

# Accessories for connection

For load cell electrical connection

Electrical connection of S-E-G load cells is according to the circuit diagram for the respective device. The following connection accessories can be used with S.E.G. scale systems.

## Type G connection box

The type G connection box is used for connecting load cells to a single cable which is connected, in turn, to the scale system's control console. Up to 6 load cells can be interconnected. The load cells are connected direct to control console or via an extension cable as shown below.

The tachometer in belt scales is also connected to the joint cable. The connection box then contains a switch for tachometer signal on/off. The switch is used to simplify measuring of belt length at start-up of the belt scale. A twisted pair cable with 3x2 conductors (4x2 conductors for belt scales) is connected to the control console. All connections in the box are to screw-type terminal strips and with shields to a common ground bar.

The ground bar is only to be grounded when the connection box is installed on an **isolated** surface.

## Ordering code for type G connection box

The type G connection box is available in versions for 2, 4 or 6 load cells. The enclosure is in stainless steel (AISI 304) and comply in respects of protection to IP65

Type:

- |              |  |
|--------------|--|
| <b>G-2-B</b> | For connection of up to 2 load cells cables and 1 tachometer cable. With switch for belt length measurement. |
| <b>G-4-B</b> | For connection of up to 4 load cells cables and 1 tachometer cable. With switch for belt length measurement  |
| <b>G-4</b>   | For connection of up to 4 load cell cables.  |
| <b>G-6</b>   | For connection of up to 6 load cell cables.  |

### The box and attached cable is coded:

- A-1 Terminal box only.
- A-1-14 Terminal box A-1 with 4m cable in protective sleeving with nipple

# Technical specifications

### Design

Frontpanel: Stainless steel frame with integrated keypad.  
 Protection: Splashproof NEMA 4 / IP65.

Rear cover: Aluminium-zink metal.  
 Protection: IP55

### Field Enclosures

Stainless steel SIS2333.  
 Protection: NEMA 4 / IP65.  
 Cable entry: 4 x dia.19 holes w. PG11 metal glands, 1 x dia 22,5 hole.

### Display & control

Display: LCD 2x16 character, 5,5mm w. backlight.  
 Control: 4-key local keypad or via RS485 com port.  
 Memory: Battery back-up + Non-volatile FLASH memory.  
 Set-up: Interactive via local keypad software

### Power supply

Standard: 24Vdc, 5W.  
 Protection: Fuse (internal)  
 Optional: External 90-250VAC / 24VDC (PW-24).

### Connection

Terminal strip: 12 x 2,5 mm<sup>2</sup> max (AWG 16) for stranded wire (Terminals: 1-6, V+,V-).  
 11 x 1,5 mm<sup>2</sup> max (AWG 18) for stranded wire. (Terminals: 21-52).

### Input

Load Cell  
 Digital (2)  
 4- or 6-wire system with sense inputs, 0,3-45mVdc  
 Closing contact. Printout with zeroset of subtotal.  
 Speed sensor type S-E-G or NPN prox.switch

### Output

Load Cell, Exc. 12Vdc nominal  
 Max. load: 140 mA (~85 Ω)  
 Min. load: 1000 Ω

Relays (2 or 4) Dry contact N.O. 24Vdc / 1A.  
 (Totaliser pulse and programmable functions)

Analog Isolated 4-20mA, max 350 , 12-bit resolution.  
 (Flowrate)

### Communication port

Port (1): RS485, Modbus RTU, ASCII

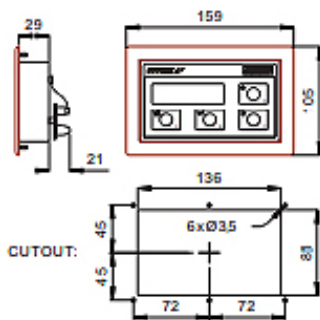
### Environmental

Location: Indoor/outdoor  
 Operation: -10 to +50 °C  
 Storage: -20 to +70°C

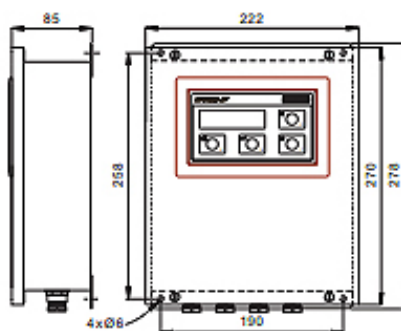
### Approvals



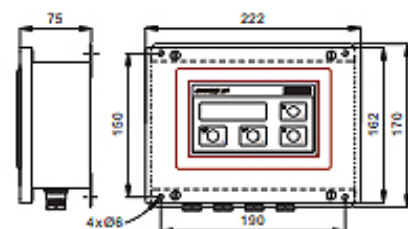
Marking of electrical and electronic equipment in accordance with Directive 2002/96/EC (WEEE)



