

# Pointer Frequency meters

Analogue indicator to measure frequency



## Description

- Does not need an auxiliary power supply
- DIN box with dimensions: 48, 72, 96 and 144
- Class 0.5
- Built-in electronic converter

## Application

Accurate and easy reading of frequency in alternating current circuits. The distortion of voltage (we shall measure its frequency) can reach 15% of the nominal voltage in the third order harmonic, while the Class is not affected.

## Features

	HC	HM	HZC
<b>Input circuit</b>			
Consumption		2 ... 3 V·A	
Frequency		50 ... 400 Hz	
Overloads		1.5 $I_n$ permanent 15 $I_n$ during 1 s	
Measurement voltage		Standard 230 Vac Optional 100-120 Vac380-440 Vac	
Accuracy		0.5 % FS	
<b>Ambient conditions</b>			
Operating temperature		+10 ... +30 °C	
Limit temperature		- 25 ... +40 °C	
Altitude		2000 m	
<b>Build features</b>			
Dimensions	See the following table		
Weight	See the following table		
Type of box	panel	DIN rail	panel
<b>Degree of protection:</b>			
Front panel	IP 52		IP 52
Terminals	IP 00		IP 00
Insulation voltage	2 kV, during 1 min, between the mechanism and the box		
Standards	BS 89, EN 60051, IEC 144, UL 94, DIN 43780, IEC 51, UNE 21318		

## Coding table

Read HC, HZC and HM	M	1	X	X	X	X	0	0	X	X	
	Code						Internal Code		↑	↑	
	Frequency	Standard (45...55 Hz)						0			
		57..0.63 Hz						1			
		55..0.65 Hz						3			
		45..0.65 Hz						4			
47...53 Hz						5					
Voltage	Standard (230 V)						0				
	100 ... 120 V						1				
	380 ... 400 V						3				
	440 V						4				

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## References


### Pointer Frequency meters, 90°



Frequency meters, 90°						
Type	HC 48	HC 72	HC 96	HC 144	HM 45	
class	0,5					
Scale	90°					
Dimensions (mm)						
	a	48	72	96	144	85
	b	48	72	96	144	52
	c	66,2	49,2	49,2	71,8	65
Weight (g)	95	175	215	425	250	
Hz						
45...55	M12711	M12721	M12731	M12741	M12751	
57...63	M12711001	M12721001	M12731001	M12741001	M12751001	
55...65	M12711003	M12721003	M12731003	M12741003	M12751003	
45...65	M12711004	M12721004	M12731004	M12741004	M12751004	
47...63	M12711005	M12721005	M12731005	M12741005	M12751005	

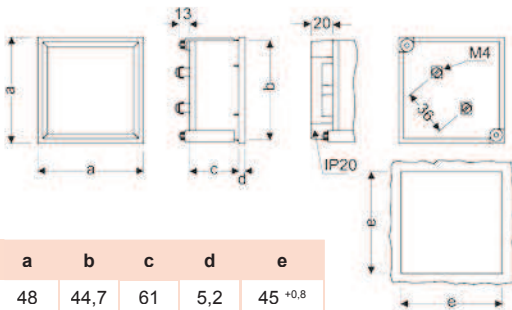
### Pointer Frequency meters, 240°



Frequency meters, 240°			
Type	HZC 96	HZC 144	
class	0,5		
Scale	240°		
Dimensions (mm)			
	a	96	144
	b	96	144
	c	101.2	102
Weight (g)	180	520	
Hz			
45...55	M12831	M12841	
57...63	M12831001	M12841001	
55...65	M12831003	M12841003	
45...65	M12831004	M12841004	
47...63	M12831005	M12841005	

## Dimensions

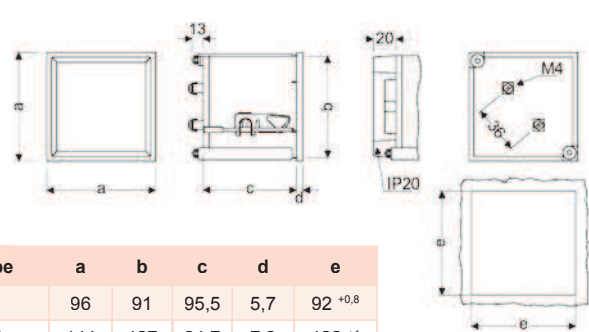
HC



Type	a	b	c	d	e
48	48	44,7	61	5,2	45 <sup>+0,8</sup>
72	72	67,2	43,5	5,7	68 <sup>+0,8</sup>
96	96	91	43,5	5,7	92 <sup>+0,8</sup>
144	144	137	64,5	7,3	138 <sup>+1</sup>

Dimensions (mm)

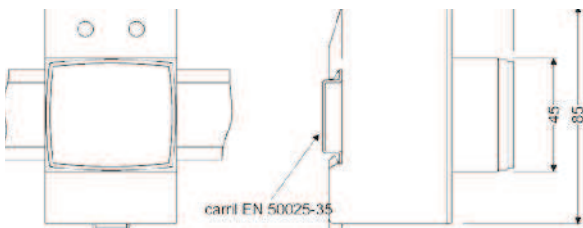
HZC



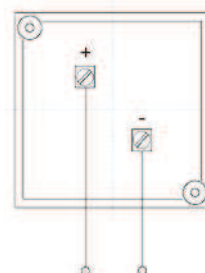
Type	a	b	c	d	e
96	96	91	95,5	5,7	92 <sup>+0,8</sup>
144	144	137	94,7	7,3	138 <sup>+1</sup>

Dimensions (mm)

HM



HC / HZC



HM

