

- ✓ Quadrature Counter
- ✓ UP-DOWN Counter
- ✓ Tachometer-Frequency Counter
- ✓ 0.01 Hz-100 kHz Frequency Range
- ✓ Free scalable Display
- ✓ Two Set Point Outputs
- ✓ Last Reading Memory
- ✓ Pulse Width Measurement



Orbit Controls OC1135 is a 5 digit counter with programmable functions for Quadrature Positioning Counter with bi-directional incrementing, Up-Down Counter and Tachometer-Frequency Counter. The instrument is designed for industrial applications in connection with digital encoders, magnetic pick-ups and other industrial pulse sources.

The programming with three keys behind the front lens contains the selection of Scale, Preset, Filter, Sampling and Reset Time, Password and two Set Points.

The function as a Quadrature counter, up-down counter or tachometer is programmable with the front keys.

Incremental-Quadrature Counter is designed for fast positioning applications by using two 90° phase shifted A and B signals from linear or rotative incremental resolvers. The counting direction is automatically derived from the phase shift of the input signals. The display increments with each signal edge.

Up-Down Counter can be used for bi-directional counting applications. The pulses to be counted are connected to the input A. The logic signal at the input B determines the counting direction up or down.

Tachometer - Frequency counter will be used for measurements of RPM, speed, frequencies and other dynamic applications at which frequency is the input. The display is selectable in required process units. The input signal can be entered from one or two signal sources. When an incremental resolver is connected, the display can bi-directionally indicate RPM.

Pulse Width Counter is a SW Option which permits time measurement of a positive portion of a square wave input signal from 1ms to 10 000ms.

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 exceed the value of 99999 with decimal point behind the LSD, the display indicates the overflow by **UnDEF**.

Preset has 5 digits with decimal point and sign. The programmed value can be inserted into the display with the keys. The display starts counting or incrementing at the Preset.

Scale of the display can be achieved with both, multiplication and division. Multiplication has free programmable 5 digit number 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 mm, inch, LPM, Gallons, m/sec, RPM etc.

Averaging Filter has filter constants programmable from 1 to 99 and permits the instrument to measure signals from resolvers which vibrate or from signal sources at noisy environments.

Last Reading is automatically stored when the instrument is switched-off from the supply. When the power is applied again, the display starts counting at the stored last reading value.

MENU

The menu can be opened and the parameters programmed with keys behind the front lens:

PASS Password permits entering the menu and programming of the instruments parameters.

PRESET is a 5 digit additive constant (Offset) with the decimal point and the sign.

SCALE is a 5 digit multiplicative constant with decimal point and sign.

DSCALE is a dividing constant selectable from :1 to :10000 in decimal steps.

ORDER determines the display resolution by placing the decimal point from X.XXXX to XXXXX.

FBASE is activated in the Tachometer-Frequency counter function. It determines the measuring time from 220 ms to 120 sec.

OBASE is activated in the Tachometer-Frequency counter function. It determines the time between two consecutive input pulses prior the display resets to zero. The reset is programmable from 0.22 to 120 sec.

PASSWORD permits setting of the password as one of 20 firm memorized combinations.

FILTER is an averaging filter with filter constants free programmable from OFF to 99.

SP – SP2 are two Set Points with optocouple transistor outputs 28V/10mA. The outputs are isolated from the inputs and the internal counter circuitry. The emitter outputs are internally connected to (-) of the supply.

SPECIFICATIONS OC1135

DISPLAY

0....±99999, 7 segment LED red, 8 mm.

INPUTS

DC-100 kHz, positive logic 5 V protected to 28 V.

Counter Mode

Range: DC-100 kHz

Tachometer mode

Range: 0.01Hz-100 kHz

Pulse Width Measuring Mode

Range: 1ms to 10 000ms

PRESET/RESET

Additive constant (offset) is programable from 0 to ±99999 with decimal point and sign. The preset can be inserted into the display with the front key or with external positive signal 5-28 V. With the preset value 00000 the display will be set to zero.

SET POINTS

Two optocoupler transistor outputs 35V/30mA are standard. The emitters are internally connected to (-) terminal of the supply voltage.

SUPPLY

24V DC ±10%, 2 W.

Option: 9 - 36 V DC, 3 W.

CABINET

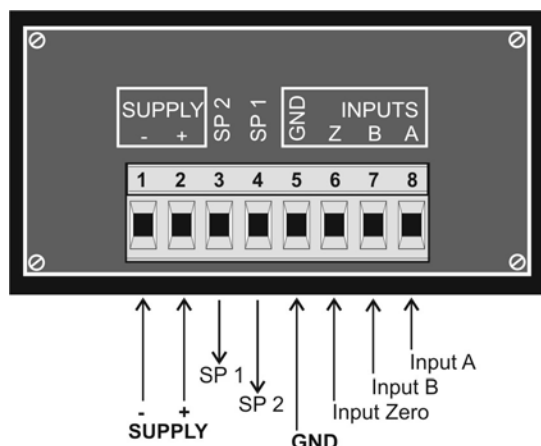
DIN 24x48 mm, 65 mm depth behind the front.

Panel cut-out 21x42 mm.

TERMINALS

Pluggable screw terminals

TERMINALS



TO ORDER

OC1135 – 1

Supply 24VDC ± 10%

OC1135 – 2

Supply 9-36VDC

OC1135 P

Pulse Width Measurement

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