



Position finders DMP3

DMP3-B1111



Model Name > [DMP3-B1111](#)
Part No. > [1042918](#)

At a glance

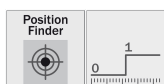
- Distances between 200 mm and 350 mm
- 0.15 mm repeatability
- Four switching outputs
- Operating temperatures as low as -40 °C
- Two different teach-in positions
- Field of view $\pm 10^\circ$ in each direction
- Easy alignment

Your benefits

- Increased productivity due to automated storage and retrieval processes
- Highest reliability in storage and retrieval applications due to relative positioning, which automatically compensates for mechanical rack deviations
- Increased positioning accuracy eliminates temperature-dependent deviations
- Improved process quality and positioning accuracy - sensor compensates for travel inconsistencies in storage and retrieval units
- Fast commissioning and setup due to easy teach-in procedure
- Flexible use – integrated heating version can be used in environments with temperatures as low as -40 °C



The product has been discontinued. Please contact your SICK sales representative for more information about a replacement product.



Performance

Target:	Hole
Repeatability ¹⁾ :	0.15 mm
Working distance:	200 mm ... 350 mm ²⁾
Switching frequency:	20 Hz
Light source:	LED, infrared
Sensing angle ³⁾ :	$\pm 10^\circ$
Operating mode:	Continuous

¹⁾ At 300 mm scanning distance ²⁾ Hole diameter 10 mm ... 20 mm ³⁾ In all axis perpendicular to the hole

Interfaces

Bank select input:	Bank 1: 0 V ... < 2 V or free running, Bank 2: >7 V ... Vs max
Teach-in input:	Active: >7 V ... Vs max, Inactive: 0 V ... < 2 V or free running
Output type:	4 x PNP ¹⁾

¹⁾ PNP: HIGH = $V_S - \leq 2 \text{ V}$ / LOW = $\leq 2 \text{ V}$

Mechanics/electronics

Supply voltage Vs:	DC 18 V ... 30 V ¹⁾
Ripple ²⁾ :	< 5 Vpp
Connection type:	Connector M12, 8-pin
Weight:	450 g ³⁾
Power consumption:	< 250 mA ⁴⁾
Output current IA:	$\leq 100 \text{ mA}$

¹⁾ Limit values, reverse-polarity protected ²⁾ May not fall short of or exceed V_S tolerances ³⁾ Incl. cable ⁴⁾ Without load

Ambient data

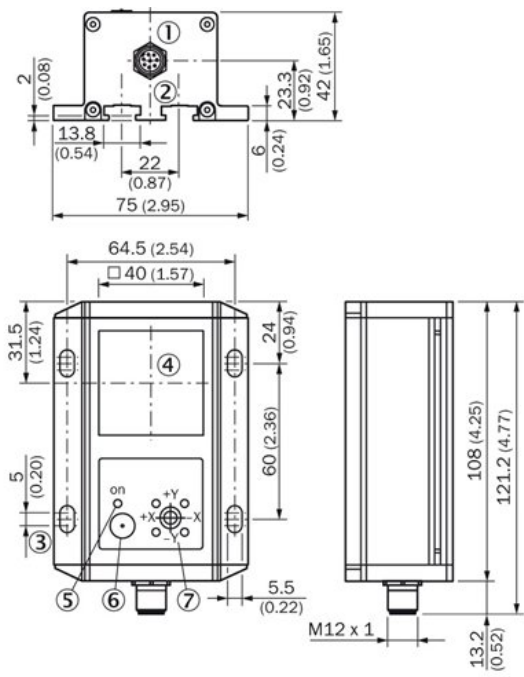
Enclosure rating:	IP 54
Protection class ¹⁾ :	III
Ambient temperature:	Operation: 0 ... 50 °C, Storage: -40 ... 70 °C
Vibration resistance:	According to IEC 68

¹⁾ Reference voltage DC 50 V

General notes

Life cycle phase:	Phased out
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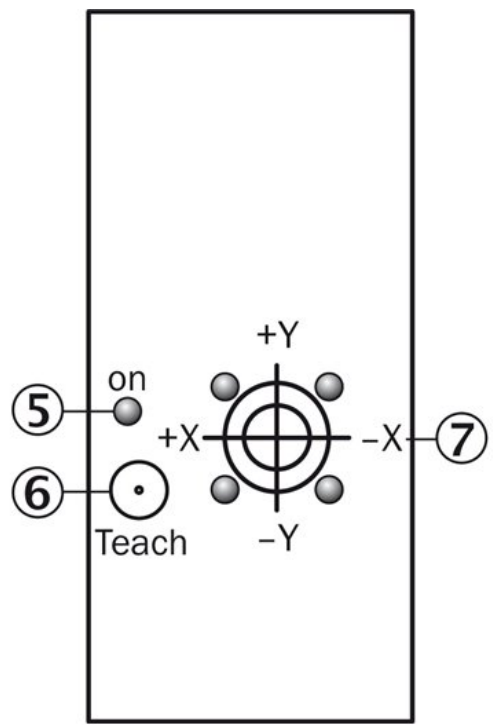
Dimensional drawing



- |1| Connector M12, 8-pin
- |2| T-bar to mount
- |3| Mounting hole
- |4| Optical axis
- |5| LED monitoring area
- |6| Teach-in button
- |7| Four LEDs, position indicator

