# ATEX/IECEx JUNCTION BOXES

## AISI 304 STAINLESS STEEL

LAUMAS®

II 1G Ex ia IIC T4 -20 °C ≤ Tamb +60 °C
II 1D Ex ta IIIC T85°C -20 °C ≤ Tamb +60 °C



- AISI 304 STAINLESS STEEL JUNCTION BOX
- IP67 PROTECTION RATING
- 4/6 WIRES LOAD CELLS CONNECTION
- EARTH TERMINAL

| | DESCRIPTION | MODEL |
|---|---|---|
| | **EQUALIZATION BOARD** | |
|  | ▪ Up to 4 load cells connection.<br>▪ 4+1 polyamid cable glands M16x1.5 - plugs. | CE41ATEX |
|  | ▪ Up to 8 load cells connection.<br>▪ 8+1 polyamid cable glands M16x1.5 - plugs. | CE81ATEX |
|  | ▪ Up to 4 load cells connection.<br>▪ 4+1 polyamid cable glands M12x1.5 - plugs. | CE41PATEX |

## CERTIFICATIONS

ATEX/IECEx *(zone 1-21)*

Complies with the Eurasian Customs Union standards

Equivalent of the CE marking for the United Kingdom

| | CERTIFICATIONS ON REQUEST |
|---|---|
| EAC Ex | Complies with the Eurasian Customs Union standards for use in potentially explosive atmospheres |
| Ex NEPSI | Complies with Chinese market regulations for use in potentially explosive atmospheres |

# ATEX/IECEx JUNCTION BOXES

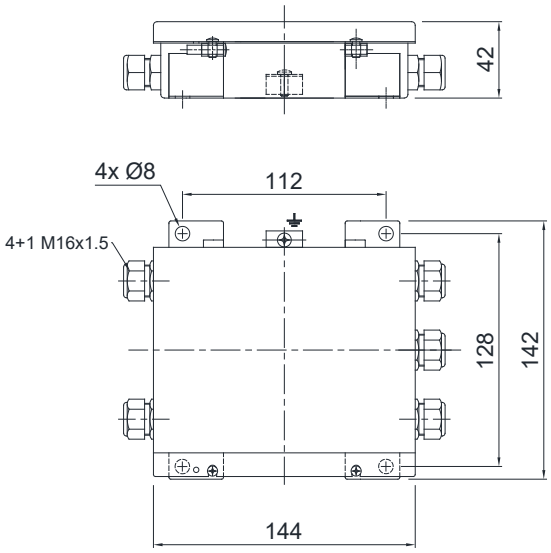
## AISI 304 STAINLESS STEEL

### INSTALLATION AND MAINTENANCE

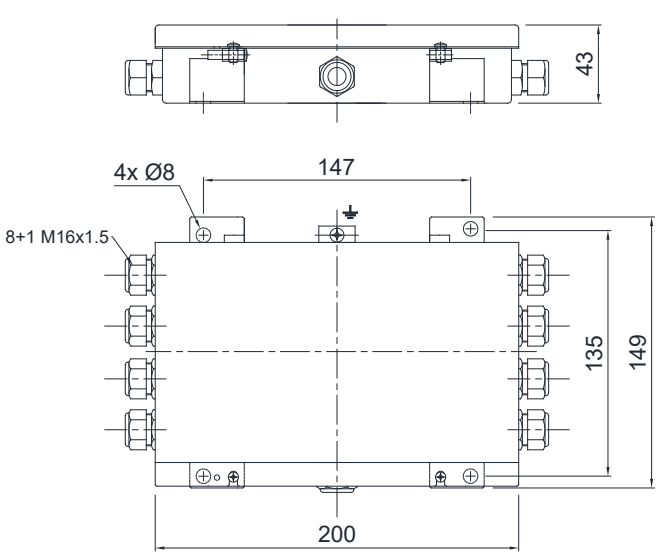
- Connect the junction boxes to the earthing system.
- Use appropriate section cables in accordance with the technical standard EN60079-14:2014.
- For junction boxes installed in dangerous areas use ATEX Ex ia certified barriers placed in a safe area.
- Periodically wipe the junction boxes surface with a damp cloth to prevent dust buildup.
- Replace the cable gland membrane if it is damaged to prevent gas or dust entering the junction box.

