



ANALOGUE INSTRUMENTS



INSTRUMENTACIÓN INDUSTRIAL ZURC, S.A.

— keep your measure under control —

ANALOGUE INSTRUMENTS

ANALOGUE INSTRUMENTS GENERAL INFORMATION

GENERAL

ZURC instruments are designed to meet the requirements of following standards:

IEC51 - IEC144 - VDE410 - DIN 43780 - UNE 21318 - BS 89 - UL94

CASES

Body and frame are moulded in self extinguishing polymer (ABS), as per 94V1, which has very high tracking index.

Their dimensions are according to DIN 43700 and DIN 43718.

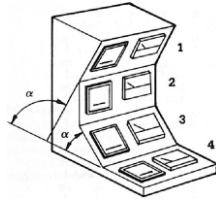
Terminal plates are moulded in self-extinguishing poliphenyleneoxide (P.P.O), as per UL94, with a high tracking index, for maximum electrical strength and safety.

Aspects that affect instrument accuracy

MOUNTING POSITION

Instruments are calibrated for vertical mounting position. It is possible to calibrate for a different mounting position, if requested.. In any case, position tolerance is $\pm 5^\circ$

- 1: $\angle \alpha > 90^\circ$
- 2: $\perp \alpha = 90^\circ$
- 3: $\angle \alpha < 90^\circ$



AMBIENT TEMPERATURE

The effect of temperature on the instrument accuracy class may depend on the measuring range. In general, instruments keep their class within the temperature range of $+10^\circ\text{C}$ to $+30^\circ\text{C}$. If the measuring range is too narrow, range is printed on the instrument scale.

Instrument can be calibrated for temperatures out of the above range, if requested.

RELATIVE HUMIDITY

The accuracy class is guaranteed in a non-condensing relative humidity of 25 to 80% environment.

MAGNETIC FIELD

All the instruments keep their accuracy class under the influence of an external magnetic field $\leq 0.5\text{mT}$.

FERROMAGNETIC PANELS

In general, class accuracy is not affected when the instruments are mounted on ferromagnetic panels.

For instruments with especially low measuring ranges, the scales are marked with the letter **Fe** followed by the maximum allowed panel thickness.

AUXILIARY POWER SUPPLY

Accuracy class is guaranteed under auxiliary power supply nominal values variations of:

- Voltage : $+10\%$
 -15%
- Frequency : 45 to 65 Hz.

Electrical and Mechanical characteristics

VOLTAGE ISOLATION

2kV during 60 seconds between circuits, or between all circuits and case.

CONTINUOUS OVERLOADS

- Voltage circuits: $1,2 V_N$
- Current circuits: $1,2 I_N$ ($1,5 I_N$ for moving iron ammeters)

SHORT DURATION OVERLOADS

- Voltage circuits: $2 V_N$ for 5 sec.
- Current circuits: $5 I_N$ for 30 sec.
 $10 I_N$ for 5 sec.
 $40 I_N$ for 1 sec.

AMBIENT TEMPERATURE RANGE

The instruments and their accessories withstand temperature changes of -25°C to $+40^\circ\text{C}$ (55°C in TROP version) without damage.

TROP VERSION

In the TROP version, instruments are protected against corrosive environments and withstand temperatures between -25°C to 55°C and a non-condensing relative humidity of 95%. This humidity correspond to a maximum temperature of 30°C and during 30 days per year. The rest of the period, humidity should not exceed 75%.

Within this type of operation, the instruments can be adjusted for reference temperature values above 20°C .

In these cases, the scales are marked with TROP, followed by the temperature value at which they are adjusted.

VIBRATIONS

The instruments and their accessories support a minimum vibration with an amplitude of 70.25 mm and a frequency of 50 cycles. Said vibration is equivalent to the application of an acceleration equal to 2.5 g to the three perpendicular axes during 20 minutes.

