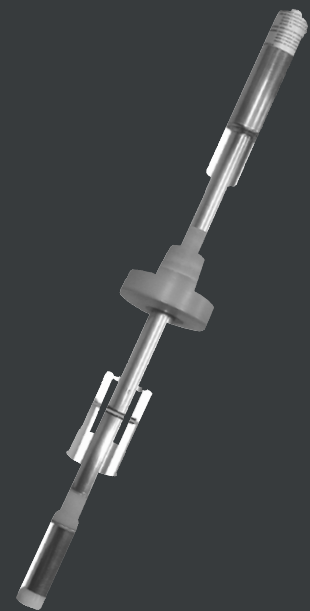


MCG 8150B

Rigid Magnetostrictive Level Probe

The MCG 8150B Rigid Magnetostrictive Level Probe is designed for terminal operators, refinery engineers, environmental compliance managers, and EPC instrumentation teams who require precise, continuous product and interface measurement in aboveground and underground storage tanks. Delivering ± 0.001 -inch resolution, dual-level detection, and five embedded RTDs for true average temperature, the 8150B provides custody-grade accuracy and supports API volume correction. Its rigid 316 stainless-steel construction ensures long-term durability in fuels, chemicals, and wastewater applications, while magnetostrictive sensing based on the Wiedemann Effect eliminates drift inherent in capacitive or mechanical systems. The probe meets EPA requirements for underground storage tanks and adapts easily to 2", 3", or 4" risers or flanged fittings, supporting both new installations and retrofit upgrades. With optional interstitial monitoring, point-switch functionality for overfill protection, and seamless communication over the L&J Tankway bus, the MCG 8150B integrates smoothly with L&J receivers for reliable data acquisition, environmental compliance, and tank integrity assurance across demanding industrial applications.



Key Features

High-Resolution Accuracy

Magnetostrictive sensing provides ± 0.001 -inch repeatability, delivering custody-grade measurement stability without drift for precise inventory, reconciliation, and interface monitoring.

Corrosion-Resistant Build

Rigid 316 stainless-steel construction withstands fuels, chemicals, and wastewater exposure, ensuring dependable service life and minimal mechanical degradation in harsh environments.

Dual-Level Detection

Two floats allow simultaneous measurement of product and interface levels, improving contamination detection and supporting BS&W or water-bottom monitoring.

Five-Point Temperature Averaging

Embedded RTDs capture accurate average product temperature, ensuring proper API 2540 volume correction and supporting regulatory and quality requirements.

EPA UST Compliance

Certified for underground storage tank applications, providing verified environmental monitoring performance and reducing liability associated with regulated fuel storage.

Integrated Point Switch

Built-in point-switch capability enables overfill or high-level alarms without extra hardware, simplifying installation and improving safety assurance.

Typical Applications



CUSTODY TRANSFER

Provides high-resolution, drift-free level data that supports accurate billing, reconciled inventories, and custody-transfer reporting for petroleum and chemical operations.



INTERFACE DETECTION

Dual-float measurement identifies oil-water or product-product interfaces, preventing contamination events and enabling timely tank maintenance actions.



ENVIRONMENTAL COMPLIANCE

EPA-listed design supports underground storage monitoring requirements, reducing compliance risk for fuel terminals and regulated facilities.



TEMPERATURE CORRECTION

Five RTDs deliver reliable average product temperature, preventing volume miscalculations caused by stratification or uneven thermal layers.



RETROFIT INSTALLATIONS

Standard 2", 3", and 4" openings and Tankway connectivity allow drop-in replacement for legacy probes without system rewiring.



OVERFILL PROTECTION

Integrated point-switch mode adds high-level alarm capability, reducing the number of devices required for safe tank-farm operation.

Benefits



Custody Accuracy

Magnetostrictive ± 0.001 -inch resolution eliminates drift and provides reliable, audit-ready inventory data across critical storage applications.



Durable Construction

Rigid 316 stainless-steel probe resists corrosion and mechanical wear, reducing maintenance and extending operational lifespan in demanding tanks.



Reliable Interface Sensing

Dual floats continuously detect water bottoms or BS&W, helping maintain product quality and preventing costly contamination issues.



Accurate Temperature Data

Five internal RTDs supply true average temperature values, ensuring accurate API-corrected volumes and improved product accountability.



Compliance Confidence

EPA UST approval and UL listed construction simplify permitting, enhance regulatory compliance, and reduce operational risk for fuel storage.



Easy Integration

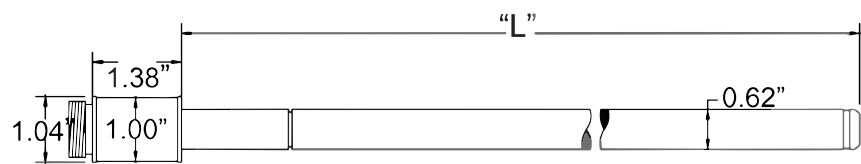
Tankway digital communication enables seamless connection to L&J receivers, supporting standardized wiring and simplified tank-farm automation.



