



DL50

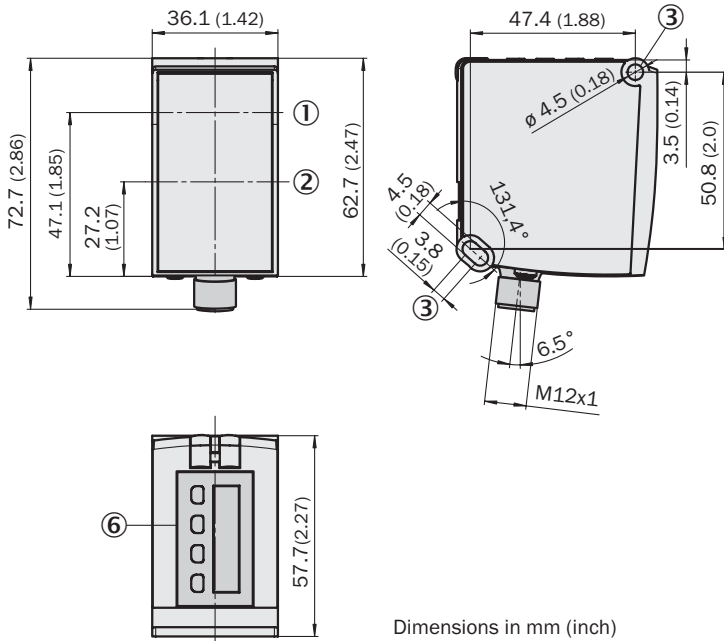
Laser distance sensor on diamond grade reflector



- Time of flight technology for fast and accurate measurement results up to 50 m on diamond grade
- Quick and easy setup thanks to the display and the intuitive operating concept
- Red light laser with small and temperature-stable light spot for precise alignment
- Wide temperature range from -30 °C to +65 °C

CE III Laser class 1 CDRH

Dimensional drawing



- ① Center of optical axis sender
- ② Center of optical axis receiver
- ③ Mounting holes
- ④ LED indicator, yellow; status of received light beam
- ⑤ LED indicator, green; power on
- ⑥ Operating component display

Connection type, M12, 5-pin



brn	1	L+
blk	4	Q
blu	3	M
wht	2	Q _A
gra	5	MF

General technical data

Measurement range Diamond Grade	200 ... 50,000 mm
Resolution	1 mm
Resolution analogue output	16 bit
Repeatability ¹⁾ /Response time	± 3 mm/15 ms ± 2 mm/30 ms
Accuracy	± 7 mm
Output rate	2 ms
Teach-in	Display/MF
Inputs	MF: external Teach-in/Laser Off/MF off
Light source	Laser red, class 1 EN (60 825-1)
Light spot diameter	Typ. Ø 15 mm at 10 m distance
Supply voltage V_S ²⁾	10 ... 30 V DC
Ripple ³⁾	≤ 5 V_{PP}
Power consumption ⁴⁾	< 2.1 W
Output current ⁵⁾	100 mA
Enclosure rating	IP 65 (EN 60 529)
VDE protection class	⊠
Ambient temperature	Operation ⁶⁾ -30 °C ... +65 °C Storage -40 °C ... +75 °C
Ambient light	40,000 lux
Weight	200 g

¹⁾ Repeatability ± 1 σ on diamond grade, warm-up time 10 min.

