

Technical Information

CUY52

Solid state reference and calibration vessel for turbidity sensor CUS52D



Application

Field use or application-related preliminary work:

Solid state reference and calibration vessel CUY52 allow the quick and reliable verification of sensors with the solid state reference or calibration with the calibration vessel of sensors. CUY52 makes it easier to adapt to the actual measuring point by creating basic conditions that are reproducible (e.g., vessels with the least backscattering or shadowing of interfering light sources).

Your benefits

- Easy, safe and quick verification of CUS52D sensors with the solid state reference
- Simple, reliable and reproducible comparison measurements using calibration vessels that are almost backscatter-free

Function and system design

Solid state reference	The solid state reference with approx. 4.0 FNU/NTU is used for verification in any of the CUS52D sensors. The solid state reference is not assigned to a specific sensor and delivers measured values in the range of 4.0 FNU $\pm$ 1.5 FNU/NTU with all CUS52D sensors.
Large calibration vessel	The large calibration vessel is recommended for measurements or calibration operations in the low turbidity range (< 200 FNU/NTU). The different design versions and material selection enable measurements without wall effects. The calibration vessel can therefore be used to calibrate/adjust the sensor with ultrapure water.
Small calibration vessel	The large calibration vessel is recommended for measurements or calibration operations with a high turbidity range (200 to 1000 FNU/NTU). When measuring media with lower turbidity, reflections caused by the vessel wall result in distortions in the measured value.

Performance characteristics

Solid state reference	Approx. 4.0 $\pm$ 1.5 FNU/NTU
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Mounting

Installation instructions	► Secure the sensor with a laboratory stand. Recommendations for laboratory stand: <table> <tr> <td>Length of stand:</td><td>250 mm (9.84 in), 12 mm (0.47 in) diameter</td></tr> <tr> <td>Stand plate:</td><td>300 x 150 x 15 mm with bore at the front</td></tr> <tr> <td>Universal stand clamp:</td><td>Stainless steel, span 0 to 80 mm (0 to 3.14 in)</td></tr> </table> ► In the case of liquids with a higher turbidity, use a magnetic stirrer to ensure the medium is homogenous. Recommendations for magnetic stirrer: <table> <tr> <td>Motor power, output:</td><td>9 W</td></tr> <tr> <td>Speed range:</td><td>0/50 to 150 rpm</td></tr> <tr> <td>Stirrer length:</td><td>80 mm (3.14 in)</td></tr> <tr> <td>H₂O stirring volume:</td><td>Max. 20 l (5.28 gal)</td></tr> </table>	Length of stand:	250 mm (9.84 in), 12 mm (0.47 in) diameter	Stand plate:	300 x 150 x 15 mm with bore at the front	Universal stand clamp:	Stainless steel, span 0 to 80 mm (0 to 3.14 in)	Motor power, output:	9 W	Speed range:	0/50 to 150 rpm	Stirrer length:	80 mm (3.14 in)	H ₂ O stirring volume:	Max. 20 l (5.28 gal)
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H ₂ O stirring volume:	Max. 20 l (5.28 gal)														

Environment

Storage temperature	0 to 60 °C (32 to 140 °F) in the original packaging
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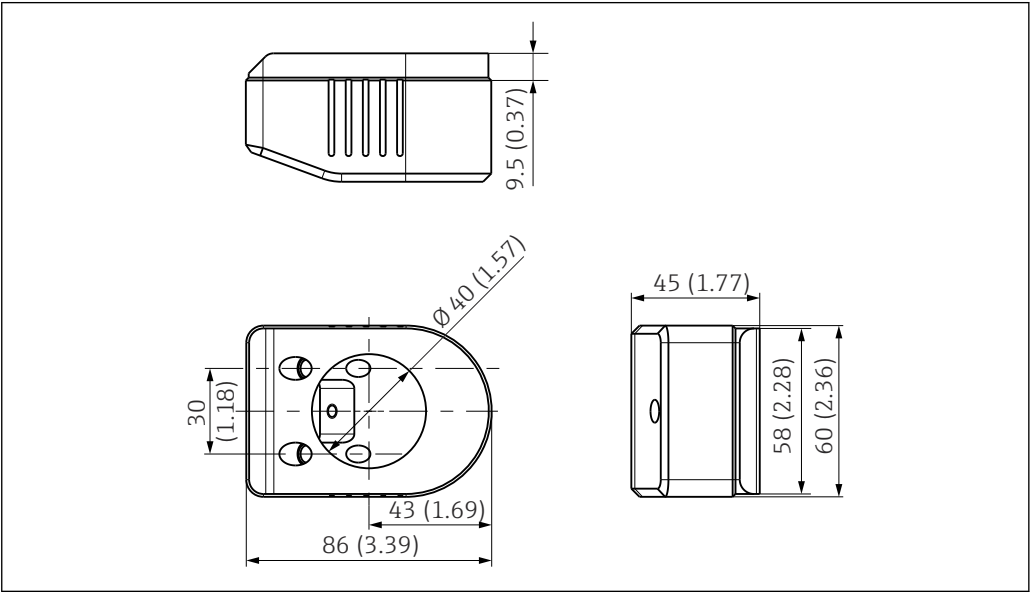
Process

