



Mid range distance sensors Dx35, DR35, IO-Link

DR35-B15522



Model Name > **DR35-B15522**
Part No. > **1057659**



At a glance

- Maximum reliability, immunity to ambient light, and best price/performance ratio thanks to HDDM™ technology
- Large measuring range up to 35 m
- Great repeatability of 0.5 mm to 5 mm
- Fast detection with a switching frequency of up to 333 Hz
- Small housing size
- IO-Link as well as two switching outputs offering three switching modes
- Choice of infrared or red lasers in class 1

Your benefits

- Large measuring range up to 35 m in small housing sizes makes universal use and reduced inventory costs possible.
- Two switching outputs, each with three switching modes, provide a simple solution for demanding applications
- The high switching frequency of up to 333 Hz ensures rapid detection of position and increased throughput
- No cross talk when several sensors are being used simultaneously in a constricted space
- IO-Link offers full process control, from commissioning to service
- Reduced commissioning efforts and increased machine uptime thanks to excellent ambient light immunity
- Low investment costs and high performance levels guarantee a quick return on investment
- Offering easy alignment, optimal performance or inconspicuous detection, versatile light senders make it an ideal solution for all scenarios.



Performance

Measuring range ¹⁾ :	200 mm ... 35,000 mm, on reflective tape "Diamond Grade"
Resolution:	0.1 mm
Repeatability ²⁾ ; ³⁾ ; ⁴⁾ :	0,5 mm ... 5 mm
Accuracy ⁵⁾ :	Typ. ± 15 mm
Response time ⁶⁾ ; ⁷⁾ :	2.5 ms/6.5 ms/12.5 ms/24.5 ms/96.5 ms
Switching frequency ⁸⁾ ; ⁹⁾ :	333 Hz/100 Hz/50 Hz/25 Hz/6 Hz
Output rate ¹⁰⁾ ; ¹¹⁾ :	1 ms/2 ms/4 ms/8 ms/32 ms
Light source ¹²⁾ :	Laser, red
Typ. light spot size (distance):	15 mm x 15 mm (at 2 m)

Additional function: Set speed: Super Fast ... Super Slow
 Teach-in of switching output
 IO-Link
 Reset to factory default
 Multifunctional input: laser off/external teach/inactive
 Switching output invertible
 Switching mode: Distance to reflective tape (DtR)/switching window (Wnd)/object between sensor and background (OBSB)

Laser class: 1 (EN 60825-1)

Laser service life (MTTF at 25 °C): 100,000 h

¹⁾ See characteristic curves repeatability ²⁾ Equivalent to 1 σ ³⁾ ⁵⁾ On reflective tape "Diamond Grade" ⁴⁾ 6 % ... 90 % remission ⁶⁾ ⁸⁾ ¹¹⁾ Dependent on the set speed: Super Fast ... Super Slow ⁷⁾ ⁹⁾ Lateral entry of object into measuring range ¹⁰⁾ Continuous change of distance in measuring range. ¹²⁾ Wavelength: 658 nm;

max. output: 120 mW; pulse duration: 3 ns; pulse repetition rate: 1/250

Interfaces

Hysteresis ¹⁾: 0 mm ... 34,950 mm

Data interface: IO-Link

Multifunctional input (MF) ²⁾: 1 x

¹⁾ Adjustable via IO-Link ²⁾ Response time $\leq$ 60 ms

Mechanics/electronics

Supply voltage V_s ¹⁾, ²⁾: DC 12 V ... 30 V

Ripple ³⁾: $\leq$ 5 Vpp

Power consumption ⁴⁾, ⁵⁾: $\leq$ 1.7 W

Initialization time: $\leq$ 500 ms

Warm-up time: $\leq$ 20 min

Housing material: Plastic (ABS and PC)
 acrylic glass (PMMA)

Connection type: Connector M12, 5-pin

Indication: LEDs

Weight: 65 g

¹⁾ Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A ²⁾ When using IO-Link output $V_s > 18$ V. ³⁾ May not fall short of or exceed V_s tolerances ⁴⁾ At 20°C ⁵⁾ Without load

