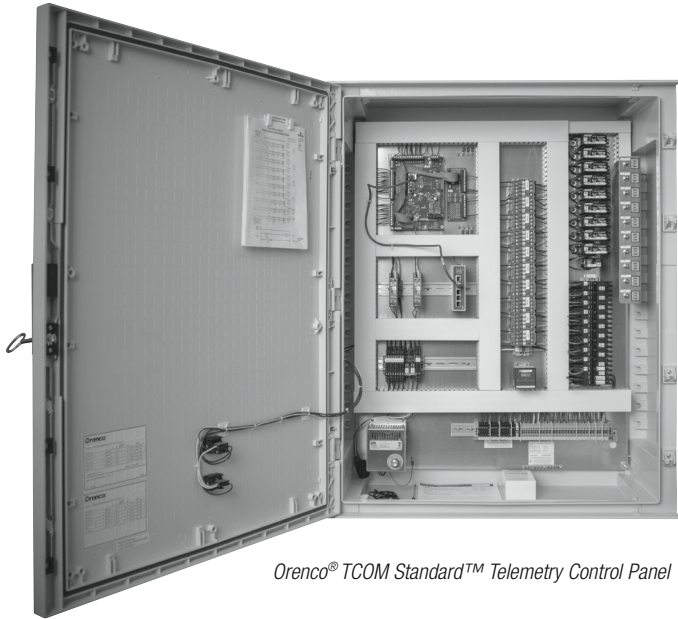# Standard TCOM Telemetry Control Panels

Applications

Orenco's Standard TCOM Telemetry Control Panels are a cost-effective, standardized means of providing custom pump and system controls in commercial and municipal AdvanTex™ Treatment Systems.
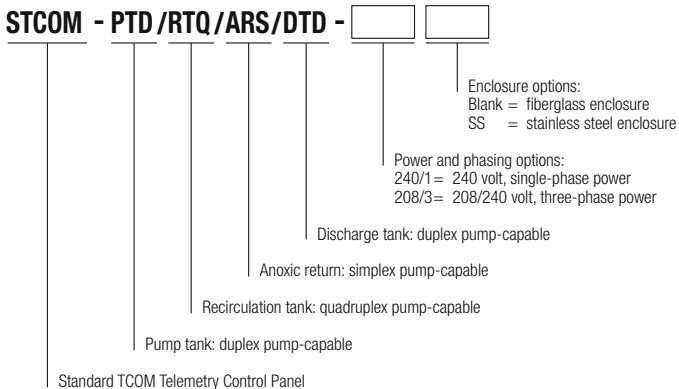

Orenco® TCOM Standard™ Telemetry Control Panel

Models

STCOM-PTD/RTQ/ARS/DTD-240/1
STCOM-PTD/RTQ/ARS/DTD-208/3
STCOM-PTD/RTQ/ARS/DTD-240/1-SS
STCOM-PTD/RTQ/ARS/DTD-208/3-SS

Product Code Diagram

STCOM - PTD /RTQ /ARS /DTD - ☐ ☐

Enclosure options:
Blank = fiberglass enclosure
SS   = stainless steel enclosure

Power and phasing options:
240/1 = 240 volt, single-phase power
208/3 = 208/240 volt, three-phase power

Discharge tank: duplex pump-capable

Anoxic return: simplex pump-capable

Recirculation tank: quadruplex pump-capable

Pump tank: duplex pump-capable

Standard TCOM Telemetry Control Panel

General

Orenco's Standard TCOM Telemetry Control Panels remotely monitor and control treatment systems with real-time efficiency, while remaining invisible to the public. They give wastewater system operators and maintainers the ability to use one control panel model for a variety of AdvanTex™ Treatment System layouts.

Standard TCOM panels retain the best features of Orenco's custom control panels, with added flexibility. Operators incorporate systems-specific operations by inputting key features to tailor the panel to the project.