²⁾ Limit values, reverse-polarity protected

³⁾ May not exceed or fall short of V_S tolerances

⁴⁾ Without load

⁵⁾ Output Q short-circuit protected

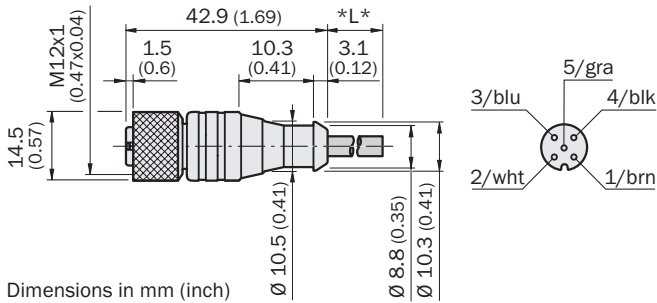
⁶⁾ Minimum startup temperature -25 °C

Type-specific data incl. order information

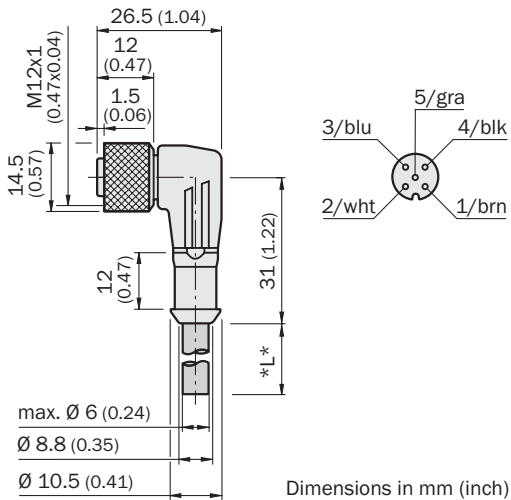
Type	Order no.	Interface	Switching output	Connection type	Display
DL50-P1123	1047361	4 ... 20 mA	PNP	M12, 5-pin	Display, LED
DL50-N1123	1047401	4 ... 20 mA	NPN	M12, 5-pin	Display, LED

Cables and connectors

Type	Order no.	Description
DOL-1205-G02M	6008899	Female connector, M12, 5-pin, straight, 2 m, PVC
DOL-1205-G05M	6009868	Female connector, M12, 5-pin, straight, 5 m, PVC
DOL-1205-G10M	6010544	Female connector, M12, 5-pin, straight, 10 m, PVC
DOL-1205-G02MC	6025906	Female connector, M12, 5-pin, straight, 2 m, PUR halogenfree
DOL-1205-G05MC	6025907	Female connector, M12, 5-pin, straight, 5 m, PUR halogenfree
DOL-1205-G10MC	6025908	Female connector, M12, 5-pin, straight, 10 m, PUR halogenfree

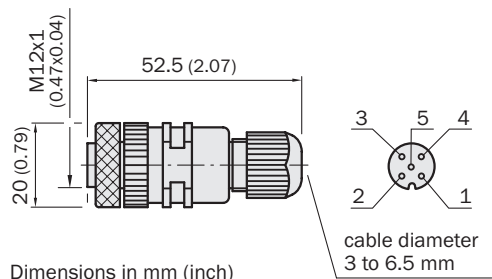


Type	Order no.	Description
DOL-1205-W02M	6008900	Female connector, M12, 5-pin, angled, 2 m, PVC
DOL-1205-W05M	6009869	Female connector, M12, 5-pin, angled, 5 m, PVC
DOL-1205-W10M	6010542	Female connector, M12, 5-pin, angled, 10 m, PVC
DOL-1205-W02MC	6025909	Female connector, M12, 5-pin, angled, 2 m, PUR halogenfree
DOL-1205-W05MC	6025910	Female connector, M12, 5-pin, angled, 5 m, PUR halogenfree
DOL-1205-W10MC	6025911	Female connector, M12, 5-pin, angled, 10 m, PUR halogenfree

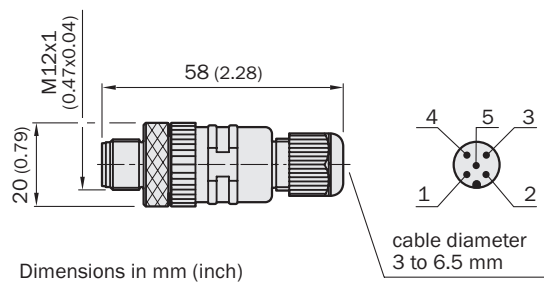


Cables and connectors

Type	Order no.	Description
DOS-1205-G	6009719	Female connector, M12, 5-pin, straight
DOS-1205-W	6009720	Female connector, M12, 5-pin, angled