CHOKES

The instruments and their accessories support five impacts, with an acceleration of 15 g, applied in the direction of the three perpendicular axes.

PROTECTION DEGREE

In their standard version the cases of the instruments comply with IP52 and their terminals with IP00. As an option, the cases may comply with IP54 or IP55 and the terminals with IP20.


ZERO ADJUSTMENT

Relationship between adjustment length of zero corrector, in both sides of its resting position, is not higher than 2%.

POINTERS

The pointers follow the specification DIN 43802

With tube or blade pointers, on demand

 pointers according to DIN 43802

ANALOGUE INSTRUMENTS

MOVIN IRON

AMMETERS AND VOLTMETERS. Class 1,5. A.C.



90°
PANEL



90°
DIN
RAIL



240°
PANEL



TYPE	EC48	EC72	EC96	EC144	EM45	EZC72	EZC92
V	6_10_15_25_40_50_60 150_250_300 400_500_600 .../100V ó .../110V (scale not included)					250_500 .../100 ó .../110	
mA	100_150_250_300_400_500_600					-	
A	1_1,5_2,5_4_6 10_15 20_25_30_40 (50_60_75_100) .../5A (P2) (scale not included) .../1A (P2) (scale not included)					.../5 (P2) .../1 (P2)	
frontal frame (mm)	48x48	72x72	96x96	144x144	45x52,5	72x72	96x96
scale (mm)	40	61	90	147	40	61	90
kg	0,085	0,13	0,22	0,43	0,11	0,13	0,22
case	C0	C1	C2	C3	-	C1	C2

Rectangular instruments Iron Meters (A.C.) Class 1,5



Rectangular
PANEL

TYPE	EK60	EK100
V	10_15_25_40_50_60_100_150_250_300_400_500_600	
mA	400-500-600	
A	1_1,5_2,5_4_5_6_10_15_20_25_30_40_50 .../5 A .../1 A	
frontal frame (mm)	60x65	100x124
scale (mm)	50	90
kg	0.070	0.125
case	K60	K100

Switch instruments Class 1,5



90°
PANEL



TYPE	V 3 phases		V 3 phase + N		A 3 phases		V with switch and phase-sequence indicator
	EC 72F	EC96F	EC 72FN	EC 96FN	EC 72FA	EC 96FA	EC96 FN-S
Alcance	250-300-400-500-600 V				.../5 A		500 V
frontal frame (mm)	72x72	96x96	72x72	96x96	72x72	96x96	96x96
scale (mm)	61	90	61	90	61	90	90
kg	0,15	0,25	0,15	0,25	0,15	0,27	0,25
case	C1	C2	C1	C2	C1	C2	C2

Switches for rail mounting instruments



Switch	TF12-701	TF12-705	TF12-720
change-over	0-RS-ST-TR	RS-ST-TR-0-RN-SN-TN	R-S-T
Connection	Switch for 3 phase Volmeters	Switch for 3 phase Volmeters and neutral	Switch for 3 phase C.T. with unip ammeter

ANALOGUE INSTRUMENTS

MOVING COIL

AMMETERS, VOLTMETERS and PROCESS INDICATORS. Class 1,5. D.C.



TYPE	BC48	BC72	BC96	BC144	BM45	ZC48	ZC72	ZC96	ZC144
mV	10-15-20-25-40-50-60-100-150-250-300-400-500-600					100-150-250-300-400-500-600			
V	1-1,5-2,5-4-5-6-10-15-20-25-40-50-60-100-150-250-300-400-500-600								
μA	25-40-50-60-100-150-250-300-400-500-600					250-300-400-500-600			
mA	From 1 to 600								
process	4-20 mA								
A	1-1,5-2,5-4-5-6-10-15-20-25-40-50-60					1-1,5-2,5-4-5-6-10-15-20-25-40			
shunt	.../60 mV or .../150 mV								
frontal frame (mm)	48x48	72x72	96x96	144x144	45x52,5	48x48	72x72	96x96	144x144
scale (mm)	40	61	90	147	40	70	105	151	226
kg	0,075	0,17	0,21	0,42	0,11	0,18	0,26	0,3	0,51
case	C0	C1	C2	C3	-	C0	C4	C5	C3