Ambient data

Enclosure rating: IP 65, IP 67

Protection class: III

Ambient temperature ¹⁾: Operation: -30 ... 55 °C, Storage: -40 ... 75 °C

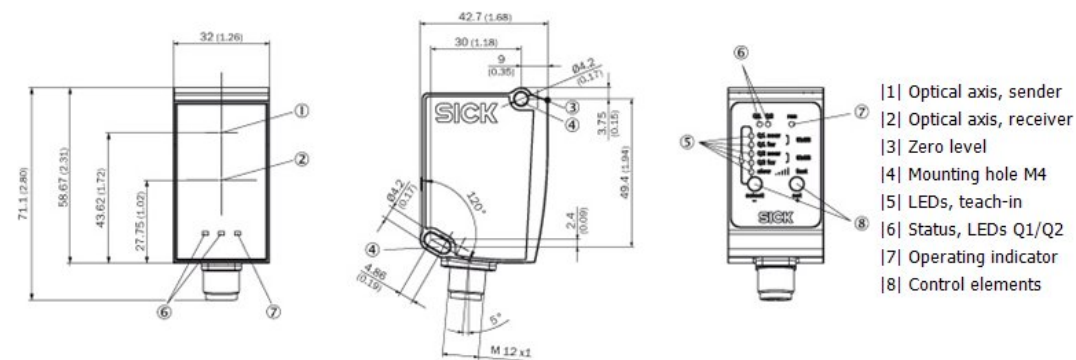
Vibration resistance: EN 60068-2-6/EN 60068-2-64

