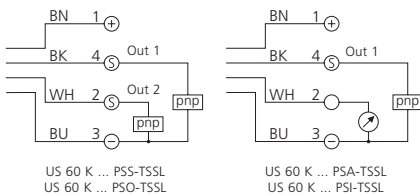


Ultraschall-Sensoren | Ultrasonic sensors

- Stabiles Gehäuse
- Arbeitsbereich einstellbar
- Schmutzunempfindlich
- Störgeräuschunempfindlich
- Messung oberflächenunabhängig
- Schalt- und Analogausgang
- Hohe Folgegeschwindigkeit
- Hohe Auflösung
- Piezokeramischer Verbundwandler

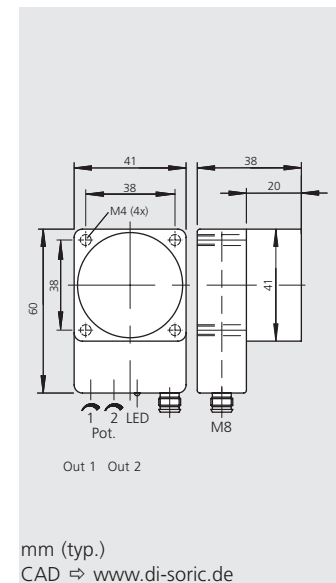
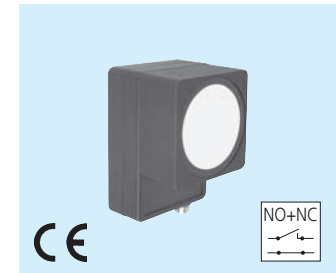
- Robust casing
- Scanning range adjustable
- Insensitive to dirt
- Insensitive to ambient noise
- Scanning does not depend on surface
- Binary and analog output
- High follow-up speed
- High resolution
- Piezo-ceramic composite transducer

Anschlusschema Connection diagram



BN = Braun / brown
BK = Schwarz / black
BU = Blau / blue
WH = Weiß / white

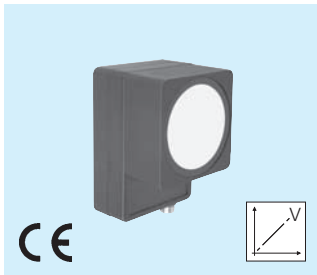
Arbeitsbereich **5000 mm**
Scanning range



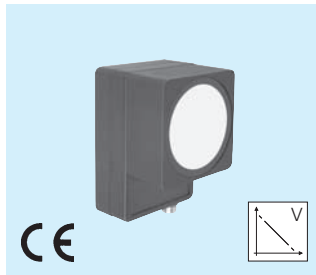
Technische Date	Technical Data	bei + 20 °C, 24 V DC / at + 20 °C, 24 V DC
Arbeitsbereich	Scanning range	ca. 400 ... 5000 mm
Sendefrequenz	Operating frequency	80 kHz
Betriebsspannung	Service voltage	15 ... 30 V DC
Eigenstromaufnahme	Internal power consumption	ca. 65 mA
Schaltausgang	Binary output	Transistor pnp, 100 mA
Schaltfrequenz	Switching frequency	ca. 2 Hz
Ansprech- / Abfallzeit	Response / release time	ca. 700 ms / 140 ms (50% Sn max.)
Schalthysterese axial	Switching hysteresis axial	ca. 80 mm
Genauigkeit	Accuracy	< ± 1 % / Sn max.
Analogausgang	Analog output	–
Linearität Analogausgang	Linearity analog output	–
Lastwiderstand	Load resistance	–
Welligkeit	Ripple	–
Folgegeschwindigkeit	Follow-up speed	–
Auflösung	Resolution	ca. 0,1 % / Sn max.
Temperaturfehler	Temperature error	< 1 % (-20 ... +50 °C)
Umgebungstemperatur	Ambient temperature	-20 ... +50 °C
Schutzart	Protection class	IP 67

Bestelltabelle	Ordering Table	Typ / Model
Ausgang	Output	
2 x NO	2 x NO	US 60 K 5000 PSS-TSSL
NO + NC (antivalent)	NO + NC (exclusive OR)	US 60 K 5000 PSO-TSSL
NO + analog	NO + analog	–
2 x analog	2 x analog	–
Anschlusskabel (sep. Datenblatt)	Connecting cable (sep. data-sheet)	TK ... /4

