# WIRE ROPE LOAD CELL

## TYPE 5500

CE

| Rev. | Date | Reason |
|---|---|---|
| 1 | 10/04/2018 | Update of the DECLARATION OF CE CONFORMITY |
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## 1. INSTRUCTIONS FOR USING WIRE ROPE LOAD CELL 5500

### 1.1. Cell installation

1. There should be no load on the cable when installing the cell.
2. The cell must be installed on the loading point side, at, at least, 15-50 cm (15-20 X cable diameter) from it.
3. The cell should be installed on the cable vertically, the protecting box being set on top. (When 2 clamping jumpers are delivered with the load cell, choose the one corresponding to the diameter of the cable).
4. Check that the cable is installed along the central median, parallel to the load cell.

### 1.2. Cable installation

Before calibrating, it is necessary to hoist the nominal load at least five times for the cable to be correctly inserted into the load cell. This step is mandatory and must be achieved so that the load cell can give coherent output signal.

### 1.3. Calibration

If it is not possible to hoist the nominal load for calibration:

- For the 1TTSA load cells, it is mandatory to hoist at least 90% of the nominal load.
- For the 1TSA, 3A and 4A load cells, hoist at least 80 % of the nominal load.
- For the load cells 1A, 2A and 1SA, hoist at least 60 % of the nominal load.

If the load cell has been dismantled, it is necessary to re-calibrate the system.

### 1.4. Change of cable

For all change of cable, it is necessary to re-calibrate the load limitation chain and to call back the control organisation.
Nevertheless, in some cases, the change of cable can be allowed if the limitation on the bridge is 100% of the nominal load instead the 105…110% in order to take into account any possible errors linked to the mounting / dismounting and changing of the cable.

### 1.5. Use features

| | | 5500 | 5500-C | 5500-J | 5500-t |
|---|---|---|---|---|---|
| Type | | Resistive | 4-20 mA 2 wires | 4-20 mA 3 wires | 0-10 V 3 wires |
| Compensated temperature range | | from - 10° to + 45° C | | | |
| Operating temperature range | | from – 30° to + 80° C | | | |
| Storage temperature range | | from – 50° to + 85° C | | | |
| Power supply (VDC) | | 5…10 …12 | 15 – 28 not regulated | 10 - 30 not regulated | 10 - 30 not regulated |
| Bridge impedance (Ω) | | 350 ±30 | (5000) | (350) | (350) |
| Load impedance (Ω) | | NA | 0.1 – 1k | 0.1…0.3k | > 10k |
| Nominal signal range | Min. | 0 - 0.5 mV/V | 9 mA | 4 - 9 mA | 1 - 5 V |
| | Max. | 0 - 1.7 mV/V | 22 mA | 4 - 22 mA | 0.2 – 5.6 V |
| Electrical saturation | | > 2 mV/V | > 24 mA | > 24 mA | > 5.6V |
| Normal drift (zero) %/°C | | < 0.01 | < 0.03 | < 0.03 | < 0.03 |
| Normal drift (span) %/°C | | < 0.01 | < 0.025 | < 0.025 | < 0.02 |

## 2. DRAWINGS AND WIRING DIAGRAMS

# LOAD CELLS

## model 5500

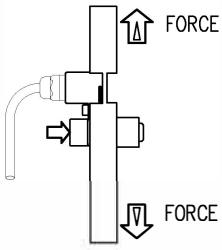
## WIRE ROPE LOAD CELL

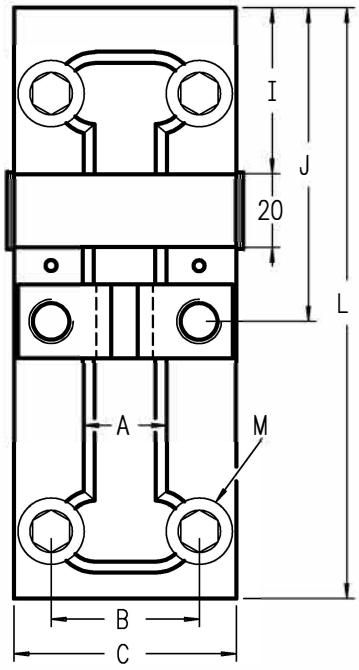
Range cable ø 6–46 mm IP65

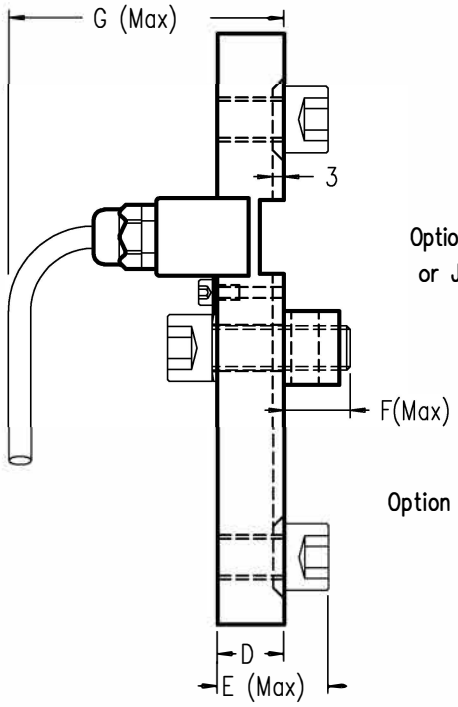
Cable length : See table (CL)

