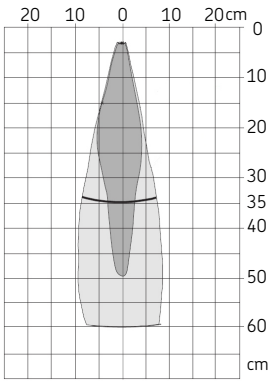
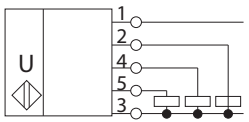
Ultrasonic sensor 664-853xx-x

Blind zone	0 - 65 mm
Scanning range limit	600 mm
Ultrasonic frequency	approx. 400 kHz
Switching frequency	3.7 Hz
Resolution	0.18 mm
Accuracy	±1 %
Repeatability	±0.15 %
Operating voltage U_B	9 - 30 V DC (polarized)
Residual ripple	±10 %
No-load supply current	≤ 60 mA
Type of connection	M12 x 1 plug; 5-pole
Response delay	272 ms
Readiness delay	< 300 ms
Type of protection following EN 60529	IP 65
Range of operating temperatures	-40 °C to + 70 °C
Switch points	High-level indication D1 = 65 mm; low-level indication D2 corresponding to the reservoir size; pre-low-level indication D3 programmable on customer request, pre-set to 10 mm above low-level (optional use possible)
Compliance with standards	EN 60947-5-2
Display elements	LED green / LED red Switching output not set/ set
Housing material	PBT, polyester, ultrasonic transducer: PUR, epoxy resin with glass content
Switching output	3x pnp; UB-2V; Imax = 3x 200 mA; NO contact, short-circuit resistant



Detection zone in centimetres
The dark grey areas indicate the zone in which the standard reflector (pipe) is reliably detected. This is the typical operating range of the sensors, The light grey areas indicate the zone in which a big reflector – like, e.g. a plate – is still detected – provided it is optimally positioned to the sensor. Outside the light grey area an evaluation is not possible any more.

1	+ U_B	brown
3	- U_B	blue
4	D2	black
2	D1	white
5	D3/Com	grey



Display of the switching states	Switch points			Indication by LED		
	D1	D2	D3	D1	D2	
High-level indication	A	A	B	red	red	C
Between high- and pre-low-level indication	B	A	B	green	red	C
Pre-low-level indication	B	A	A	green	red	D
Low level indication	B	B	B	green	green	C
A = switched, B = not switched, C = permanent, D = flashing						

Dimensions