

# OCB777 Bargraph

## Owner's Manual

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## **SICHERHEITSHINWEISE**

Das Gerät muss mit selbständiger oder gemeinsamer Sicherung (Schutzschaltern) gesichert werden.  
Für die einzuhaltenden Sicherheitshinweise s. auch EN 61 010-1 + A2.

Das Gerät ist nicht explosionsgeschützt!

## **TECHNISCHE NORMEN**

Die Anzeigen der Typenreihe OCB777 entsprechen der Europäischen Verordnung 89/336/EWG.

Sie erfüllen die Forderungen der folgenden europäischen Normen:

EN 55 022, Klasse B

EN 61000-4-2, -4, -5, -6, -8, -9, -10, -11.

Das Gerät ist zur unbeschränkten Anwendung in Landwirtschaft und Industrie geeignet.

## **ANSCHLUSS**

Die Stromzuleitung von der Hauptspannungsquelle muss von den Messleitern getrennt verlegt werden.

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## Vor dem Einschalten

Überzeugen Sie sich, ob Ihre Sendung das richtige Gerät Orbit Controls Modell OCB777 beinhaltet, einschließlich einer Betriebsanleitung OCB777.

Vor dem Einschalten des Gerätes überprüfen Sie die Anschlüsse und die Versorgungsspannung. Ein falsch angeschlossenes Gerät kann beschädigt werden und damit auch die mitverbundene Folgeelektronik. Für falsche Handhabung wird jede Haftung abgelehnt.

### ZU BEACHTEN

Dieses Gerät wurde sorgfältig verpackt. Falls es bei Ihnen in beschädigtem Zustand eintrifft, benachrichtigen Sie unverzüglich den Orbit Controls Kundendienst (Tel: +41 44 730 2753 oder Fax: +41 44 730 2783) und nehmen Sie einen Schadenrapport auf, welchen Sie auch von der Transportgesellschaft unterschreiben lassen. Bewahren Sie bitte das Verpackungsmaterial für eventuelle Reklamationen auf.

## Unpacking Instructions

Remove the Packing List and verify that you have received all equipment, including the following:

- Orbit Controls Model OCB777.
- Operator's Manual OCB777.

If you have any questions about the shipment, please call the Orbit Controls Customer Service Department.

### NOTE

*When you receive the shipment, inspect the container and equipment for signs of damage. Note any evidence of rough handling in transit. Immediately report any damage to the Orbit Controls customer service, Phone +41 44 730 2753 or Fax +41 44 730 2783 and to the shipping agent. The carrier will not honour damage claims unless all shipping material is saved for inspection. After examining and removing contents, save packing material and carton in event the reshipment is necessary.*

- √ Process Signals 0/4-20mA or 0-10VDC
- √ 50 Bargraph Segments, 5 digit Display
- √ 244mm Bargraph length
- √ 0 - 100% Scale
- √ Two or three parallel bars
- √ Two Set Point Relays 250V-5A AC
- √ Supply 230VAC or 24VDC
- √ DIN case



**OCB500** with 50 Bargraph Segments and a five digit high resolution Display is designed for connection to analogue process signals. The gauge is key programmable and permits settings of two Set Points with open collector Transistors or two mechanical Relays. In the measuring mode the digital display follows the input signal and permits high resolution of 16 Bits. In the programming mode the display shows the parameters.

The parameters will be set with keys behind the front lens. The menu permits selection of two Set Points, digital Filter, Display counting mode and Scaling of the Bargraph and the digital Display.

The controller is enclosed in a DIN case 288 x 96mm and supplied from 24VDC or 115/230VAC. The input signals, the Set Point outputs and the supply are connected via pluggable screw terminals at the rear.

The Service Menu *HtESt* is for checking the instrument's performance and making the calibration.

**Two Set Points** can be selected within the display range of -9999 to +99999. They operate two mechanical relays. Hysteresis can be set for each Set Point.