Rectangular Instruments Moving Coil (D.C.) Class 1,5

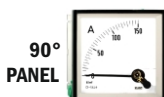


Rectangular
PANEL

TYPE	BK60	BK100
mV	10-15-20-25-40-50-60-100-150-200-300-400-500-600	
V	1-1,5-2,5-4-5-6-10-15-20-25-40-50-60-100-150-250-300-400-500-600	
μA	40-50-60-100-150-250-300-400-500-600	
mA	From 1 to 600	
A	1-1,5-2,5-4-5-6-10-15-20-25-40	
external shunt	...A/60 mV or 150 mV	
frontal frame (mm)	60x65	100x124
scale (mm)	50	90
kg	0,07	0,125
case	K60	K100



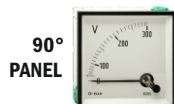
AMMETERS and VOLTMETERS with rectifier. A.C.



TYPE	RBC 48	RBC 72	RBC 96	RBC 144	RZC 48	RZC 72	RZC 96	RZC 144
V	6-10-15-25-40-50-60-100-150-250-300-400-500 .../100V or 110V				6-10-15-25-40-50-60-100-150-250-300-400-500			
μA	40-50-60-100-150-250-300-400-500-600				250-300-400-500-600			
mA	From 1 to 600							
A	1-1,5-2,5-5-10-15-20-25-40-50-60 .../5A or .../1A				1-1,5-2,5-4-5 connection to C.T. .../1 or 5			
frontal frame (mm)	48x48	72x72	96x96	144x144	48x48	72x72	96x96	144x144
scale (mm)	40	61	90	147	70	105	151	226
kg	0,095	0,18	0,25	0,48	0,195	0,25	0,32	0,53
case	C0	C1	C2	C3	C0	C4	C5	C3



EXPANDED SCALE VOLTMETERS



TYPE	BNC48	BNC72	BNC96	BNC144	ZNC48	ZNC72	ZNC96	ZNC144
Ranges	0...90 :110 V for 100 V 0...100 :120 V for 110 V 0...200 :240 V for 220 V 0...340 :420 V for 380 V 0...400 :480 V for 440 V 0...450 :550 V for 500 V							
frontal frame (mm)	48x48	72x72	96x96	144x144	48x48	72x72	96x96	144x144
scale (mm)	40	61	90	147	40	61	90	147
kg	0,085	0,18	0,25	0,48	0,195	0,25	0,32	0,53
case	C0	C1	C2	C3	C0	C4	C5	C3

ANALOGUE INSTRUMENTS

MAXIMUM DEMAND



BIMETALLIC MAXIMUM DEMAND AMMETERS

90°
PANEL



90°
DIN
RAIL



WITH BUILT-IN SATURABLE
CURRENT TRANSFORMER

TYPE	MC48	MC72	MC96	MC144	MCT72	MCT96	MCT144	MM45
delay time	8, 15 or 30 min			8 or 15 min	8, 15 or 30 min		8 or 15 min	8, 15 or 30 min
A	.../5 .../1				.../5 .../1			.../5 .../1
frontal frame (mm)	48x48	72x72	96x96	144x144	72x72	96x96	144x144	45x52,5
scale (mm)	40	61	90	147	61	90	147	40
kg	0,075	0,14	0,21	0,42	0,14	0,21	0,42	0,11

