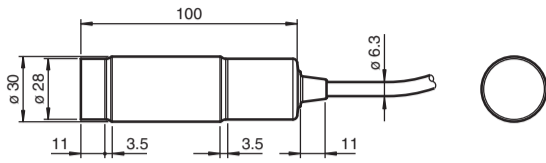
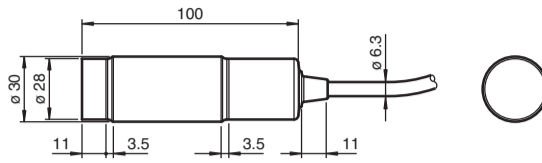


Abmessungen



Alle Abmessungen in mm

Dimensions



All dimensions in mm

Ultraschallsensor Ultrasonic sensor

UMC3000-30H-E5-5M-3G-3D

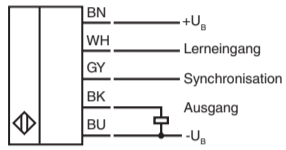


Doc: 45-4861B
DIN A3 ->
Partnummer / Part: 287035
Datum / 07/01/2021

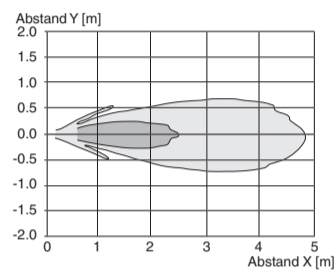


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Elektrischer Anschluss/Kurven/Zusätzliche Informationen

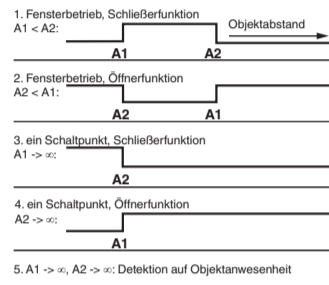


Charakteristische Ansprechkurve



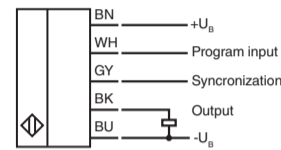
ebene Platte 100 mm x 100 mm
Rundstab Ø 25 mm

Programmierung der Schaltausgänge

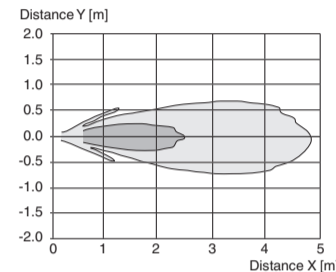


Objekt erkannt: Schaltausgang geschlossen
kein Objekt erkannt: Schaltausgang offen

Electrical Connection / Curves / Additional Information

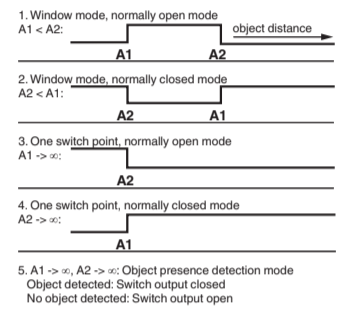


Characteristic response curve



flat surface 100 mm x 100 mm
round bar, Ø 25 mm

Programmable output modes



Object detected: Switch output closed
No object detected: Switch output open

Technische Daten

Allgemeine Daten

Erfassungsbereich	200 ... 3000 mm
Einstellbereich	240 ... 3000 mm
Blindzone	0 ... 200 mm
Normmessplatte	100 mm x 100 mm
Wandlerfrequenz	ca. 100 kHz
Ansprechverzögerung	≤ 200 ms

Anzeigen/Bedienelemente

LED grün	Betriebsanzeige
LED gelb	Schaltzustand
LED rot	Störung

Elektrische Daten

Betriebsspannung	U_B	10 ... 30 V DC
Leerlaufstrom	I_0	≤ 50 mA

Eingang/Ausgang

Ein-/Ausgangsart	1 Synchronisationsanschluss, bidirektional
0-Pegel	0 ... 1 V
1-Pegel	4 V ... U_B
Eingangsimpedanz	> 12 kΩ
Ausgangsstrom	< 12 mA
Impulsdauer	≥ 200 μs
Impulspause	≥ 2 ms

