



DHB-102, Digital indicator

Code: M22021. **DESCATALOGADO**

> N° relays: 1 > Measure: imp., Hz.

> Paramètre: Impulses, frequency, circular speed, periods, worktime, encoder position

> Mounting: Pannel

Description

Panel mounted digital devices designed to display on-screen the value of a electrical variable measured or proportional value of a process signal, depending on the model. Essential for regulation purposes, programming the analogue output available in some models, and for control purposes, if the relay outputs are used as alarms.

DHB units are fully programmable and the following can be programmed: scale, transformation ratios, alarm setpoints to activate relays, communications, colour of the numbers displayed on screen, etc. Depending on the model, you can measure the electrical parameters of a single-phase installation such as voltage, current, frequency, power, $\cos \phi$, etc., the direct voltage or current of an installation, impulses, frequency, circular speed, periods, time, temperature and also other voltage and current process variables. AC models calculate the true root mean square measure (TRMS).

The models include the following common features:

- o IP 65 front panel
- o High measurement accuracy
- o Programmable measurement input
- Delay and latching alarms
- o 24 Vdc output for supply external transducers (DHB 1xx and DHB 4xx models)
- o Galvanic insulation between external circuits
- o Adjustment of non-linear equations with 21 straight points (2 in the DHB 3xx model).
- O Change in colour of the display depending on the value shown.
- Maximum and minimum values
- o Clock with current time
- o Self-configurable decimal point
- o Compatible with Power Studio (model with communications)
- o Installation on 96 x 48 mm panel

Application

These digital instruments have multiple applications. Thanks to their very bright 5-digit and 3-colour screen, you can simply view a numerical value and an alarm or prealarm status of a measured variable. Depending on the model selected, displayed on-screen are the electrical parameters of a single-phase installation as a power analyzer (voltage, current, power, frequency, etc.).

Other models allow to visualize the value of an analogue signal, show impulses received through an input, temperature, time, circular speed and many other variables that depends on the device and the configuration. The indicators also let you operate any external element, using the panel unit outputs as alarms depending on the value of a variable or as a transducer of the measured variable to an analogue signal, which is subsequently sent to another unit, such as a PLC.

Apart from displaying the values, units with communications also allow you to send data via the RS-485 communication bus for software or PLC integration.







Panel mounted digital instruments

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Specifications

CAT III 300 V Consumption 1,26 W Nominal voltage 85253 Vdc Mechanical characteristics Size (mm) width x height x depth 96 x 48 x 93 (mm) Envelope Self-extinguishing V0 plastic Weight (kg) 0,23 Environmental characteristics Protection class IP 65 (Front), IP 10 (rear) Relative humidity (without condensation) 2595 % Storage temperature -33470 °C Working temperature -25455 °C Electrical safety, Maximum height (m) 2000 Standards UNE EN 61000-6-2, UNE EN 61000-6-4, UNE EN 61010-1 User interface LED 7 Keyboard 4 keys Display type 7 segments (5 digits) LED	AC power supply	
Frequency 40400 Hz Nominal voltage 85253 Vc.a. December supply	Installation category	CAT III 300V
Nominal voltage 85253 Vc.a. De power supply Linstallation category CAT III 300 V Consumption 1,26 W Nominal voltage 85253 Vdc Mechanical characteristics Size (mm) width x height x depth 96 x 48 x 93 (mm) Envelope Self-extinguishing V0 plastic Every Consumption 2295 % Relative humidity (without condensation) 2595 % Storage temperature -33470 °C Working temperature -25455 °C Standards Electrical safety, Maximum height (m) 2000 Standards UNE EN 61000-6-2, UNE EN 61000-6-4, UNE EN 61010-1 User interface LED 7 Keyboard 4 keys Display type 7 segments (5 digits) LED Analogue outputs Current mode, nominal range 020 mA or 420 mA Current mode, nominal range 020 mA or 420 mA Voltage mode, nominal output range 010 Vdc Display relay outputs	Consumption	1,29 VA
Installation category Consumption 1,26 W Nominal voltage 85253 Vdc Mechanical characteristics Size (mm) width x height x depth Envelope Self-extinguishing V0 plastic Weight (kg) 0,23 Environmental characteristics Frotection class Protection class Protection class Relative humidity (without condensation) 2595 % Storage temperature 3370 °C Working temperature 2595 °C Standards Electrical safety, Maximum height (m) 2000 Standards UNE EN 61000-6-2, UNE EN 61000-6-4, UNE EN 61010-1 ED Keyboard 4 keys Display type 7 segments (5 digits) LED Analogue outputs Current mode, nominal range 020 mA or 420 mA Voltage mode: minimum load resistance \$5000	Frequency	40400 Hz
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Keyboard 4 keys Display type 7 segments (5 digits) LED Analogue outputs Current mode, nominal range Current mode: minimum load resistance ✓ 500Ω Voltage mode, minimum load resistance ≥ 500Ω Voltage mode: nominal output range O10 Vdc Digital relay outputs Outputs Digital relay outputs Output Digital relay outputs Output Digital relay outputs Output Digital relay output Digital relay output Output Digital relay output Output Digital relay output Output Digital relay output	User interface	
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Voltage mode: nominal output range 010 Vdc Digital relay outputs	Current mode: minimum load resistance	≤ 500Ω
Digital relay outputs	Voltage mode, minimum load resistance	≥ 500Ω
	Voltage mode: nominal output range	010 Vdc
Maximum current 0,5 A	Digital relay outputs	
	Maximum current	0,5 A







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Maximum open contact voltage	250 Vac
Electrical life	1x10 ⁵ ciclos (250 Vc.a./5 A)
Mechanical life	1x10 ⁶ cycles
Maximum switching capacity	1500 W o 1250 VA
Measurement accuracy	
Frequency measurement	0,01
Pulse number	± 1 impulso (IN1/IN2)
Time period	<10 s : 0,000111 s / >10 s : 0,00013600 s
Rotation speed	0,0599999 rpm
Display ranges	
Run time meter	0 99999 h
Encoder	-19999 99999
Frequency	<10 kHz : 0,0599999 Hz / >10 kHz : 199999 Hz
Current time	00:00 23:59
IN1/IN2 pulse meters	-1999999999
Time period	<10 s (0,0001 11s) / >10 s (0,0001 3600s)
Rotation speed meter	0,0599999 rpm
Open collector output	
Туре	NPN
Voltage	30 Vc.c. / 30 mA
External transducer power supply output	
Voltage / Current	24 Vc.c. / 30 mA
Input signal	
Voltage	5 36 Vc.c.
Input types	
Encoder (maximum frequency)	10 kHz
Frequency	<10 kHz : 100 kHz / >10kHz: 1MHz
Maximum time frequency	100 kHz
Maximum pulse input frequency IN1/IN2	10 kHz / 8 kHz
Maximum rotation speed frequency	100 kHz









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Dimensions