COMBINED WITH MOVING IRON AMMETERS



90°
PANEL



WITH BUILT-IN SATURABLE
CURRENT TRANSFORMER

TYPE	EMC72	EMC96	EMC144	EMCT72	EMCT96	EMCT144
delay time	8, 15 or 30 min		8 or 15 min	8, 15 or 30 min		8 or 15 min
A	.../5 .../1			.../5 .../1		
frontal frame (mm)	72x72	96x96	144x144	72x72	96x96	144x144
scale (mm)	61	90	147	61	90	147
kg	0,22	0,26	0,47	0,22	0,26	0,47

FREQUENCYMETERS



POINTER TYPE

90°
PANEL



90°
DIN
RAIL



240°
PANEL



REED TYPE



TYPE	HC48	HC72	HC96	HC144	HM45	HZC96	HZC144	HLC72	HLC96	HLC144
Hz			45 - 55 47 - 53 55 - 65 57 - 63 45 - 65			40-60 / 45-55 / 47-53 45-65 / 55-65 / 57-63 90-110 180-220 270-330 360-440		47-53 / 57-63 - 7 reeds 45-55 / 55-65 - 11 reeds 47-53 / 57-63 - 13 reeds 45-55 / 55-65 - 21 reeds		
frontal frame (mm)	48x48	72x72	96x96	144x144	45x52,5	96x96	144x144	72x72	96x96	144x144
scale (mm)	40	61	90	147	40	151	226	-		
kg	0,095	0,175	0,215	0,425	0,11	0,215	0,425	0,26	0,35 / 0,58	0,58 / 0,71
case						C6	C7	C1	C2	C3

POWER INDICATORS



WATTMETERS

90°
PANEL



TYPE	WMC96	WMC144	WTC96E	WTC144E	WTC96A	WTC144A	WTC96AN	WTC144AN
circuit	single-phase		balanced three-phase		unbalanced three-phase 3 wires		unbalanced three-phase 4 wires	
	100/√3- 110/√3 100-110-220 V 380-440-500 V				100-110-220 V 380-440-500 V			
	.../ 5 A							
frontal frame (mm)	96x96	144x144	96x96	144x144	96x96	144x144	96x96	144x144
scale (mm)	90	147	90	147	90	147	90	147
kg	0,26	0,43	0,26	0,43	0,39	0,6	0,4	0,61

ANALOGUE INSTRUMENTS

POWER INDICATORS

WATTMETERS



90°
DIN
RAIL



240°
PANEL



TYPE	WMM45	WTM45E	WTM45A	WTM45AN	WZMC96	WZTC96E	WZTC96A	WZTC96AN
circuit	single-phase	balanced three-phase	unbalanced three-phase 3w	unbalanced three-phase 4w	single-phase	balanced three-phase	unbalanced three-phase 3w	unbalanced three-phase 4w
	100/√3- 110/√3 100-110-220 V 380-440-500 V	100-110-220 V 380-440-500 V			100/√3- 110/√3 100-110-220 V 380-440-500 V	100-110-220 V 380-440-500 V		
					.../ 5 A			
frontal frame (mm)	45x52,5	45x52,5	45x52,5	45x52,5	96x96	96x96	96x96	96x96
scale (mm)	40	40	40	40	151	151	151	151
kg	0,11	0,11	0,11	0,11	0,5	0,5	0,63	0,64

VARMETERS



90°
PANEL



TYPE	YMC96	YMC144	YTC96E	YTC144E	YTC96A	YTC144A	YTC96AN	YTC144AN
circuit	single-phase		balanced three-phase		unbalanced three-phase 3 wires		unbalanced three-phase 4 wires	
	100/√3- 110/√3 100-110-220 V 380-440-500 V				100-110-220 V 380-440-500 V			
					.../ 5 A			
frontal frame (mm)	96x96	144x144	96x96	144x144	96x96	144x144	96x96	144x144
scale (mm)	90	147	90	147	90	147	90	147
kg	0,26	0,43	0,26	0,43	0,39	0,6	0,4	0,61



