

UT 20-700

Ultrasonic sensor with switching output



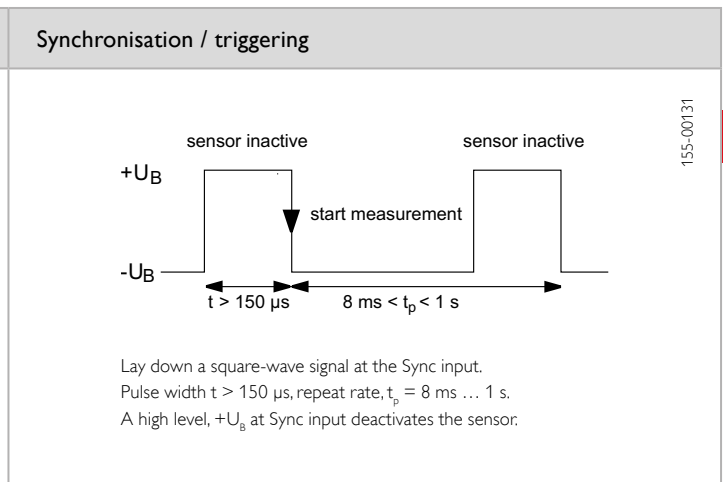
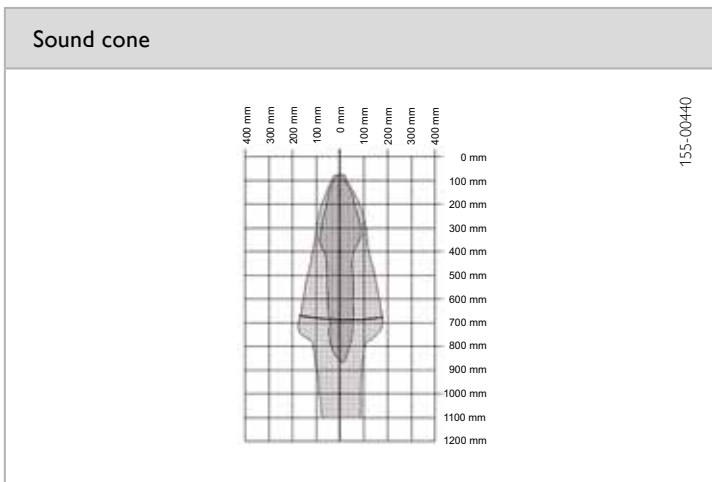
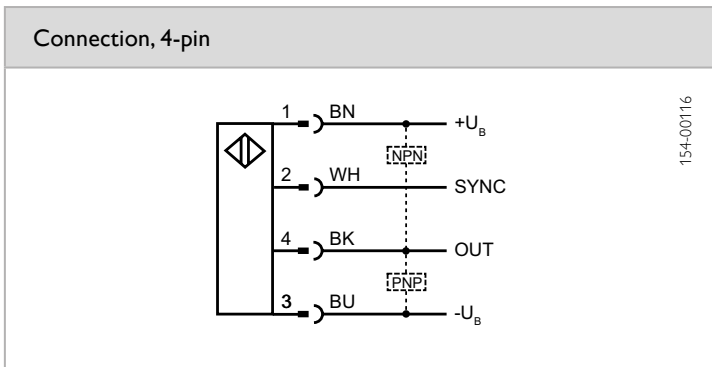
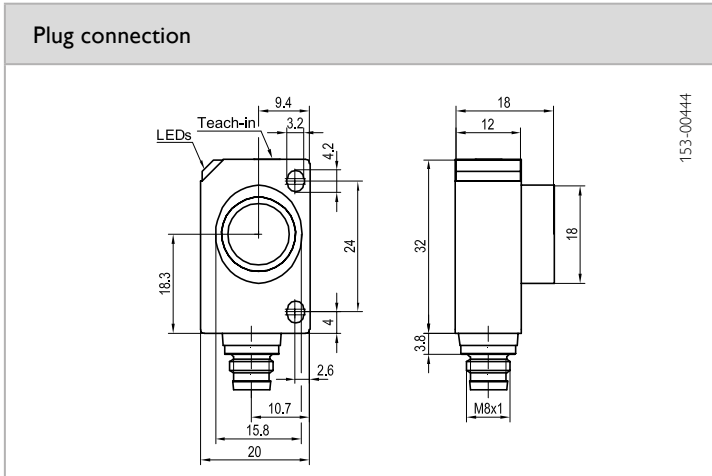
PRODUCT HIGHLIGHTS

- Long scanning distance of 700 mm with small and compact housing
- Ideal for monitoring filling levels, e.g. of liquids
- Detection regardless of object colour and surface
- Synchronisation input – simultaneous operation of several sensors in highly limited spaces

Sensor data		Functions	
Limit scanning distance	1000 mm	Indicator LED, green	Operating voltage indicator
Operating scanning distance	120 ... 700 mm	Indicator LED, yellow	Switching output indicator
Ultrasonic frequency	~ 300 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 20 x 18 mm
No-load current, I ₀	≤ 35 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	10 g
Output function	N.O. / N.C.	Weight	Vibration and impact resistance
Switching frequency, f (ti/tp 1:1)	14 Hz		EN 60947-5-2
Response time	42 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
120 ... 700 mm	PNP	Metal plug, M8x1, 4-pin	UT 20-700-PSM4	693-11008
120 ... 700 mm	NPN	Metal plug, M8x1, 4-pin	UT 20-700-NSM4	693-11009



Accessories

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