



Console Description	The TLS4 Automatic Tank Gauge is a compact, powerful, and expandable console. Its combination of precision performance, customization, and ease-of-use to deliver proven results make it ideal for small retail, commercial and industrial applications. The TLS4 has 12 universal sensor or probe inputs (when using only two-wire devices).	VEEDER-ROOT Marine Color Marine	
	Console Part # & Description	Standard Hardware & Application Software	
TLS4 Consoles, Standard Hardware & Software	1. 0860190-x20 TLS4 Console, Color Touch Screen Display, EDIM or CDIM, UL 2. 0860190-x10 TLS4 Console, No Display, EDIM or CDIM, UL 3. 0860160-x20 TLS4 Console, Color Touch Screen Display, EDIM, CDIM or IFSF, ATEX 4. 0860160-x10 TLS4 Console, No Display, EDIM, CDIM or IFSF, ATEX	Software – 0333434-001 Application Software (must be ordered with Console) includes Web-enabled, Custom Alarm, On-Console Help, Extended Storage, and Static In-Tank Leak Detection (SLD), for USTs only Hardware – Included with Console: Two Configurable RS-232/485 Serial Ports (Isolated), Three (Two Switched Network) Ethernet Ports, Two External USB 2.0 Ports, Two Relay Outputs (120/240VAC 5A; 30VDC 5A; Fuse Ratings 5A, 250VAC Type T (Slo-Blo)), One Low Voltage Input (max. contact closure ratings 12VDC 0.015A Class I wiring is required for 12 volt closure circuits)	
	Part # & Description		
TLS4 Optional Software	Continuous Statistical Leak Detection (CSLD), for USTs only	0333410-006	
	Business Inventory Reconciliation (BIR)/Hourly Reconciliation Mode (HRM)/Accuchart	0333410-012	
	Timed Sudden Loss Detection	0333410-018	
	Vapor Collection Monitor	0333410-021	
	Note: If software features are added to an existing console, the Feature Enhancement will be shipped with a kit that includes a wrist strap, manual, iButton holder and programmed iButton – 0333530-002.		
Optional Printer for TLS4 Series Consoles	Part # & Description		
	External Printer for TLS4 Series Consoles (Epson Model: TM-T88V)	0330020-832	
	Wall Mounting Bracket for External Printer for TLS4 Series Consoles	0330020-839	
Specifications			
Operating Temperature	+32 to +122°F (0 to +50°C)		
Storage Temperature	-40 to +158°F (-40 to +70°C)		
Installation Location	NEMA 4 or indoors; must maintain Operating Temperature requirement stated above.		
Relative Humidity	0-90% (non-condensing)		
External Dimensions	13" x 8" x 3.5" (33.02cm x 20.32cm x 8.89cm)		
Construction	16GA (0.060"/0.1524cm) powder coated steel		
Console Power Wiring Requirements	AC Power Wiring – Wires carrying 120 or 240VAC from power panel to the console should be #14 AWG (or larger) wire for line, neutral & chassis ground (3); and 4 sq. mm, rated for at least 90C for barrier ground.		
Probe & Sensor to Console Wiring Requirements	 Wire Type – Shielded cable required regardless of conduit materiel or application. Shielded cable must be rated less than 100 picofarad per ft manufactured with a suitable material such as Carol C2534 or Belden 88760, 8760, or 8770. Cable must be oil and gas resistant. Wire Length – maximum 1,000ft (304.8m) to meet intrinsic safety requirements. Improper system operation could result for runs over 1,000ft (304.8m). Wire Gauges – Color coded – shielded cable used in all installations. Wires should be #14 - #18 AWG stranded copper wire and installed as Class 2 circuits. As an alternate method when approved by the local authority having jurisdiction, #22 AWG wire such as 88761 may be suitable with the following requirements: wire run is less than 750ft (228.6m), Capacitance does not exceed 100 pF/foot, Inductance does not exceed 0.2 uH/ft. 		



