

OC 7040A Programmable Controller LAN, WebServer

- ✓ 6 digit Display ± 999999
- ✓ $\pm 100\,000$ true increments
- ✓ 0/4-20mA, 200mV to 300VDC
- ✓ 20mV for Strain Gauges
- ✓ Potentiometric Input
- ✓ Pt-100, Pt-200, Thermistor
- ✓ Thermocouples J, K, E, S, B, T, C
- ✓ True R.M.S. measurements
- ✓ Four Set point Relays
- ✓ Two Analogue Outputs
- ✓ Two Serial Data Ports



OC7040A is a six digit programmable controller with 100000 true increments. They can be scaled within the full display range 0-999999. The controller is mainly designed for process signals such as 0/4-20mA, 20mV to 300V DC or true RMS, strain gauges, Pt-100, Pt-200, Thermistor, Resistors and DIN-Thermocouples.

By using the keyboard, the input signal can be assigned to any two desired display values, such as 4-20mA = 0-18500.

The menu contains four Set Points, two Analog Outputs, two serial Data Ports, the Filter, the Tare, the Sampling Rate, the Display Resolution, the Display Counting, and the Password.

Four Set Points can be set within the entire display range. They activate four open collector transistors or four mechanical relays. Each set point has programmable hysteresis and delay.

Serial Data Ports RS232 and RS485 with free programmable parameters can be used for communication with controllers, PCs, remote displays and other data acquisition systems.

Digital Filter can be used in noisy environments or for unstable signals and calculates the average value of the preselected number of measurements prior they arrive at the display. The filter constant can be set from OFF to 99.

Tare can be activated with the keyboard and force the display to zero. The Tare remains memorized also when the instrument is switched-off from the supply. The Tare can be canceled at any time and the display returns to follow the original input signal.

Analogue Outputs 0/4-20mA and 0-10V can be used as direct or inverted and assigned to any two display values.

Peak and Valley memory measures and stores the maximum and the minimum value the display achieves during the entire measuring period.

With the keyboard the display can be selected to show the momentary measured signal, the minimum or the maximum value. If e.g. the maximum value is selected, the display will continuously show the maximum and will be overwritten with any higher value.

Password can be used to protect the instrument from unauthorized operation.

Excitation for external sensors is isolated and adjustable from 5 to 24VDC - 40mA. Optional 1mA constant current output is available for special applications.

The instrument is enclosed in a 48x96mm DIN cabinet and powered from the mains or DC supply. The front is IP65.

SPECIFICATIONS - OC 7040A

INPUTS and RANGES

Voltage

$\pm 100\text{mV}$ to 300V DC or true RMS.

Option 20mVDC for strain gauge

Current

$0/4\text{-}20\text{mA}$, $\pm 20\text{mA}$ to 5A DC or true RMS.

Pt-100, Pt-200

2 or 4 terminals $-200\ldots+650^\circ\text{C}$ to PT385.

OHM

$10\Omega\text{-}100\text{k}\Omega$, 2 or 4 terminals

DIN Thermocouples

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

Cold Junction

Ambient temperature $0 - 60^\circ\text{C}$.

Thermistor

9796Ω @ 0°C , 27936Ω @ 0°C

ACCURACY

DC ranges

$\pm (0.01\%+1\text{digit})$ from value.

True RMS

DC - 5kHz : $\pm (0.1\%$ from value + 2 digits).

Temperature Pt-100 and T/C

- Pt-100/200*: $\pm(1^\circ\text{C}+1\text{digit})$.
- T/C, Thermis*: $\pm(2^\circ\text{C}+1\text{digit})$.
- Tempco*: $\pm 25\text{ppm}/^\circ\text{C}$.

A-D CONVERTER

Resolution

100 000 true increments.

Sampling Rate

2.5 or 7 samples/sec.

Linearity

$\pm (1\text{LSB} + 1\text{digit})$.

ANALOGUE OUTPUT

Voltage output: $0\text{-}10\text{V}$.

Current output: $0/4\text{-}20\text{mA}$.

Resolution: 12 Bit.

Option: 16 Bit

Both outputs are generated simultaneously and available at the output at the same time.

SERIAL DATA BUS

RS232 and RS485 with 8Bits, No Parity, 1 Start, 1 Stop, 600-19200 bd. RS485-Address: 01-31

RS232: Continuous Transmission

RS485: Request Transmission.

Isolation 250V RMS.

FILTER

Average filter with programmable constants 1 to 99 is suitable for noisy and disturbed signals.

SET POINTS

Four 6 digit Set Points with hysteresis control four NPN open collector transistors $60\text{V}\text{-}100\text{mA}$ or four mechanical relay $5\text{A}\text{-}230\text{VAC}$. Programmable delay from 100ms to 3600ms .

DISPLAY COUNTING

The LSD can be programmed for counting 0,1,2,3...9, or 0,2,4,6..., or 0-5-0-5 or dummy zero.

DISPLAY

0 ... ± 999999 , 7 segments red 14, 7 mm LED with decimal points

SUPPLY

$115\text{V}/230\text{V} \pm 15\%$, 48 - 60 Hz. Option: 24VDC or $9\text{-}36\text{VDC}$.

EXCITATION

Sensor Supply $5\text{-}24\text{VDC}$.

$5\text{V}/40\text{mA}$, $24\text{V}/100\text{mA}$.

Option: 1mA constant current.

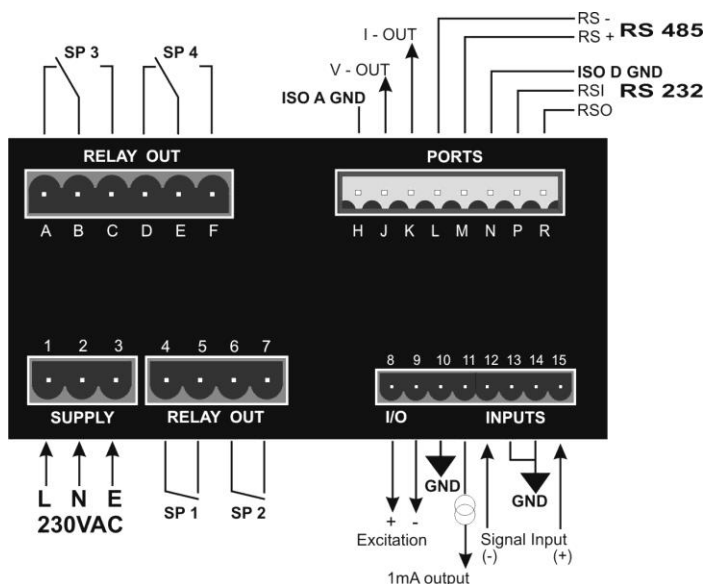
CABINET IP65

DIN $48\text{x}96\text{x}100\text{mm}$ (HxWxD).

Panel cut-out $45\text{x}90\text{mm}$.

Pluggable screw terminals.

TERMINALS



Standard instruments contain two Set Point Relays SP1, SP2, Supply 230VAC (115VAC) and adjustable excitation $5\text{-}24\text{V}$.

Available Options:

- * SP3, SP4 additional 2 Relays
- * Analogue Outputs $0/4\text{-}20\text{mA}$ and $0\ldots\pm 10\text{V}$
- * Serial Data Ports RS232 and RS485
- * Supply $9\text{-}36\text{VDC}$
- * Customized Software