



DL100-23HA2110

Dx100

LONG RANGE DISTANCE SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
DL100-23HA2110	1066426

Other models and accessories → www.sick.com/Dx100

Detailed technical data

Performance

Measuring range	0.15 m ... 300 m, on reflective tape "Diamond Grade"
Resolution	0.1 mm, 0.125 mm, 1 mm, 10 mm, 100 mm
Repeatability	2 mm ¹⁾
Accuracy	± 3 mm ²⁾
Dead time	2 ms
Output time	Synchronous to PLC request (dependent on interfaces)
Light source	Laser, red ³⁾
Laser class	2 (EN 60825-1 / CDRH)
Typ. light spot size (distance)	5 mm (+ 2 mm x distance in m)
Max. movement speed	30 m/s
Acceleration (max.)	≤ 15 m/s ²
Internal measurement cycle	1 ms
Heating	✓

¹⁾ Statistical error 1 σ, environmental conditions constant, min. warm-up time 10 min.

²⁾ From 150 mm ... 180 mm measuring range the accuracy can reach ± 4 mm.

³⁾ Average service life: 100,000 h at T_U = +25 °C.

Interfaces

Switching output	B (push/pull), MF1, MF2 ¹⁾
Multifunctional input (MF)	1 x MF1 ²⁾
Data interface	EtherNet/IP

¹⁾ HIGH > V_S - 3 V / LOW < 2 V.

²⁾ HIGH > 12 V / LOW < 3 V.

Mechanics/electronics

Supply voltage V_s	DC 18 V ... 30 V, limit values
Ripple	5 V _{pp} ¹⁾
Initialization time	Typ. 1.5 s ²⁾
Housing material	Aluminum/zinc die-cast
Connection type	Male connector, M12, SPEEDCON™ compatible
Indication	6 digit 5 x 7 dot matrix display, LEDs
Weight	Approx. 800 g ... 1,600 g ³⁾
Output current I_A	≤ 100 mA ⁴⁾
Current consumption	At 24 V DC < 1,000 mA
Modulation frequency	Fix

¹⁾ May not fall short of or exceed V_s tolerances.

²⁾ After loss of reflector < 40 ms.

³⁾ Without mounting bracket: approx. 800 g, with mounting bracket: approx. 1,600 g.

⁴⁾ Short-circuit protected, overload-protected. Max. 100 nF / 20 mH.

