

# Ultra Large 6-Digit Displays

## ***Digit heights:***

57 mm  
100 mm  
125 mm

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# Large Displays for Analog Signals

## OC-57 OC-100 OC-125

- ✓ 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 Relays
- ✓ Supply 115/230VAC



### Large Displays OC-57-DC, OC-100-DC and OC-125-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.

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.

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

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

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

**Peak and Valley 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

### 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.

### TARE

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.

### **Hysteresis**

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

**OC-57:** 4 and 6 digit:  
112x368x80mm.

**OC-100-4:** 4 digit:  
173x458x80mm

**OC-100-6:** 6 digit:  
173x644x80mm

**OC-125-4:** 4 digit:  
229x535x80mm

**OC-125-6:** 6 digit:  
229x748x80mm

**Protection:** IP65 - front.

# Large Displays for RMS Signals

- ✓ 6 digit display  $\pm 999999$
- ✓ Up to 20 000 true increments
- ✓ 0 - 200mV to 0 - 380V true RMS
- ✓ 0 - 20mA to 0 - 10A true RMS
- ✓ 0 - 2500 W true RMS
- ✓ Free programmable
- ✓ Analog Output
- ✓ Serial Output Ports
- ✓ Excitation
- ✓ Two Set Point Relays
- ✓ Supply 115/230VAC



## Large Displays OC-57-RMS, OC-100-RMS and OC-125-RMS

are 4 or 6 digit programmable instruments with up to 20,000 true increments and selectable inputs for various signals such as voltage from 0-200mV to 380V true RMS, currents from 20mA up to 10A true RMS or power up to 2300 W true RMS.

They can be ordered with 57mm, 100mm or 125mm large 7 segment digits.

By using the programmable multiplication factor, the display can be scaled in required process units such as V, m/sec., RPM, Wsec, kg, gr, lb, kN, W, kW etc.

The displays are designed 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. 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.

## FUNCTION

The menu can be entered with the keyboard. It contains the selection of two set points, measuring range, filter, two analog outputs, measuring speed, display rate, resolution and decimal point, serial port parameters and the password.

The input signal limits (input signal *low* and *high*) can be assigned with the keyboard to the required display, e.g. input 0 -10VAC = 0 -150.00.

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

**Digital Filter** with averaging characteristic can be used for noisy signals or environments. The filtering constant can be selected from 0 to 99.

**Analog Outputs** 0... $\pm 10$ V and 4-20mA are simultaneously generated. With the keyboard they can be assigned to any two desired display values. They are isolated from the input and the supply.

**Tare** is an additive constant which is activated with the keyboard or with external logic control signal. It forces the display to zero.

The tare can be cancelled at any time with the keyboard and the display returns to show the original signal.

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

**Peak and Valley Memory** measures and stores the maximum and the minimum of the display. With the keyboard the stored values can be recalled at the display.

**Two Serial Data Ports** RS232 and RS485 are available. The RS485 has a programmable address and permits the instrument to communicate on a data bus.

**Password** is used to prevent unauthorized entry into the menu and setting of parameters.

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

**Soft Manager** on a diskette is a communication program available for WIN applications.

## SPECIFICATIONS

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### DISPLAY

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

### RANGES

#### **Current**

0-20mA to 0-10A RMS

Accuracy: DC-1kHz:

$\pm$  (0.2 % f. range + 1 digit).

#### **Voltage**

0-200mV to 0-380V RMS

Accuracy: DC-1kHz

$\pm$  (0.2 % f. range + 1 digit).

#### **Power**

0-2300 W true RMS

Voltage: 0 - 230V RMS

Current: 0-10A RMS

Accuracy: DC-1kHz

$\pm$  (0.3 % f. range + 1 digit).

#### **Temp. Coefficient**

25ppm/K

### ANALOG OUTPUT - Option

4-20mA / <390 Ohm max.

0 ...  $\pm$  10V / >10kOhm

Resolution 12 bit. Option 16 bit.

Isolation 250V r.m.s.

