

# Ultrasonic sensor

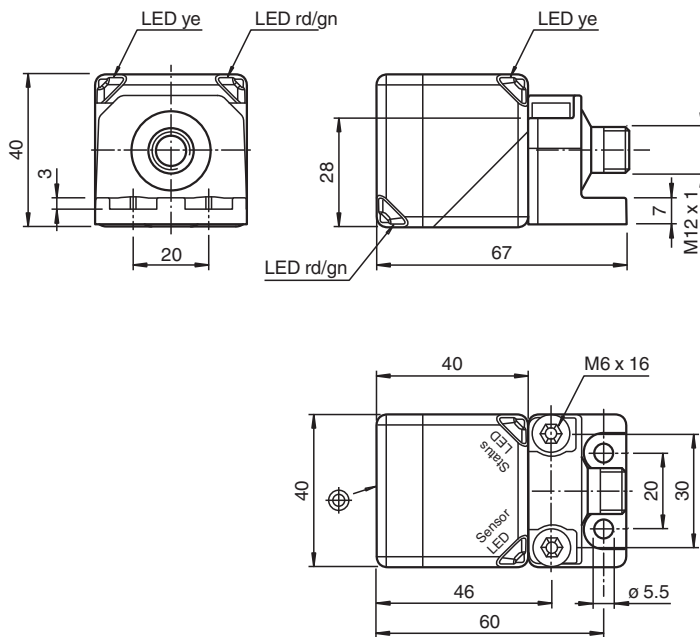
## UC4000-L2M-B16-V15-M

- 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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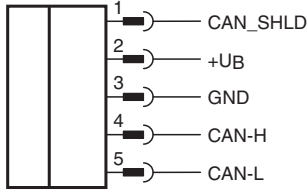
## Technical Data

Functional safety related parameters		
MTTF <sub>d</sub>		431 a
Mission Time (T <sub>M</sub> )		10 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		cULus Listed, 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		Connector plug
Degree of protection		IP68
Material		
Housing		PA-GF35
Connector		
Threading		M12
Number of pins		5
Mass		180 g
Dimensions		
Height		40 mm
Width		40 mm
Length		67 mm
Factory settings		
Default setting		measured value "distance", signal quality, counter-2 (object 0x2000)
Beam width		wide (object 0x4000)

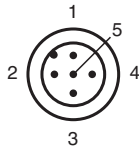
## Technical Data

Synchronization	deactivated (object 0x2020)
Node ID	16
Transfer rate	250 kBit/s

## Connection Assignment

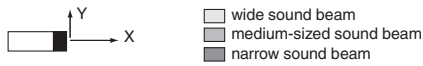
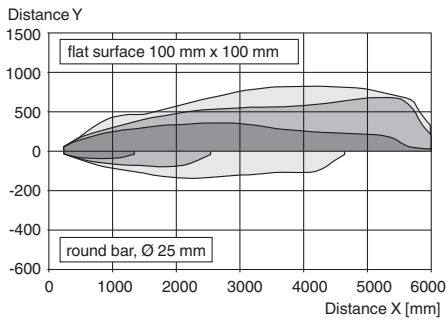


## Connection Assignment



## Characteristic Curve

### Characteristic response curve



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