

# Ultrasonic sensor

## UC4000-L2M-B16-0,3M-DT6P-M

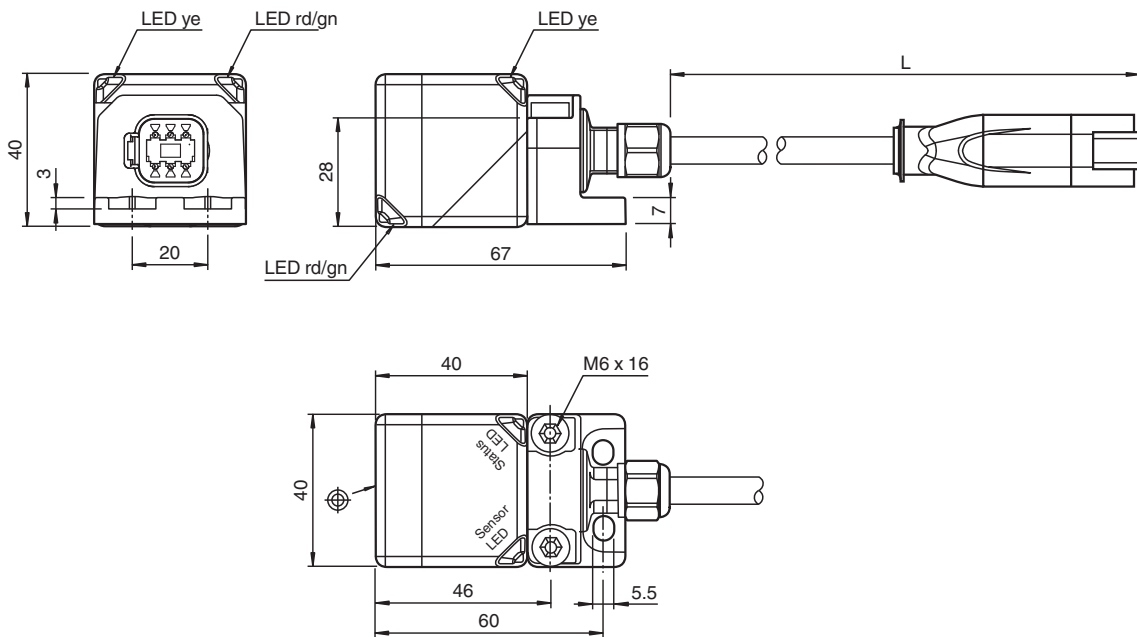


- CANopen interface
- E1-Type approval
- High EMC resistance
- Sensor head bidirectional and rotatable
- Rugged metal base
- Function indicators visible from all directions
- Degree of protection IP68

Single head system



### Dimensions



### Technical Data

#### General specifications

Sensing range	200 ... 4000 mm
Adjustment range	240 ... 4000 mm
Dead band	0 ... 200 mm
Standard target plate	100 mm x 100 mm
Transducer frequency	approx. 85 kHz

#### Nominal ratings

Linearity error	< 40 mm
Temperature drift	< +/- 100 mm
Time delay before availability	$t_v$ ≤ 700 ms

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

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## Technical Data

Functional safety related parameters		
MTTF <sub>d</sub>		431 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
Indicators/operating means		
LED yellow		object in evaluation range
LED red/green		CANopen status display
Electrical specifications		
Operating voltage	U <sub>B</sub>	9 ... 30 V
No-load supply current	I <sub>0</sub>	≤ 50 mA
Power consumption	P <sub>0</sub>	typ. 0.6 W
Interface		
Interface type		CAN
Communication protocol		CANopen
Process data		Input: 48 Bit - measured value (distance value) 16 Bit - signal quality 8 Bit - counter-1 16 Bit or counter-2 8 Bit - status register 8 Bit
Node ID		programmable
Vendor ID		173 (0xAD)
Product code		50331651 (0x03000003)
Transfer rate		250 kBit/s , programmable 125 ... 1000 kBit/s
Termination		external
Cycle time		53.5 ms preset , programmable
Min. cycle time		53.5 ms
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2:2020 IEC 60947-5-2:2019
Communication interface		CiA 310, Ver. 4.2.0
Approvals and certificates		
UL approval		UL Recognized , General purpose , Class 2 power source
CCC approval		CCC approval / marking not required for products rated ≤36 V
UN/ECE Regulation No. 10 (E1)		Type-approval number: 10R-069608
Ambient conditions		
Ambient temperature		-40 ... 85 °C (-40 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		fixed cable with plug
Degree of protection		IP68
Material		
Housing		PA-GF35
Connector		
Number of pins		6
Connection assembly		Deutsch connector DT04-6P-CE02 Deutsch contact 1060-16-0622 Deutsch wedge W6P
Cable		
Cable diameter		7.25 mm ± 0.2 mm
Bending radius		> 10 x cable diameter
Material		PUR
Color		black
Number of cores		5
Core cross section		0.8 mm <sup>2</sup>
Length	L	352 mm ± 5 mm

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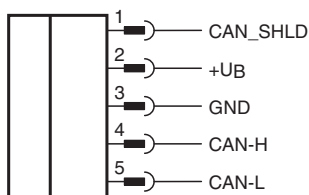
Pepperl+Fuchs Group  
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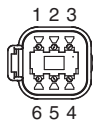
## Technical Data

Mass	240 g
Dimensions	
Height	40 mm
Width	40 mm
Length	67 mm
<b>Factory settings</b>	
Default setting	measured value "distance", signal quality, counter-2 (object 0x2000)
Beam width	wide (object 0x4000)
Synchronization	deactivated (object 0x2020)
Node ID	16
Transfer rate	250 kBit/s

## Connection

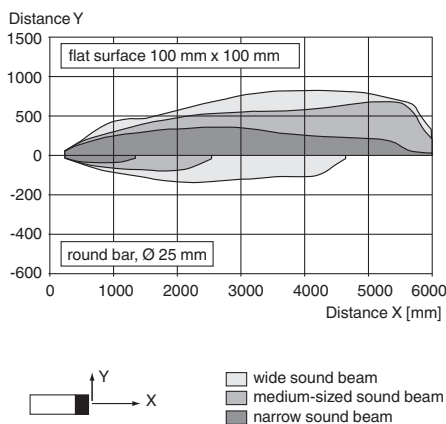


## Connection Assignment



## Characteristic Curve

### Characteristic response curve



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