**Input Range** is factory set for 4-20mA inputs.

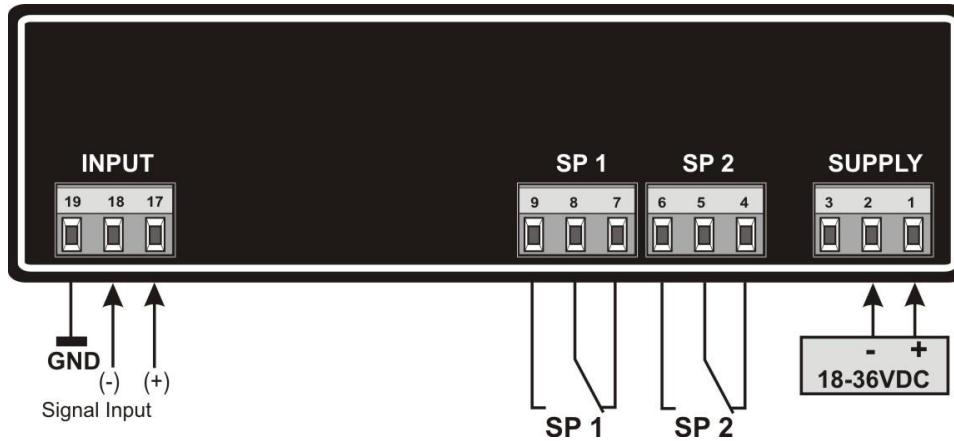
**Digital Filter** calculates the average value of a number of measurements before the value is displayed. The filter value can be set OFF, or 1 ... 99 measurements to smooth noisy input signals.

**Tare** function is activated by the SET key behind the lens. It forces the display to zero. The value remains stored when the power is switched-off from the instrument. The Tare function is primarily determined for calibration and display check at 4mA input signal.

**Display Rate** can be selected between 1 and 50 measurements which refresh the display readings. By selecting 1 the display will refresh at a rate of 15 samples/sec.

**Display Count** can be selected for 1, 2, 5 or 0 counts. With *Count 1* the display increments all numbers 1, 2, 3,...9, 0. With *Count 2* the display increments only even numbers, with *Count 5* the display shows only 5 and 0. With *Count 0* the LSD remains at zero (dummy zero).

## TERMINALS



## SPECIFICATIONS

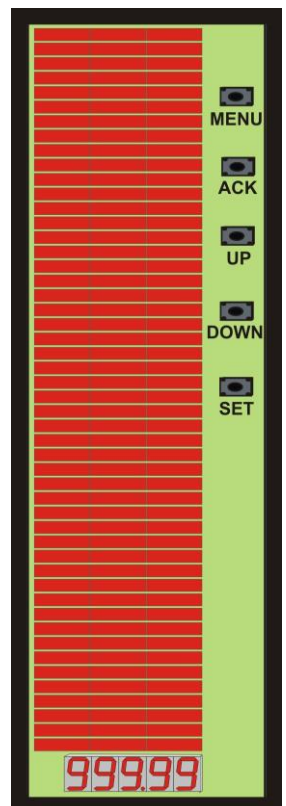
- Displays: Bargraph length: 244mm, 50 red Segments 40mm width (Option: 60mm).  
 Accuracy:  $\pm 1$  Segment.
- Digital Display: 5 digits, 15mm digit size, resolution 16 Bits  
 Accuracy: 0.1% from value.
- Inputs: 0/4-20mA or 0-10VDC
- Set Points: Two open collector NPN Transistors 40V-100mA each  
 Option: two Relays SP1, SP2 with changing contacts 5A-230VAC
- Supply: 115/230V, 10%, 48 ... 60 Hz. Option 18-36VDC
- Cabinet: DIN 288 x 96 x 80mm (WxHxD). Panel cut-out 282 x 92mm
- Terminals: Pluggable screw terminals at the rear

## SETTINGS

The control keys are accessible after removing the front lens and are assigned MENU, ACK, UP, DOWN and SET. They permit setting of the process parameters and selection of two Set Points SP1, SP2.

## MENU STEPS

The key *MENU* opens the Menu and permits scrolling the menu steps on the display. The required parameter will be confirmed with *ACK* and adjusted with *UP* or *DOWN* and confirmed with *MENU* or *SET*. The flashing digit - Cursor - will be positioned with *ACK*. The decimal point and the sign can be set when the cursor is positioned outside the display (no flashing digit). The sign and the decimal point can then be set with *UP* or *DOWN*.



**IMPORTANT!** The values have always to be set with a decimal point even after the last digit. (e.g. at SP1: 0.20 = 0.20 or 02.0 = 2 or 020. = 20)

Key	Display	Function
MENU	SP1	Set Point SP1
ACK	XXX	Adjust the value of SP1 with UP or DOWN
MENU	HS1	Hysteresis of SP1
ACK	XXX	Set the Hysteresis of SP1 with UP or DOWN
MENU	SP2	Set Point SP2
ACK	XXX	Adjust the value of SP2 with UP or DOWN
MENU	HS2	Hysteresis von SP2
ACK	XXX	Set the Hysteresis of SP2 with UP or DOWN
MENU	Set Lo	Minimum value of the digital display
ACK	XXX	Set the value with UP or DOWN
MENU	SEtHi	Maximum value of the digital display
ACK	XXX	Set the value with UP or DOWN
MENU	bAr Lo	Minimum value of the Bargraph
ACK	XXX	Set the value with UP or DOWN
MENU	bAr Hi	Maximum value of the Bargraph
ACK	XXX	Set the value with UP or DOWN
MENU	d.P.	Decimal point selection
ACK	CCC.ddd	Set the position with UP or DOWN
MENU	FILtE	Digital Filter
ACK	XXX	OFF, Fi 1, 2, 5 .... 99. Set with UP or DOWN
MENU	Count	Counting of the last display digit
ACK	XXX	Cnt 0, 1, 2, 5
MENU	dISPL	Refreshing rate of the readings
ACK	XXX	dSP 1, 2, 3 ..... 50
MENU	StArt	Measuring Modes