Shock resistance: EN 60068-2-27

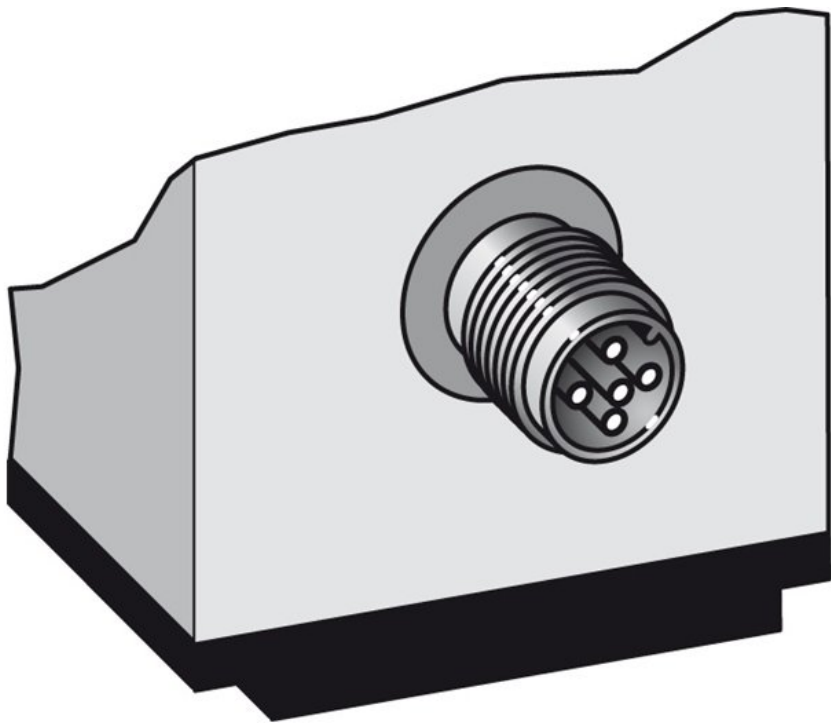
Typ. ambient light safety: 40 klx

¹⁾ $U_v \leq 24$ V

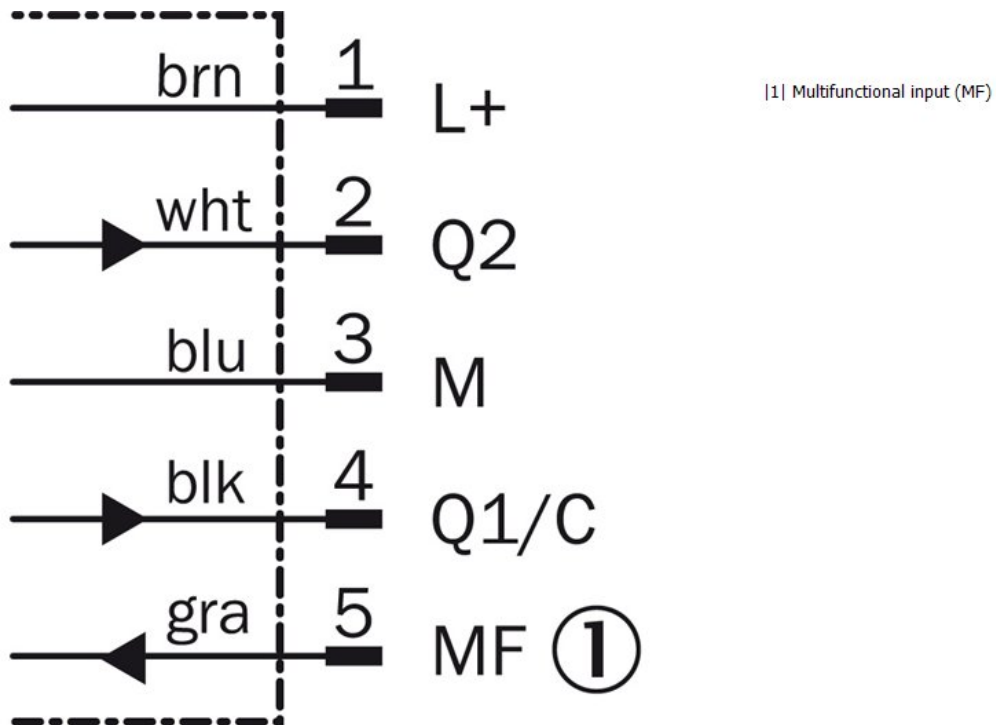
Dimensional drawing



Connection type

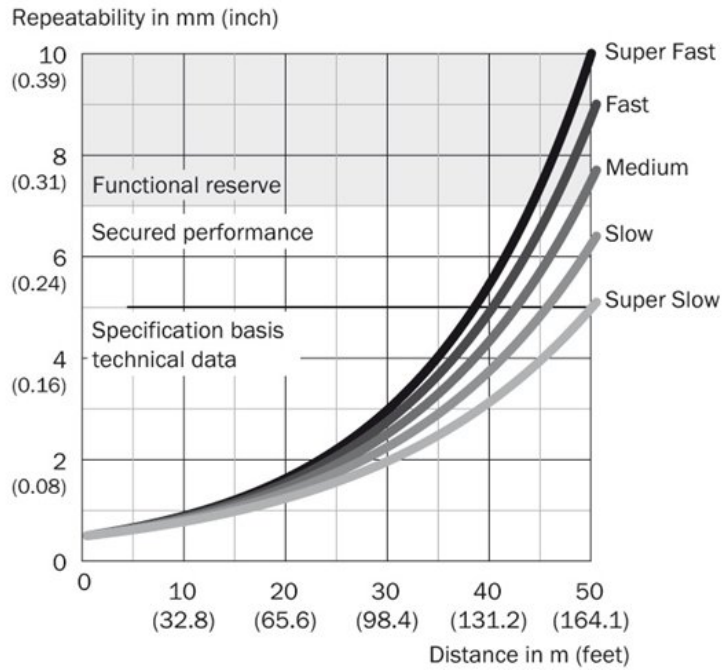


Connection diagram



Characteristic curve 1) Super Slow ... 5) Super Fast

Super Slow ... Super Fast



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