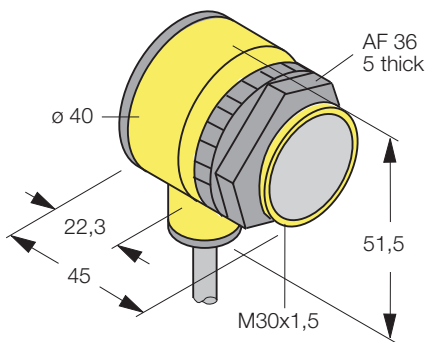


Ultrasonic Sensors U-GAGE™ T30 series with dual discrete outputs

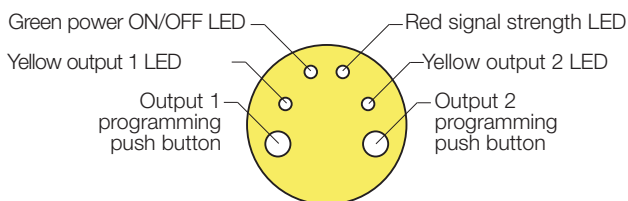
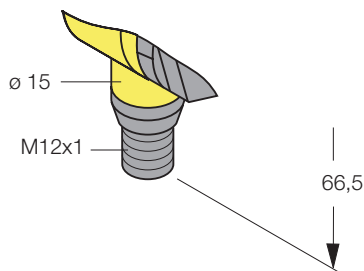


Dimensions [mm]

● Cable



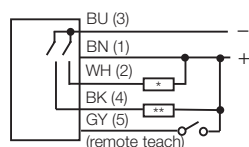
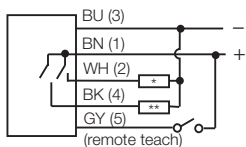
● Connector



Wiring

pnp

nnp



* output 1
** output 2

Supply voltage U_B 12...24 VDC
Ripple V_{pp} $\leq 10\%$
No load current $\leq 90\text{ mA}$

Protection reverse polarity
transient voltages
short-circuit
continuous overload

Output

Transistor output npn or pnp
Continuous load current 100 mA

Sensing window, adjustable

with Teach-in function
(see table on next page)
Rated control element 100 x 100 mm @ 25 °C
Repeat accuracy R $\pm 0,25\%$ of distance
Temperature drift $\pm 0,2\%$ of sensing distance / °C
Response time
"A"-models 50 ms
"B"-models 100 ms

Material housing

PBT
Protection class IP67
Temperature range -20...+70 °C
Cable 2 m, PVC, 5 x 0,34 mm²
Connector *eurofast*®

Indicator LEDs

Yellow output state or teach status
Green power-on, program mode
Green flashing discrete output overload
Red flashing target within sensing window (frequency proportional to the received signal strength)

Accessories

Brackets

SMB30A	34 703 00	angle bracket
SMB30SC	30 525 21	swivel mount bracket
SMB30C	34 701 00	split clamp bracket
SMB1815SF	30 532 79	swivel mount bracket

Connectors

RK4.5T-2	66 338 03	straight type
WK4.5T-2	66 600 02	right-angled type

Ultrasonic Sensors

U-GAGE™ T30 series with dual discrete outputs

Operating range	Frequency [kHz]	Supply voltage [VDC]	Switching output	Response time [ms]	Connection	Type	Ident number
150 mm...1 m	228	12...24	pnp	50	cable	T30UDPA	30 555 44
150 mm...1 m	228	12...24	pnp	50	connector	T30UDPAQ	30 555 45
150 mm...1 m	228	12...24	npn	50	cable	T30UDNA	30 555 47
150 mm...1 m	228	12...24	npn	50	connector	T30UDNAQ	30 555 48
300 mm...2 m	128	12...24	pnp	100	cable	T30UDPB	30 555 50
300 mm...2 m	128	12...24	pnp	100	connector	T30UDPBQ	30 555 51
300 mm...2 m	128	12...24	npn	100	cable	T30UDNB	30 568 85
300 mm...2 m	128	12...24	npn	100	connector	T30UDNBQ	30 568 86

Programming of window limits for either switching output ^{1) and 3)}

Push button	Status indication
Step 1 Choose push button for the selected output and hold this button for approx. 2 s until green LED turns OFF.	green LED OFF yellow LED ON - indicates TEACH mode red LED flashes in direct proportion to received signal strength when target is detected
Step 2 First limit (near or far) Place target at first limit and click push button less than 2 s.	green LED OFF yellow LED flashes (at 2 Hz) - indicates receiving first limit red LED (ON shortly; then) flashes in direct proportion to the received signal strength
Step 3 Second limit (near or far) Place target at second limit and click push button less than 2 s.	green LED first OFF; then glowing steadily to indicate RUN mode yellow LED OFF red LED ON shortly; then flashes in direct proportion to the received signal strength (RUN mode)
Step 4 Repeat for the other output if a second output is desired.	

Programming of single pair of window limits with complementary outputs ^{2) and 3)}

Push button	Status indication
Step 1 Push and hold for approx. 2 s one push button until yellow LED turns ON; push and hold other push button until its yellow LED turns ON.	green LED OFF yellow both LEDs ON - indicating TEACH mode red LED flashes in direct proportion to received signal strength when target is detected
Step 2 First limit (near or far) Place target at first limit and click either push button less than 2 s.	green LED OFF yellow both LEDs flash (at 2 Hz) - indicating receiving first limit red LED (ON shortly; then) flashes in direct proportion to the received signal strength
Step 3 Second limit (near or far) Place target at second limit and click either push button less than 2 s.	green LED first OFF; then glowing steadily to indicate RUN mode yellow both LEDs ON if outputs conducting within window limits red LED ON shortly; then flashes in direct proportion to the received signal strength (RUN mode)

NOTE: ¹⁾ The window limits for the two outputs may overlap or be completely independent.

²⁾ If first and second limits are identical, the sensor will set automatically a 10 mm window centered around the taught position (± 5 mm). Output 2 will conduct up to the taught position, and output 1 will conduct at the taught position or beyond it.

³⁾ Remote programming is also possible.

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IMPORTANT SAFETY WARNING ! These sensors do NOT include the self-checking redundant circuitry necessary to allow their use in personnel safety applications. A sensor failure or malfunction can result in either an energised or de-energised output condition. These products should not be used as sensing devices for personnel safety.