TLS4 Automatic Tank Gauge

Specifications (continued)		System Compatibilities Guide		
	Either AC input or DC input, but not both.	Feature/Console	TLS4	
System Power Requirements	1. Universal AC power supply: 100 to 249VAC,	CONSOLE DESIGN		
	50/60Hz, 2A max. 2. DC power supply: +24VDC, 2A max. and +5VDC, 4A max. Um <= 250Vrms or 250VDC.	Modular/Expandable Features	•	
		LCD with Touch Screen	7" WVGA Color	
		Integral Roll Printer	N/A	
		Universal Power Supply	•	
		INVENTORY CONTROL		
Display Specifications	7" (17.78cm) Color WVGA LCD touch screen display	Graphical Inventory Status	•	
Display Specifications	1 (17.70cm) color WVGA LOD touch screen display	Complete Inventory Reports	•	
Data Storage Features	SD card	Programmable Auto Report Times	•	
Software Security Features	Centralized Device Management provides support for network-wide upgrades and backups.	Inventory Increase Report	•	
		Timed Sudden Loss Detection	Optional	
		CENTRALIZED DEVICE MANAGEMENT (CD		
		CDM Software	Optional	
		CDM Backup Feature	Optional	
	Front Panel Display control through user specific log-in;	CDM Change Management	Optional	
Custom User Access	User defined roles to restrict access/functionality.	BUSINESS INVENTORY RECONCILIATION (<u> </u>	
	Screen permissions can be limited to view, edit, perform.	Shift-Based Reconciliation	Optional	
		Reconciliation by Tank	Optional	
		TANK CALIBRATION		
		AccuChart™	Optional	
	Partitioned Ethernet Ports that can be used to	Multi-Pass Tank Calibration	Optional	
	separate user network from the internet	Single-Pass / Metered Drop	Optional	
	2. Port availability control: SSH Port (22), HTTPS Port	Limited Range Calibration	Optional	
System Security	(443), Serial Command Port (10001)	Supports Multiple Tank Charts per Tank	Optional	
.,	Reassign Port Numbers (i.e., HTTPS on 50443) System Integrator CVE Scans & Fixes Periodic System Updates to protect against persistent threats	Supports Multiple Line Manifold Tanks	Optional *	
		Graphical / Text Calibration Diagnostics	Optional	
		Automatic and Manual Meter Mapping	Optional	
		IN-TANK LEAK TEST	Optional	
		0.1 GPH Tank Tightness Testing	•	
0		0.2 GPH Tank Tightness Testing	•	
Customized Alarm Features	Customizable for all alarms	Continuous Statistical Leak Detection	Optional	
Approvals	UL cUL, ATEX, IECEx, NEPSI, FCC, FMC, PESO	Selectable Test Rates	•	
•••		Programmable Automatic Test Schedules	•	
Third Party Evaluations	Veeder-Root 8601 (nwglde.org)	PASS, FAIL, or INVALID Indicators	•	
Product Installation Guide	https://www.veeder.com/us/technical-document-library	LINE LEAK DETECTION		
		Integral Line Leak Detector	N/A	
		Programmable Line Test Features	N/A	
		INTERSTITIAL/SUMP LEAK SENSING		
		Tank Annulus	•	
		Sump	•	
		Dispenser Pan	•	
		Mag Sump	•	
		Sensor Location Identifiers	•	
		VAPOR WELL MONITORING	•	
		Hydrocarbon Vapor Detection	•	
		High Water Level Alarm	•	
		GROUNDWATER MONITORING	•	
		Hydrocarbon Liquid Detection	•	
		Low Water Alarm	•	
		AIR VAPOR MONITORING		
		Vapor Collection Monitor	Optional	
		ALARMS		
		Leak	•	
		Overfill	•	
		l 	1	
		High Level	•	
		High Level Sudden Loss	•	
with a TLS-XB Expansion Box		Sudden Loss	•	

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Example Illustrations

Illustrations used in this guide for example sensor installations may contain components that are customer supplied and not included with the sensor. Please check with your Veeder-Root Distributor for recommended installation accessories.

Third Party Evaluations

Third party evaluations of the Veeder-Root sensors contained in this application guide can be found under the Veeder-Root vendor name on the National Work Group on Leak Detection Evaluations (NWGLDE) website:

http://www.nwglde.org