For information on Orenco's custom TCOM panels, see NTD-CP-TCOM-1, *Orenco® ATRTU-TCOM Remote Telemetry Board*, and NTD-CP-TCOM-2, *Orenco® ATRTU-TCOM Telemetry Unit*.

Features

Start-Up Guide
• Easy-to-use, field-settable software and handy instructions allow operators to set TCOM Standard Temeletry Control Panels to any panel-supported configuration

Configuration Options
• Primary Tank (PTD) allows duplex pumps to run in alternating sequence, on demand or on a timer; feature can be turned off for gravity tank discharge
• Recirculation Tank (RTQ) allows as many as four pumps to be run off a timer for the recirculation system; manual timer settings, calculated timer settings, or automated timer settings can be chosen
• Anoxic Return (ARS) allows a single pump to be run off a timer using the same redundant off (RO) float switch used for the recirc pumping system; calculated timer settings or automated timer settings can be chosen; anoxic return feature can be turned off if not needed
• Discharge Tank (DTD) allows duplex pumps to run in alternating sequence, on demand or on a timer; feature can be turned off for gravity tank discharge

Power Options*
• Single-phase (240/1) 240V single-phase power to pumps
• Three-phase (208/3) 208/240V three-phase power to pumps

* 120V power is required to operate the panel
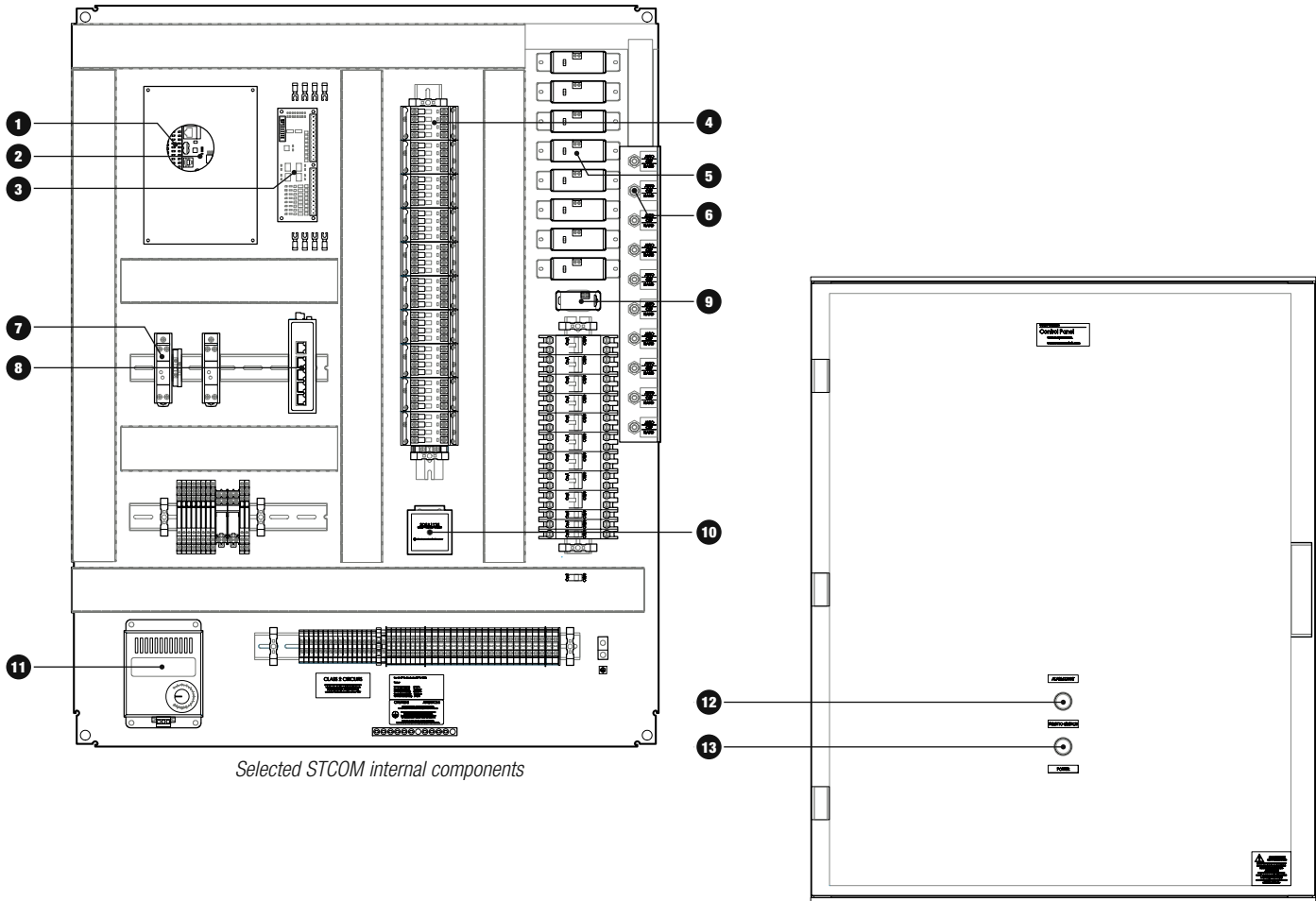
Ventilation Fan Controller
• Built-in ventilation fan controller programming; feature can be turned off for systems with passive ventilation