### DIMENSIONS (mm)

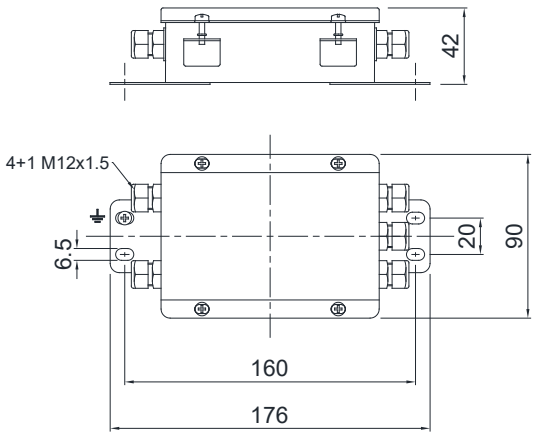
**CE41ATEX**



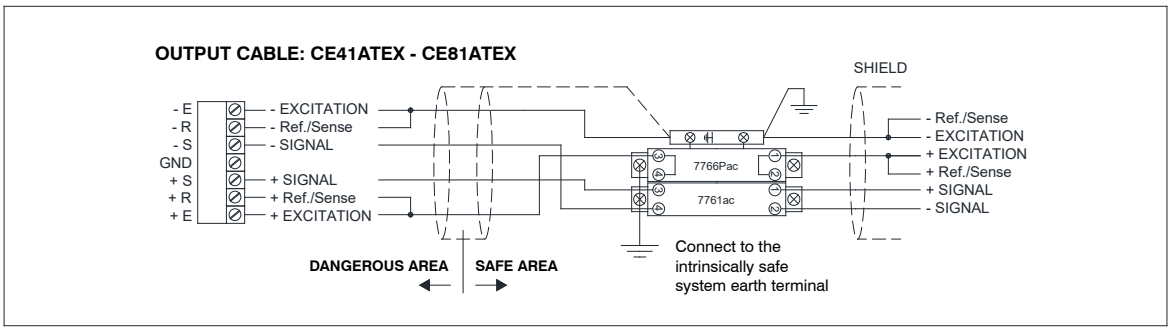

**CE81ATEX**



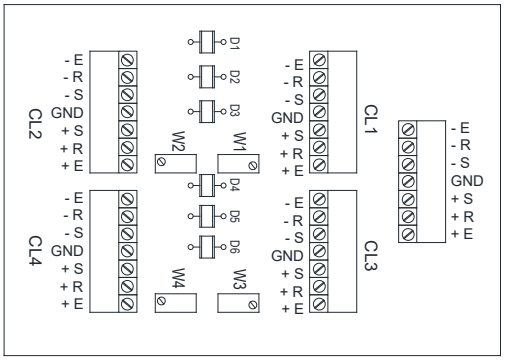

**CE41PATEX**



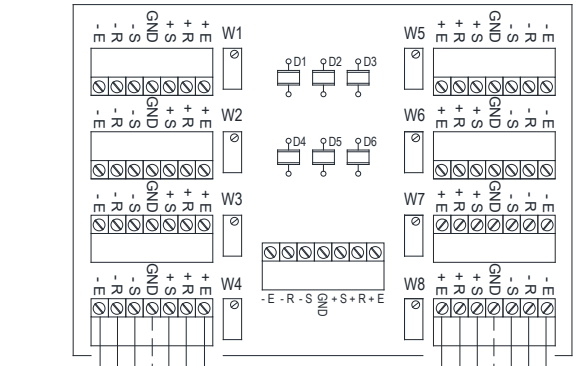
### ELECTRICAL CONNECTIONS



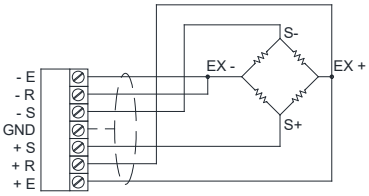

**CE41ATEX**



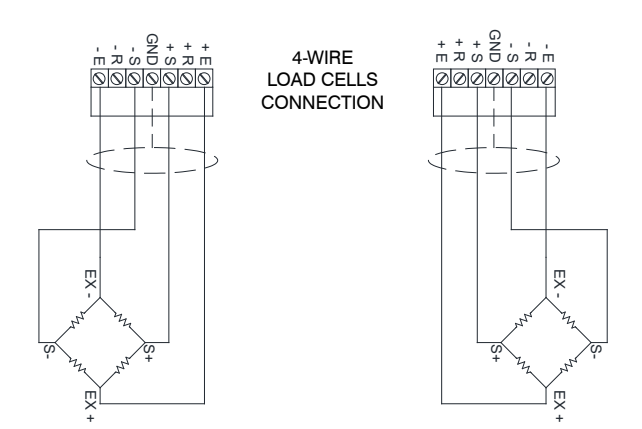

**CE81ATEX**



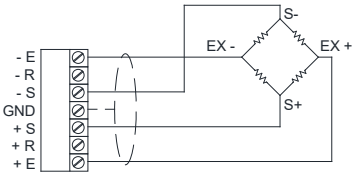

6-WIRE LOAD CELLS CONNECTION




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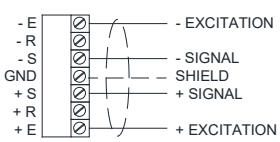