### TARE

The display can be reseted to zero with the key *SET*, or with external control logic signal 5V (protected to 48V). When the key is pressed for a second time, the display returns to the original signal. The tare remains stored in internal non-volatile memory also when the instrument is switched-off from the power.

### 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.

#### **Hysteresis**

Individually selectable in each set point between 0 and 99.

#### **Delay**

Is in each set point selectable from 0 to 3900 ms.

### FILTER

programmable from 0 to 99.

### SERIAL PORTS - Option

RS 232 and RS 485, with 8 bit, no parity, 1 start, 1 stop, 300 to 19200 bd. The address 0 activates 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

**OC-57:** 4 and 6 digit:  
112x368x80mm.

**OC-100-4:** 4 digit:  
173x458x80mm

**OC-100-6:** 6 digit:  
173x644x80mm

**OC-125-4:** 4 digit:  
229x535x80mm

**OC-125-6:** 6 digit:  
229x748x80mm

**Protection:** IP65 - front.

# Large Displays for Serial Data Ports

- ✓ 6 Digit Display  $\pm 999999$
- ✓ Input for RS232, RS485, TTY
- ✓ Free programmable
- ✓ Analogue Outputs
- ✓ Four Set Point Relays
- ✓ Addressable Bus Operation
- ✓ Excitation
- ✓ Supply 115/230VAC



**Large Displays OC-57-RS, OC-100-RS and OC-125-RS** are 6-digit programmable instruments with up to  $\pm 999999$  display increments. They have inputs for RS232, RS485, RS422 and TTY serial data signals and can be ordered with 57mm, 100mm or 125mm large 7 segment display units. Customized displays are available upon request.

The telegram contains 8 bit of data, no parity, 1 start and 1 stop, 1200 to 19200 baud. The RS422 and RS485 have programmable addresses.

Optional outputs for control applications such as two analogue outputs and 4 set point relays are available.

The analogue output can be assigned to any two display values with the keyboard. This perform a simple conversion of the serial data into analogue output signals.

Setting of parameters is with the keyboard at the rear panel of the instrument. The menu contains settings of four set points and analogue outputs.

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

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

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

The displays are using 7 segment LEDs. Three display sizes are available:

**OC57** with 57mm  
**OC100** with 100mm  
**OC125** with 125mm

The signal is connected via D-SUB 9, the power via mains connector at the rear cover.

The large displays are enclosed in black aluminium case with IP65 front.

## OPTIONS

After applying the power to the instrument, the parameters and the operating mode are read from the memory and entered into the controller. The display shortly shows the model and the software version and switches into the measuring mode. With the keyboard the menu can be opened and the parameters programmed.

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# Specifications

## INPUTS

RS232, RS422 or RS485, 8 bit, no parity, 1 Start, 1 Stop.  
RS 485 Address 01 to 31.  
Baud rate 1200 to 19200 bd.

**Option:** TTY serial data port.

## DISPLAY

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

## SET POINTS- Option

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

## ANALOG OUTPUT - Option

4-20mA / 390 Ohm max.  
0 ...  $\pm$  10V / >10kOhm  
Resolution 12 bit. Option 16 bit.  
Isolation 250V r.m.s.

## SUPPLY

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

## EXCITATION- Option

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

## CABINET - IP65 front

OC-57: 6 digits:  
112x368x80mm.

OC-100-6: 6 digits:  
173x644x80mm

OC-125-6: 6 digits:  
229x748x80mm

# Large Displays - Counters

- ✓ 6 digit display  $\pm 999999$
- ✓ Tachometer, Frequency Counter
- ✓ Up- Down Counter
- ✓ Quadrature Counter
- ✓ Absolute Code Gray, binary, SSI, EnDat, RS485 serial
- ✓ Options: Analog Outputs  
Excitation  
Four Set Point Relay  
RS232, RS485
- ✓ Supply 115/230VAC



## Large Displays OC-57-COUNT, OC-100-COUNT and OC-125-COUNT

are instruments with programmable counter functions. They are designed for industrial applications and can be ordered with 4 or 6 digits and 57mm, 100mm or 125mm display size.