90°
DIN
RAIL



240°
PANEL



TYPE	YMM45	YTM45E	YTM45A	YTM45AN	YZMC96	YZTC96E	YZTC96A	YZTC96AN
circuit	single-phase	balanced three-phase	unbalanced three-phase 3w	unbalanced three-phase 4w	single-phase	balanced three-phase	unbalanced three-phase 3w	unbalanced three-phase 4w
	100/√3- 110/√3 100-110-220 V 380-440-500 V	100-110-220 V 380-440-500 V			100/√3- 110/√3 100-110-220 V 380-440-500 V	100-110-220 V 380-440-500 V		
					.../ 5 A			
frontal frame (mm)	45x52,5	45x52,5	45x52,5	45x52,5	96x96	96x96	96x96	96x96
scale (mm)	40	40	40	40	151	151	151	151
kg	0,11	0,11	0,11	0,11	0,5	0,5	0,63	0,64



INDUCTION POWER FACTOR METERS

360°
PANEL



TYPE	PIC96A	PIC144A	PIC96B	PIC144B	PIC96C	PIC144C	PIC96E	PIC144E
circuit	single-phase		balanced three-phase		unbalanced three-phase 3 wires		unbalanced three-phase 3 or 4 wires	
	100/√3- 110/√3 100-110-220 V 380-440-500 V				100-110-220 V 380-440-500 V			
frontal frame (mm)	96x96	144x144	96x96	144x144	96x96	144x144	96x96	144x144
scale (mm)	180	305	180	305	180	305	180	305
kg	1,91	1,96	1,410 (100V: 1,010)	1,460 (100V: 1,060)	1,41	1,46	1,41	1,46
case	C6	C7	C6	C7	C6	C7	C6	C7

ANALOGUE INSTRUMENTS

POWER INDICATORS

ELECTRONIC POWER FACTOR METERS



90°
PANEL



360°
PANEL



90°
DIN
RAIL



TYPE	FEMC96	FEMC144	FETC96	FETC144	FMZ96	FMZ144	FTZ96	FTZ144	FEMM45	FETM45
circuit	single-phase		unbalanced three-phase 3 or 4 wires		single-phase		unbalanced three-phase 3 or 4 wires		single-phase	balanced three-phase
	100/√3- 110/√3 100-110-220 V 380-440-500 V		100-110-220 V 380-440-500 V		100/√3- 110/√3 100-110-220 V 380-440-500 V		100-110-220 V 380-440-500 V		100/√3- 110/√3 100-110-220 V 380-440-500 V	
ranges	0,5-1-0,5 / 0,8-1-0,2									
frontal frame (mm)	96x96	144x144	96x96	144x144	96x96	144x144	96x96	144x144	45x52,5	45x52,5
scale (mm)	90	147	90	147	151	226	151	226	40	40
kg	0,48	0,69	0,48	0,69	0,5	0,71	0,5	0,71	0,11	0,11

SYNCHRONIZATION



DOUBLE MOVING IRON VOLTMETERS

90°
PANEL

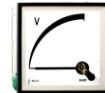


TYPE	2EC96	2EC144
V	2x100 V (2x160 V) 2x110 V (2x175 V) 2x220 V (2x350 V) 2x380 V (2x600 V) 2x440 V (2x700 V)	
frontal frame (mm)	96x96	144x144
scale (mm)	46	88
kg	0,29	0,5
case	C2	C3



ZERO VOLTMETER

90°
PANEL



TYPE	VC96	VC144
range	100/√3 (115V)	220 (440 V)
	100 (220 V)	380 (760 V)
	110/√3 (127 V)	440 (880 V)
	110 (220 V)	500 (1000 V)
frontal frame (mm)	96x96	144x144
scale (mm)	90	147
kg	0,23	0,47
case	C2	C3

DIFFERENTIAL VOLTMETER



240°
PANEL



TYPE	ZDC96	ZDC144
range	20... 0 ... 20%	
nominal V	100/√3-110/√3-100-110-220-440-500	
frontal frame (mm)	96x96	144x144
scale (mm)	90	147
kg	0,23	0,47

