



Frequency measurement digital indicator A005f

A005f is high precision frequency and period of signal digital measurement device. Five digits LED with 20mm height, allows to read the measurement values from big distant.

Advance auto range algorithm is implemented. Device always count and measure with maximal resolution and accuracy, i.e. all five digits are significant with accuracy better than 0.01% in the whole temperature range and measurement range of 0.1 Hz to 50 kHz

Characteristic:

- Compact 96x48 housing for panel mount
- Large 5 digit LED display with 20mm height
- Status indication by LED's at front panel
- 85...265VAC or 10...36VDC power supply
- Full configurable via function keys on front panel or by PC via Serial interface
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Frequency/period measurement:

- Auto range five digits resolution measurement method.
- Programmable comparator threshold voltage from 0V to 11V
- Programmable Pull-up and Pull-Down resistors
- Separate DC and AC signal input
- +12V non isolated sensor power supply.

Other Standard input/output:

- One contact digital input
- Two Relay digital outputs ~230V ac/5A

Flexible digital outputs function:

- Alarm-comparing value with Hysteresis
- Limit comparing with acknowledge signal
- One shot impulse with defined width
- Time before accept comparison.

Additional Optional modules:

- Galvanically isolated universal analog output
- RS485 Modbus RTU interface
- Sensor supply module

Additional measurement Functions:

- User defined scaling of measurement result in two points
- Correction algorithm of measurement in one or two points
- Linearization table up to 10 points
- Hold function
- Tare function
- Min/max memorizing function

Technical Data:

Measurement:

Frequency measurement range	0.1Hz to 50kHz
Frequency and period measurement accuracy	0.01%, in whole operating temperature range range.
Overvoltage input signal tolerance	up to 30V
Measurement time, set by user	0.1 to 10.0 sec
Programmable Threshold voltage	0.0 to 11.0 V
Programmable Pull up, Pull Down resistors	4k7
Measurement resolution	always 5 digits, decimal point set by user.
Measurement correction	One or two point correction
Electrical isolation (analog output, RS-485, coil-contact of Relay outputs)	3000V

Sensor power supply

Standard	Non isolated +12V/ 200mA
Optional	Isolated 15V/30mA, unregulated

Display and indication

display	7-seg LED display, 5 digits 20mm height Three brightness level
Status	5 LED for status indication

Digital Input/Output

Digital Input	One unisolated contact digital input as standard. Can be used as control signal for special functions as Hold, Tare, Min/Max.
Digital Output	Two relays 230V/5A, SPST-NO as standard.

Optional Analog Output 16 bit, 0.5% accuracy

Voltage	Range 10V or 2-10V, Load >2k \square
Current	Range 0-20mA or 4-20mA, Load <500 \square

Optional Isolated Serial Interface

Type	RS485/RS422
Protocol	Modbus RTU
Boud Rate	1200, 2400, 4800, 9600 and 14400 bps

Power supply:

Power consumption	10VA
AC	85 VAC....264 VAC
DC	10 VDC...36 VDC

Housing:

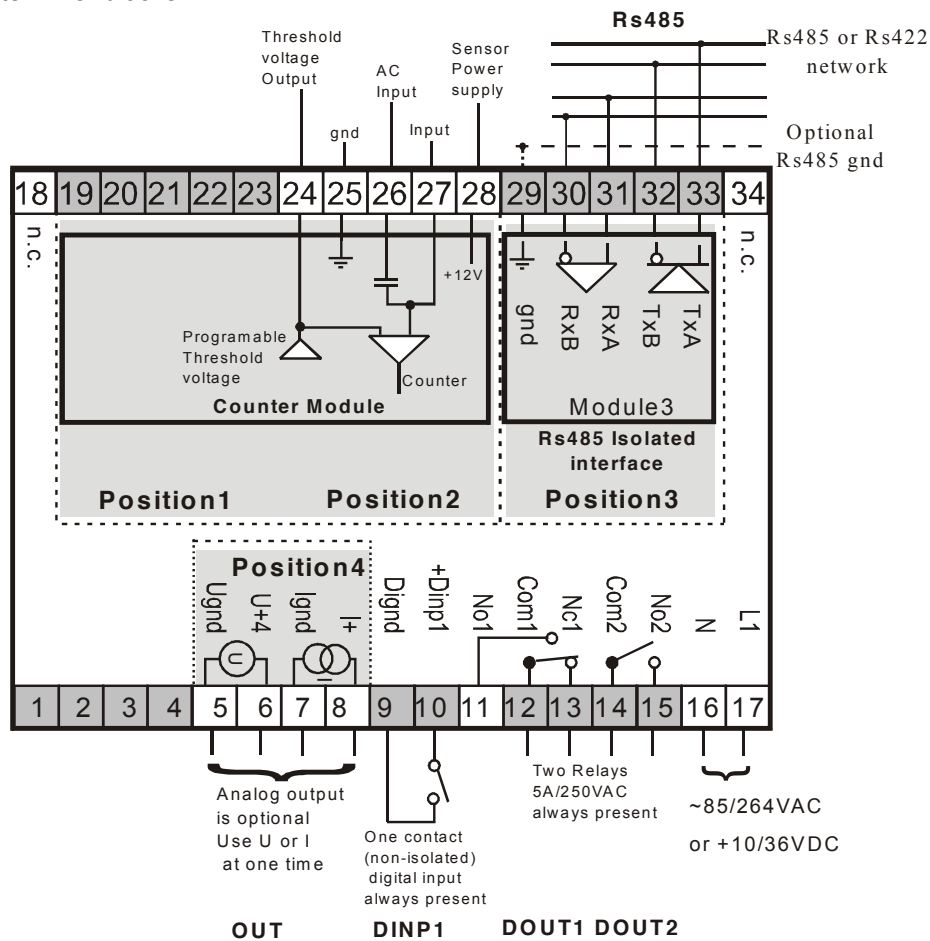
type	ABS housing for front panel mounting, dimensions 48x96x107
protection	Front IP65 back IP20
connection	Cage type screw terminals at the back
Weight	App. 300g

Humidity and climatic

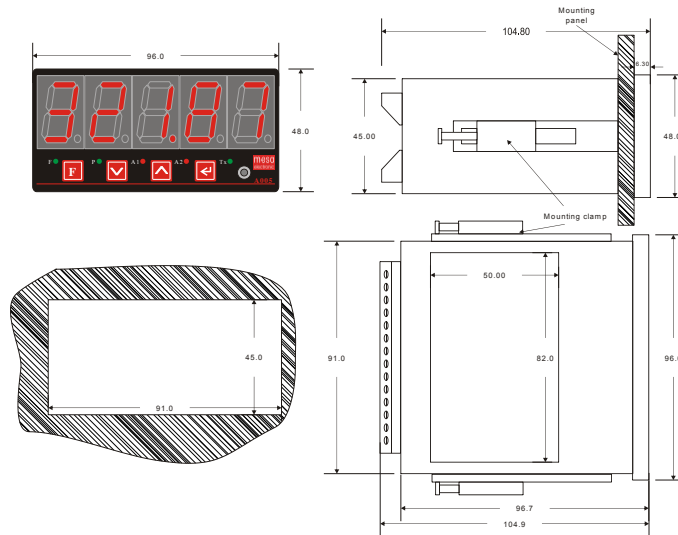
Storage temperature	-40°C...+80°C
Operating temperature	-20°C...+70°C
Humidity	up to 70%, non condensing

Electrical connection:

Screw type terminal blocks.



Mounting:



Order Code as: **A005-A-B-C-D-E-F**

Where code C define optional module at position 3. Code D defines ordering of isolated analog output module, and F defines type of power supply. In the table one can see all possible order codes for one particular code from A to F.

A	B	C	D	E	F	
0	0	0,3a,3b,3c,5	0,1	0	1,2	Possible codes
0	0	0	0	0		None
0	0	3a		0		Module3: "RS-485 module" Isolated RS-485 communication interface for Modbus RTU protocol 2-wires
0	0	3b		0		Module3: "RS-485 module" Isolated RS-485/RS-422 communication interface for Modbus RTU protocol 4-wires
0	0	3c		0		Module3: "RS-232 module" Non-isolated RS-232 communication interface for Modbus RTU or Internal Mesa protocol
0	0	5		0		Module5: "Sensor Power Supply" Non regulated power supply for sensor 15V/30mA
0	0		1	0		Module6: "AOM" Isolated analog output with software configurable ranges
0	0			0	1	Universal AC 115VAC/230VAC Power supply
0	0			0	2	+24VDC Power supply

Ordering code example:

A005-0-0-0-1-0-1 to order AOM module and AC 115VAC/230VAC power supply.

A005-0-0-3a-1-0-2 to order RS-485 2 wire, AOM module +24VDC power supply.