



Ultrasonic sensor 2UF

This special version of the ultrasonic sensor is specially suited for reliably detecting the fill level of mobile machines. The extreme temperature range as well as the high protection class are prerequisites for succeeding in these applications. Through the optional use of a focus tube, precise measurement is possible with agitated media as well as at an incline.

In addition to mobile applications, stationary applications are always possible. The fill level is output via either a voltage or current output.

Tip: More readily available with the NBR flat seal and in lengths of 400 / 600 / 800 / 1,000 mm

Product characteristics

- Reliable and precise measuring
- PA housing material
- Operating ranges up to 1.8 m (depending on temperature range and use with focus tube)
- Temperature range -40 °C...+105 °C
- Analogue output
- EMC resistance in accordance with DIN EN 13309, ISO 13766, DIN EN 1498

Technical drawing

IMAGE 1/6

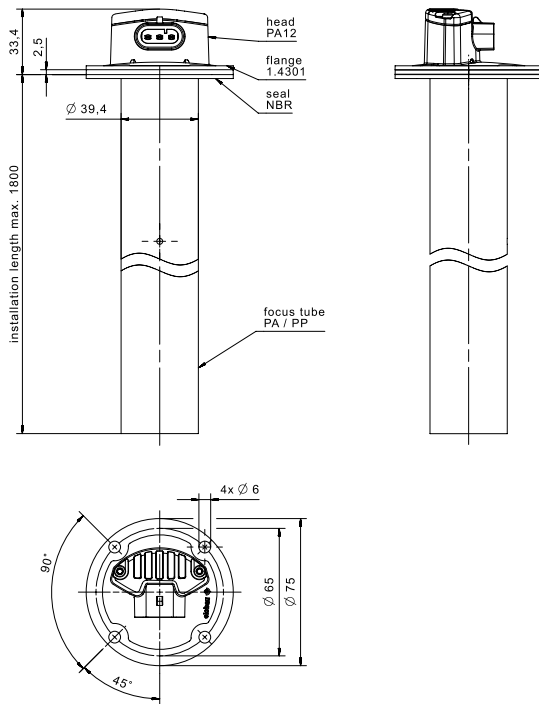


IMAGE 2/6

male AMP Superseal 1.5
fitting to:
housing 282105-1
terminal 282109-1
rubber seal 281934-2