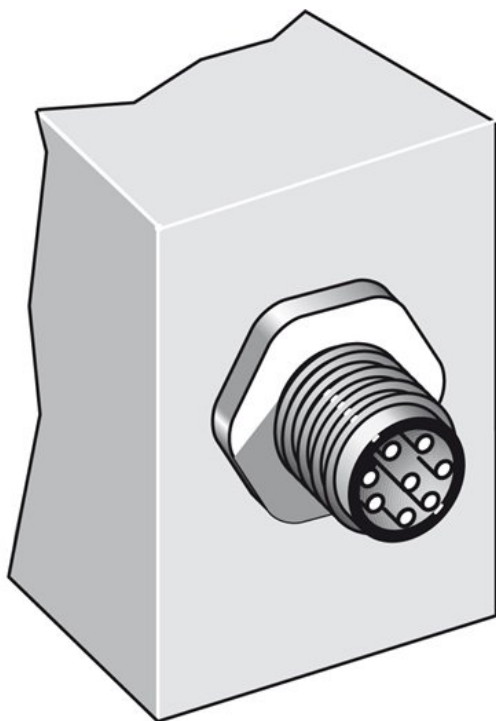
All dimensions in mm (inch)

Adjustments

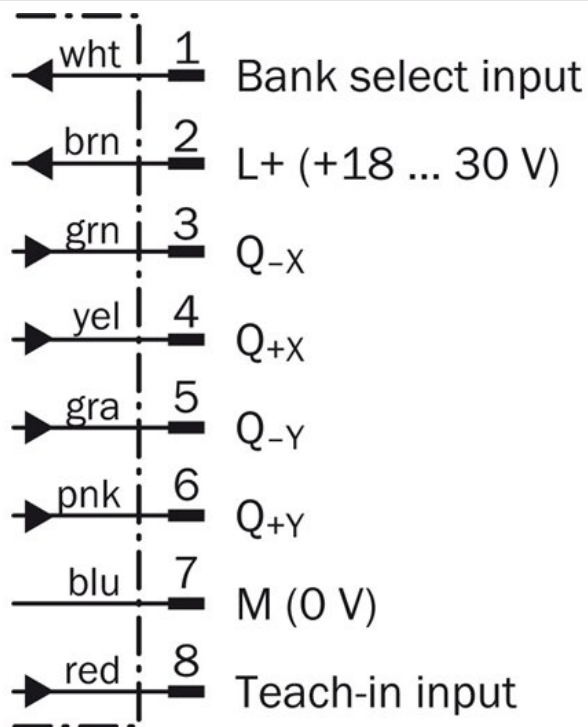


- |5| LED monitoring area
- |6| Teach-in button
- |7| Four LEDs, position indicator

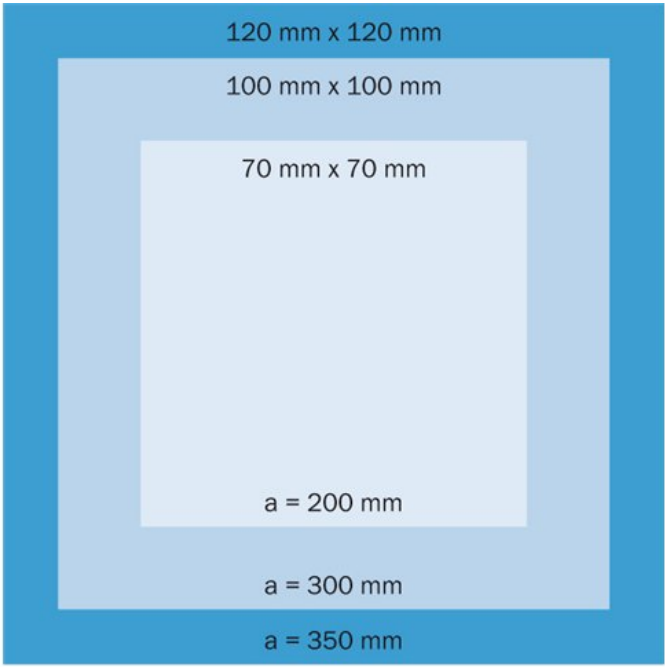
Connection type



Connection diagram

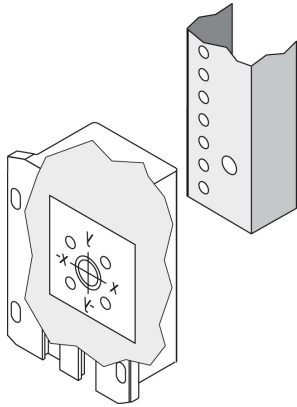


Characteristic curve: viewing area



a = sensing distance

Functional principle: switching status



Functional principle: switching status

Tolerance ↓	● ○ ○ ○ $Q_{-x} = 1$ $Q_{+x} = 0$ $Q_{-y} = 0$ $Q_{+y} = 1$	● ● ○ ○ $Q_{-x} = 1$ $Q_{+x} = 1$ $Q_{-y} = 0$ $Q_{+y} = 1$	○ ● ○ ○ $Q_{-x} = 0$ $Q_{+x} = 1$ $Q_{-y} = 0$ $Q_{+y} = 1$
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	Tolerance →		

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