DL100-12AA2102

SICK AG · Dx100

FEATURES

Long-range positioning up to 130 m on Diamond Grade reflective tape Communication protocol: PROFIBUS DP (EN 50170, up to 12 Mbit/s) High dynamic acceleration up to 15 m/s² and tracking velocity up to 15 m/s for automated storage & retrieval systems (ASRS) Integrated LC display with intuitive menu navigation and optical 3-axis alignment bracket compatibility Continuous condition monitoring: signal level attenuation, laser diode aging, and temperature tracking

General Identification

Part Number:
1059965

Product Sub-Series / Family:
Dx100 DL100 Standard

Measurement Principle:
Phase Shift Optical Time-of-Flight Laser Distance Measurement

Technical & Optical Parameters

Measuring / Protective Range:
0.15 m ... 130 m (On Diamond Grade reflective tape)

Light Source:
Visible red laser diode (wavelength 658 nm; Class 2 per IEC 60825-1:2014; average optical power < 1 mW)

Laser Class:
Class 2 (IEC 60825-1:2014, EN 60825-1:2014)

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Output Time / Measurement Cycle:
≥ 1 ms (Continuous internal measurement rate 1 ms; fieldbus cycle dependent)

Repeatability:
0.5 mm ... 1 mm (Typical 0.5 mm at 1 σ)

Measurement Accuracy:
Typ. ± 2 mm ... ± 3 mm

Maximum Tracking Velocity:
15 m/s

Maximum Acceleration:
15 m/s²

Interface & Electrical Specifications

Output & Communication Interface:
Fieldbus Interface: PROFIBUS DP (EN 50170, up to 12 Mbit/s); Auxiliary Digital Outputs: 2x Push-Pull (PNP/NPN, configurable B/Q, ≤ 100 mA); Multifunctional input (MF)

Supply Voltage:
DC 18 V ... 30 V (Reverse-polarity protected; Limit values)

Power Consumption:
Typ. 8 W ... 10 W

Electrical Connection:
Power: Male M12 4-pin; PROFIBUS In/Out: 2x Female M12, 5-pin (B-coded, SPEEDCON™)

Mechanical & Environmental Specifications

Ambient Temperature, Operation:
-20 °C ... +55 °C

Ambient Temperature, Storage:
-40 °C ... +75 °C

Enclosure Protection Rating:
IP65 (EN 60529)

Physical Dimensions (W x H x D):
69.4 mm x 82.5 mm x 100.2 mm

Housing Material:
Aluminum die-cast with acrylic glass (PMMA) optical window

Device Weight:
Approx. 800 g

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