Inductive, capacitive, optical, mechanical sensors, incremental or absolute coded linear or rotative sensors and other pulse sources can be directly connected to the instruments.

The display can be programmed for following functions:

- Up-counter with Preset
- Up- counter with Enable Input
- Tachometer-Frequency counter
- Thermometer for sensors with frequency output signal
- Up-Down counter with controlled counting direction
- Quadrature counter for incremental resolvers
- Absolute code counter for sensors with Gray, binary, SSI or EnDat Data Bus.

## FUNCTION

The input signal is conditioned in an attenuator and an adaptive filter and applied to the microcontroller. With the keyboard at the rear panel the display can be scaled by using a multiplicative and/or dividing constant and a digital offset. The results are displayed in desired process units such as RPM, m/sec., liter/min., or mm,  $\mu\text{m}$ , angle etc..

They displays are manufactured 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.

The menu can be entered with the keyboard at the instrument's rear and contains the selection of the scale, preset, set points, analog outputs, serial ports, sampling and reset, display resolution and filter.

The menu contains following parameters:

**Scale** is a 6 digit multiplicative and dividing constant with decimal point and sign.

**Preset** is an additive constant programmable from 0 to  $\pm 999999$ . The display starts counting at the selected preset value. The preset can be entered with the keyboard or with external logic signal.

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

**Two Serial Data Ports** RS232 and RS485 are available at the output. The RS485 has a programmable address and permits up to 31 instruments to communicate on a data bus.

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

**Input Level** is adjustable for bipolar signals 100mV to 48V and permits connection to practically any industrial signal source or sensor.

**Digital Filter** with an adaptive characteristic permits steady display of noisy input signals or raw environments

**Soft manager** on a diskette is available for WIN applications. The counter can communicate in bidirectional mode with a supervising controller or PC.

Usual Windows-file operations are available. The instrument's parameters can be programmed from the PC or read from the instrument and stored in PC.

The set parameters remain stored in a nonvolatile memory also when the instrument is switched-off from the supply.

The last reading memory can be activated in the incremental counting mode of operation. The display stores the last value when the power is switched-off.

## SPECIFICATIONS

### DISPLAY

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

### INPUTS

#### Frequency counter

0.001Hz to 800kHz

#### Incrementing Up-Down Counter

DC ... 500 kHz

#### Absolute Coded Sensors

Parallel Gray or binary data outputs with 8 to 14 bit.

Serial Gray or binary data outputs with up to 32 bit SSI, EnDat, RS485 or other data sources, single turn or multi turn operation.

#### Digital Integrator

for time integration of analog signals 100mV, 1V, 10V or 0/4-20mA. Other ranges are available.

### INPUT SIGNAL CONDITIONER

Adjustable level for input signals from  $\pm$ 100mV to  $\pm$ 48V.

### KEYBOARD

at the rear panel has five keys for parameter settings: UP, DOWN, ACK, MENU and SET.

### Option: ANALOG OUTPUT

4-20mA / < 390 Ohm max.

0 ...  $\pm$  10V / >10kOhm

Resolution 12 bit. Option 16 bit.

Isolation 250V r.m.s.

### Option: OUTPUT PORTS

RS 232 and RS 485, with 8 bit, no parity, 1 start, 1 stop, 300 to 19200 bd. The address 0 activates RS232. One of addresses 01-31 activates RS485.

### FILTER

Adaptive averaging filter with programmable number 0 to 99 of measuring samples

### Option: SET POINTS

Two or four 6 digit set points with 60V/100mA open collector NPN transistors or mechanical relay 5A-230VAC. Selectable within  $\pm$ 999999 with DP and sign.

#### Hysteresis

Individually selectable in each set point between 0 and 99.

#### Delay

Is in each set point selectable from 0 to 3900 ms.

### RESET TIME

In the function of digital tachometer-frequency counter the reset time can be set from 50msec to 1000sec. The longest reset time determines the lowest possible measured frequency.