### Function TARE (key **SET** at the display board)

The Tare Function can be used for fast calibration of the 4mA input signal. By pressing the SET key the display is forced to show the value set in the Menu Step *Set Lo*. Please note that the input signal must be 4mA when the key SET is pressed. If the input current is not exactly 4mA, the display reading in the measuring mode will be incorrect.

## BURST TEST and RECOMMENDED GROUNDING

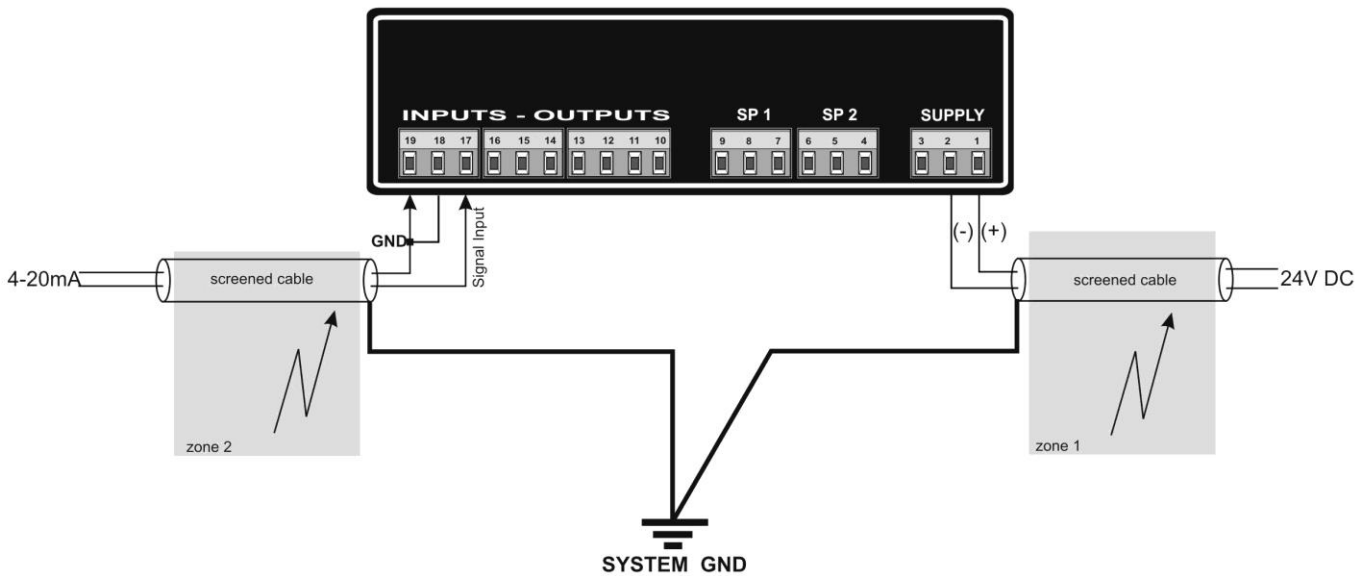
**Tester:** EM Tester Type UCS 500M2, SN: 0499-41  
**E.U.T.:** OCB777, SN: 20151015-1, Supply 24VDC  
 OCB777, SN: 20151015-2, Supply 230VAC  
 Input: 4-20mA  
 Display: 0-100  
 Bargraph: 0-100%

**Test Conditions Zone 1 Instruments with AC Supply**  
 According to: IEC 61000-4-4 level 3 2000V  
 EN 50052-2 generic 2000V

**Burst into Antenna Zone 2 Instruments with DC Supply**  
 Burst Voltage 2500V, f = 5 kHz  
 fr = 300 ms  
 td = 15 ms Coupling +/-

**Test Conditions Zone 2 Instruments with DC Supply**  
 The supply and the signal lines are tested together in the Antenna Zone 2, see Test Set-Up.  
 The terminal 1 and the Cable Screen are connected to the **System GND**

### Test Set - Up



### Test Results

Zone 1: Digital Display and Bargraph without change  
 Zone 2: Digital Display and Bargraph without change

Technician: S. Batinic 15. October 2015