



Front view



Side view

The Reference Cell Control Unit measures the potential between pipe and soil by means of a copper/copper sulphate (or zinc) reference cell in cathodic protection applications. This input is amplified and compared to a reference value (from -2V to +3V).

### Operating principle

The potential between soil and object (e.g. pipe) is measured with an isolation amplifier and compared with the required setpoint.

If the switch is in the “ref cell” position, the Ref Cell Control will automatically adjust the output voltage/current of the Output Regulator unit until the object-to soil-potential is equal to the setpoint. However the maxima for voltage and current, as set for the output regulator, will not be exceeded.

If the switch is in the “output regulator” position, the Output Regulator is switched into operation with manual adjustable maxima for output voltage and output current.

The Cathodic Protection potential achieved is compared with pre-adjusted limit values (high and low values). As soon as the potential voltage exceeds the pre-adjusted limits, a red LED and optional alarm with potential free contacts will be switched on.

If two or more reference cells are connected to the system, the Ref Cell Control will compare both inputs and regulate according the highest measured potential.

### Features

- Reverse polarity protection on input
- Course and fine potentiometer
- Reference cell potential on input connector
- V set point, actual potential, output regulator control, alarm on output connector

### Advantages

- Modular concept (CCU-IV range)

Electrical Specifications		
Model / Type:	12V	24 - 48V
Input voltage	11,5 - 15 Vdc	18 - 60 Vdc
Input impedance	4,7 M $\Omega$	
Input control range	-2 to 3 Vdc	
Maximum input reference voltage	100 V	
Input to system isolation	1500 V	
Typical operating current consumption	30 mA	
Electrical protection	reverse input polarity (with fuse)	

General specifications		
Model / Type:	12V	24 - 48V
Operating temperature	-10 °C to +55 °C	
Operating relative humidity	5% to 95% non condensing	
Storage temperature	-30 °C to +70 °C	
Construction	open frame	
Mounting	Indoor	
Unit weight	± 0,6 kg	
Dimensions (H x W x D)	21,6 x 8 x 14,7 cm	