

Digital Display Unit HDA 5500

Description:

The digital display units in the HDA 5500 series are microprocessor-controlled display and monitoring instruments designed for control panel installation.

Different versions are available with a maximum of 3 analog inputs, an analog output (4 .. 20 mA or 0 .. 10V) and up to 4 relay outputs.

The analog input signals are displayed according to the settings selected by the user.

Each of the relay outputs can be allocated to each of the sensor inputs or to the differential between input 1 and 2.

A PT 100 temperature probe can be connected directly to the instrument. There is also an option for frequency measurement using the HDS 1000 (HYDAC rpm probe), for example to measure the speed of rotating components.

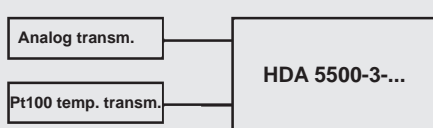
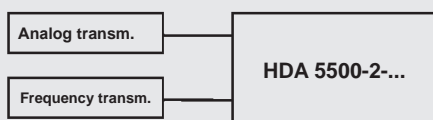
Depending on the model, it is also possible to connect SMART sensors (condition monitoring sensors). SMART sensors are a generation of sensors from HYDAC which can transmit several different measured values.



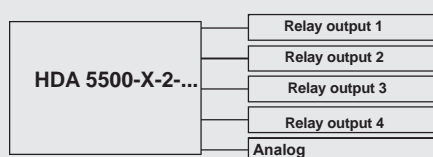
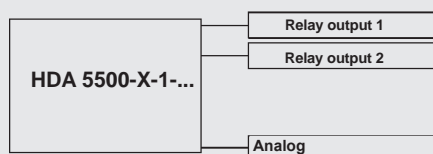
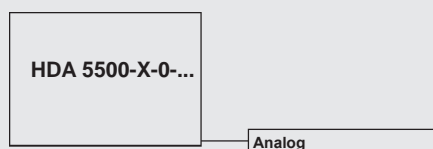
Special features:

- Digital display of analog signals
- Clear 4-digit 7-segment LED display
- Up to 3 analog inputs (4 .. 20 mA, 0 .. 10 V or 0 .. 5 V)
- Accuracy $\leq \pm 0.5 \%$
- Differential measurement possible
- Analog output (4 .. 20 mA or 0 .. 10 V)
- Up to 4 relay switching outputs
- RS 232 interface
- Voltage supply 12 .. 32 V DC or 85 .. 265 V AC 50 / 60 Hz
- Option for PT100 sensor input or frequency input

Input models:



Output models:



Connection terminals:

Supply voltage:
plug-in terminal block 2 pole, RM 5.08
(cross section max. 2.5 mm²)

Inputs / outputs:
plug-in terminal block 11 pole, RM 3.5
(cross section max. 1.5 mm²)

Relay:
plug-in terminal block 5 pole, RM 5.08
(cross section max. 2.5 mm²)

Technical data:

Display range

Display 4-digit 7-segment LED display, red,
height of digits 14.2 mm
3 LEDs for active sensor, 4 LEDs for switch points

Display range - 999 .. 9999 (user-adjustable)

Display units with background lighting bar, kg/cm², MPa, psi, °C, °F, mA, V, Hz, kN, m, mm, inch, l, l/min, gal, gal/min, 1/min, %, t

Input data

Analog signal input(s)

Measuring range(s) (up to 3 analog inputs) select: 4 .. 20 mA, 0 .. 5 V, 0 .. 10 V or 4 .. 20 mA sequential (Modification 006)

Accuracy ≤ ± 0.5 % at 77 °F

PT 100 input

Measuring range - 13 .. 212 °F

Accuracy ≤ ± 0.5 % at 77 °F

Frequency/counter input

Signal threshold 0 .. 0.6 V = LOW, 3 .. 24 V = HIGH

Frequency range 15 Hz to 24 kHz

Output data

Analog output 4 .. 20 mA, load resistance ≤ 400 Ω or 0 .. 10 V load resistance ≥ 2 kΩ

Accuracy ≤ ± 0.5 % at 77 °F

Rise time 70 ms

Switching outputs

Type 2 or 4 relays each with separate common supply

Switching voltage 0.1 .. 250 V AC

Switching current 9 mA .. 2 A

Switching capacity 400 VA, 50 W
(for inductive load, use varistors)

Life expectancy of switch contacts ≥ 20 million cycles at minimum load
≥ 1 million cycles at maximum load

Reaction time approx. 20 ms

(with switching delay = 0 ms)

