SENTRAN

In Line Tension Link

UASeries

The UA Series is an extremely rugged, high performance tension link constructed of alloy tool steel or stainless steel. The UA Series is designed to accurately measure weight and force in capacities ranging from 0-3,000 lbs. to 0-400,000 lbs.

The UA Series is an extremely rugged, high performance tension link constructed of alloy tool steel or stainless steel. It is designed to accurately measure tension loads in rated capacities ranging from 0-3,000 to 0-400,000 lbs. Proprietary, axial "gun-bore" gauging techniques produce the benefits of relatively compact size and excellent environmental sealing. This tension link is Harsh Environment Sealed (IP67-Limited Immersion) by virtue of proprietary, multi-redundant barriers uniquely integrated to protect all internal components. This tension link has an integral MS connector with several mating connector/cable combinations available. The UA Series offers unique mounting capabilities to address application-specific requirements. The attributes of the UA Series make it ideal for crane/lift/winch loading, mooring line tension monitoring, guyline tensioning as well OEM requirements where a versatile, rugged solution is needed. The UA Series reliability produces exceptional performance for applications in aerospace, automotive, steel processing, off-shore, power generation, mining, material handling, wood/pulp/paper, petrochemical and similarly demanding applications.

APPLICATIONS

- Tension Measurements
- Crane, Lifting & Winch Systems
- Mooring Line Tension Measurements
- Guyline Tensioning

FEATURES

- Up to 400,000 lbs. Capacities
- Alloy or Stainless Steel Construction
- Application Versatility
- 0.25% Accuracy Class
- Excellent Overall Performance
- IP67 Environmental Sealing
- OEM and Custom Configurations
- Options and Accessories
- Two Year Warranty

QUALITY MANAGEMENT SYSTEM ISO 9001:2008 CERTIFIED

IP 67

For more information call **1-888-545-8988**

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UA Series Specifications

Innovative Measurement Solutions

PERFORMANCE	
Rated capacities [1] (lbs.)	3K, 4K, 5K, 6K, 10K, 20K, 25K, 50K, 60K, 75K, 100K, 125K, 150K, 200K, 250K, 300K, 400K
Rated output (FSO)	2 mV/V
Output Tolerance	Nominal
Combined Error Band	≤ 0.25 % FSO
Non-Linearity	≤ 0.25 % FSO
Hysteresis	≤ 0.25 % FSO
Non-Repeatability	≤ 0.2 % FSO
Side Load Rejection Ratio	500:1
Zero balance	± 2 % FSO
Creep (20 minutes)	0.05 % of Load

[1] ("K" = thousand)

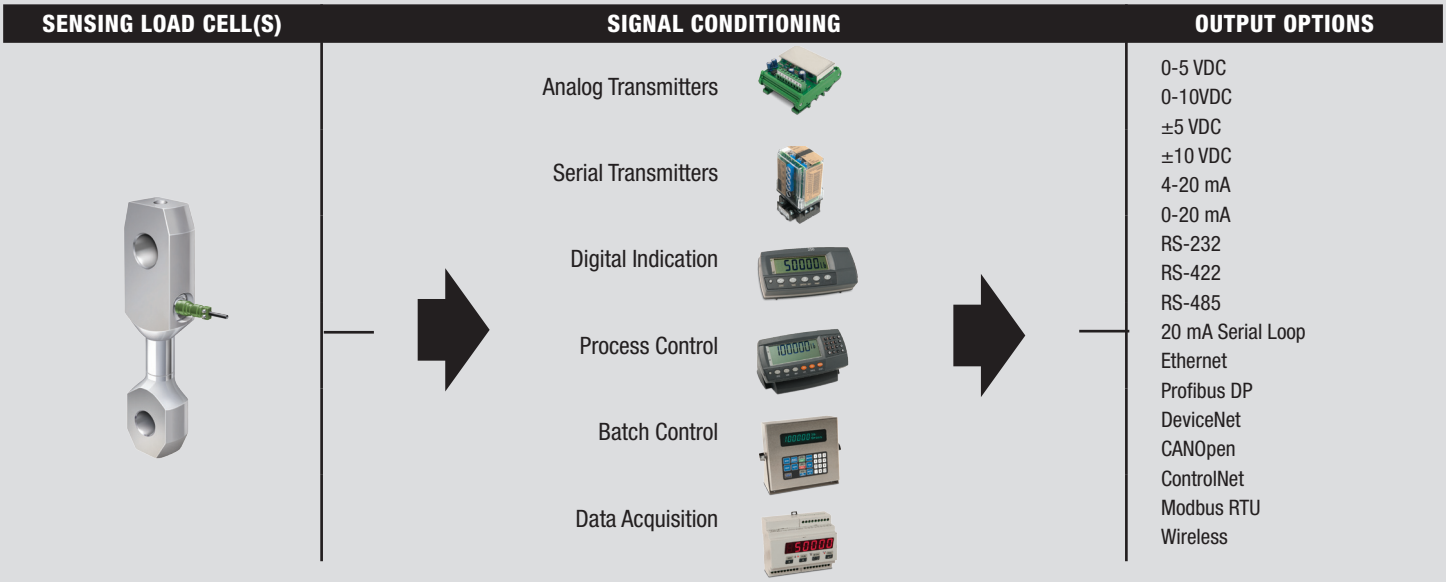
MECHANICAL	
Material	Alloy Tool Steel (UA1) 17-4ph Stainless Steel (UA3)
Finish	Natural
Safe overload	Compression 150 % FSO Tension 150 % FSO Side Load 100% FSO
Ultimate overload	Compression 300% FSO Tension 300% FSO Side Load: 200% FSO
Deflection	See Dimensions Table
Weight	See Dimensions Table