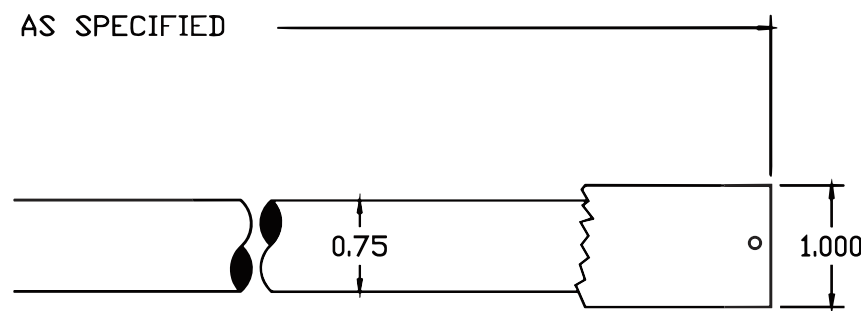
Technical Specifications
& Key Features

Measurement Technology:	Magnetostrictive (Wiedemann Effect)
Resolution:	±0.001 inch
Temperature Measurement:	Average temperature via five internal RTDs (0.01 °F resolution)
Probe Material:	316 Stainless Steel rigid tube
Float Options:	2" or 3" Polyurethane or Stainless Steel floats
Lengths Available:	2 ft (0.6 m) to 24 ft (7.2 m)
Communication Protocol:	L&J Tankway digital bus
Outputs:	Continuous digital level and temperature data; compatible with 1010M receiver
Mounting Options:	2", 3", or 4" NPT openings or ANSI flange
Operating Temperature:	-40 °C to +85 °C ambient; process rating per application
Temperature Accuracy:	±0.2 °F typical
Power Supply:	12 – 36 V DC (loop powered)
Approvals:	UL listed / EPA compliant for underground storage tanks
Maintenance:	No periodic calibration required; solid-state design
Construction:	Rigid 316 SS probe with hermetically sealed electronics head
Typical System:	Operates with L&J controllers for complete tank management solutions

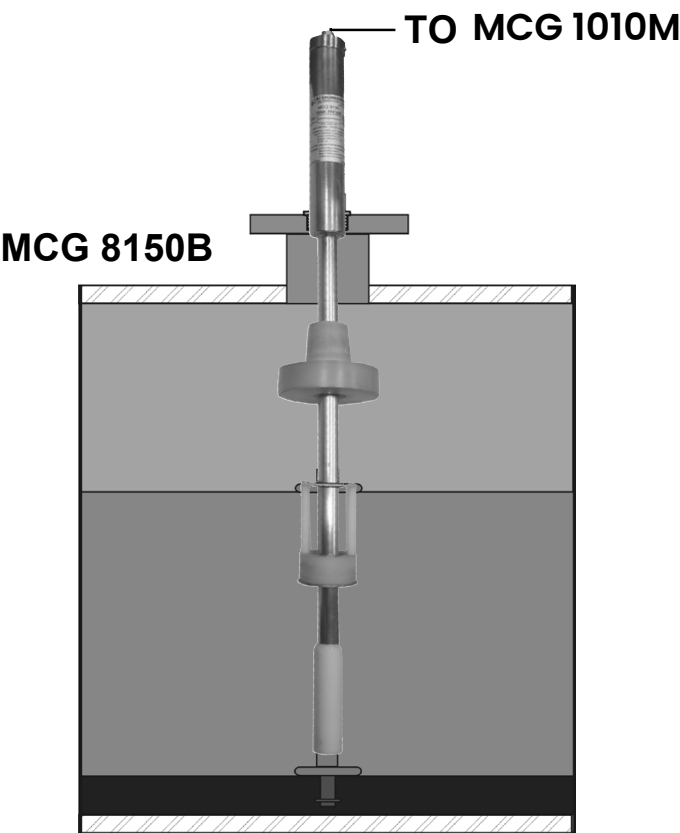
Dimensions



MCG 8150B



Typical System Layout



Model Number Selection

The model number will consist of a base number MCG 8150B followed by 6 digits.
These digits will represent 3 sets of option tables:

AB • TANK HEIGHT IN FEET	
AB	Rigid Probes (2'-24')
02	2' Tank (0.6 m)
04	4' Tank (1.2 m)
05	5' Tank (1.5 m)
06	6' Tank (1.8 m)
07	7' Tank (2.1 m)
08	8' Tank (2.1 m)
09	9' Tank (2.7 m)
10	10' Tank (3.0 m)
11	11' Tank (3.3 m)
12	12' Tank (3.6 m)
13	13' Tank (3.9 m)
14	14' Tank (4.2 m)
15	15' Tank (4.5 m)
16	16' Tank (4.8 m)
17	17' Tank (5.1 m)
18	18' Tank (5.4 m)
19	19' Tank (5.7 m)
20	20' Tank (6.0 m)
21	21' Tank (6.3 m)
22	22' Tank (6.6 m)
23	23' Tank (6.9 m)
24	24' Tank (7.2 m)

CD • 1 OR 2 LEVELS / INTERSTITIAL CAPABILITIES	
01	Product Level & BS&W With Interstitial Capability
02	Product Level & BS&W Without Interstitial Capability
11	Product Level Only With Interstitial Capability
12	Product Level Only Without Interstitial Capability

EF • FLOAT MATERIAL / OPENING SIZE*	
03	3" Polyurethane Float / 3" Opening
04	3" Polyurethane Float / 4" Opening
12	2.05" Stainless Steel Float / 2" Opening
13	2.05" Stainless Steel Float / 3" Opening
14	2.05" Stainless Steel Float / 4" Opening

*For other materials, consult factory.

Summary

With more than a century of tank-gauging innovation, L&J Technologies delivers precision, safety, and long-term reliability for industrial and petroleum storage. The MCG 8150B Rigid Magnetostrictive Probe combines custody-grade accuracy, robust stainless-steel construction, and proven EPA-compliant design to deliver unmatched performance in any storage environment. Whether for refinery inventory control, chemical process monitoring, or environmental compliance in UST installations, the MCG 8150B provides a cost-effective, drop-in solution that ensures safer operations, higher accuracy, and lower lifecycle costs— a standard trusted worldwide under the L&J Technologies brand.

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This document is for information purposes only. All designs subject to change. Certified dimensions, specifications, and performance data available upon request