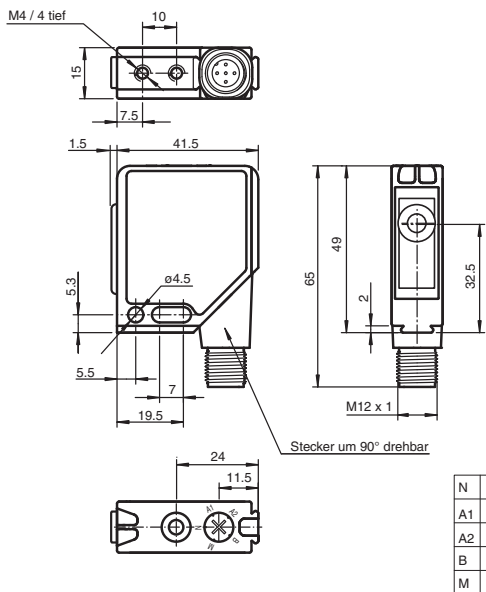
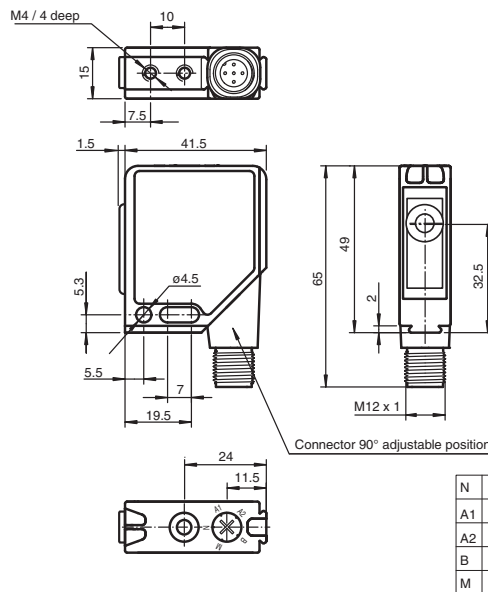


