



3D TRASAR

For Reverse Osmosis



3D TRASAR Wall Mounted Assembly for Reverse Osmosis Systems

Optimized RO performance

Process Assurance/Troubleshooting

Web Based Controller

Easy to Install

Easy to Configure

Easy to Operate



Description

The **3D TRASAR for Reverse Osmosis** is the control module for Reverse Osmosis scale inhibitor programmes that use RO TRASAR Technology. It monitors and controls scale inhibitor concentration based on the TRASAR level present in the feedwater or concentration stream.

The **3D TRASAR for Reverse Osmosis** generates a control signal by continuously measuring the exact level of TRASAR that is in proportion to the actual product concentration. This signal is used to precisely control new product addition so that treatment levels can be reliably maintained and your system can be protected from scale and fouling.

3D TRASAR continuously measures key system parameters, detects upsets, takes appropriate corrective action and communicates with system users. 3D TRASAR minimizes total cost of operation (TCO) and prevents operational problems.

For **municipal and seawater RO applications** requiring low dosages of TRASAR products, the 3D TRASAR for RO will measure TRASAR concentrations down to 0.5ppm.

Key Benefits

Optimized RO performance

Microprocessor-based fluorometer with PID control maintains exact levels of RO TRASAR product concentrations under varying operating conditions, challenging water quality and severe operating conditions.

Process Assurance/Troubleshooting

Internal datalogger stores critical information that verifies chemical feed to protect your RO system.

Web Based Controller Monitoring

The 3D TRASAR has the capability of connecting to Nalco advanced 3D TRASAR Website. The website provides a means to monitor system parameters in addition to remote alarm notification.

Measured Parameters

- TRASAR®
- ORP
- pH (Optional)

Easy to Install

Designed and tested to be compatible with DME Dosing Pumps (available separately).

Easy to Configure

User-friendly interface provides access to configurable pump logic that can be customized to meet the needs of any system. PID controller's "auto-tune" function makes calibrating your system a "snap".

Easy to Operate

Compact, rugged design minimizes maintenance requirements through the use of reliable solidstate components and the elimination of all moving parts. Specially designed quartz flow cell maintains high flow velocities and resists fouling.

Installation

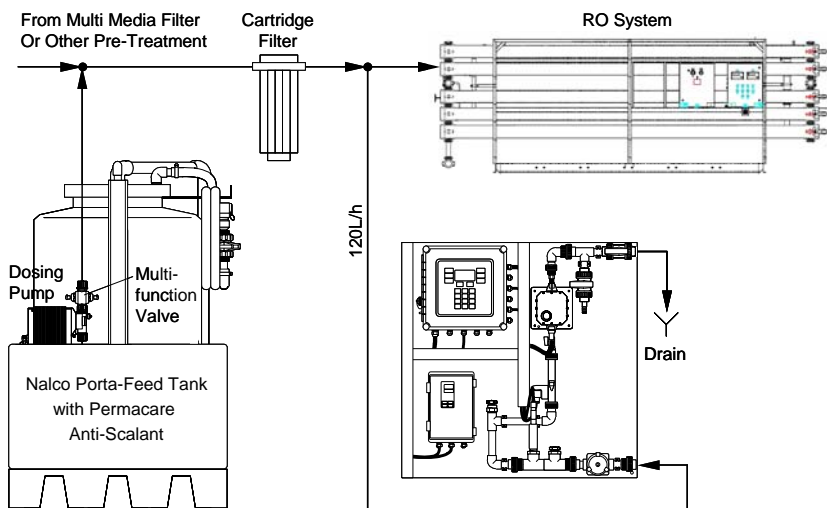
The 3D TRASAR for Reverse Osmosis Controller is designed for easy field installation. Installation consists of mounting controller, plumbing sample line and drain, configure controller with system parameters, supplying electrical service and wiring 4-20 mA control output.

To Order

Part No.	Description
060-ROM3500.88	3D TRASAR® RO Wall Mount
060-ROM3501.88	3D TRASAR® RO Frame Mount
6027251	Start-up kit with calibration solutions, syringes, cleaning brush, cleaning acid

The following accessories are included:

- 1 ea. Operation manual
- 1 ea. ORP probe
- 1 ea. Ethernet communications cable



Typical Installation

Specifications

Power Requirements:

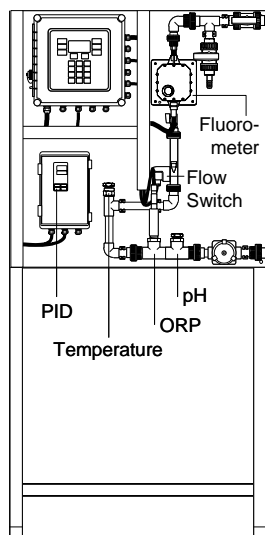
Universal power supply 120/240 VAC, 60/50 Hz @ 20 amps service

Flow Requirements: 120L/h

Drain Requirements: Unrestricted drain required for sample discharge

Piping: PVC PN16/PN10 with flow meter and flow switch

Connections: 25mm solvent weld PVC (3/4" fBSP PVC union connectors also supplied)



Floor Mounted Version on a SS frame

Dimensions:

- Wall mounted version (WxHxD): 0.85x0.85x0.30m
- Floor mounted version: (WxHxD): 0.85x1.75x0.70m

Enclosure: IP65

Ambient temperature: 5-50°C

Process water temperature: 5-50°C

Maximum water pressure: 5bar @ 40°C

Relative Humidity: 0-95% non-condensing

Inputs:

- (2) 4-20 mA unpowered non-isolated inputs (used for logging and alarm level call out.). One assigned to PID pump % output and the other is unassigned
- (1) Flow input (contact closure)
- (1) RO Interlock input (contact closure)
- (2) Spare digital inputs (contact closure) used to log input states or low frequency water meter counts

Outputs:

- (6) Control relay outputs rated 2.5 amps each (larger loads require external motor starters)
- (8) 4-20 mA powered non-isolated outputs

Alarms:

- (1) Alarm output relay (rated 1.0 amp max, unpowered)
- E-mail notification of alarm conditions (via modem to ISP or customer's LAN-based mail server.)

Display/Keypad: Numeric keypad plus specialty keys, graphical display with plotting functions

Security: Password protected (user assignable)

Data management: All variables are data logged in spreadsheet format

Communications:

- Ethernet port for direct PC connection
- Built-in modem for direct remote connection or access to 3D TRASAR Web via Internet (requires ISP)
- Modbus RS-232 or RS-485 (choose one) RTU SCADA port

Approvals: UL, CUL, CE

Software:

- 3D TRASAR Configurator for system configuration and data transfer
- Optional Vantage® 100 SPC software for comprehensive data management and analysis.

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