

UT 20-150

Ultrasonic sensor with switching output



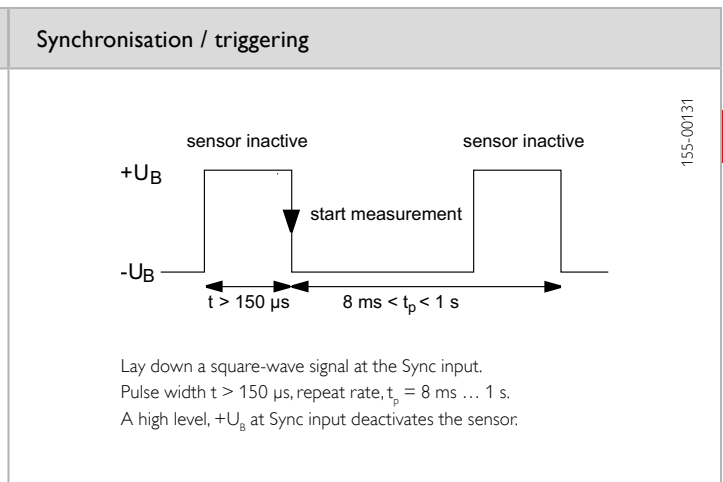
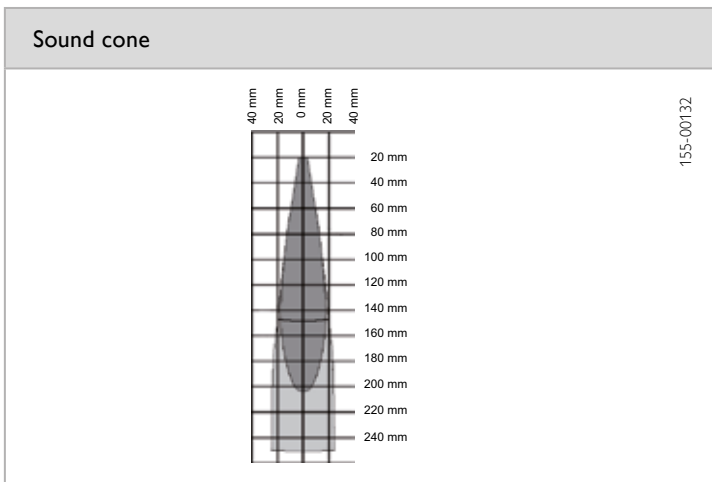
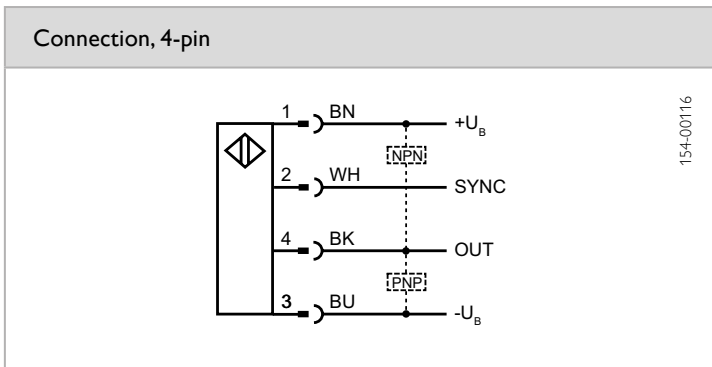
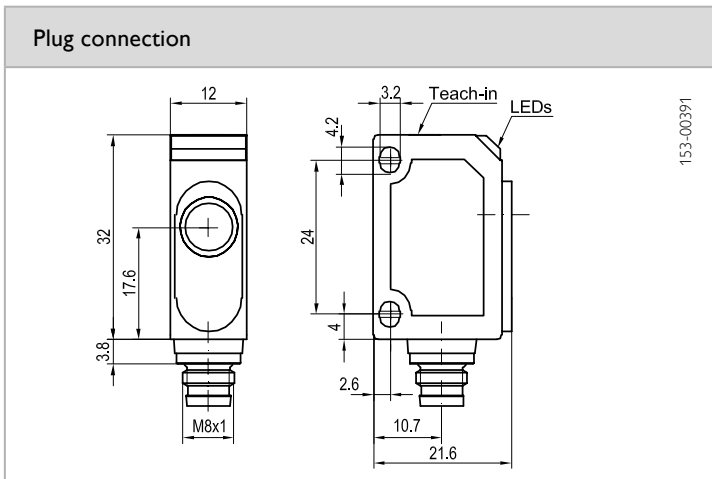
PRODUCT HIGHLIGHTS

- Detection regardless of object colour and surface
- Compact miniature housing for use when machine space is limited
- Robust ambient conditions have no effect on sensor
- Reliable detection of highly transparent objects

Sensor data		Functions	
Limit scanning distance	250 mm	Indicator LED, green	Operating voltage indicator
Operating scanning distance	20 ... 150 mm	Indicator LED, 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 operation Mode 3: set two-way / retroreflective sensor
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 21.6 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 (See Selection Table)
Protection Class	2	Type of connection	-25 ... +70 °C
Power On Delay	< 300 ms	Ambient temperature: operation	-40 ... +85 °C
Switching output, Q	PNP / NPN (see Selection Table)	Ambient temperature: storage	
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 end-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 ... 150 mm	PNP	Metal plug, M8x1, 4-pin	UT 20-150-PSM4	693-11000
20 ... 150 mm	NPN	Metal plug, M8x1, 4-pin	UT 20-150-NSM4	693-11001



Accessories

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