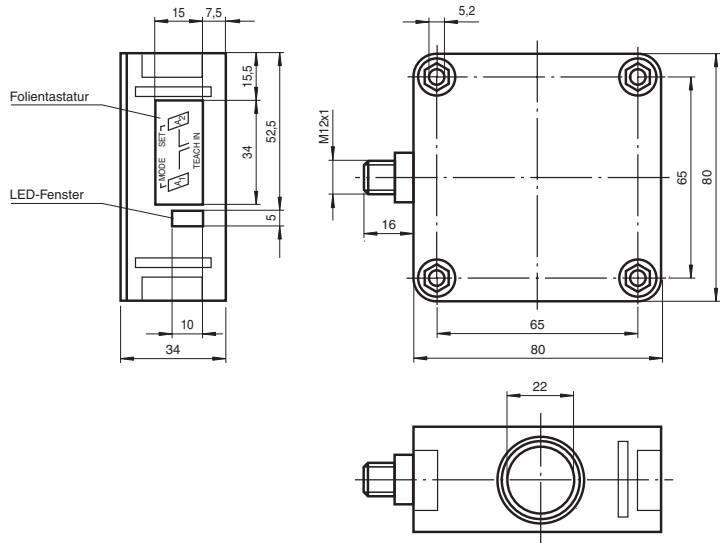
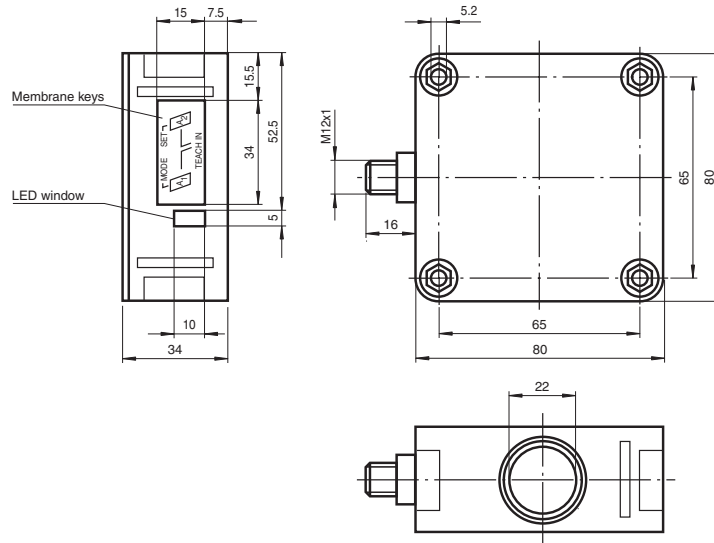


**Abmessungen**



**Dimensions**



**Ultraschallsensor**  
**Ultrasonic sensor**



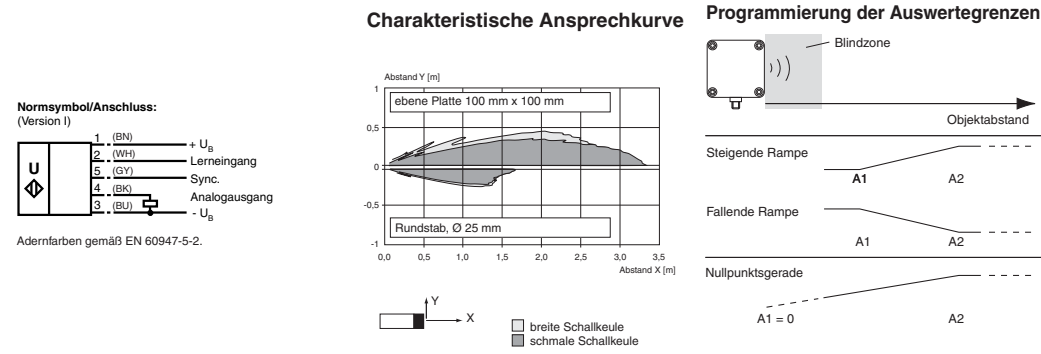
**UB2000-F42S-I-V15**

Doc. No.: 45-1501B  
DIN A3 -> DIN  
Part. No.: 133987  
Date: 12/15/2010



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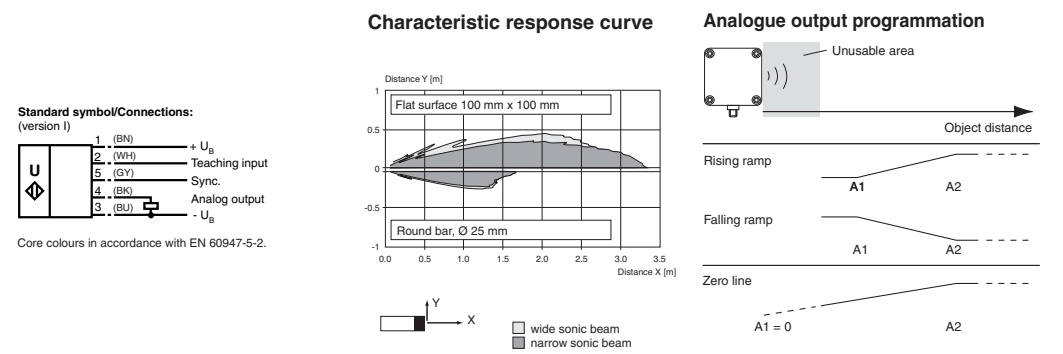
**Elektrischer Anschluss/Kurven/Zusätzliche Informationen**