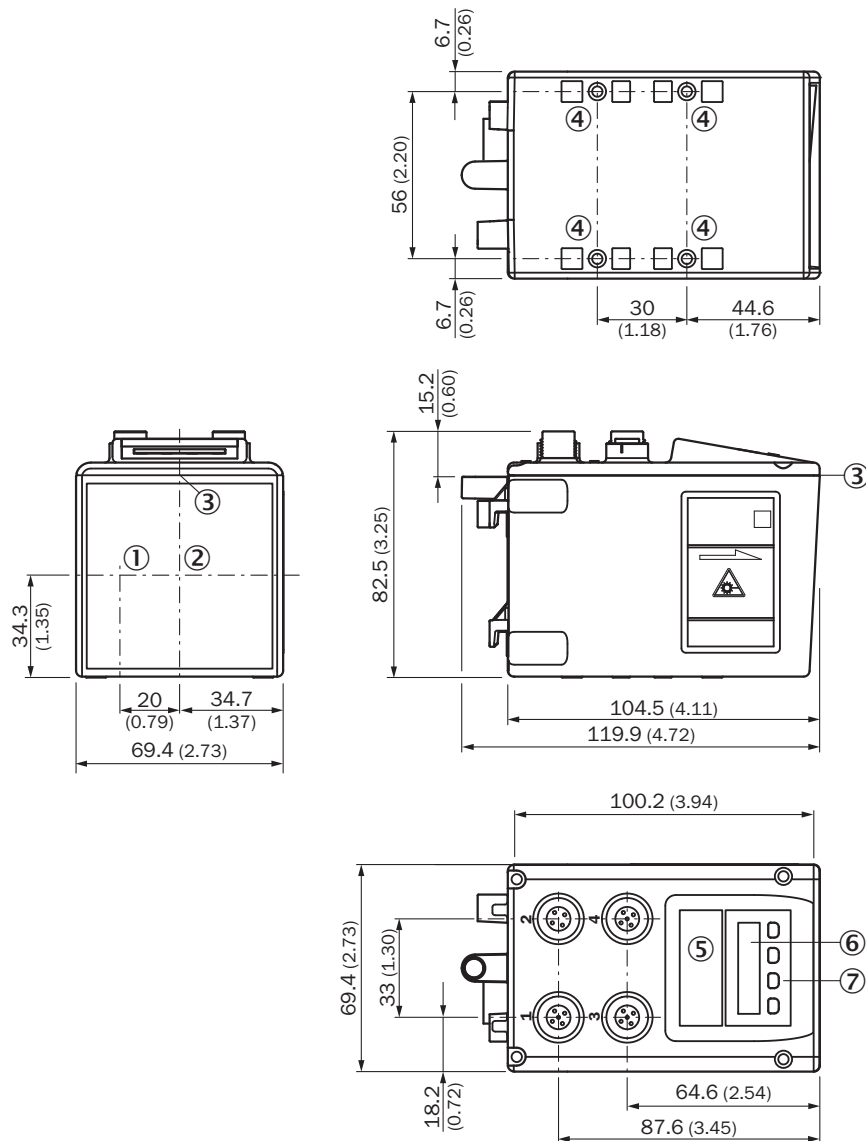
Ambient data

Enclosure rating	IP 65
Protection class	III
Electromagnetic compatibility (EMC)	EN 61000-6-2, EN 61000-6-4 ¹⁾
Ambient temperature	Operation with heating: -40 °C ... +55 °C Operation with cooling case: -40 °C ... +75 °C Storage: -40 °C ... +75 °C
Effect of air pressure	0.3 ppm/hPa
Effect of air temperature	1 ppm/K
Temperature drift	Typ. 0.1 mm/K
Mechanical load	Shock: (EN 600 68-2-27) Sine: (EN 600 68-2-6) Noise: (EN 600 68-2-64)

¹⁾ This is a Class A device. This device can cause radio interference in living quarters.

Dimensional drawing (Dimensions in mm (inch))

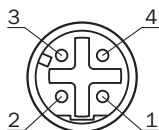
Dimensional drawing



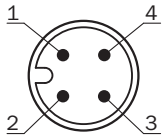
- ① Optical axis, sender
- ② Optical axis, receiver
- ③ Zero level
- ④ Threaded mounting hole M5
- ⑤ Status LED [status]
- ⑥ Display
- ⑦ Operating elements

Connection type

Dx100 Ethernet female connector, M12, 4-pin, D-coded

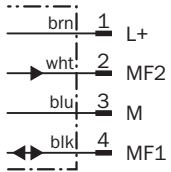


Dx100 PROFIBUS/PROFINET/CANopen/Ethernet/IP, M12 male connector, 4-pin, A-coded

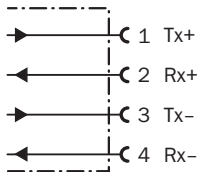


Connection diagram

Dx100 PROFIBUS/PROFINET, M12 male connector, 4-pin

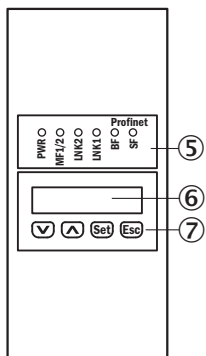


Ethernet M12 female connector, 4-pin



Adjustment possible

DL100-xxXXxx12



- ⑤ Status LED [status]
- ⑥ Display
- ⑦ Operating elements

Recommended accessories

Other models and accessories → www.sick.com/Dx100

	Brief description	Type	Part no.
Terminal and alignment brackets			
	Alignment unit for Dx100, incl. mounting material, steel, zinc coated	BEF-AH-DX100	2058653
Plug connectors and cables			
	Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 5 m	DOL-1204-G05M	6009866
	Head A: female connector, M12, 4-pin, straight Head B: cable Cable: shielded, 5 m	DOL-1204-G05MA	6042100
	Head A: female connector, M12, 4-pin, straight Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 5 m	DOL-1204-G05MC	6025901
	Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 5 m	DOL-1204-W05M	6009867
	Head A: female connector, M12, 4-pin, angled Head B: cable Cable: shielded, 5 m	DOL-1204-W05MA	6042098
	Head A: female connector, M12, 4-pin, angled Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 5 m	DOL-1204-W05MC	6025904
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: cable Cable: EtherNet/IP, PUR, halogen-free, shielded, 5 m	STL-1204-G05ME90	6045285
	Head A: male connector, M12, 4-pin, angled, D-coded Head B: cable Cable: EtherNet/IP, PUR, halogen-free, shielded, 5 m	STL-1204-W05ME90	6047913
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, M12, 4-pin, straight, D-coded Cable: EtherNet/IP, PUR, halogen-free, shielded, 5 m	SSL-1204-G05ME90	6045277
	Head A: male connector, M12, 4-pin, angled, D-coded Head B: male connector, M12, 4-pin, straight, D-coded Cable: EtherNet/IP, PUR, halogen-free, shielded, 5 m	SSL-1204-H05ME90	6047909
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: EtherNet/IP, PUR, halogen-free, shielded, 5 m	SSL-2J04-G05ME60	6047917
	Head A: male connector, M12, 4-pin, angled, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: EtherNet/IP, PUR, halogen-free, shielded, 5 m	SSL-2J04-H05ME	6045287
Reflectors			
	Reflector plate, reflective tape "Diamond Grade", 665 mm x 665 mm, material base plate: aluminum, screw connection, Screw-on, 4 hole mounting	PL560DG	1016806

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Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

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