DIFFERENTIAL FREQUENCYMETER



240°
PANEL



TYPE	HDC96	HDC144
range	10... 0 ... 10%	
nominal V	100/√3-110/√3-100-110-220-440-500	
frontal frame (mm)	96x96	144x144
scale (mm)	151	226
kg	0,5	0,71

SYNCHROSCOPE



PANEL



TYPE	SMC96	SMC144	STC96	STC144
circuit	single-phase		three-phase	
	100/√3- 110/√3 100-110-220 V 380-440-500 V		100-110-220 V 380-440-500 V	
frontal frame (mm)	96x96	144x144	96x96	144x144
scale (mm)	90	147	90	147
kg	1,7	2,25	1,410/1,800	1,960/2,350
case	C6	C7	C6	C7

ANALOGUE INSTRUMENTS

SYNCHRONIZATION

DOUBLE FREQUENCYMETERS



POINTER TYPE

2x90°
PANEL



REED TYPE

PANEL



TYPE	2HC96	2HC144
Hz	45 - 55 47 - 53 55 - 65 57 - 63 45 - 65	
frontal fram (mm)	96x96	144x144
kg	0,4	0,45
case	C5	C3

TYPE	2HLC96	2HLC144
Hz	44-56 / 47-53 - 13 reeds 54-66 / 57-63 - 13 reeds 45-55 - 21 reeds 55-65 - 21 reeds	
frontal frame (mm)	96x96	144x144
kg	0,5	0,71
case	C5	C3



SYNCHRONIZING SETS

TYPE	GS96	GS144
frontal frame (mm)	96x96	144x144



PHASE-SEQUENCE INDICATOR

PANEL



TYPE	UC72	UC96	CUC96 (relay)
V	100 ...500		
frontal frame (mm)	72x72	96x96	96x96
kg	0,2	0,275	0,375
case	C4	C5	C5



BI-DIRECTIONAL POWER PROTECTOR

90°
PANEL



TYPE	PGR96M	PGR96E	PGR96A	PGR96AN
range	single-phase	balanced three-phase	unbalanced three-phase 3 w	unbalanced three-phase 4 w
V	100/√3 - 500 V	100 - 500 V		
frontal frame (mm)	96x96			
scale (mm)	90			
kg	0,5	0,5	0,63	0,64

ANALOGUE INSTRUMENTS WITH CONTACTS



90° PANEL

TYPE	CEC 96	CBC 96	CRBC 96
mV	10-15-20-25-40-50-60-100-150-250-300-400-500-600		
V	1-1,5-2,5-4-5-6-10-15-20-25-40-50-60-100-150-250-300-400-500-600 .../100 V or .../110 V		
μA	15-20-30-40-50-60-100-150-250-300-400-500-600		
mA	1-1,5-2,5-4-5-6-10-15-20-25-40-50-60-100-150-200-300-400-500-600		
A	1-1,5-2,5-4-5 .../1A - .../5A ...A/60 mV ...A/150 mA		
system	Moving iron (a.c.)	Moving coil (d.c.)	Moving coil (a.c.)
frontal frame (mm)	96x96		
scale (mm)	90		
kg	0,5	0,48	
case	C5		

ANALOGUE INSTRUMENTS

OTROS INSTRUMENTOS



TAP-POSITION INDICATOR

240°
PANEL



TYPE	PBC96	PBC144
frontal frame (mm)	96x96	144x144
kg	0,52	0,79
case	C6	C7



INSULATION METER

90°
PANEL



TYPE	MEG-1000
range	0 to 1000 kOhm
frontal frame (mm)	96x96
scale (mm)	90
kg	0,23
case	C2