**Panel mount, type -P**  
weight: 0,5kg



**Field enclosure type -W**  
weight: 3,0kg

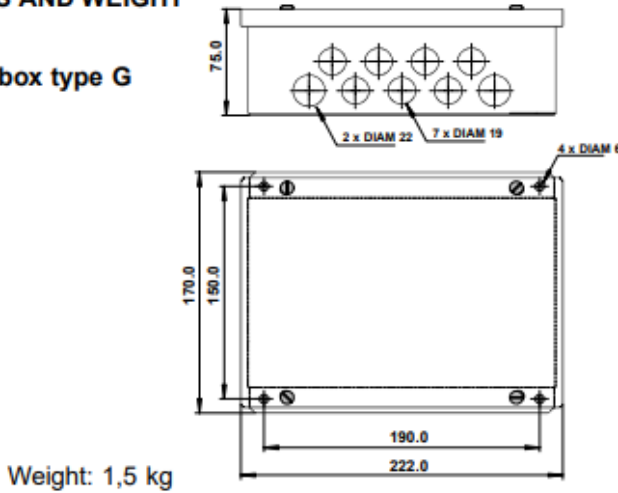


**Field enclosure type -V**  
weight: 2,5kg

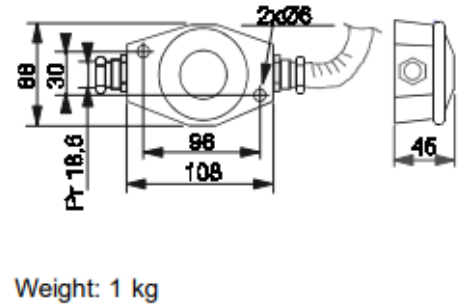
# Dimensions and weight

## DIMENSIONS AND WEIGHT

### Connection box type G



### Terminal box type A



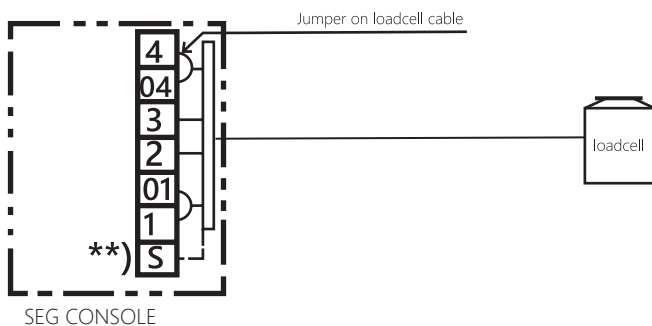
All lead wires entering the connection box is connected to screw terminals. The grounding of the cable shields is made to the common isolated ground bar. The ground bar may be connected to the chassis only when the connection box is installed on an isolated surface.

# Drawings

## Wire markings on load cell cable.

INPUT: +YELLOW [1] -BLUE [4] OUTPUT: +RED [2] -GREEN [3 ]

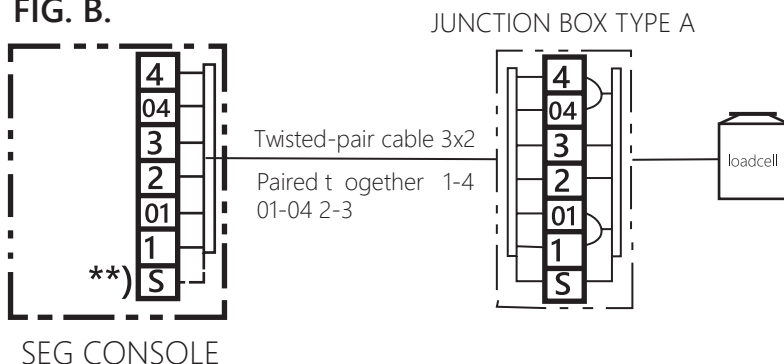
FIG. A.



## Description

Scale system with 1 loadcell with load cell located next to the control console. The fixed load cell cable is connected idrectly to the console. Jumpers are connected at the terminals 1 to 01 to 04.

FIG. B.



## Description

Scale system with 1 loadcell with the loadcell at a distance from the console. The fixed load cell cable is connected to a type A junction boc, which is connected to the console using a twisted pair extension cable with pairing as shown.

# Drawings

## Description

Scale system with 2-6 loadcells. Multiple loadcells are connected to the console with a SEG type G connection box.

**FIG. C.**  
CONNECTION BOX TYPE G

