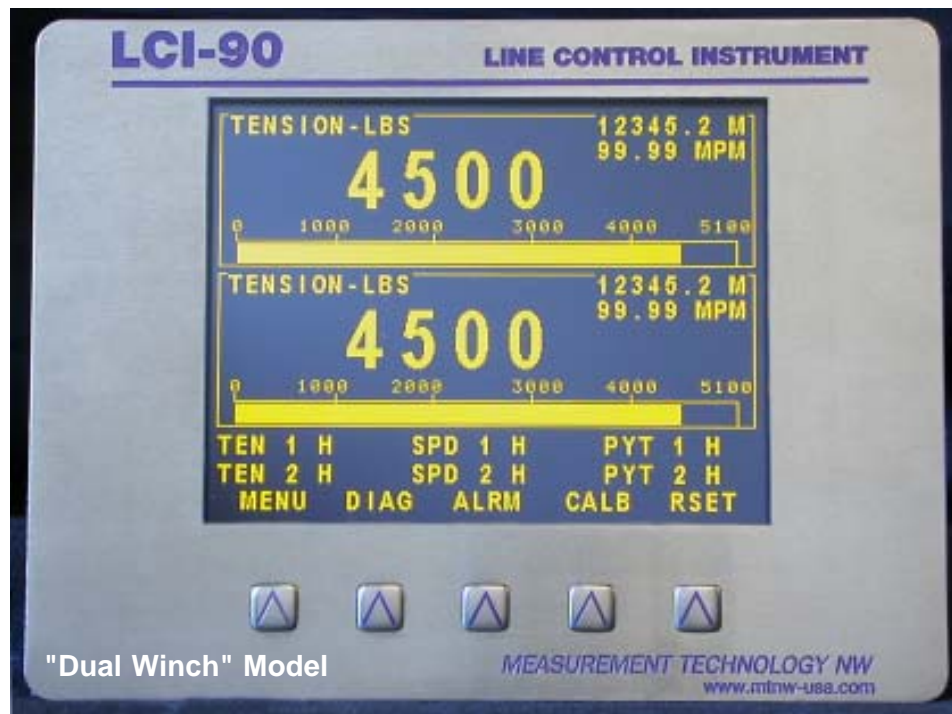


Single & Dual Winch Mooring Solutions



The LCI-90 display can monitor mooring line tension, payout, and speed in single or multi-winch applications. When paired with our running line tensiometers they provide a quick, accurate, and reliable means to monitor the real-time status of mooring lines and other winch activities.



Line parameters are displayed on a bright 320x240 electroluminescent screen for superb readability in all conditions. Multiple I/O channels and serial networking capability provide maximum flexibility in line parameter monitoring, remote viewing, and data logging.

MTNW's running line tensiometers are ideal for retrofitting existing winches to enable line parameter viewing. They feature a rugged, compact design, high accuracy sensors, and easy setup via a removable center sheave. Standard models are available for applications ranging from 20 to 800 KIPS, and wire rope diameters up to 4.25 inches.



Systems installed on rigs operated by Transocean, Frontier, NPCC, and other offshore producers.

LCI Display Systems - For Superior Line Control

LCI-90 Displays

Operator Interface Features

- Single and Dual winch systems available
- Full programmability via English language menus
- Independent calibration for each winch sensor
- Six alarms, independently linked to any parameter
- Real-time analog sensor calibration
- Network configurable with user-selectable LAN ID
- On-screen diagnostics for all channels
- Optional PC data logging interface
- View one or both winches simultaneously

General Specifications

Display	320 x 240 graphic, EL Readable in all conditions
Enclosure Size	H 5.7" x W 7.6" x D 5.0"
Operating Temperature	-40°C to 70°C standard
Environmental	Sealed, waterproof front panel Watertight console*
Option	Watertight rear enclosure

Instrument Specifications

Power	18-36 VDC Isolated, surge protected
Analog Input	4 channels 4-20 mA, 0-5 VDC, strain gauge* 0.01% full scale accuracy 1500 VDC Isolation*
Sensor Excitation	Regulated 12 and 5 VDC, 0.5 A 24 VDC unregulated, 0.2 A total
Analog Output	2 channels 4-20 mA, 0-10 VDC
Count Input (2)	Quadrature encoder, 5, 12-24 VDC Inductive proximity, Hall Effect 10 kHz Bandwidth
Digital I/O	4 channels Opto modules, NC/NO DC output and dry contact
Serial Communication	RS-485, isolated, 2 wire RS-232, 1 channel, non-isolated
Alarms	For any parameter High and low setpoints

Running Line Tensiometers

Standard Models

RL-1020K (Standard)
RL-1020K-SS (Stainless Steel)
Max Wire Rope Diameter: 1.25"
Line Tension Capacity: 20 KIPS

RL-1040K (Standard)
RL-1040K-SS (Stainless Steel)
Max Wire Rope Diameter: 1.25"
Line Tension Capacity: 40 KIPS

RL-1060K (Standard)
RL-1060K-SS (Stainless Steel)
Max Wire Rope Diameter: 1.25"
Line Tension Capacity: 60 KIPS

RL-20175K (Standard)
RL-20175K-SS (Stainless Steel)
Max Wire Rope Diameter: 2.0"
Line Tension Capacity: 175 KIPS

RL-30350K (Standard)
RL-30350K-SS (Stainless Steel)
Max Wire Rope Diameter: 3.0"
Line Tension Capacity: 350 KIPS

RL-40500K (Standard)
RL-40500K-SS (Stainless Steel)
Max Wire Rope Diameter: 4.25"
Line Tension Capacity: 500 KIPS

RL-40800K (Standard)
RL-40800K-SS (Stainless Steel)
Max Wire Rope Diameter: 4.25"
Line Tension Capacity: 800 KIPS

Construction

Frame: Alloy Steel w/Marine Grade coating
Fasteners: 316 Stainless Steel
Pins & Shafts: 316 Stainless Steel
Fixed Mounting Points & Tether Points

Sheaves: 4140 Alloy Steel
17-4 PH Stainless (Optional)
Bearings: Double Roller Bearings w/seals

Mechanical Overload (Ultimate): 300%
Electrical Overload (No Damage): 150%
Temperature Range: -20°C to 70°C
Accuracy: > 0.2 % (Load Pin)



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