### SAMPLING TIME

In the function frequency counter-tachometer the sampling time can be set from 25msec to 3sec.

### EXCITATION

Adjustable from 5 to 24V-40mA.

### SUPPLY

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

### CABINET-Alu (IP65-front)

OC-57:	4 and 6 digit: 112x368x80mm.
OC-100-4:	4 digit: 173x458x80mm
OC-100-6:	6 digit: 173x644x80mm
OC-125-4:	4 digit: 229x535x80mm
OC-125-6:	6 digit: 229x748x80mm



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# Large Display - Timer OC-57-T

- ✓ Timer with START-STOP-RESET
- ✓ 57mm, 100mm, 125mm Digits
- ✓ 6 digit Display 999999
- ✓ Selectable Display Formats
- ✓ Options: DCF77 Synchronizing
- ✓ Supply 115/230VAC



**Large Displays OC-57-T** are programmable Timers with 57mm, 100mm or 125mm display size. The timer function is controlled with external signals at three inputs START, STOP and RESET.

The keyboard at the rear permits the selection of the desired display format:

<b>23.59.59</b>	HH.MM.SS (Real Time Clock)
<b>99.59.59</b>	HH. MM. SS (99 hours)
<b>999999</b>	Seconds
<b>9999 S</b>	Seconds with "S" symbol
<b>999.9 M</b>	Minutes with decimal format
<b>999.5 M</b>	Minutes with 60 format
<b>59.59.99</b>	MM. SS. $\frac{S}{100}$ . $\frac{S}{100}$

The Time Base calibration can be performed with the keyboard at the rear panel. A scale constant with a sign + or - can be set in order to speed-up or slow-down the internal clock.

The display has six red high intensity digits with decimal points. The aluminum cabinet is for panel or wall mount and is IP65 screened at the front.

The keyboard and the I/O connectors are placed at the rear panel.

The large displays are made as **Proces Monitors** without any control function, or as **Controllers** with Analog Outputs, Serial Data Ports and Set Point Relay or Transistors.

## SPECIFICATIONS

### DISPLAY

0... 999999, 7 segment red LED, 57, 100 or 125mm digit size with decimal points.

### TIME BASE

Precision time base with accuracy of 50ppm/K can be trimmed with the keyboard for highest accuracy timings.

### INPUTS

5 ... 24V positiv pulses for START, STOP and RESET. An Excitation of 5V is available at the rear input connector.

### KEYBOARD

The keyboard at the rear panel with 5 keys can be used for the selection of the display format and for the settings of the time base scaling correction.

### SUPPLY

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

## OPTIONS

### REMOTE CONTROLS

For the control of the display functions a Remote Wireless Control Box is optionally available.

### SERIAL DATA PORTS

RS 232 and RS 485, with 8 bit, no Parity, 1 Start, 1 Stop, 300-19200 Bd. The address 0 activates RS232. One of addresses 01-31 activates RS485.

### SET POINTS

Two or four 6 digit Set Points with 60V/100mA open collector NPN Transistors or mechanical Relay 5A-230VAC are available.

The Set Points can be set within the entire display range of 0-999999.

### DCF77- SYNCHRONIZING

The digital Clock will be automatically synchronized from the DCF77 Transmitter.

