

Load Cell Amplifier Unit

WE-77/LC-CC

Load cell amplifier unit is a transformer isolated unit used to power a load cell in a field and the output of the load cell mV is fed as input to the load cell amplifier unit and further the mV signal is converted into current signal 4-20mA.

- * The unit can be clipped on to 35 mm rail to DIN 46277 or fixed with 2 screws on 90 mm centres.
- * Input 1.99mV DC
- * Output 4-20mA

FEATURES :

Manufactured according to European standard EN 50014 and EN 50020.

Input signal / output signal and the power supply are galvanically isolated from each other - **2500V, 50Hz.**

INSTALLATION :

The unit can be clipped onto 35 mm rail to DIN 46277.

OPEARTION :

A power supply located in control area which can be unregulated power supply 220V AC is connected between terminals 16, 17 & 18 of the load cell amplifier unit and the DC voltage is taken between the terminals 1(+)& 2(-) which is used to power the load cell.

The input (1.99mV) signal is connected at terminals 7(-) & 9(+), and output (4-20mA) current signal is available at terminals 10(+) & 11(-).

APPLICATION :

1. As a amplifier unit for a load cell.
2. MilliVolt to current convertor.



TECHNICAL DETAILS
[ART. NO. : WAA003] (220V AC)

Power Supply Section

Supply Voltage (nominal) 220V AC $\pm 15\%$
at Terminals 16, 17, 18
Power Rating 3.5VA

Field Area Section

Input 01.99mV
at Terminals 7(-) & 9(+)
LoadCell Supply 10V DC
at Terminals 1(+)&2(-),

Supply for Load Cell **I 10V DC**
Return Voltage from Load Cell **I 0-20mV**
(Depends on the Load Cell)

Fail Safe maximum Voltage U_m

Not Nominal Supply 250V r.m.s.

Control Area

Output 4-20mA at
Terminals 10(+) & 11(-)

Max. Load (R_L) 650 Ω

Transfer Characteristics

Calibrated accuracy at 20°C <20uA
Temperature Drift approx. $\pm 2\mu A / ^\circ C$
Replaceable fuse 50mA & 250mA
Response Time approx.250mS (0-98% step)

Isolation Tested at 2500V, 50Hz
(Between field & control area terminals)
+55°C

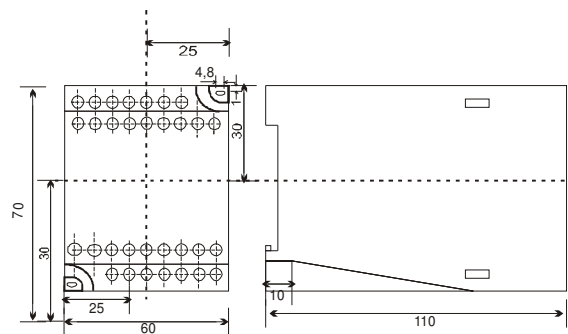
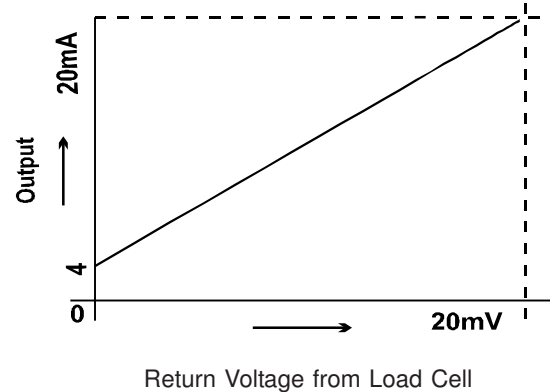
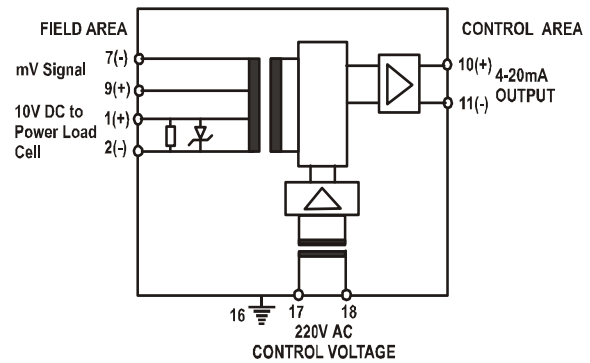
Max. Ambient Temperature +55°C
Span Adjustment through Poti I Approximately 20% of span

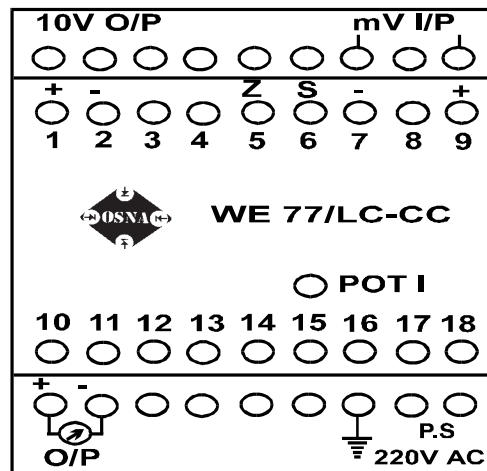
Zero Offset Adjustment through Poti II Approximately 5% of span

Terminals Self opening max. conductor size 2 x 2.5mm

Protection Class IP 20

Weight ca.150g



Top View

1. Connect the 220V AC power supply at terminals **16,17 & 18**.
2. Connect the Load cell amplifier's power supply at terminals **1(+)** & **2(-)**.
3. Connect the input mV signal from Load cell at terminals **7(-)** & **9(+)**.
4. Measure the output 4-20mA current at terminals **10 (+)** & **11(-)**.
5. The output voltage to power the Load cell can be adjusted with the potentiometer **POT 1**.
6. The 0 and span adjustment also can be adjust with the potentiometer Z & S.

NOTE : The rating of the Load cell should be minimum 350 Ohm. The maximum 4nos. load cell can be connected in parallel with the same rating of 350 Ohm.