

Load Cell Amplifier Unit

WE-77/LC-VC

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 voltage signal 0-10VDC.

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 mV signal is connected at terminals 7(-) & 9(+) and output voltage signal is available at terminals 10(+) & 11(-).

APPLICATION :

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

TECHNICAL DETAILS

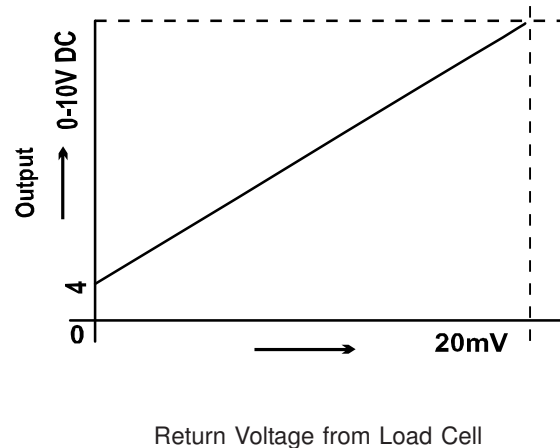
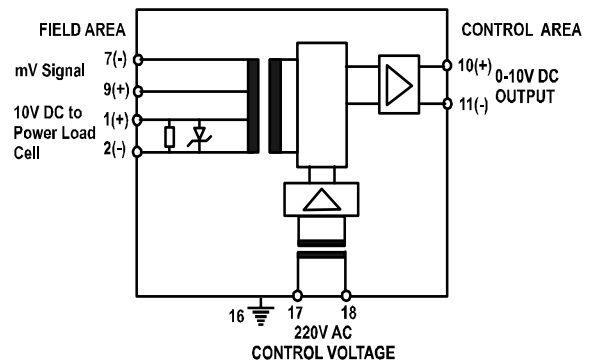
[ART. NO. : WAA003] (220V AC)

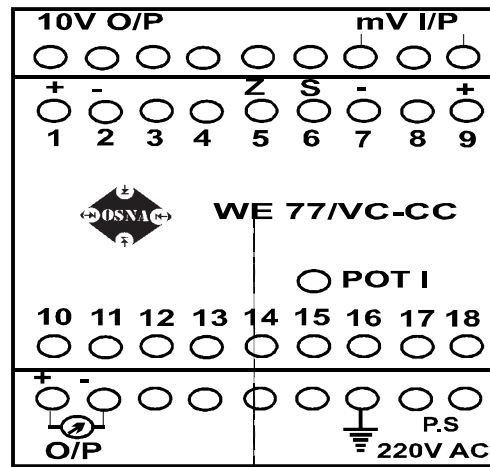
Power Supply Section	Terminals 16, 17, 18
Supply Voltage (nominal)	220V AC $\pm 10\%$
Power Rating	3.5VA
Field Area Section	Terminals 1(+), 2(-), 7(-), 9(+)
Supply for Load Cell	I 10V DC
Return Voltage from Load Cell	I 0-10VDC (Depends on the Load Cell)

Fail Safe maximum Voltage U_m	
Not Nominal Supply	250V r.m.s.

Control Area	
Output	Terminals 10(+), 11(-) 0-10V DC

Transfer Characteristics	
Calibrated accuracy at 20°C	0.1 %
Temperature Drift	approx. $\pm 0.1 / ^\circ\text{C}$
Replaceble fuse	50mA & 250mA
Response Time (step)	approx.250mS (0-98% step)
Isolation	Tested at 2500V, 50Hz (Between field & control area terminals)
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 **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 0-10V DC 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.