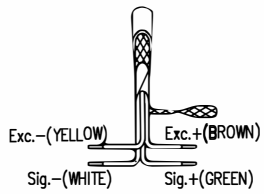
(Hoisting)

Standard cable

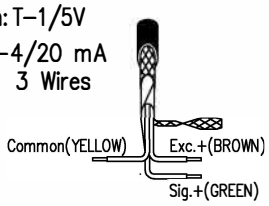


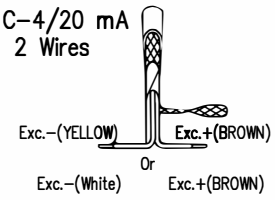




Option: T–1/5V
or J–4/20 mA
3 Wires

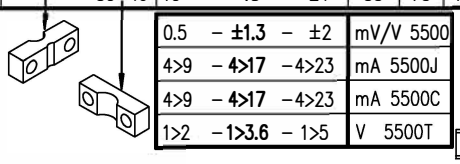



Option C–4/20 mA
2 Wires




| MODEL | | CABLEø (mm) | LOAD t.(2) Min–NOMINAL–Max | ±A | B | C | D | E | ±F | G | I | J | L | M | Torque (Optimum) | CL(m) | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1TTSA(3) | 1TTSI | 6/9–10/15 | 0.25 – **0.8** – 1.2 | 20 | 40 | 60 | 18 | 30 | 31 | 100 | 45 | 85 | 160 | M12 | 10 Nm | 3 | 1.75 kg |
| 1TSA (1) | 1TSI | 6/9–10/15 | 0.4 – **1.1** – 1.5 | | | | | | | | | | | | 15 Nm | | 1.8 kg |
| 1SA (1) | 1SI | 6/9–10/15 16–22 | 0.75 – **2** – 2.8 | | | | | | | | | | | | | | |
| 1A (1) | 1I | 6/9–10/15 16–22 | 1.6 – **3.5** – 5 | | | | | | | | | | | | | | |
| 2A (1) | 2I | 14–28 | 2 – **5** – 7 | 20 | 50 | 75 | 18 | 30 | 40 | 100 | 45 | 85 | 160 | M12 | 20 Nm | 3 | 2.1 kg |
| 3A | 3I | 26–36 | 5.5 – **10** – 16 | 25 | 68 | 100 | 25 | 41 | 55 | 115 | 55 | 95 | 200 | M16 | 25 Nm | 6 | 4.3 kg |
| 4A | / | 30–46 | 10 – **15** – 24 | 35 | 75 | 115 | 26 | 46 | 70 | 116 | 55 | 110 | 230 | M20 | 50 Nm | | 5.7 kg |

| | |
|---|---|
| 0.5 – **±1.3** – ±2 | mV/V 5500 |
| 4>9 – **4>17** – 4>23 | mA 5500J |
| 4>9 – **4>17** – 4>23 | mA 5500C |
| 1>2 – **1>3.6** – 1>5 | V 5500T |



Stainless steel

(1) Alloy steel=Label VGS

(2)Table detailing sensitivity and SENSY electronics limits for each cable diameter, available upon request

(3)Only in version 5500J 4–20 mA 3 wires




Cable screen not connected to transducer
Option f : Cable screen connected to transducer (6 wires cable in option)
Cable screen connected to transducer for option t,C,J

Rev.15/11/2015

## 3. DECLARATION OF CE CONFORMITY

SAFETY COMPONENTS PUT ON THE MARKET SEPARATELY

We certify that the above mentioned material has been manufactured and tested according to our quality standard specifications and all the applicable rules according to CE directives :

- ☒ European Directive 2011/65/EU related to the restriction of the use of certain hazardous substances in the electrical and electronic equipment (RoHS)
- ☒ Safety / low voltage European Directive 2014/35/EU
- ☒ European Directive 2014/30/EU related to "Electromagnetic compatibility"
- ☒ European Directive 2006/42/EC "Machinery Directive" related to safety components
- ☐ Directive européenne 2014/53/UE relative à l'équipement radio

CONCERNED ITEMS

- Models 5500 (resistive load cell)
  Electronics associated: CRANE-BOY, BRIDGE-BOY, INDI-BOY, SAFETY-BOY

- Models 5500-C and 5500-J (amplifier 4 – 20 mA integrated)
  Electronics associated: CRANE-BOYP, DISP-BOYP

These load cells have been designed for hoisting devices and may be used with other electronic load limiters. In this case, to be in accordance with the CE requirements the customer has to verify the right compatibility between the electronic (in accordance with referred directives in industrial environment) and SENSY load cells.
Load cells for hoisting have been proof-loaded at twice the nominal capacity in our factory (200 % nominal capacity) as mentioned in their dimensional control certificate. This information is written on the individual control certificates.

REGULATIONS

- ☒ ISO 13849-1 **PI « c »**
- ☒ Rule FEM 9761
- ☒ NBN 52-010 / 52-011
- ☒ EN**61326 (2006)**

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