

SG-01

CABLE SENSOR

FEATURES

- For overload and load measurement up to 160 kN
- Overload admissible force: 300 kN
- Sensitivity: 1.2 mV/V
- Designed for rope diameter: 16 mm
- High reliability for strict safety requirements
- Developed for use in hostile environments
- Protection class: IP67



Fig. 1: SG-01 Cable sensor

DESCRIPTION

The SG-01 Cable Sensor is designed for providing load monitoring of permanent and temporary anchors and allows continuous measuring either by a direct or remote control system.

The specific design allows the use of a SG-01 Sensor in harsh, tropical or harbor environments.

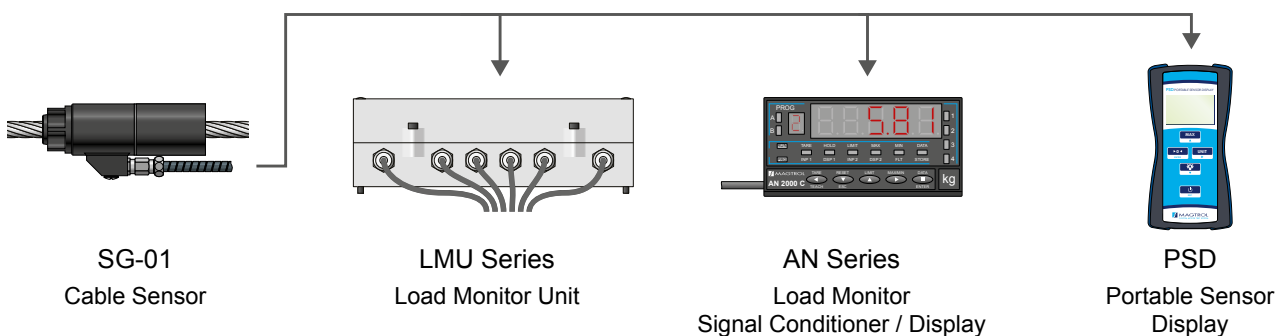
APPLICATIONS



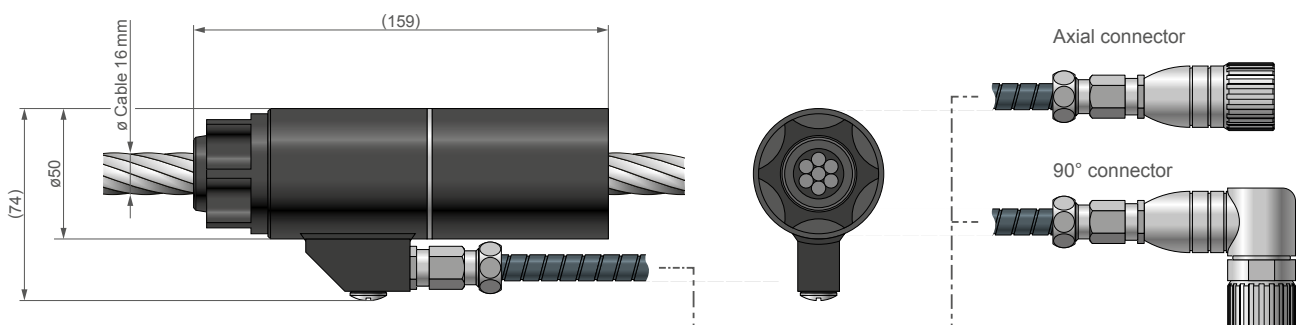
The SG-01 is particularly suitable for bridge strand and stay cable permanent mounting under hostile environmental conditions.

It is the perfect transducer to monitor rope tension in a wide range of applications

SYSTEM CONFIGURATION



DIMENSIONS



SPECIFICATIONS

MEASUREMENT

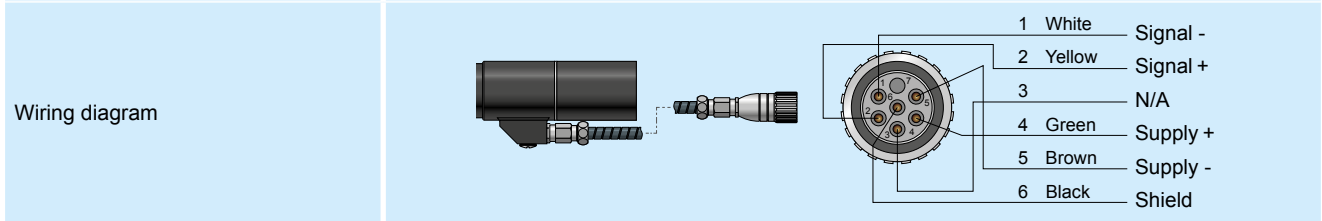
| | |
|-------------------------------|-----------------------------|
| Nominal Load (NL) | 160 kN |
| Admissible Overload (% of NL) | 150 % |
| Overload Limit | 300 kN (sensing part alone) |

ENVIRONMENT

| | |
|--------------------------------------|--------------------------|
| Nominal Temperature | -10 °C ... +70 °C |
| Operating Temperature Range | -40 °C ... +80 °C |
| Protection class | IP67 |
| Temperature Influence on Zero | ≤ ±0.01 % / K |
| Temperature Influence on Sensitivity | ≤ ±0.01 % / K |
| Compensation of the Zero | between -5 °C ... +60 °C |

ELECTRICAL CHARACTERISTICS & CONNECTION

| | |
|---------------------------|---|
| Nominal Sensitivity | 1.2 mV/V |
| Supply Voltage | max. 10VDC |
| Connection Cable Assembly | Integrated 1.5m cable with connector + extension cable 0.5m + counter-connector |



SYSTEM OPTIONS & ACCESSORIES

LMU SERIES - LOAD MONITORING UNIT



Fig. 2: LMU 217 | Load Monitoring Unit

The Magtrol Load Monitoring Unit is specially designed for strain gauge transducer applications. Specifically developed for use with Magtrol load measuring pins and load-force-weight sensors, the LMU Series provides excitation current and amplifies the output signal of full-bridge strain gauges. Configurable relays and analog outputs are also available.

Its IP65 aluminum housing allows the system to be used in harsh environments.

Further information on accessories are available in their specific data sheets.

AN SERIES - LOAD MONITOR DISPLAY WITH INTEGRATED SIGNAL CONDITIONER



Fig. 3: AN Series | Load Monitor Display with integrated signal conditioner

The AN Series Load Monitor is designed to process and display signals coming from various types of transducers (weight, load, pressure, torque, etc.) that use standard strain-gauge bridges.

The basic instrument is a soldered assembly composed of a main board, a tri-color programmable display and a power circuit. Standard features include the reading of the input variable as well as remote hold, reading and memorization of max and min values (peak / valley), tare and reset function.