ELECTRICAL	
Input Impedance	350 (nominal)
Output Impedance	350 (nominal)
Insulation Resistance	>5000 Megohms @ 50VDC
Excitation Voltage	10 V AC/DC (15 V maximum)
Connector Pin Functions	+ Excitation (A) - Excitation (D) + (Optional) Remote Sense (E) - (Optional) Remote Sense (F) + Signal (B) - Signal (C) Shield (G)
Cable Color Code	+ Excitation (red) - Excitation (black) + Signal (green) - Signal (white) Shield (natural)
Cable Type	4-conductor, 22 AWG, Polyurethane Jacket, Tinned Copper Braid, Diameter: 0.220"
Cable Length	See Dimensions Table
Cable Termination	Finished Conductors
Cable Seal	Compression Gland Fitting

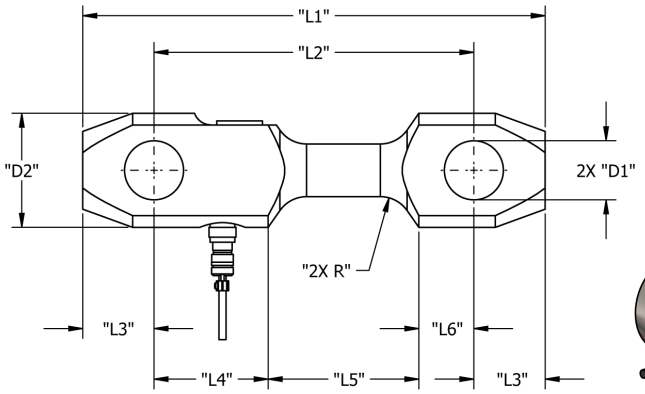
ENVIRONMENTAL	
Temperature, Operating	-65 to +250 °F (-54 to +120°C)
Temperature, Compensated	15 to +115 °F (-9 to +46°C)
Temperature, Storage	-65 to +300 °F (-54 to +149°C)
Temperature Effects	Zero < 0.005% FSO/°F < 0.009% FSO/°C
Temperature Effects	Output < 0.008% of Rdg./°F < 0.014% Rdg./°C
Sealing	IP67; Multi-redundant; Limited Immersion Tolerance

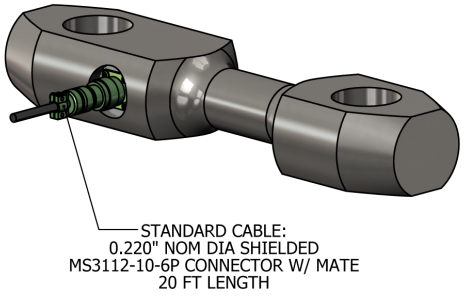
The temperature ratings provided do not include the companion cable/connector assembly. If PUR or PVC cable is employed, the maximum operating temperature is 180°F (82°C)