TEMPERATURE INDICATORS

90°
PANEL



90°
PANEL



TYPE	PEC72	PEC96	PZC96
range	J type Thermocouples K type Thermocouples S type Thermocouples		20-600 °C 20-1200 °C 20-1600 °C
TYPE	TEC72	TEC96	TZC96
range	for PT100		
frontal frame (mm)	72x72	96x96	96x96
scale (mm)	61	90	90
kg	0,3	0,34	0,34
case	C1	C2	C2



OHMMETERS

90°
PANEL



TYPE	OBC96	OBC144
range	from 10 to 600 Ohm from 1 to 600 kOhm	
frontal frame (mm)	96x96	144x144
scale (mm)	151	226
kg	0,35	0,55
case	C6	C7



HOURLMETERS

PANEL
DIN RAIL

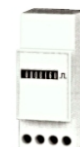


TYPE	CH45	CH48	CH 72	CH96
range	24 - 110 - 230 V a.c. 10 - 80 V d.c.			
frontal frame (mm)	36x45	48x48	72x72	96x96
digits height	5	5	5	5
kg	0,075	0,049	0,176	0,246



PULSE COUNTER

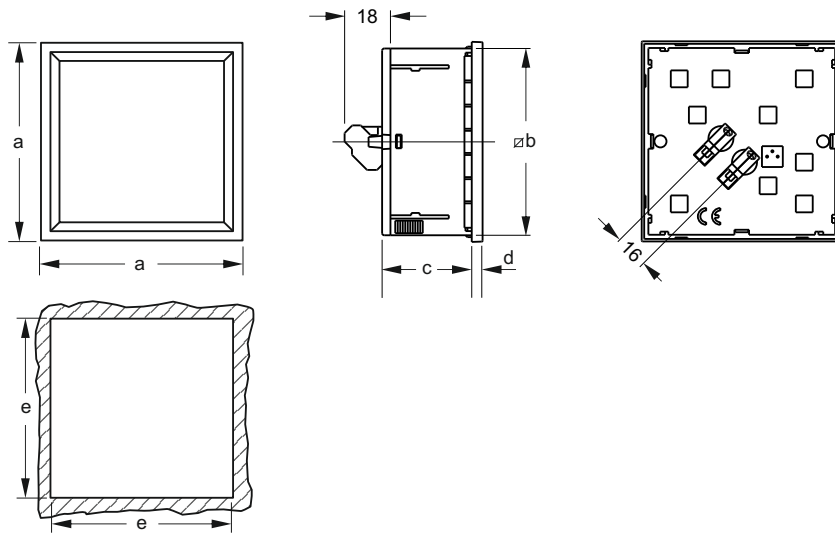
DIN
RAIL



TYPE	CI 45
range	24 - 115 - 230 V a.c. 10 - 27 V d.c.
frontal frame (mm)	45x52,5
digits height	5
kg	0,176