Synchronisationsfrequenz

Gleichtaktbetrieb	≤ 20 Hz
Multiplexbetrieb	≤ 20/n Hz, n = Anzahl der Sensoren n ≤ 10 (Werkseinstellung: 5)

Eingang

Eingangstyp	1 Lerneingang
Pegel (Schaltabstand 1)	0 ... 1 V
Pegel (Schaltabstand 2)	4 V ... U_B
Eingangsimpedanz	> 10 kΩ
Impulsdauer	2 ... 5 s

Ausgang

Ausgangstyp	1 Schaltausgang E5, pnp, Schließer/Öffner, parametrierbar	
Bemessungsstrom	I_e	200 mA, kurzschluss-/überlastfest
Spannungsfall	U_d	≤ 2 V
Reproduzierbarkeit		≤ 0,1 % vom Endwert
Schaltfrequenz	f	≤ 2,8 Hz
Abstandshysterese	H	parametrierbar, voreingestellt auf 1 mm
Temperatureinfluss		< 1,5 % vom Endwert

Umgebungsbedingungen

Umgebungstemperatur	-25 ... 60 °C (-13 ... 140 °F)
Lagertemperatur	-40 ... 85 °C (-40 ... 185 °F)

Mechanische Daten

Anschlussart	Kabel PUR, 5 m
Aderquerschnitt	5 x 0,5 mm ²
Schutzart	IP68 / IP69K
Material	
Gehäuse	Edelstahl 1.4404 / AISI 316L (V4A) LED-Fenster: VMQ-Elastosil LR 3003 / Shore 50 A
Wandler	Edelstahl 1.4435 / AISI 316L (V4A)
Masse	425 g

Werkseinstellungen

Technical data

General specifications

Sensing range	200 ... 3000 mm
Adjustment range	240 ... 3000 mm
Dead band	0 ... 200 mm
Standard target plate	100 mm x 100 mm
Transducer frequency	approx. 100 kHz
Response delay	≤ 200 ms

Indicators/operating means

LED green	Operating display
LED yellow	switching state
LED red	error

Electrical specifications

Operating voltage	U_B	10 ... 30 V DC
No-load supply current	I_0	≤ 50 mA

Input/Output

Input/output type	1 synchronization connection, bidirektional
0 Level	0 ... 1 V
1 Level	4 V ... U_B
Input impedance	> 12 kΩ
Output rated operating current	< 12 mA
Pulse length	≥ 200 μs
Pulse interval	≥ 2 ms

Synchronization frequency

Common mode operation	≤ 20 Hz
Multiplex operation	≤ 20/n Hz, n = number of sensors n ≤ 10 (factory setting: 5)

Input

Input type	1 program input
Level (switch point 1)	0 ... 1 V
Level (switch point 2)	4 V ... U_B
Input impedance	> 10 kΩ
Pulse length	2 ... 5 s

Output

Output type	1 switching output E5, PNP NO/NC, programmable	
Rated operating current	I_e	200 mA, short-circuit/overload protected
Voltage drop	U_d	≤ 2 V
Repeat accuracy		≤ 0,1 % of full-scale value
Switching frequency	f	≤ 2,8 Hz
Range hysteresis	H	programmable, preset to 1 mm
Temperature influence		< 1,5 % of full-scale value

Ambient conditions

Ambient temperature	-25 ... 60 °C (-13 ... 140 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

Mechanical specifications

Connection type	cable PUR, 5 m
Core cross-section	5 x 0,5 mm ²
Degree of protection	IP68 / IP69K

Material

Housing	stainless steel 1.4404 / AISI 316L LED window: VMQ Elastosil LR 3003/Shore 50 A
Transducer	Stainless steel 1.4435 / AISI 316L

Mass

425 g

Factory settings

Output	near switch point: 240 mm far switch point: 3000 mm output function: Window mode output behavior: NO contact
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