Flow Meter Data
• Built-in programming for receiving and using data from external flow meters via 4-20 mA signals; feature can be turned off for systems without external flow metering

Remote Connection
• Built-in mobile 4G modem for remote connectivity; built-in phone line or ethernet connectivity for areas with no mobile accessibility

Selected STCOM internal components

STCOM control panel door
(Not to scale with internal components illustration)

Components

Component	(Qty)	Specifications
Panel Enclosure	(1)	Standard: fiberglass-reinforced resin; 41 × 33 × 14 in. (1041 × 838 × 356 mm), nominal Optional: stainless steel, 39 × 31.5 × 12 (991 × 800 × 305 mm), nominal
1. ATRTU Processor Board	(1)	See NTD-CP-TCOM-2, *Orenco® ATRTU-TCOM Telemetry Unit*, for general information and specifications
2. ATRTU S-TCOM I/O	(1)	See NTD-CP-TCOM-2, *Orenco® ATRTU-TCOM Telemetry Unit*, for general information and specifications
3. ATRTU DIOXP	(1)	See NTD-CP-TCOM-1, *Orenco® ATRTU-TCOM Remote Telemetry Board*, for specifications
4. Motor Contactors	(10)	18 A, 3-phase, 110–120 V, 50/60 Hz, 16 FLA, 1.5 hp (0.75 kW), 60 hz; 2.5 million cycles at FLA (5 million at 50% of FLA)
5. Current Sensors	(8)	120 V, 0-40 A, 0-5 VDC output
6. Toggle Switches	(10)	Single-pole, single-throw, momentary manual switch; 20 A, 3/4 hp (0.75 kW)
7. Power Supply	(2)	24 VDC, 1.3 A, 30 W
8. Cell Router	(1)	LTE/G4 Verizon
9. Current Sensor	(1)	Solid state, 0.75-200 A, output type N.O, 0.5 A @ 250V AC/DC
10. Surge Arrestor	(1)	Single-phase, 2-wire, 120 V
11. Internal Heater	(1)	120V, 100W anti-condensation heater; self-adjusting: radiates additional wattage as temperature drops
12. Visual Alarm	(1)	7⁄8-in. (22-mm) diameter red lens; "Push-to-silence;" UL Type 4X rated, 1 W LED light, 120 V
13. Power Light	(1)	7⁄8-in. (22-mm) diameter green lens. UL Type 4X rated, 1 W LED light, 120 V
14. Audible Alarm, not shown	(1)	95 dB at 24 in. (610 mm), warble-tone sound