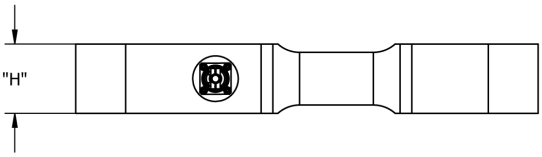
UA Typical System Configuration



UA Dimensions



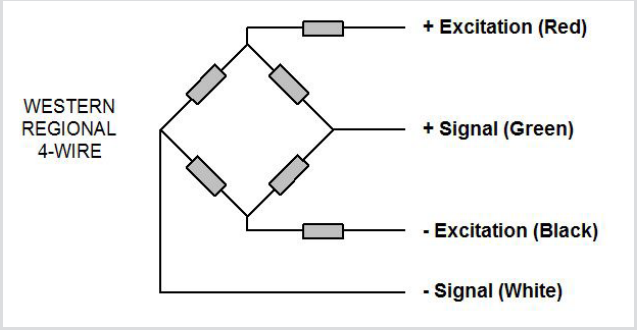




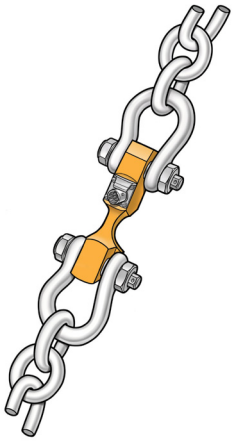
Dimensions in Inches

Capacity (K LBS)	H	L1	L2	L3	L4	L5	L6	D1	D2	R	Deflect	Weight
						DIMENSIONS (INCHES)						
3	1.44	7.00	5.25	0.88	2.56	2.31	0.36	0.625	2.00	0.50	0.005" NOM	1.3 LBS
4	1.44	7.00	5.25	0.88	2.56	2.31	0.36	0.625	2.00	0.50	0.005" NOM	1.3 LBS
5	1.44	7.00	5.25	0.88	2.63	2.25	0.36	0.625	2.00	0.50	0.005" NOM	1.3 LBS
6	1.44	7.00	5.25	0.88	2.63	2.25	0.36	0.625	2.00	0.50	0.005" NOM	1.3 LBS
10	1.44	9.25	6.75	1.25	3.06	2.63	1.06	1.000	2.00	0.50	0.005" NOM	2.0 LBS
20	1.44	9.25	6.75	1.25	3.00	2.69	1.06	1.000	2.00	0.50	0.005" NOM	5.5 LBS
25	1.44	9.25	6.75	1.25	2.94	2.75	1.06	1.000	2.00	0.50	0.005" NOM	5.5 LBS
50	1.50	12.00	8.50	1.75	3.06	3.94	1.56	1.375	2.88	1.00	0.005" NOM	10.5 LBS
60	1.50	12.00	8.50	1.75	3.06	3.88	1.56	1.375	2.88	1.00	0.005" NOM	10.7 LBS
75	1.81	12.88	9.00	1.94	3.06	4.38	1.56	1.563	3.25	1.00	0.005" NOM	15.0 LBS
100	2.13	14.19	9.81	2.19	3.50	4.63	1.69	1.813	3.50	1.00	0.005" NOM	19.2 LBS
125	2.25	15.25	10.50	2.38	3.93	5.13	1.44	2.000	3.88	1.00	0.005" NOM	24.0 LBS
150	2.50	15.88	10.75	2.56	3.38	5.31	1.06	2.250	4.13	1.00	0.005" NOM	30.0 LBS
200	2.75	17.25	11.63	2.81	3.44	5.94	1.25	2.500	4.75	1.00	0.005" NOM	41.0 LBS
250	3.00	18.88	12.75	3.06	4.50	5.75	1.50	2.750	5.25	1.00	0.005" NOM	54.0 LBS
300	3.25	20.63	14.25	3.19	5.00	6.50	2.75	3.000	5.75	1.00	0.005" NOM	69.0 LBS

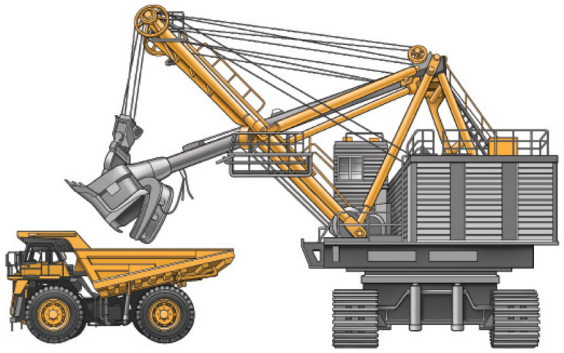
UA Wiring Diagram



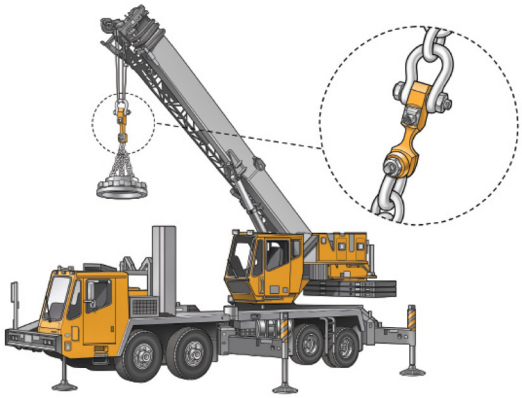
Dog Bone Through Hole



Excavating



Mobile Crane



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