

## Large Displays for Analog Signals OC57, OC100, OC125

- ✓ 6-digit Display  $\pm 999999$
- ✓ Up to  $\pm 200\,000$  increments
- ✓ Inputs 4-20mA, 2V ... 200 VDC
- ✓ Option: 20mV strain gauges
- ✓ Free programmable
- ✓ Analog Output
- ✓ Serial Output Port
- ✓ Excitation
- ✓ Two Set Point Relay
- ✓ Supply 115/230VAC



**Large Displays OC57-DC, OC100-DC and OC125-DC** are 4- or 6-digit programmable instruments with up to  $\pm 200\,000$  measuring increments. They have inputs for DC signals, strain gauges, 4-20mA loops,  $\pm 100\text{mV}$  etc. and are available with 57mm, 100mm or 125mm large 7 segment display units. Due to the free scaling, the input signals can be displayed in units corresponding to the measured process, such as kg, gr, lb, kN, MPa etc.

With the keyboard at the rear the menu can be entered and the operating parameters set.

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The large displays have functions as process monitors without any control function, or as process controllers, generating control outputs.

Depending on the application, the control outputs can be two or four set point relay or open collector transistors, two analog outputs and two serial data ports.

### FUNCTION

After applying the power to the instrument, the parameters and the operating mode are read from the memory and entered into the microcontroller. The display shortly shows the model and the software version and switches into the measuring mode.

The input signal limits (input signal *low* and *high*) can be assigned with the keyboard to the required display, e.g. input 4-20mA = display 0-75000.

Software calibration can be activated at any time during the instrument's operation.

### MENU

The menu is entered with the keyboard and contains two or four set points, measuring range, filter, two analog outputs, measuring speed, display rate, resolution and decimal point, serial port parameters and the password.

**Set Points** are programmable within the entire display range  $\pm 999999$ . They activate two open collector transistors or two mechanical relay. Each set point has programmable delay and hysteresis.

**Digital Filter** with averaging characteristic can be used for noisy signals or noisy industrial environments. The filtering constant is programmable from 1 to 99.

**Analog Outputs** 0... $\pm 10\text{V}$  and 4-20mA are simultaneously generated. With the keyboard they can be assigned to any two required display values.

**Tara** is a subtractive constant which is activated with the keyboard or with external logic control signal. It forces the display to zero.

The tara can be canceled with the keyboard and the display returns to show the original non-tara signal.

The tara remains stored in a non-volatile memory also when the instrument is switched-off from the power.

**Peak and Valey Memory** stores the maximum and the minimum of the reading during a desired time period. With the keyboard the stored data can be recalled at the display.

**Two Serial Data Ports** RS232 and RS485 are available. The RS485 has a programmable address and permits operation of up to 31 instruments on one data bus.

**Password** prevents unauthorized entry into the menu and setting of parameters.

**Excitation** for supplying of external sensors is isolated and adjustable from 5V to 24VDC.

**Soft Manager** at a diskette is a communication program for applications under Windows.

## SPECIFICATIONS

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### DISPLAY

0 ...  $\pm$  999999, 7 Segments red LED, 57, 100 or 125mm with decimal point and sign.

### RANGES

Current: 0/4-20mA

Voltage:  $\pm$ 1V, 10V or 100VDC.

Other ranges such as 20mV for strain gauges are available upon request.

### CONVERTOR

0 ...  $\pm$  20'000 increments.

Sampling time 400 ms.

**Option:**  $\pm$  100'000 or  
 $\pm$  200'000 increments.

### LINEARITY

$\pm$  (1 LSB + 1 Digit).

### TEMPCO

Standard: 10ppm/K

### ANALOG OUTPUT Option

4-20mA @ 390 Ohm max.

0 ...  $\pm$  10V @ 10kOhm min.

Resolution 12 bit. Option 16 bit.

Isolation 250V r.m.s.

### TARA

The display can be reseted to zero with the key *SET*, or with remote control logic signal 5V (protected to 48V). When the key is pressed for a second time, the display returns to the original non-tara signal.

The tara remains stored in internal non-volatile memory also when the instrument is switched-off from the power.

### FILTER

Averaging filter programmable from 1 to 99 samples.

### SET POINTS Option

Two 6 digit set points with 60V/100mA open collector NPN transistors or mechanical relay 5A-230VAC. Selectable from -999999 to +999999.

### Hystereze

Individually selectable in each set point between 0 and 99.

### Delay

In each set point selectable from 0 to 3900 ms.

### SERIAL PORTS Option

RS 232 and RS 485, with 8 bit, no parity, 1 start, 1 stop, 300 to 19200 bd.

The address 00 activates automatically the RS232.

One of addresses 01 ... 31 activates the RS485.

### EXCITATION Option

5 to 24VDC/40mA adjustable and isolated by 250V r.m.s.

### SUPPLY

115/230V  $\pm$ 10%, 48 - 60Hz.

### CABINET - Aluminum

OC57: 4 and 6 digit:  
112x368x85mm.

OC100-4: 4 digit:  
173x458x85mm

OC100-6: 6 digit:  
173x643x85mm

OC125-4: 4 digit:  
229x533x85mm

OC125-6: 6 digit:  
229x748x85mm

Protection: IP65 - front.