## Abmessungen



## Dimensions



## Ultraschallsensor Ultrasonic sensor



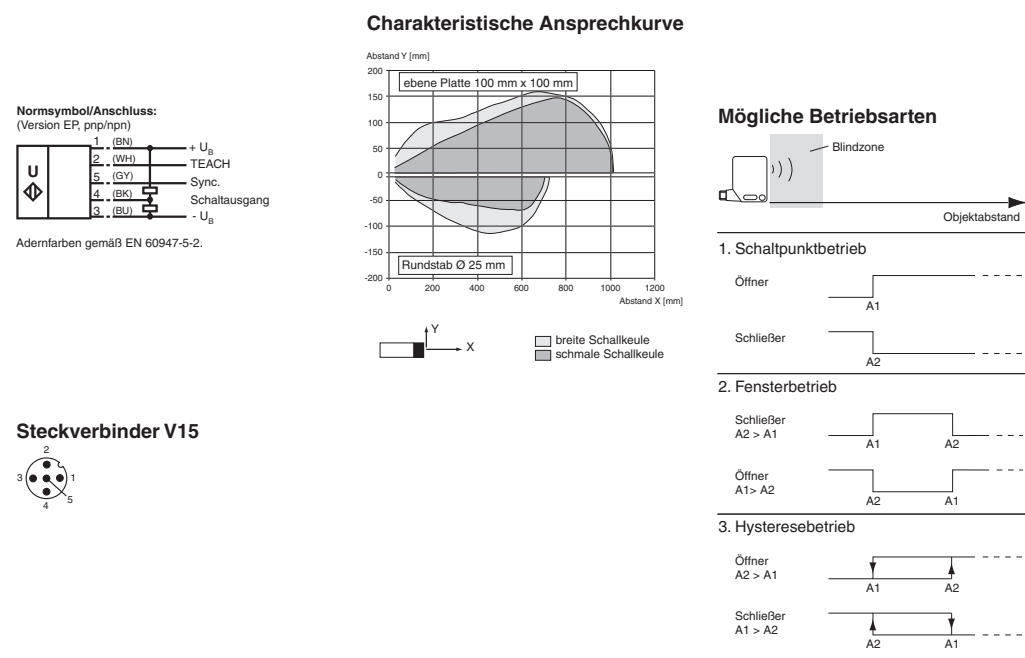
### UB800-F12-EP-V15



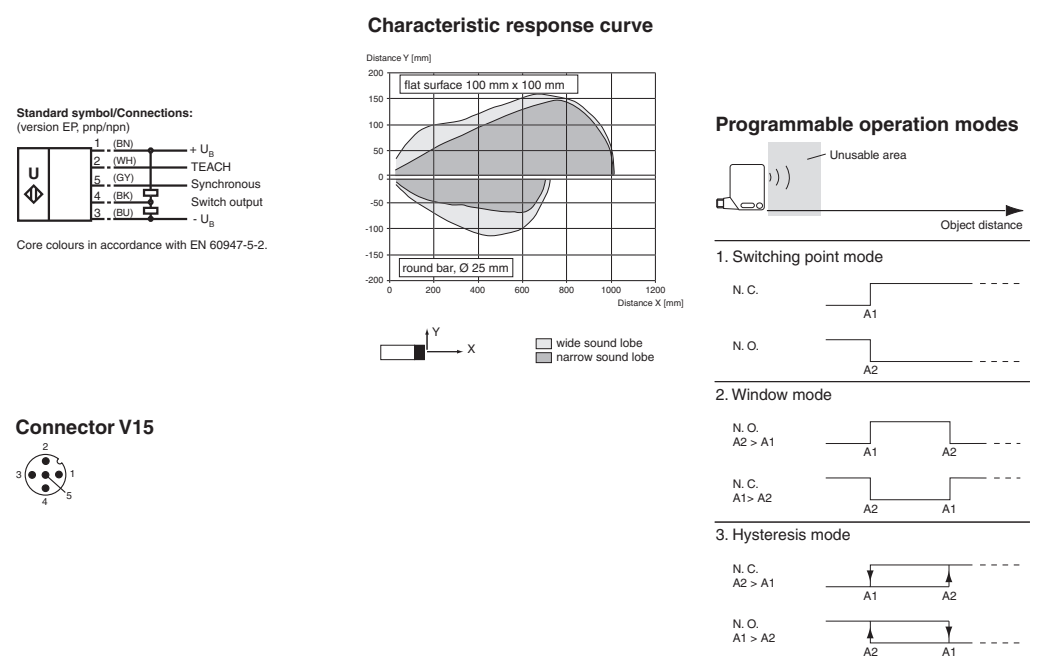
Doc. No.: 45-2369A  
DIN A3 -> DIN  
Part. No.: 202066  
Date: 01/19/2011



## Elektrischer Anschluss/Kurven/Zusätzliche Informationen



## Electrical Connection / Curves / Additional Information



## Technische Daten

|  |  |                                       |
|--|--|---------------------------------------|
| <b>Allgemeine Daten</b>  |  |                                       |
| Erfassungsbereich  | 30 ... 800 mm  |                                       |
| Einstellbereich  | 50 ... 800 mm  |                                       |
| Blindzone  | 0 ... 30 mm  |                                       |
| Normmessplatte   | 100 mm x 100 mm  |                                       |
| Wandlerfrequenz  | ca. 310 kHz  |                                       |
| Ansprechverzögerung  | ca. 100 ms   |                                       |
| <b>Anzeigen/Bedienelemente</b>   |  |                                       |
| LED grün   | Betriebsanzeige  |                                       |
| LED gelb   | Auswertebereichsanzeige, Einlernbereitschaft   |                                       |
| LED rot  | Einlernbereitschaft, Störung   |                                       |
| <b>Elektrische Daten</b>   |  |                                       |
| Betriebsspannung   | $U_B$  | 10 ... 30 V DC                        |
| Leerlaufstrom  | $I_0$  | ≤ 30 mA                               |
| <b>Eingang/Ausgang</b>   |  |                                       |
| Synchronisation  | 1 Synchronanschluss, bidirektional<br>0-Pegel: $-U_B \dots +1$ V<br>1-Pegel: $+4 V \dots +U_B$<br>Eingangsimpedanz: > 12 kΩ<br>Synchronisationsimpuls: ≥ 100 μs, Synchronisationsimpulspause: ≥ 2 ms |                                       |
| Synchronisationsfrequenz   | ≤ 45 Hz  |                                       |
| Gleichtaktbetrieb  | ≤ 45/n Hz, n = Anzahl der Sensoren   |                                       |
| <b>Eingang</b>   |  |                                       |
| Eingangstyp  | 1 Lerneingang<br>Schaltabstand 1: $-U_B \dots +1$ V, Schaltabstand 2: $+3 V \dots +U_B$<br>Eingangsimpedanz: > 10 kΩ   |                                       |
| Impulsdauer  | ≥ 1 s  |                                       |
| <b>Ausgang</b>   |  |                                       |
| Ausgangstyp  | Gegentaktanschluss, kurzschlussfest, verpolgeschützt   |                                       |
| Bemessungsbetriebsstrom  | $I_b$  | 200 mA, kurzschluss-/überlastfest     |
| Voreinstellung   | Schaltabstand A1: 50 mm, Schaltabstand A2: 800 mm, breite Ultraschallkeule   |                                       |
| Spannungsfall  | $U_d$  | ≤ 3 V                                 |
| Reproduzierbarkeit   | ≤ 1 %  |                                       |
| Schaltfrequenz   | f  | 6 Hz                                  |
| Abstandshysterese  | H  | 1 % des eingestellten Schaltabstandes |
| Temperatureinfluss   | ± 1,5 % vom Endwert  |                                       |
| <b>Umgebungsbedingungen</b>  |  |                                       |
| Umgebungstemperatur  | -15 ... 70 °C (5 ... 158 °F)   |                                       |
| Lagertemperatur  | -40 ... 85 °C (-40 ... 185 °F)   |                                       |
| <b>Mechanische Daten</b>   |  |                                       |
| Anschlussart   | Gerätestecker M12 x 1, 5-polig   |                                       |
| Schutzart  | IP54   |                                       |
| <b>Gehäuse</b>   |  |                                       |
| Rahmen: Zink-Druckguss, vernickelt<br>Seitenteile: Kunststoff PC, glasfaserverstärkt |  |                                       |
| <b>Wandler</b>   |  |                                       |
| Epoxidharz/Glashohlkugelmischung; Schaum Polyurethan, Deckel PBT                     |  |                                       |
| Masse  | 60 g   |                                       |
| <b>Normen- und Richtlinienkonformität</b>  |  |                                       |
| Normenkonformität  |  |                                       |
| Normen   | EN 60947-5-2:2007<br>IEC 60947-5-2:2007  |                                       |