Process temperature	0 to 50 °C (32 to 122 °F)
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Mechanical construction

Dimensions

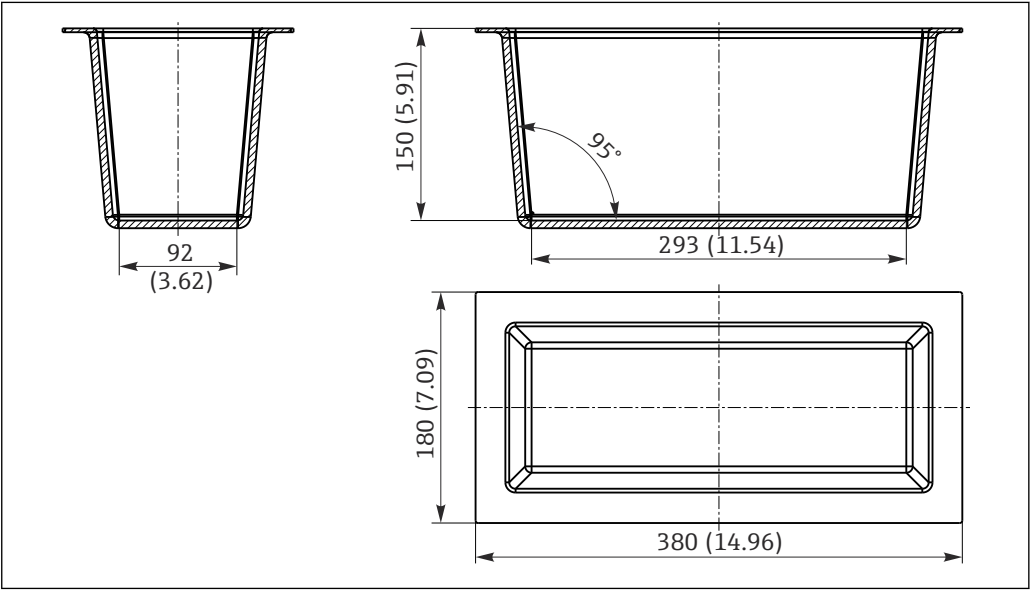
Solid state reference



A0030821

1 Dimensions in mm (in)

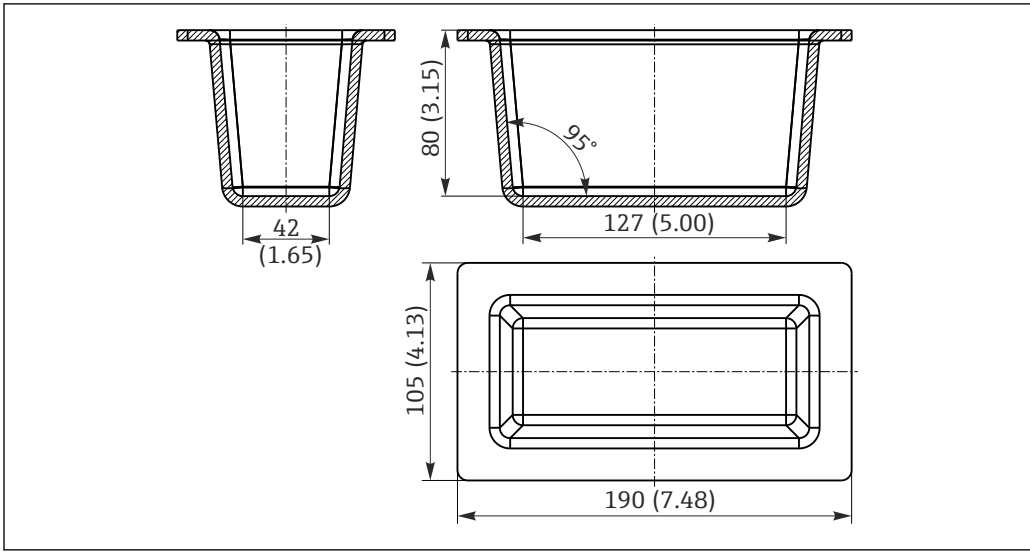
Large calibration vessel



A0051238

2 Dimensions in mm (in)

Small calibration vessel



A0051237

3 Dimensions in mm (in)

Weight	Calibration vessel, large:	Approx. 512 g
	Calibration vessel, small:	Approx. 136 g
	Solid state reference:	Approx. 232 g
Materials	Calibration vessels:	ABS black
	Solid state reference:	POM black

Ordering information

Scope of delivery	The scope of delivery includes: ■ The solid state reference and/or the calibration vessel in the version ordered ■ Operating Instructions CUY52 If you have any questions, please contact your supplier or your local sales center.
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Product page	www.endress.com/CUY52
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Product Configurator	1. Configure: Click this button on the product page. 2. Select Extended selection. ↳ The Configurator opens in a separate window. 3. Configure the device according to your requirements by selecting the desired option for each feature. ↳ In this way, you receive a valid and complete order code for the device. 4. Accept: Add the configured product to the shopping cart. i For many products, you also have the option of downloading CAD or 2D drawings of the selected product version. 5. CAD: Open this tab. ↳ The drawing window is displayed. You have a choice between different views. You can download these in selectable formats.
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