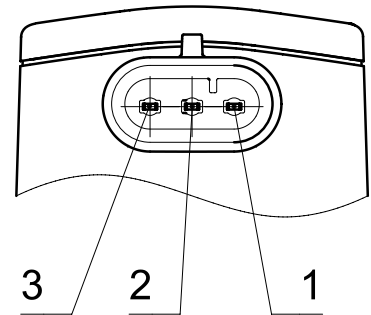


IMAGE 3/6

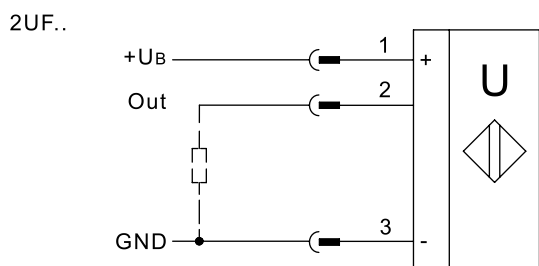


IMAGE 4/6

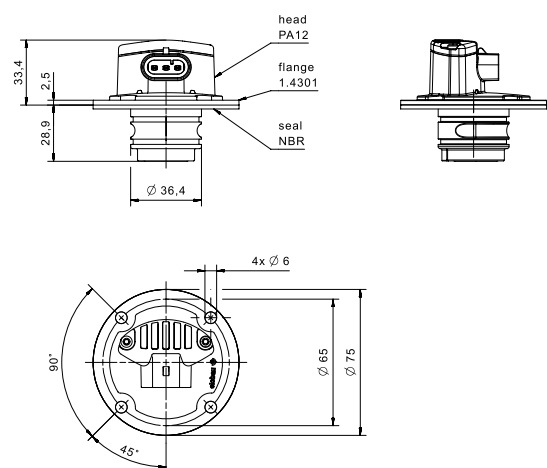


IMAGE 5/6

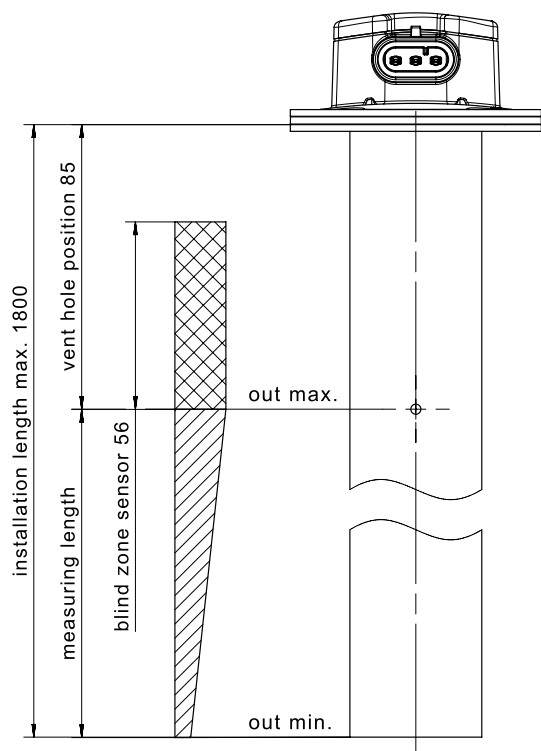
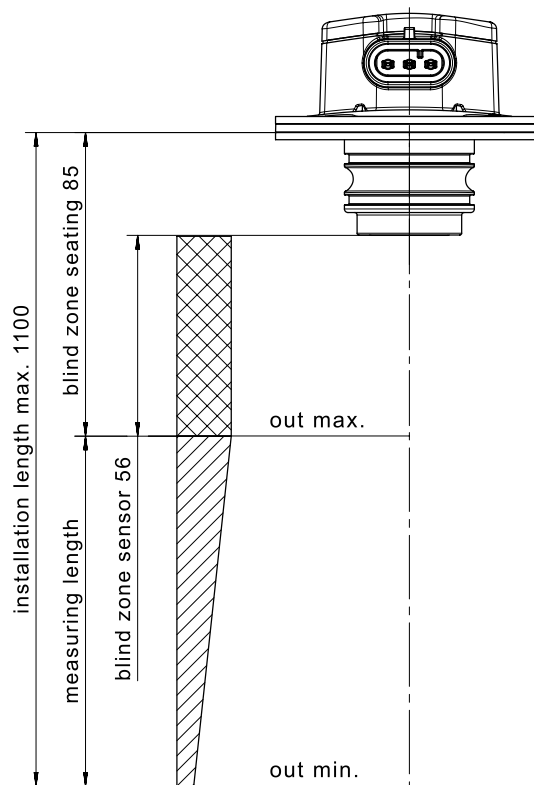


IMAGE 6/6



Electrical data

Attribute	2UF1....10.AA00	2UF1....10.AA01	2UF1....70.AA00	2UF1....70.AA01
Polarity reversal protection	yes			
Output signal min.	-		0.5 V DC	
Output signal max.	-		4.5 V DC	
Output signal min.	4 mA		-	
Operating voltage min.	8 V DC			
Operating voltage max.	36 V DC			
Current consumption	10...35 mA			
Technology	Ultrasonic			
Operating frequency	135 kHz			
Opening angle of sound cone	12 °			
Linearity error	2 %			
Outputs	4...20mA		0,5...4,5V	
Output signal max.	20 mA		-	
Blind zone	56 mm			
Blind zone from sealing surface	85 mm			
Output signal, averaged	20 s	1 s	20 s	1 s
Measurement accuracy	2 mm			
Repeating accuracy	2 mm			

Properties

Attribute	2UF1....10.AA00	2UF1....10.AA01	2UF1....70.AA00	2UF1....70.AA01
Filtering time	20 s	1 s	20 s	1 s
EMC	DIN EN 13309 ; DIN EN ISO 14982 ; ISO 13766			

Material information

Attribute	2UF1....10.AA00	2UF1....10.AA01	2UF1....70.AA00	2UF1....70.AA01
Housing material	PA12			
Sealing material	NBR			
Focus tube material	PA6 / ohne Rohr			

Environmental conditions

Attribute	2UF1....10.AA00	2UF1....10.AA01	2UF1....70.AA00	2UF1....70.AA01
Operating temperature min.	-40 °C			
Max. operating temperature	105 °C			
Min. storage temperature	-40 °C			
Max. storage temperature	105 °C			
Shock resistance (Norm)	DIN 68 Teil 2-27			
Vibration resistance (Norm)	DIN 68 Teil 2-6			
Pressure resistance	1,5 bar			

Installation

Attribute	2UF1....10.AA00	2UF1....10.AA01	2UF1....70.AA00	2UF1....70.AA01
Mounting type	4-hole flange			
Installation opening	40 mm			
Torque for fastening screws	2 N m			
Diameter of focus tube	39.4 mm			
Bolt circle	65 mm			

Connection

Attribute	2UF1....10.AA00	2UF1....10.AA01	2UF1....70.AA00	2UF1....70.AA01
Connector type	AMP-Superseal			