## Technical data

|   |  |  |
|---|--|--|
| <b>General specifications</b>   |  |  |
| Sensing range   | 30 ... 800 mm  |  |
| Adjustment range  | 50 ... 800 mm  |  |
| Unusable area   | 0 ... 30 mm  |  |
| Standard target plate   | 100 mm x 100 mm  |  |
| Transducer frequency  | approx. 310 kHz  |  |
| Response delay  | approx. 100 ms   |  |
| <b>Indicators/operating means</b>                                     |  |  |
| LED green   | Operating display  |  |
| LED yellow  | Evaluation range indicator, Ready for programming  |  |
| LED red   | Ready for programming, Fault   |  |
| <b>Electrical specifications</b>                                      |  |  |
| Operating voltage   | $U_B$  | 10 ... 30 V DC                           |
| No-load supply current  | $I_0$  | ≤ 30 mA                                  |
| <b>Input/Output</b>   |  |  |
| Synchronization   | 1 synchronous connection, bi-directional<br>0-level: $-U_B \dots +1$ V<br>1-level: $+4 V \dots +U_B$<br>input impedance: > 12 kΩ<br>synchronization pulse: ≥ 100 μs, synchronization interpulse period: ≥ 2 ms |  |
| Synchronization frequency   | ≤ 45 Hz  |  |
| Common mode operation   | ≤ 45/n Hz, n = number of sensors   |  |
| <b>Input</b>  |  |  |
| Input type  | 1 program input<br>Switching distance 1: $-U_B \dots +1$ V, Switching distance 2: $+3 V \dots +U_B$<br>Input impedance: > 10 kΩ  |  |
| Pulse length  | ≥ 1 s  |  |
| <b>Output</b>   |  |  |
| Output type   | Push-pull output, short-circuit protected, reverse polarity protected  |  |
| Rated operational current   | $I_b$  | 200 mA, short-circuit/overload protected |
| Default setting   | Switch point A1: 50 mm, Switch point A2: 800 mm, wide sound lobe   |  |
| Voltage drop  | $U_d$  | ≤ 3 V                                    |
| Repeat accuracy   | ≤ 1 %  |  |
| Switching frequency   | f  | 6 Hz                                     |
| Range hysteresis  | H  | 1 % of the set operating distance        |
| Temperature influence   | ± 1.5 % of full-scale value  |  |
| <b>Ambient conditions</b>   |  |  |
| Ambient temperature   | -15 ... 70 °C (5 ... 158 °F)   |  |
| Storage temperature   | -40 ... 85 °C (-40 ... 185 °F)   |  |
| <b>Mechanical specifications</b>                                      |  |  |
| Connection type   | Device connector M12 x 1, 5-pin  |  |
| Protection degree   | IP54   |  |
| <b>Material</b>   |  |  |
| Housing   | Frame: nickel plated, die cast zinc, Laterals: glass-fiber reinforced plastic PC   |  |
| <b>Transducer</b>   |  |  |
| epoxy resin/hollow glass sphere mixture; foam polyurethane, cover PBT |  |  |
| Masse   | 60 g   |  |
| <b>Compliance with standards and directives</b>                       |  |  |
| Standard conformity   |  |  |
| Standards   | EN 60947-5-2:2007<br>IEC 60947-5-2:2007  |  |





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