

UT 20-S150

Ultrasonic sensor with soundpipe and switching output



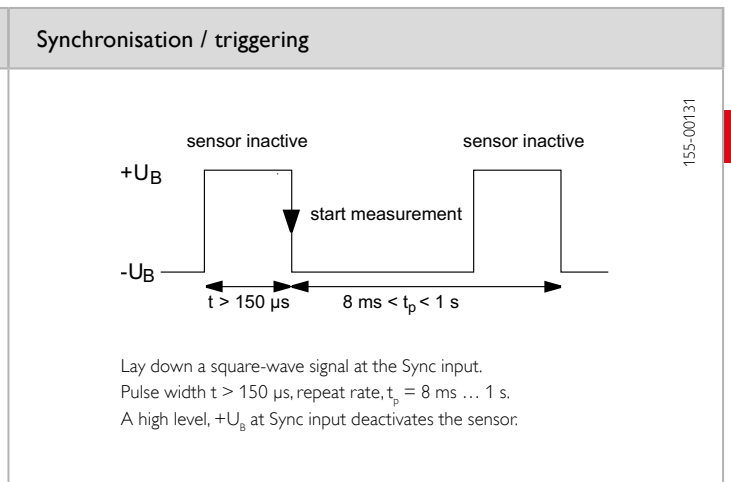
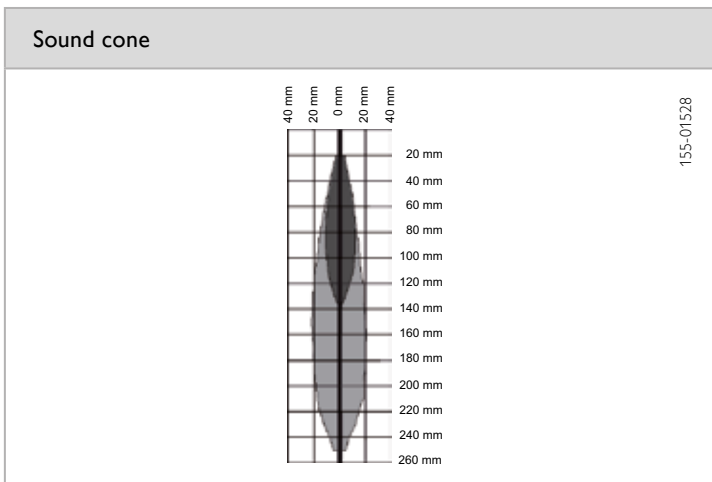
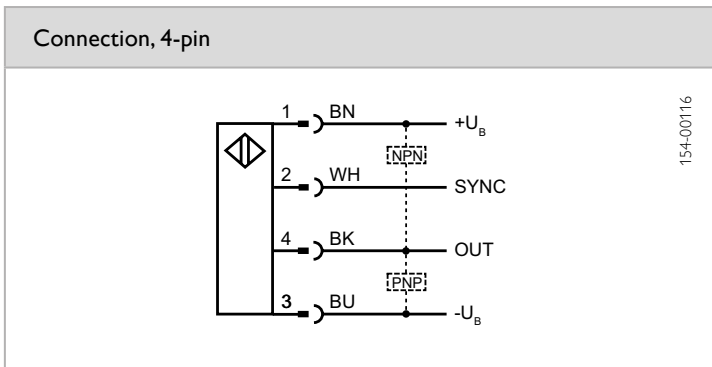
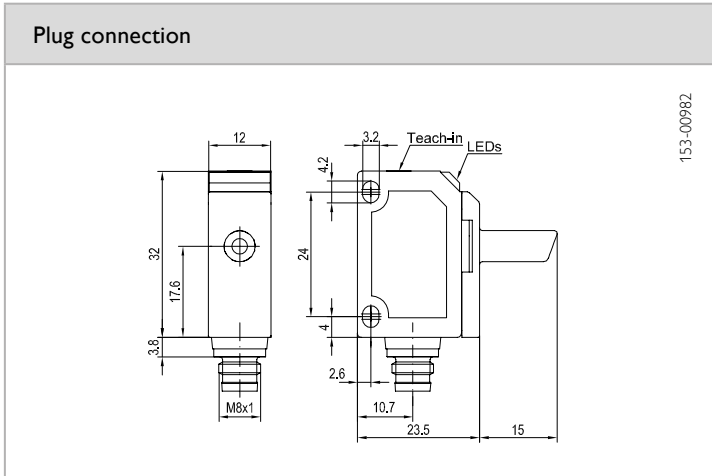
PRODUCT HIGHLIGHTS

- Ideal for level control, particularly in narrow containers
- Narrow sound beam for precise detection even through small openings and drilled holes
- Reliable detection of highly transparent objects
- Detection independent of object colour and surface
- Compact miniature housings for use when space in machine is limited

Sensor data		Functions	
Limiting scanning distance	250 mm	LED indicator, green	Operating voltage indicator
Operating scanning distance	20 ... 140 mm	LED indicator, yellow	Switching output indicator
Ultrasonic frequency	~ 380 kHz	Scanning distance adjustment	Via Teach-in button
Resolution	0,20 mm	Teach-in modes	Mode 1: set switching point Mode 2: set Window Mode Mode 3: set two-way / reflex switch
Repeatability	± 0.15 % ¹	Adjustment possibilities	N.O. / N.C. via Teach-in button Button lock via Teach-in button Synchronisation via control input Default settings via Teach-in button
Hysteresis	2 mm	Default settings	Max. sensitivity and N.O.
Temperature drift	0,17 % / °C		
Electrical data		Mechanical data	
Operating voltage, +U _b	20 ... 30V DC ²	Dimensions	32 x 38,5 x 12 mm
No-load current, I ₀	≤ 25 mA	Enclosure rating	IP 67 ³
Output current, I _e	200 mA	Material, housing	ABS
Protective circuits	Reverse-polarity protection, U _b / short-circuit protection (Q)	Material, ultrasonic converter	Polyurethane foam, epoxy resin with glass content
Protection Class	2	Type of connection	(See Selection Table)
Power On Delay	< 300 ms	Ambient temperature, operation	-25 ... +70 °C
Switching output, Q	PNP / NPN (see Selection Table)	Ambient temperature, storage	-40 ... +85 °C
Output function	N.O. / N.C.	Weight	10 g
Switching frequency, f (ti/tp 1:1)	25 Hz	Vibration and impact resistance	EN 60947-5-2
Response time	24 ms		
Connection, WH	Sync.		

¹ From final value of limit scanning distance ² Max. 10 % ripple, within U_b ³ With connected IP 67 plug

Operating scanning distance	Switching output	Type of connection	Part number	Article number
20 ... 140 mm	PNP	Metal plug, M8x1, 4-pin	UT 20-S150-PSM4	693-11012
20 ... 140 mm	NPN	Metal plug, M8x1, 4-pin	UT 20-S150-NSM4	693-11013



Accessories

Connection cables	From Page A-38
Brackets	From Page A-4