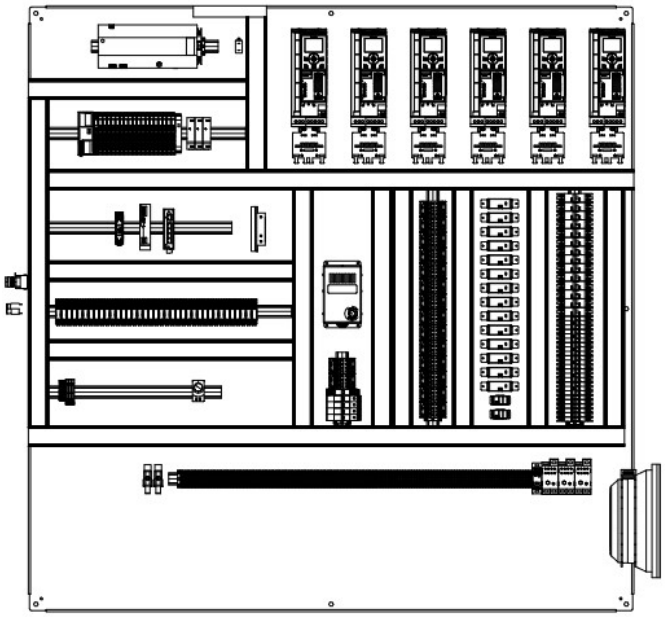
TCOM-XL Remote Telemetry Control Panels

Applications

Orenco TCOM-XL Remote Telemetry Control Panels provide operators and technicians with remote monitoring of advanced water and wastewater treatment systems.



TCOM-XL remote telemetry control panel

General

TCOM-XL remote telemetry control panels facilitate access and monitoring of advanced water and wastewater treatment systems. The fully customizable TCOM-XL controller comes programmed for each specified application and includes user-adjustable parameter settings, a built-in web server for remote and local access with any web-enabled device, and a user-friendly configuration interface with an intuitive menu.

With the controller, users can remotely do the following:

- Activate pumps based on inputs, adjustable times, or real time data
- Select and alternate between pumps
- Lock out the system for maintenance
- Manually override the pump controller or each pump
- Access the maximum single pump runtime feature
- Monitor pumps for over-temperature, seal failure, and overload conditions
- Export alarm-data logging and management to spreadsheet-compatible documents
- Receive alarm reports via remote access to email or SMS
- Add a cell modem including omni antenna with service plan
- Access alarms, tank cleanout, and pump-down options
- Adjust liquid levels using pressure or ultrasonic float switches
- Adjust pump setpoint controls for best efficiency and speed (VFD models only)
- View pump and system-calculated flow logs

Materials of Construction

Enclosure	Steel or stainless steel
Hinges and latches	Stainless steel

Controller Hardware

The TCOM-XL runs on a password-enabled CPU with a minimum 512MB RAM, built-in I/O, expansion capability, and on-board ethernet ports with an unmanaged 4-port switch. The hardware is programmed to IEC 61131-3 standards.

Controller Hardware Specifications

24VDC powered, sized for typical consumption (HMI and fused)
Programmed to IEC 61131-3 standards
Password-enabled; multi-level access with two-level minimum
DIN-rail mountable
Able to withstand up to a 35A inrush current at 24VDC
Noise resistance of 1kV for 50ns to 1ms
Minimum 512MB RAM
Built-in I/O
Expansion capability
On-board ethernet ports
One unmanaged 4-port switch
Suitable for operating temperatures of -13˚F to 140˚F (-25˚C to 60˚C)

Display Hardware

To interface with the CPU at the controller site, a color touchscreen monitor is mounted inside the panel. It displays at a minimum resolution of 320Wx240H pixels. The monitor's size is determined by how many system processes are operated on it.

- 1-3 processes – 7in minimum
- 4-5 processes – 10in minimum
- 6-8 processes – 15in minimum
- 9+ processes – 18in minimum

Display Hardware Specifications

Panel mounted
24VDC 250mA plus 25% power
65,536-color display
320w×240h minimum pixel resolution
-4˚F to 140˚F (-20˚C to 60˚C) operating temperature range
10% to 90% relative humidity range

Controller Software

The TCOM-XL controller communicates via MODBUS TCP/IP protocol and RJ45 ethernet ports. The controller sends alarm notifications via email or text.

Input/Output Specifications

Digital Inputs
24VDC sink or source voltage wiring
Input impedance of 3.4kΩ
Two unused spare inputs
Digital Relay Outputs
Inductive load rated for 2A at 240VAC/30VDC
Rated mechanical life of 20,000,000 operations
Switching load of 1mA/5VDC
Two unused spare outputs
Analog Inputs
Configured for 0-12V, 0-20mA, or 4-20mA
Suitable for operating temperatures of -13˚F to 140˚F (-25˚C to 60˚C)
Input impedance of 1MΩ max when configured as a voltage input
Input impedance of 50Ω max when configured as a current input
1ms or 10ms sample times
Maximum error is ±0.2% of full scale
12-bit resolution, with out-of-range detection
Filtering available
Two unused spare inputs
Analog Outputs
0-10V or 4-20mA 2-wire
Maximum current consumption 35mA
10ms sample time
Maximum error is ±0.2% of full scale
Two unused spare outputs