## AVAILABLE DISPLAY FORMATS



Real Time Clock: Hours, Minutes, Seconds

Hours, Minutes, Seconds

0 – 999999 Seconds

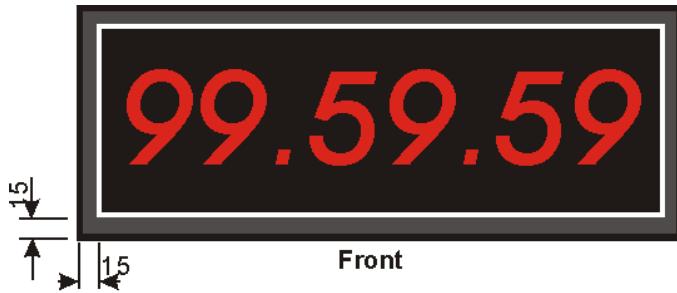
0 – 9999 Seconds with S-Symbol

0 – 999.9 Minutes in decimal format after point, with M-Symbol

0 – 999.5 Minutes in 60 format after point, with M-Symbol

Minutes, Seconds, 1/100 Seconds

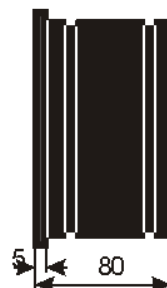
## DIMENSIONS



Front



Rear panel



Side view

Display Size	A	B
57mm	368	112
100mm	644	173
125mm	748	229

Panel Cut-Out: A x B

# Large Displays - Thermometers

- ✓ 6-digit Display  $\pm 999999$
- ✓ Pt - 100 and Pt - 1000
- ✓ Thermocouples J,K,E,S,B,T,C
- ✓ Free programmable
- ✓ Analog Output
- ✓ Serial Output Ports
- ✓ Two Set Point Relays
- ✓ Supply 115/230VAC



## Large Displays OC-57-TEMP, OC-100-TEMP and OC-125-TEMP

are 4- or 6-digit programmable instruments for temperature measurements. They are free programmable for RTD and DIN-thermocouples. The cold junction can be set for 0°C externally compensated or for ambient automatic compensation.

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

Depending on the application, the control outputs can be two set points, two analog outputs and/or two serial data ports.

The menu is entered with the keyboard. It contains the selection of two set points, the sensor type, the filter, the analog output, the display rate, the resolution, the serial port and the password.

## INPUTS

### Pt-100, 200, 1000 and Ni

2- or 4-wire termination.

Accuracy:  $\pm (1^{\circ}\text{C} + 1 \text{ digit})$ .

Tempco:  $\pm 25 \text{ ppm/ K}$

### Thermocouples

E, J, K, S, R, B, C, T.

Cold Junction: 0 to 60°C.

Accuracy:  $\pm (2^{\circ}\text{C} + 1 \text{ digit})$

Tempco:  $\pm 25 \text{ ppm/ K}$

## SPECIFICATIONS

**Display** 0 ...  $\pm 999999$ ,  
7 Segments red LED, 57, 100 or  
125mm with DP and sign.

**Averaging filter** with programmable measurements from 1 to 99 for noisy signals or noisy industrial environments.

**Peak and Valley Memory** stores the maximum and the minimum of display readings. The stored data can be recalled into the display.

**Serial Data Ports** RS 232 and RS 485, with 8 bit, no parity, 1 start, 1 stop, 300-19200 bd. The address 00 activates RS232. One of addresses 01-31 activate RS485 and permit operation of up to 31 instruments on one data bus.

## Set Points

Are programmable within the entire display range. They activate two open collector NPN transistors 60V/100mA or two mechanical relay 5A-230VAC.

## Hysteresis

In each set point selectable between 0 and 99.

## Delay

In each set point selectable from 0 to 3900 ms.

## Analog Outputs

0... $\pm 10\text{V}$  or 4-20mA (12 bit) are assigned with the keyboard to any two desired display values.

## Supply

115/230V AC,  $\pm 10\%$

## Alu Cabinet

OC-57:	4 and 6 digits: 112x368x80mm.
OC-100-4:	4 digits: 173x458x80mm
OC-100-6:	6 digits: 173x644x80mm
OC-125-4:	4 digits: 229x535x80mm
OC-125-6:	6 digits: 229x748x80mm

Protection: IP65 - front.

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# Large Displays for parallel BCD Data

- ✓ 6 digit display 0 ... ± 999999
- ✓ BCD parallel or multiplexed
- ✓ Addressable Bus Operation
- ✓ Option: Four Set Point Relays
- ✓ Option: Analog Output
- ✓ Option: Output Bus RS232/RS485
- ✓ Supply 115/230VAC
- ✓ Excitation 5 - 24VDC



## Large Displays OC-57-BCD, OC-100-BCD and OC-125-BCD

are 6 digit programmable monitors/controllers for BCD data ports. The displays accept parallel or serial multiplexed data formats of all 6 digits.