Setting range of switch points 1.5 .. 100 % of the pre-set display range

Setting range of the switching hysteresis (switch-back points) 0.5 .. 99 % of the pre-set display range

Interface

Serial interface Baud rate 19200 Bauds; 8 data bits;
RS 232 2 stop bits; no parity;
no handshake

Environmental conditions

Nominal temperature range 32 .. +122 °F

Operating temperature range 32 .. +122 °F

Storage temperature range -40 .. +176 °F

CE mark EN 61000-6-1 / 2 / 3 / 4

Other data

Housing control panel housing 96 x 48 x 109 mm;
control panel cut-out 92 (+0.8) x 45 (+0.6) mm;
front panel thickness 1.25 .. 15 mm;
maximum installation depth 121 mm

Supply voltage 12 .. 32 V DC or 85 .. 265 V AC, 50 / 60 Hz

Power consumption 15 VA at 85 .. 230 V AC – fuse protection 1 AT

Supply of the meas. transmitter 12 V DC ± 1 %; max. 20 mA / analog input

Residual ripple of supply voltage ≤ 5 %

Weight approx. 320 g

Note: Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection are provided.

Model code:

HDA 5 5 0 0 - X - X - XX - 00X

Inputs

- 0 = One analog input
- 1 = Three analog inputs
- 2 = One analog input + frequency input / counter function
- 3 = One analog input + PT 100 input

Outputs

- 0 = 1 analog output
- 1 = 1 analog output + 2 relay outputs
- 2 = 1 analog output + 4 relay outputs

Supply voltage

- AC = 85 .. 265 V AC
- DC = 12 .. 32 V DC

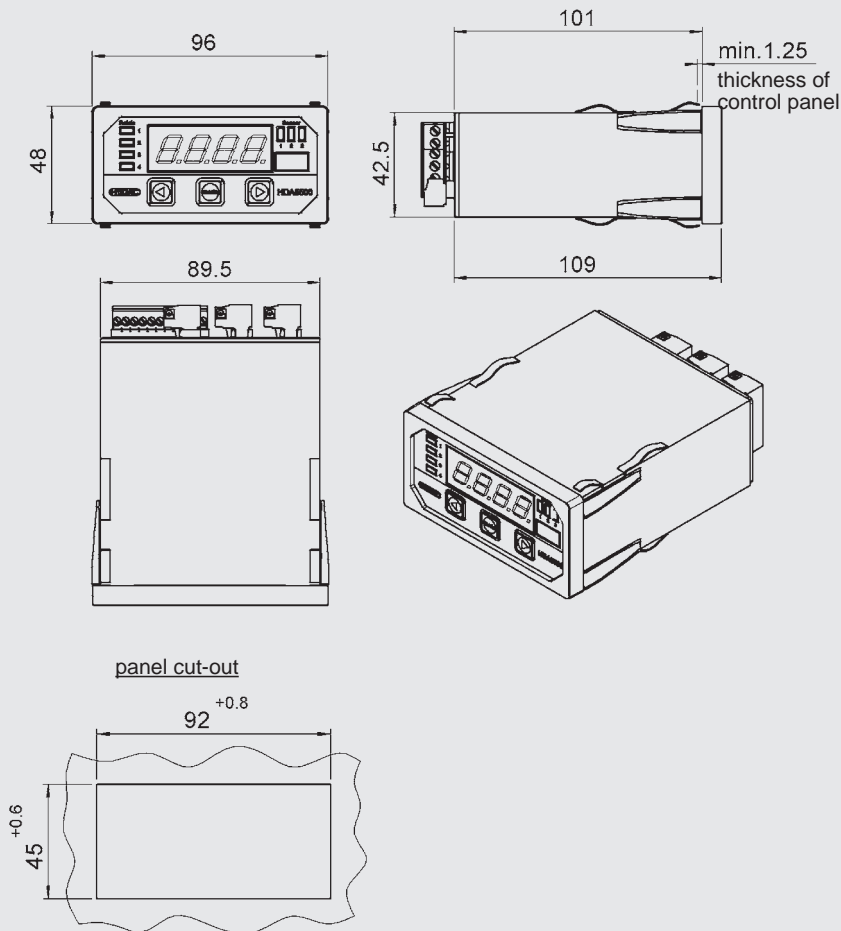
Modification

- 000 = Standard
- 006 = Model with sequential analog input for HLB 1300 and CS 1000 (only possible on input model "0" and output model "2")

Notes:

The information in this brochure relates to the operating conditions and applications described. For applications and operating conditions not described, please contact the relevant technical department. Subject to technical modifications.

Dimensions:



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