



RUNNING LINE TENSIOMETERS

RUGGED, COMPACT AND ACCURATE LINE MONITORING FOR WIRE ROPE, EM, FIBER OPTIC AND SYNTHETIC CABLE SYSTEMS

Running Line Tensiometers (RLTs) are ideal for new and existing winches to enable line tension, speed, and payout monitoring – key variables for offshore mooring applications, cranes, towing, or for ensuring the safety of oceanographic payloads.

These models feature a rugged, compact design, high accuracy rotational and/or force sensors, and easy setup via removable sheaves. Standard models are available for applications ranging from 0–500 tons, and wire rope diameters up to 4.5 inches.

All units are constructed from thermoplastic coated tool steel with 316 stainless steel fasteners and 4340 hardened steel sheaves. When paired with an LCI-90i display, the system provides winch operators with real-time line parameter monitoring.

Three models are available, a removable center sheave version, a single side plate (SSP) version, and a new variable wire diameter (VWD) version.

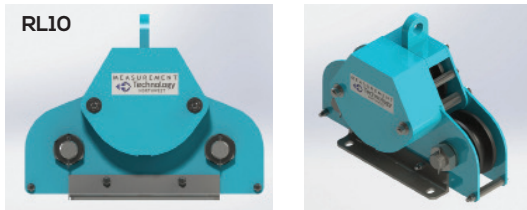
FEATURES AND BENEFITS

- Quick installation or removal
- Ideal for retrofit applications.
- Design validated by FEA and field-proven
- All electronics safely located in center sensing head
- Systems installed with Transcoean, Noble, Rowan, NPCC, and others
- High line speed rating under full load
- Sealed roller bearings rated for high static and dynamic tension loads
- Intrinsically safe sensors available as an option
- Compact and rugged, RLT's offer portability and can be relocated to other vessels of opportunity
- Variable wire diameter (VWD) version suitable for multiple wire rope sizes

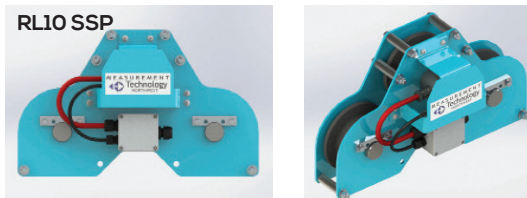
RLT MODELS

MODEL	WEIGHT	MAX TENSION	MAX WIRE DIAMETER	DIMENSIONS
RL05	27 lbs. / 13 kg	10 ton / 89 kN	1" / 25 mm	10.8" x 6.5" x 9.3" H
RL10	95 lbs. / 43 kg	45 ton / 400 kN	1.5" / 38 mm	19" x 10" x 15" H
RL10 SSP	60 lbs. / 27 kg	45 ton / 400 kN	1.5" / 38 mm	19" x 7" x 12" H
RL10 VWD	70 lbs. / 32 kg	45 ton / 400 kN	.5-1.5" / 13-38 mm	19" x 10" x 16" H
RL20	260 lbs. / 118 kg	150 ton / 1335 kN	2" / 52 mm	28.5" x 13" x 22" H
RL20 SSP	220 lbs. / 100 kg	150 ton / 1335 kN	2" / 52 mm	28.5" x 10" x 19" H
RL20 VWD	230 lbs. / 104 kg	150 ton / 1335 kN	1-2" / 25-52 mm	28.5" x 12" x 21" H
RL30	440 lbs. / 200 kg	375 ton / 3737 kN	3" / 80 mm	36" x 15.4" x 26.4" H
RL30 VWD	440 lbs. / 200 kg	375 ton / 3737 kN	2-3" / 52-80 mm	36" x 15.4" x 26.4" H
RL40	665 lbs. / 302 kg	500 ton / 4450 kN	4.5" / 115 mm	41" x 16.3" x 30.8" H

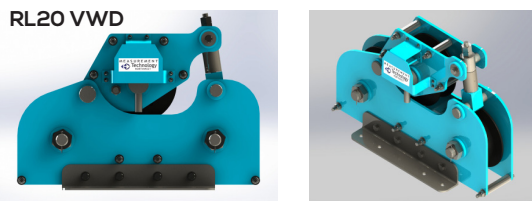
REMOVABLE CENTER HEAD ASSEMBLY



SINGLE SIDE PLATE ASSEMBLY



VARIABLE WIRE DIAMETER ASSEMBLY



CONSTRUCTION SPECIFICATIONS

Frame	Thermoplastic Coated Tool Steel
Fasteners	316 Stainless Steel
Pins & Shafts	17-4 PH Stainless Steel Fixed Mounting Points & Tether Points
Sheaves	4340 Alloy Steel (Standard) 17-4 PH Stainless (Optional) Machined Cast Nylon (Optional)
Bearings	Regreaseable Roller Bearings
Temperature Range	-20°C to 70°C
Tension Sensor	Load Pin, 4-20mA (3 wire) or mV/V High Tensile Stainless Steel Mechanical Overload: 300% (ultimate) Proofload: 150%
Count Sensor	Hall Effect (Quadrature output) 9-36 VDC Excitation Stainless Steel Housing
Payout Sensors	4-12 targets per sheave revolution
Enclosure	Intrinsically Safe available IP66 or better