M05MA-WXV-403	PNP	Yes	M5	0...120 mm	Light-on	Teach wire	Diffuse	Red	30...120 mm, teach wire	2500	Pigtail, M8 4-pin
620-200-072	LLS-1050-202	620-600-377	LLR-M05MA-NMS-302	NPN	No	M5	0...600 mm	Dark-on	0	Through-beam	Red	No	2000	M8 3-pin
620-200-076	LLS-1050-204	620-600-378	LLR-M05MA-NMS-404	PNP	Yes	M5	0...600 mm	Dark-on	0	Through-beam	Red	10...600 mm, IO-Link	2000	M8 3-pin
620-200-818	LLS-1050-200	620-600-379	LLR-M05MA-NMS-400	Emitter	Yes	M5	0...600 mm	0	0	Through-beam	Red	No	2000	M8 3-pin
620-200-771	LTS-1050-301	620-600-380	LTR-M05MA-NLS-301	NPN	No	M5	0...60 mm	Light-on	0	Diffuse	Red	No	2500	M8 3-pin
620-200-773	LTS-1050-301-505	620-600-381	LTR-M05MA-NSS-301	NPN	No	M5	0...12 mm	Light-on	0	Diffuse	Red	No	2500	M8 3-pin
620-200-777	LTS-1050-301-506	620-600-382	LTR-M05MA-NMS-301	NPN	No	M5	0...24 mm	Light-on	0	Diffuse	Red	No	2500	M8 3-pin
620-200-783	LTS-1050-303	620-600-383	LTR-M05MA-NLS-403	PNP	Yes	M5	0...60 mm	Light-on	0	Diffuse	Red	30...60 mm, IO-Link	2500	M8 3-pin
620-200-785	LTS-1050-303-505	620-600-384	LTR-M05MA-NSS-403	PNP	Yes	M5	0...12 mm	Light-on	0	Diffuse	Red	No	2500	M8 3-pin
620-200-789	LTS-1050-303-506	620-600-385	LTR-M05MA-NMS-403	PNP	Yes	M5	0...24 mm	Light-on	0	Diffuse	Red	No	2500	M8 3-pin