4-WIRE LOAD CELLS CONNECTION



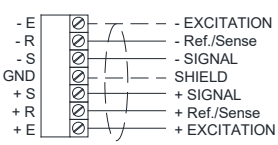

4-WIRE LOAD CELLS CONNECTION



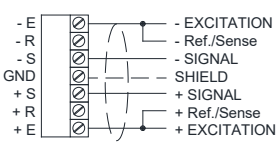

4-WIRE OUTPUT CABLE
WITH 4-WIRE LOAD CELL




6-WIRE OUTPUT CABLE
WITH 6-WIRE LOAD CELL

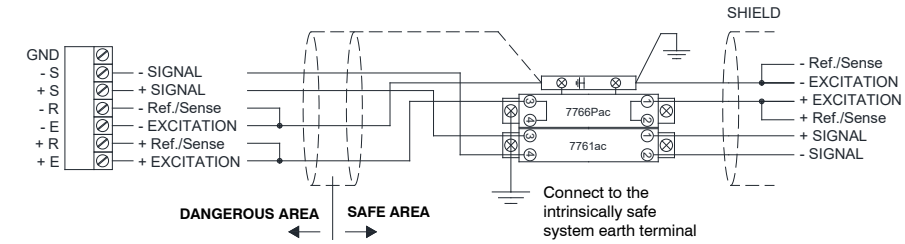



6-WIRE OUTPUT CABLE
WITH 4-WIRE LOAD CELL

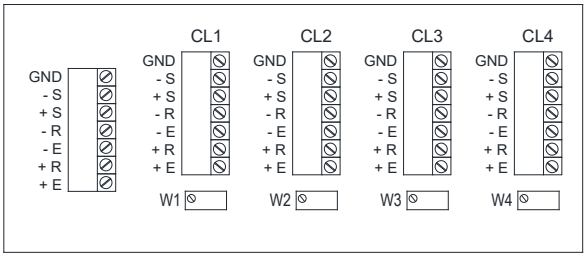


### ELECTRICAL CONNECTIONS

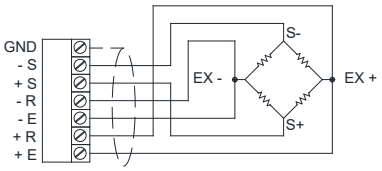
**OUTPUT CABLE: CEP41ATEX**



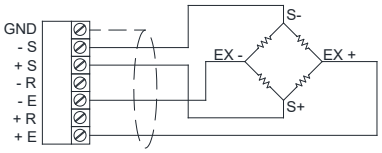

**CE41PATEX**



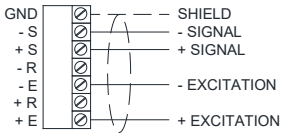

6-WIRE LOAD CELLS CONNECTION



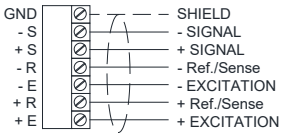

4-WIRE LOAD CELLS CONNECTION



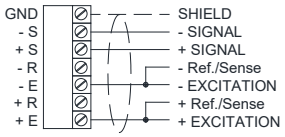

4-WIRE OUTPUT CABLE
WITH 4 WIRES LOAD CELL




6-WIRE OUTPUT CABLE
WITH 6 WIRES LOAD CELL




6-WIRE OUTPUT CABLE
WITH 4 WIRES LOAD CELL



## EQUALIZATION PROCEDURE

**WARNING!**

- For load cells with 2 mV/V sensitivity the difference between the sensitivities must not be greater than 0.1 mV.
  For load cells with 3 mV/V sensitivity the difference between the sensitivities must not be greater than 0.15 mV.
- The board is equipped with a 20 Ω potentiometer for each load cell.

**Example with 4 load cells and a sample weight of 978 kg:**

1. Turn the potentiometers'screw counterclockwise until to 0 Ω.
2. Place the sample weight in correspondence with the CL1 load cell and take note of the value shown on the display; repeat the same operation for all load cells.
   Example: CL1 = 1008 kg CL2 = 998 kg
   CL3 = 973 kg CL4 = 985 kg
3. Adjust the potentiometers related to the higher weight values (W1, W2, W4), leaving the lowest one unchanged (W3).
4. Place the sample weight in correspondence with the CL1 load cell; by adjusting the potentiometer W1 change the value shown on the display from 1008 kg to 973 kg.
5. Place the sample weight in correspondence with the CL2 load cell; by adjusting the potentiometer W2 change the value shown on the display from 998 kg to 973 kg.
6. Place the sample weight in correspondence with the CL4 load cell; by adjusting the potentiometer W3 change the value shown on the display from 985 kg to 973 kg.
7. Place the sample weight in correspondence with the CL3 load cell and take note of the value shown on the display, for example 966 kg.
8. Place the sample weight in correspondence with the CL1 and adjust the potentiometer W1 until 966 kg is displayed.
9. Place the sample weight in correspondence with the CL2 and adjust the potentiometer W2 until 966 kg is displayed.
10. Place the sample weight in correspondence with the CL4 and adjust the potentiometer W3 until 966 kg is displayed.
11. Place the sample weight in correspondence with the CL3 and take note of the value shown on the display, for example 962 kg.
12. Repeat the procedure several times until the display shows the same weight value for all four load cells.
13. Remove the sample weight and zero the tare, then place the sample weight in the middle and calibrate the instrument (see the instrument's user manual).

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