

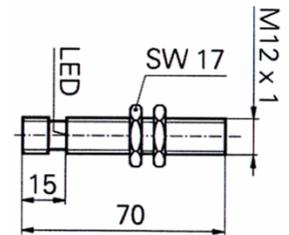
sensor ultrasonic

PRODUCT: ultrasonic diffuse reflection sensor

DESIGN: 12 M12x1



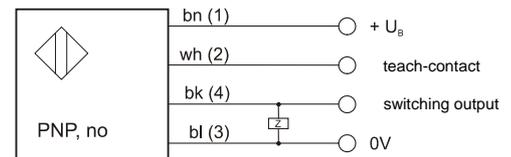
- very small beam angle
- filling level monitoring in small containers, \varnothing 25mm possible
- integrated amplifier
- teach-in switching point adjustment
- teach-in via white wire (PIN 2) or plug-in adapter
- green LED for status and teach-in control
- housing, nickel plated brass
- connection with M12-connector
- delivery in storage box



technical data

operating voltage	12 ... 30V DC
current consumption (w/o load)	< 30mA
voltage drop (max. load)	\leq 2V DC
switching output	pnp, no, max. 200mA
sensing range (teachable)	25 ... 200mm
dead zone	10mm
hysteresis (typ.)	\leq 3mm
repeatability	\leq 0.8mm
carrier frequency	380kHz
sonic cone angle	6°
response time (t_{on} / t_{off})	\leq 10ms
ambient temperature	0 ... +60°C
system of protection	IP 67 to EN 60529
housing material	nickel plated brass
connection	M12-connector, 4-pin
matching cable socket	e.g. VK200321

connection



bn = brown, wh = white, bk = black, bu = blue
terminal marking of the cable socket in brackets

artical-number

ultrasonic sensor: **UT 12 01 20**

teach-in-adapter: **AU 00 00 11**

notes for switching point adjustment (teach-in)

- Connect voltage supply and switching output, the teach-in process must take place within 5 minutes time.
- Connect the teach-contact (white wire / PIN 2) with +UB for approximately 2sec until green LED flashes.
- Open the connection, green LED flashes.
- Bring the object to be detected into the detection range desired (25 ... 200mm).
- Connect the teach-contact (white wire / PIN 2) with +UB. The sensor confirms the successful teach-process by lighting up the green LED for 2sec.
- To prevent the adjustment of the sensor from being altered without authorization the teach-in lock comes into action five minutes after switch-on or after the teach-process. To start a new teach-in process please disconnect the voltage supply. If no teach-in process follows the connection of the voltage supply the sensor works with the detection range last set.
- To reset the sensor to the maximum detection range please connect the teach-contact with +UB for more than 6sec. The sensor confirms the reset by rapid flashing of the green LED
- If the teach-contact is not used please connect it to GND.
- To simplify the teach process an adapter is obtainable. It has to be plugged-in between connector and sensor. This adapter closes the teach-contact via a push button. When using the teach-in adapter the white wire of the connector must not be connected! A 3-pin connector e.g. VK200021, is sufficient in this case.

Warning: Never use the devices in applications where the safety of a person depends on their functionality!