orbit controls + Swiss made

- ✓ Time Integration of Analogue Signals
- ✓ 0/4-20mA, 100mV to 100VDC
- ✓ High precision Integration
- ✓ Three scalable Displays
- ✓ Momentary and Cumulated Values
- ✓ Free programmable
- ✓ Four Set Point Relays
- ✓ Serial Data Ports
- ✓ Supply 115/230VAC or 24VDC

Model OC 7171A-I-3D is a programmable instrument for very precise time integration of analogue signals. The three displays can be assigned to various functions.

The heard of the instrument is a programmable counter with input signal conditioner which converts the analogue input signal into a precise frequency spectrum. The resulting time integration has very high degree of accuracy and linearity. The momentary value as well as the totalized amount of increments are available at the three displays and can be selected with the keyboard.

A typical application is a 4-20mA signal input from a flowmeter corresponding to a flow range of e.g. 0-200 litres per minute. The lower left display can show the flow rate 0-200 LPM, the lower right display the cumulated daily production in litres and the main upper display the total production in m^3.
The three displays are free programmable. The lower two displays can also show the Set Points for controlling the maximum and the minimum values.

The parameters and the display last reading remain stored in a non-volatile memory also when the instrument is switched-off from the power. When the power is switched-on again, the display starts incrementing at the stored value.

The menu contains scaling of the display, setting of set points and two serial data ports.

Floating Point Arithmetic permits practically unlimited display capacity. The programmed decimal point is automatically positioned to the right when the display arrives at full capacity. When the counts at the display aced the value of 99999 with decimal point behind the LSD, the display switches into exponential expression, e.g. 123E6.

Preset has 4 digits with decimal point and sign. The programmed value can be inserted into the display with the keypad. The display starts counting or incrementing at the Preset.

Scale of the display can be achieved with both, multiplication and division. The multiplication has 4 digit free programmable numbers with decimal point and sign. The division has constants :1 to :10000 selectable in decimal steps. By using the scale, the display can be programmed in any required process unit such as LPM, Gallons, m/sec, m^3 etc.

Averaging Filter has filter constants programmable from 1 to 99 and permits the instrument to measure noisy signals or signals from disturbed environments.

SPECIFICATIONS

DISPLAYS
Upper main Display
-9999 … +99999, red 10 mm
Lower two Displays
-9999 …+99999, red 7.5mm

INPUT
0-100mV to 0-100VDC, 0/4-20mA or customized ranges.
Option: Energy measurement of DC- and true r.m.s. The display can be scaled in Ws to kWh.

V-F CONDITIONER
DC- input signal is converted into normalized frequency spectrum.
Linearity $\pm$ 0.005% from range

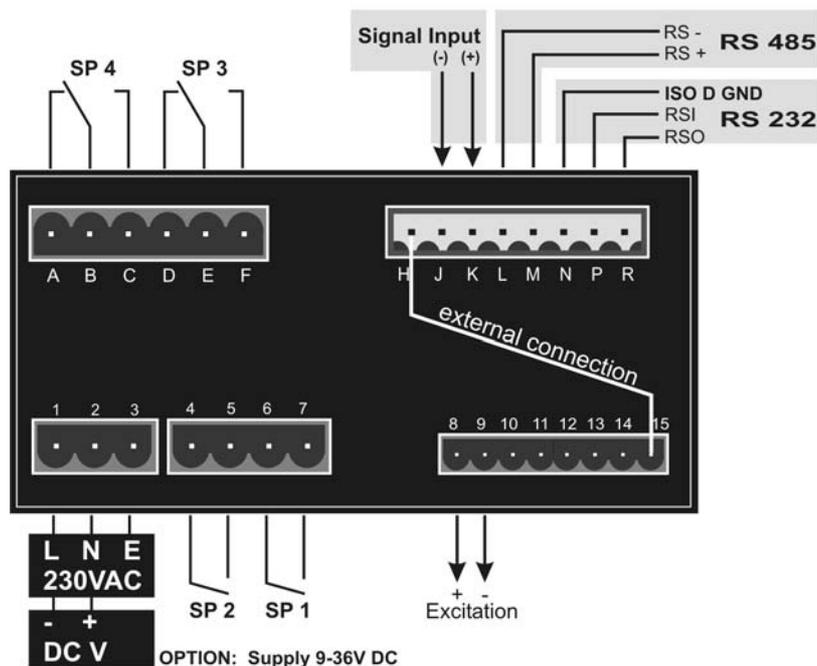## TEMPCO
Temperature coefficient 20 ppm/K.

SCALING
Multiplying and dividing constants with decimal point and sign. Each Display is individually scalable.

OFFSET - PRESET
The additive constant can be set FROM -9999 to 99999. The display starts counting at the Offset-Preset value.

SET POINTS
SP1, SP2 with 5A-230VAC Relays or output transistors 60V/100mA.
Option: SP3, SP4 5A-230VAC Relays.

SERIAL DATA PORTS (Option)
RS232/RS485 (4 wire) with 8 bit no parity, 1 start, 1 stop, 300-19200 bd.
The RS485 has a programmable address which permits operation on a data bus.
The serial ports are isolated by 250V r.m.s.

SUPPLY
115V/230V $\pm$10%, 50-60Hz.
Option: 9 - 36VDC.

CABINET
DIN 48 x 96 mm x 100 mm.
Panel cut-out: 45 x 93 mm.
IP65 front protection.

TERMINALS
Pluggable screw terminals.

TERMINALS