

Rosemount™ 550DW

Single-use Dissolved Oxygen Sensor Adapter for
Bioprocessing Applications



Features

Figure 1: Rosemount™ 550DW with Sensor Installed



Robust sensor adapter

- Sensor window compatible with standard dissolved oxygen sensors without reducing measurement performance.
- Adapts sensors designed for stainless steel bioreactors into single-use bags.
- Membrane allows for up to 10 psi (68.9 kPa) pressure without a sensor supporting.
- Compatible with 4.7 in. (120 mm) sensor with a PG13.5 process connector.
- All wetted materials are USP Class VI, ADI-free, and chosen for minimal extractables.

Ease of installation

- Reuse dissolved oxygen sensor across multiple batches without autoclaving, as it does not contact process solutions.
- Adapter arrives installed and gamma-irradiated with the single-use bioreactor bag.

Contents

Features.....	2
Ordering information.....	3
Specifications.....	4
Dimensional drawing.....	5
Accessories.....	6
Notes.....	7

Ordering information

The Rosemount™ 550DW dissolved oxygen window adapts the oxygen sensors known in stainless steel bioreactors. This adapter has been optimized to be used with the Rosemount Hx438 dissolved oxygen sensor and the Rosemount 56 transmitter for automatic temperature correction and software compatibility.

Table 1: Rosemount 550DW Single-Use Dissolved Oxygen Window

Option	Description
Measurement type	
DO	Dissolved oxygen
Sensor tip	
2	PEI - ULTEM™
O-ring material	
E	EPDM
Preamplifier	
0	No preamplifier
Cable connection	
NC	Cable connection part of sensor
Cable length	
000	No cable (cable ordered with sensor)
Sensor adapter	
A1	PG13.5 adapter
Material certification - optional level	
Q8	Material certification
Typical model string: 550DWDO2E0NC000A1Q8	

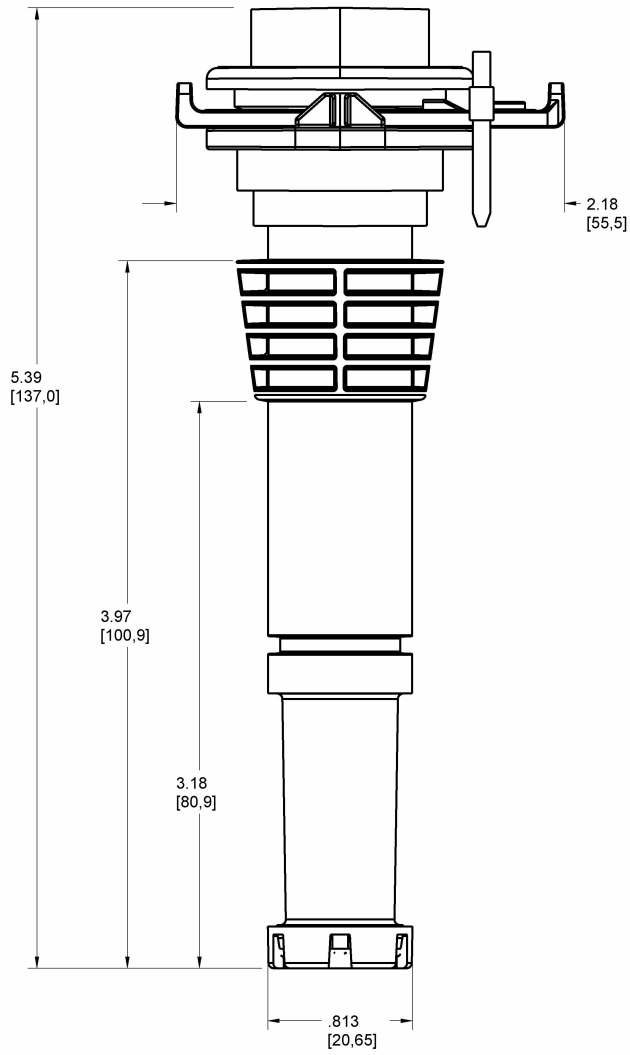
Specifications

Table 2: Rosemount™ 550DW Sensor Adapter Specifications

Wetted materials	PEI/ULTEM™, silicone, EPDM (all USP Class VI and ADI-free)
Operating temperature range	39 to 104 °F (4 to 40 °C)
Pressure range	0 - 10 psig, without sensor installed
Temperature compensation	See sensor manual for temperature compensation details.
Sensor diameter	0.5 in. (12 mm)
Sensor insertion length	4.72 in. (120 mm)
Process connection	PG 13.5
Optimized transmitters with automatic temperature correction	Rosemount 56 Dual Input Transmitter
Compatible sensors	Rosemount Hx438
Shelf life	3 years at 77 °F (25 °C)

Dimensional drawing

Figure 2: Rosemount™ 550DW



Accessories

Table 3: Rosemount™ 550DW Accessories

Part number	Description
9160493	16.4 ft. (5 m) cable for Rosemount Hx438, 4-pin connector, bare wire on transmitter end

For sensor accessories, please refer to the Rosemount Hx438 dissolved oxygen sensor [Product Data Sheet](#).

Notes

GLOBAL HEADQUARTERS

Emerson Automation Solutions
6021 Innovation Blvd
Shakopee, MN 55379, USA

📞 +1 800 999 9307 or +1 952 906 8888

📠 F +1 952 949 7001

✉️ liquid.csc@emerson.com

NORTH AMERICA

Emerson Automation Solutions
8200 Market Blvd
Chanhassen, MN 55317

📞 Toll Free +1 800 999 9307

📠 F +1 952 949 7001

✉️ liquid.csc@emerson.com

EUROPE

Emerson Automation Solutions
Neuhofstrasse 19a P.O. Box 1046
CH-6340 Baar
Switzerland

📞 T + 41 (0) 41 768 6111

📠 F + 41 (0) 41 768 6300

✉️ liquid.csc@emerson.com

MIDDLE EAST AND AFRICA

Emerson Automation Solutions
Emerson FZE
Jebel Ali Free Zone
Dubai, United Arab Emirates, P.O. Box 17033

📞 T +971 4 811 8100

📠 F +971 4 886 5465

✉️ liquid.csc@emerson.com

ASIA-PACIFIC


Emerson Automation Solutions
1 Pandan Crescent
Singapore 128461
Singapore

📞 T +65 777 8211

📠 F +65 777 0947

✉️ liquid.csc@emerson.com

 [Linkedin.com/company/Emerson-Automation-Solutions](https://www.linkedin.com/company/Emerson-Automation-Solutions)

 twitter.com/rosemount_news

 [Facebook.com/Rosemount](https://www.facebook.com/Rosemount)

 [youtube.com/RosemountMeasurement](https://www.youtube.com/RosemountMeasurement)

©2019 Emerson. All rights reserved.

The Emerson logo is a trademark and service mark of Emerson Electric Co. Rosemount is a mark of one of the Emerson family of companies. All other marks are the property of their respective owners.