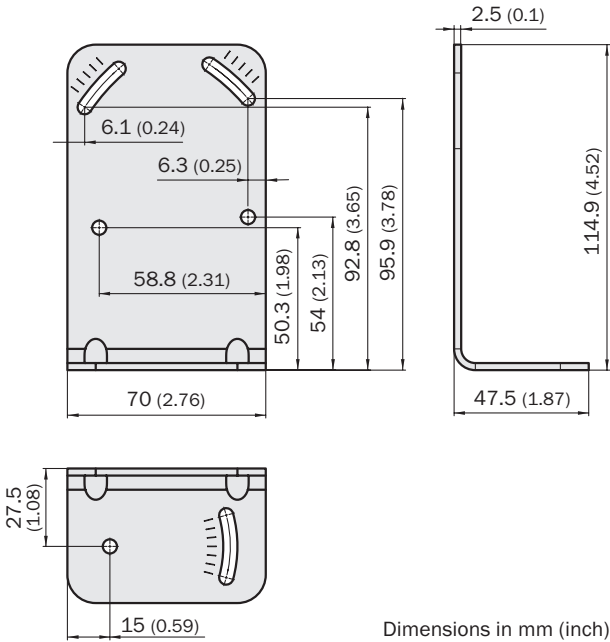


Type	Order no.	Description
STE-1205-G	6022083	Male connector, M12, 5-pin, straight
STE-1205-W	6022082	Male connector, M12, 5-pin, angled

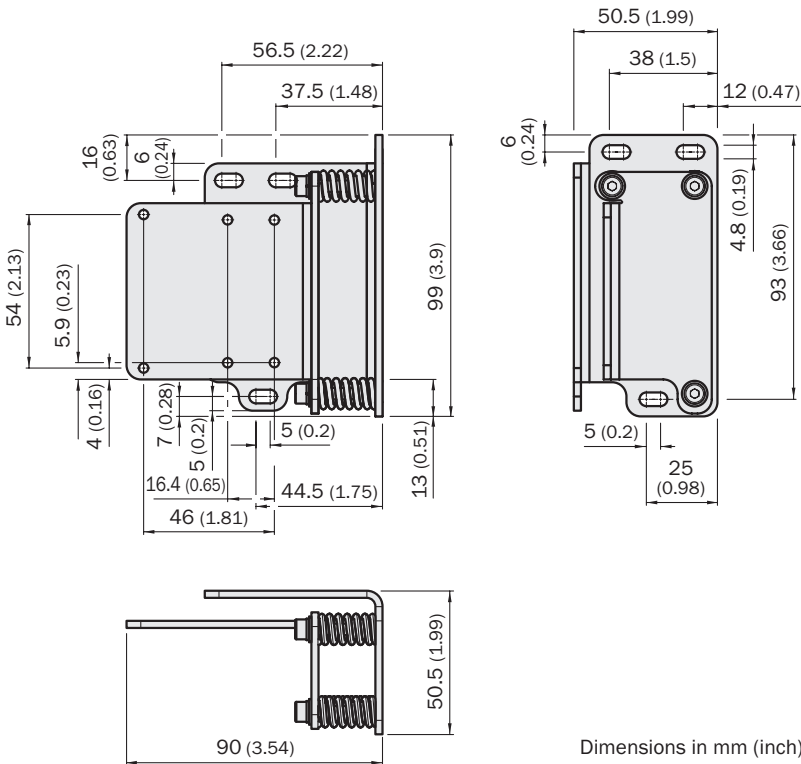


Mounting systems

Type	Order no.	Description
BEF-WN-DX50	2048370	Mounting bracket set (incl. screws)