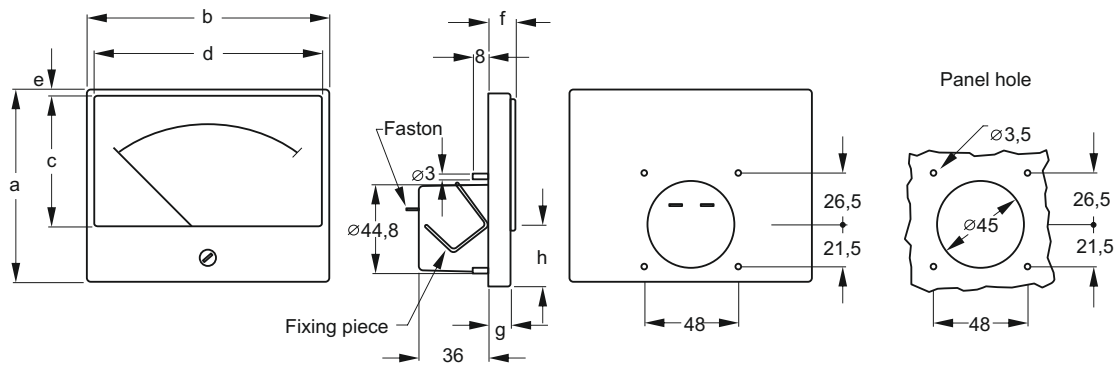
ANALOGUE INSTRUMENTS CASE DIMENSIONS

... C



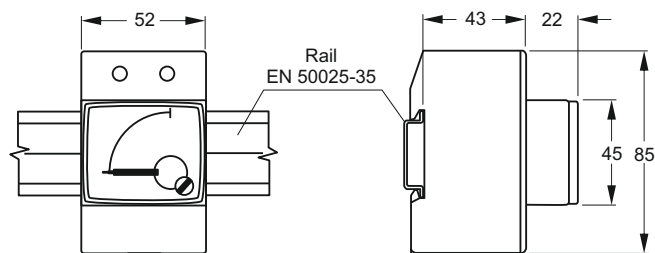
	C0	C1	C2	C3	C4	C5	C6	C7
a	48	72	96	144	72	96	96	144
b	44	66	89,6	137	66	89,6	89,6	137
c	41	43	43	64,5	57,2	57,2	95,5	94,7
d	5	5,2	5,2	7,1	5,2	5,2	5,2	7,1
e	45 ⁺¹	68 ⁺¹	92 ⁺¹	138 ⁺¹	68 ⁺¹	92 ⁺¹	92 ⁺¹	138 ⁺¹

K60 K100



Type	a	b	c	d	e	f	g	h
K60	60	66	34	62	2	12,4	10,4	27,5
K100	99	124	67	117	3,3	14,4	11,4	29,7

M 45



ANALOGUE INSTRUMENTS

GENERAL OPTIONS

GENERAL OPTIONS	
Tropicalized	
IP54 protection cases	
IP20 back side terminal cover	
Non-vertical mounting position	
Adjustable red pointer	
Knife type pointer	
Low reflecting glass	
Makrolon window	
Grey RAL 7037 bezel	
Scale illumination (6-12-24V, except 48x48)	

According to standards:

DIN 43701 for full scale values

DIN 43802 for division values

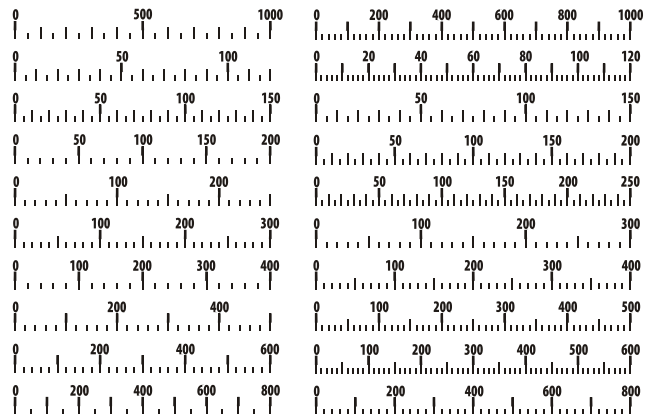
DIN EN 61010-1 (IEC 1010-1) for Overvoltage category

Overvoltage category	Test Voltage (50/60Hz) RMS	Impulse Test (1,2/50us)
CAT III 600 V	3320 V	6100 V
CAT III 300 V	2210 V	4070 V

Divisions and numbers for standard ranges follow next examples:

For instruments with
DIN sizes
C48-C72-M45-K60

For instruments with
DIN sizes
C96-C144-K100



Full scale values higher than 1.000 are indicated in thousand units

SCALES	
Non-standard scale	
Colour mark at scale value	
Colour band	
Additional (marks, signs, etc.)	
Division and figures in colour	
Double scale	
Black scale, with divisions, figures and pointer in white or yellow	
Scale with center zero	
Scale with off-set zero	