**Steckverbinder V15**



**Electrical Connection / Curves / Additional Information**



**Connector V15**



**Technische Daten**

<b>Allgemeine Daten</b>		
Erfassungsbereich	60 ... 2000 mm	
Einstellbereich	90 ... 2000 mm	
Blindzone	0 ... 60 mm	
Normmessplatte	100 mm x 100 mm	
Wandlerfrequenz	ca. 175 kHz	
Ansprechverzögerung	ca. 150 ms	
<b>Anzeigen/Bedienelemente</b>		
LED grün	permanent grün: Power on	
LED gelb	permanent: Objekt im Auswertebereich blinkend: Lernfunktion	
LED rot	Normalbetrieb: "Störung" Lernfunktion: kein Objekt erkannt	
<b>Elektrische Daten</b>		
Betriebsspannung	$U_B$	10 ... 30 V DC, Welligkeit 10 % <sub>SS</sub>
Leerlaufstrom	$I_0$	≤ 50 mA
<b>Eingang/Ausgang</b>		
Synchronisation	bidirektional 0-Pegel: $-U_B \dots +1$ V 1-Pegel: $+4$ V ... $+U_B$ Eingangsimpedanz: > 12 K $\Omega$ Synchronisationsimpuls: ≥ 100 $\mu$ s, Synchronisationsimpulspause: ≥ 2 ms	
Synchronisationsfrequenz		≤ 30 Hz
Gleichtaktbetrieb		≤ 30/n Hz, n = Anzahl der Sensoren
<b>Ausgang</b>		
Ausgangstyp	1 Analogausgang	4 ... 20 mA
Voreinstellung	Auswertegrenze A1: 90 mm, Auswertegrenze A2: 2000 mm, breite Ultraschallkeule	
Auflösung		0,7 mm
Kennlinienabweichung		± 1 % vom Endwert
Reproduzierbarkeit		± 0,1 % vom Endwert
Lastimpedanz		0 ... 300 $\Omega$
Temperatureinfluss		± 1 % vom Endwert
<b>Umgebungsbedingungen</b>		
Umgebungstemperatur		-25 ... 70 °C (-13 ... 158 °F)
Lagertemperatur		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanische Daten</b>		
Anschlussart		Gerätestecker M12 x 1, 5-polig
Schutzart		IP54
Material		
Gehäuse		ABS
Wandler		Epoxidharz/Glashohlkugelmischung; Schaum Polyurethan, Deckel PBT
Masse		140 g
<b>Normen- und Richtlinienkonformität</b>		
Normenkonformität		
Normen		EN 60947-5-2:2007 IEC 60947-5-2:2007 EN 60947-5-7:2003 IEC 60947-5-7:2003

**Technical data**

<b>General specifications</b>		
Sensing range	60 ... 2000 mm	
Adjustment range	90 ... 2000 mm	
Unusable area	0 ... 60 mm	
Standard target plate	100 mm x 100 mm	
Transducer frequency	approx. 175 kHz	
Response delay	approx. 150 ms	
<b>Indicators/operating means</b>		
LED green	solid green: Power on	
LED yellow	solid: object in evaluation range flashing: program function	
LED red	normal operation: "fault" program function: no object detected	
<b>Electrical specifications</b>		
Operating voltage	$U_B$	10 ... 30 V DC, ripple 10 % <sub>SS</sub>
No-load supply current	$I_0$	≤ 50 mA
<b>Input/Output</b>		
Synchronization	bi-directional 0 level: $-U_B \dots +1$ V 1 level: $+4$ V ... $+U_B$ input impedance: > 12 K $\Omega$ synchronization pulse: ≥ 100 $\mu$ s, synchronization interpulse period: ≥ 2 ms	
Synchronization frequency		≤ 30 Hz
Common mode operation		≤ 30/n Hz, n = number of sensors
<b>Output</b>		
Output type	1 analog output	4 ... 20 mA
Default setting	evaluation limit A1: 90 mm, evaluation limit A2: 2000 mm, wide sound lobe	
Resolution		0.7 mm
Deviation of the characteristic curve		± 1 % of full-scale value
Repeat accuracy		± 0.1 % of full-scale value
Load impedance		0 ... 300 Ohm
Temperature influence		± 1 % of full-scale value
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 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
Material		
Housing		ABS
Transducer		epoxy resin/hollow glass sphere mixture; foam polyurethane, cover PBT
Masse		140 g
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007 EN 60947-5-7:2003 IEC 60947-5-7:2003





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