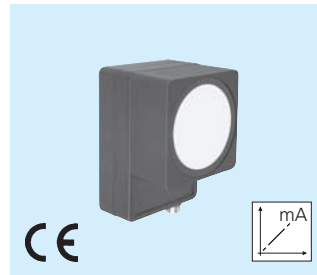
Arbeitsbereich 5000 mm
Scanning range



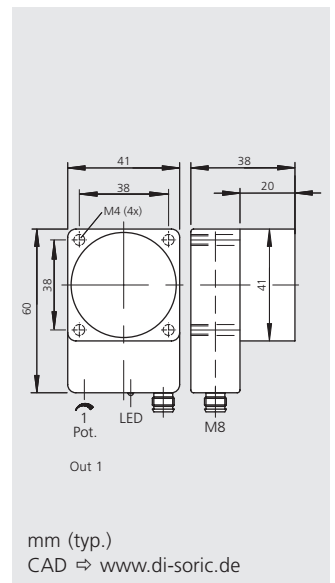
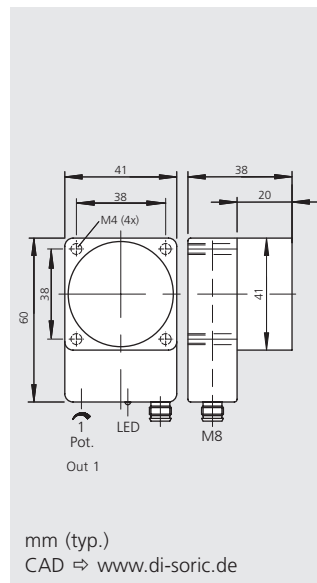
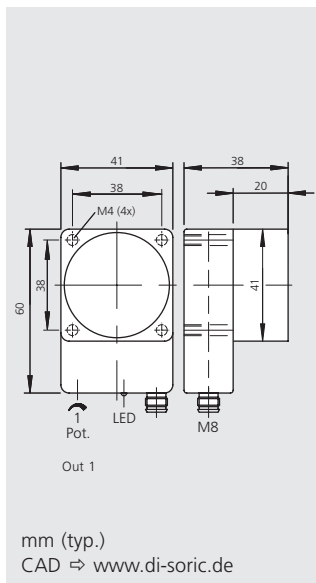
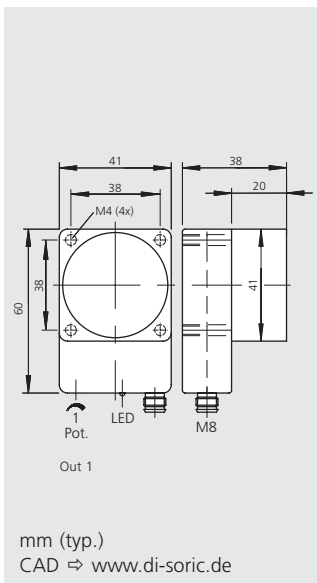
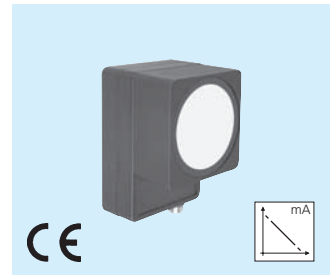
Arbeitsbereich 5000 mm
Scanning range



Arbeitsbereich 5000 mm
Scanning range



Arbeitsbereich 5000 mm
Scanning range



ca. 400 ... 5000 mm

80 kHz
15 ... 30 V DC
ca. 65 mA
Transistor pnp, 100 mA, NO
ca. 2 Hz
ca. 700 ms / 140 ms (50% Sn max.)
ca. 80 mm
< ± 1 % / Sn max.
0,8 ... 10 V
< ± 0,5 % / Sn max.
> 10 kΩ
ca. ± 20 mV
< 2 s (95% Sn max.)
ca. 0,1 % / Sn max.
< 1 % (-20 ... +50 °C)
-20 ... +50 °C
IP 67

ca. 400 ... 5000 mm

80 kHz
15 ... 30 V DC
ca. 65 mA
Transistor pnp, 100 mA, NO
ca. 2 Hz
ca. 700 ms / 140 ms (50% Sn max.)
ca. 80 mm
< ± 1 % / Sn max.
9,2 ... 0 V
< ± 0,5 % / Sn max.
> 10 kΩ
ca. ± 20 mV
< 2 s (95% Sn max.)
ca. 0,1 % / Sn max.
< 1 % (-20 ... +50 °C)
-20 ... +50 °C
IP 67

ca. 400 ... 5000 mm

80 kHz
15 ... 30 V DC
ca. 85 mA
Transistor pnp, 100 mA
ca. 2 Hz
ca. 700 ms / 140 ms (50% Sn max.)
ca. 80 mm
< ± 1 % / Sn max.
5,3 ... 20 mA
< ± 0,5 % / Sn max.
max. 400 Ω
ca. ± 20 mV
< 2 s (95% Sn max.)
ca. 0,1 % / Sn max.
< 1 % (-20 ... +50 °C)
-20 ... +50 °C
IP 67

ca. 400 ... 5000 mm

80 kHz
15 ... 30 V DC
ca. 85 mA
Transistor pnp, 100 mA
ca. 2 Hz
ca. 700 ms / 140 ms (50% Sn max.)
ca. 80 mm
< ± 1 % / Sn max.
18,7 ... 4 mA
< ± 0,5 % / Sn max.
max. 400 Ω
ca. ± 20 mV
< 2 s (95% Sn max.)
ca. 0,1 % / Sn max.
< 1 % (-20 ... +50 °C)
-20 ... +50 °C
IP 67

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US 60 K 5000 PSA-TSSL

US 60 K 5000 PSA-I-TSSL

US 60 K 5000 PSI-TSSL

US 60 K 5000 PSI-I-TSSL

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TK ... /4

TK ... /4

TK ... /4

TK ... /4