Four Set Points, two Analog Outputs and two Serial Output Data Ports are options.

**Four Set Points** (option) are used in control applications and can be set within the entire display range. They control four open collector transistors or four relay.

**Two analog outputs** (option) ±10V and 0/4-20mA are generated simultaneously. They represent a direct BCD parallel conversion into the corresponding analog output and can be assigned with the keypad to any two display values.

**Two serial output data ports** RS232 and RS485 (option) represent the BCD parallel conversion into serial data output and can be used for sending the displayed data to a PC, a remote display, programmable controller or any other acquisition systems.

The parameters are entered with the keyboard and remain stored in a non-volatile memory also when the instrument is switched-off from the power.

Up to 63 same instruments can operate at one data bus.

## SPECIFICATIONS

### INPUTS

**BCD parallel:** 24 data bit and 1 sign bit with common GND.

**BCD serial:** 4 bit, 6 strobes with 6 bit binary coded address 0-61.

**Logic:** 5V ... 64V, positive logic, 1-2-4-8 coding,  $Z_{inp} = 100k\Omega$ .

### SET POINTS

Four NPN open collector transistors 60V/100mA or four mechanical relay 5A-230VAC. Range of adjustment ± 999999.

### ANALOG OUTPUTS

0 ... ±10V and 0/4-20mA can be assigned to any two display values. Resolution 12 Bit.

### SERIAL DATA OUTPUTS

RS232 and RS485 with 8 bit, no parity, 1 start, 1 stop, 300-19200 bd and address 01 - 31.

### EXCITATION

Adjustable between 5-24V/40mA.

### SUPPLY

115/230V±10%, 48-60Hz.

### DISPLAY

6 digit, 7 segment LED, 57, 100 or 125mm, red, with a sign and decimal points.

### KEYBOARD

Five keys for setting of parameters. The keyboard is located at the instrument's rear.

### CABINET black anodized

OC-57: 4 and 6 digit:  
112x368x80mm.

OC-100-4: 4 digit:  
173x458x80mm

OC-100-6: 6 digit:  
173x644x80mm

OC-125-4: 4 digit:  
229x535x80mm

OC-125-6: 6 digit:  
229x748x80mm

Protection: IP65 - front.

### TERMINALS

Mains: Mains socket  
Inputs: D-SUB  
Outputs: D-SUB

## Large Displays for Profibus DP

- ✓ 6 digit Display  $\pm 999999$
- ✓ Digit Size 57, 100, 125mm
- ✓ Input for Profibus DP
- ✓ One Set Point Relay
- ✓ 115/230VAC or 24V DC



**Large Displays OC-57-DP, OC-100-DP and OC-125-DP** are 6 digit programmable numerical monitors for a direct connection to the Profibus DP. They are available with 57mm, 100mm or 125mm red segments and display the data from the connected Profibus with decimal point and sign. With the keyboard at the rear panel one Set Point with a Relay output can be programmed across the entire display capacity. The large displays are supplied from the mains or from 24VDC and are suitable for panel or wall mount. The Profibus is connected via the D-SUB at the rear panel. The instrument's front is IP65 protected.

### SPECIFICATIONS

Termination	3 wire connection	
Connection	Cu cable according to EN 50170	
Transmission Rate	9.6 kBaud ... 12 MBaud	
Terminals	D-SUB 9, female	
Set Point	Option: programmable within the entire display range	
Supply	115/230VAC-9VA or 24VDC (18-36V)-6W. Pluggable screw terminals	
Operating Temperature	0 ... 55 °C	
Isolation	250V RMS between the field bus and the internal electronics	
Display	6 digits red 7 Segment LED with decimal point and sign	
Cabinet		
OC-57:	6 digits:	112x368x80mm.
OC-100-6:	6 digits:	173x644x80mm
OC-125-6:	6digits:	229x748x80mm
Front Panel Protection	IP65	