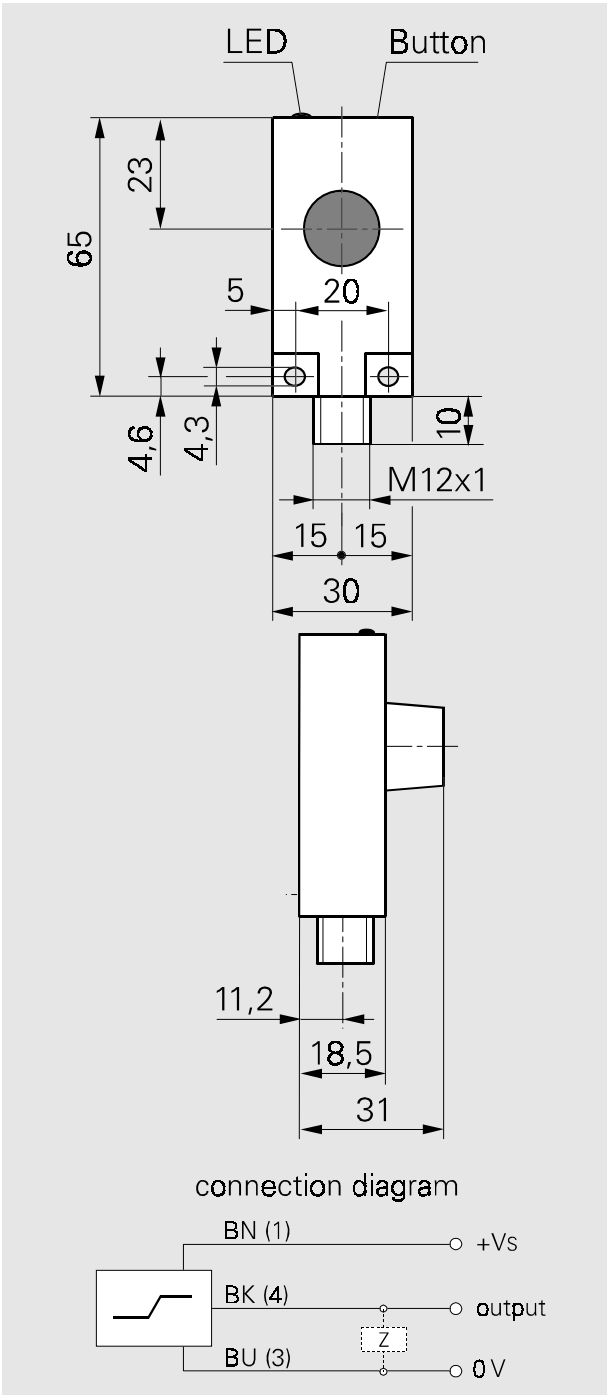

Analog ultrasonic sensor

Type: **UNDK 30U6103/S14**

Art.-Code: 125521

- Scanning range Sd 100...700 mm
- High resolution
- Scanning range programmable by teach-in button
- Output slope can be inverted

Technical data

scanning range Sd	Sdc...Sde (min. 50 mm)
scanning range close limit Sdc	100...650 mm
scanning range far limit Sde	150...700 mm
sonic carrier frequency	typ. 230 kHz
sonic beam angle	typ. 10°
voltage supply range Vs	15 - 30 VDC
residual ripple	< 10% Vs
supply current	< 30 mA
max. output current	< 20 mA
output slope (can be inverted)	0...10 V (10...0 V)
reverse polarity protection	yes
short circuit protection	yes
response time ton/toff	< 80 ms
repeatability	≤ 1% So
resolution	< 0,3 mm
temperature drift	≤ 2% So
green LED (normal operation)	object within scanning range Sd
red LED (normal operation)	object at close range
adjustment aid (normal operation)	object indication LED flashing
temperature range	0...+60 °C
housing material	polyester
protection class	IP 67

Instruction manual

All adjustments are made using the single „teach-in“ button

Scanning range adjustment — near and far limit

To activate the sensor into the Sensing Distance Adjustment mode, the teach-in button must be pushed for more than two seconds. (You will know you have pushed it long enough by a fast flashing of the indicating LED). When the button is released the LED begins red flashing. Now set the near range limit, Sdc. When the target is in place push the teach-in button. You will see a confirmation that it is set by a green flashing LED. Now set the far sensing range, Sde. When the target is in place, push the teach-in button. You have now set the two sensing limits.

Output Slope Adjustment

When pushing the teach-in button for more than four seconds you activate the sensor into the slope adjustment mode. Confirmation that you have entered this mode is shown by the sensor’s LED flashing amber. Subsequent pushes of the button changes the slope of the output. Confirmation of the slope setting can be seen by the indicating LED - green for positive slope, red for negative slope. The new configuration is then stored by depressing the teach-in button for at least two seconds. Confirmation of a successful setting is signaled by the flashing LED. Afterwards the sensor defaults back to normal sensing mode.