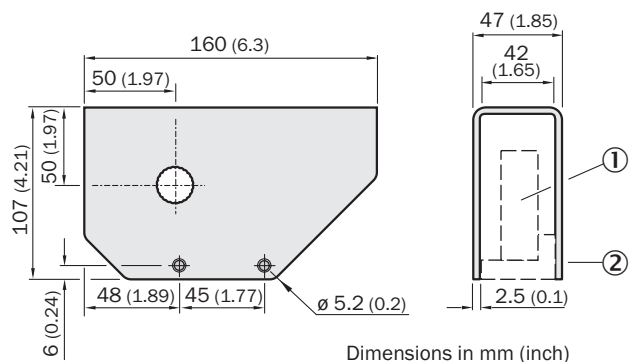


Type	Order no.	Description
BEF-AH-DX50	2048397	Adjustment bracket



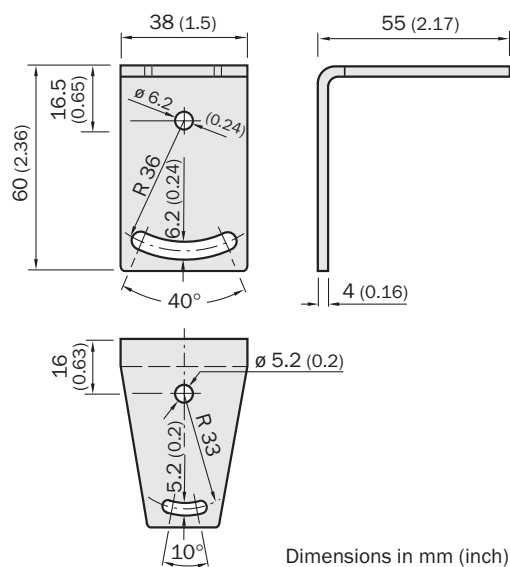
Mounting systems

Type	Order no.	Description
OBW-KHS-M02	2050205	Weather protection hood



- ① Sensor
- ② Base plate with clamp supplied with unit

Type	Order no.	Description
BEF-WN-OBW	2023251	Mounting bracket for weather protection hood

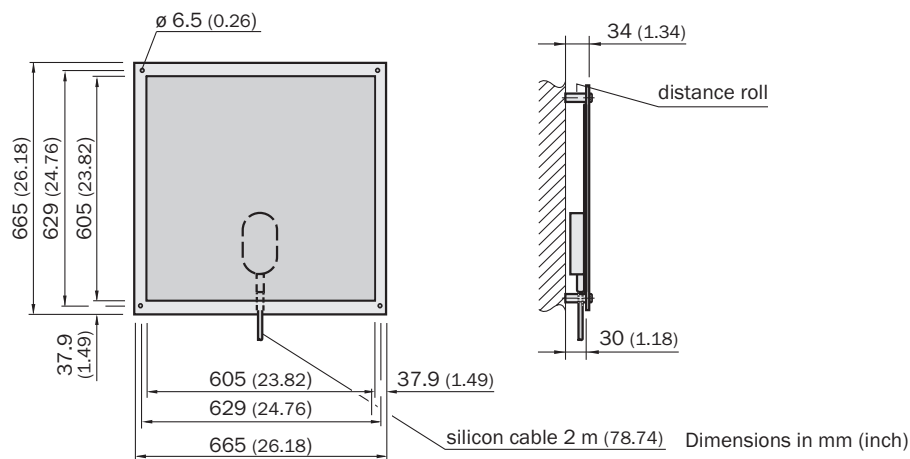


Type	Order no.	Description
BEF-KHS-KH1	2022726	Clamp without mounting plate

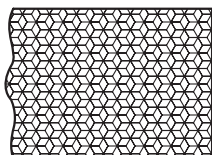


Reflectors

Type	Order no.	Description
PL560DG-H	1023888	Reflector, 0.6 x 0.6 m, "Diamond Grade", regulated heating 230 V AC/900 W



Type	Order no.	Description
REF-DK-K	4019634	Reflective tape "Diamond Grade", cut to size
REF-DG	5304334	Reflective tape "Diamond Grade", sheet 749 x 914 mm



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