# DL100-11AA2102

SICK AG · Dx100

## FEATURES

Long-range positioning up to 60 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:**
1059959

**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 ... 60 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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