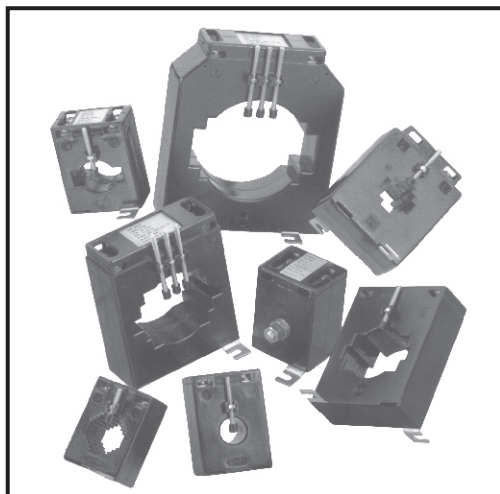


Moulded Case Measuring Current Transformers



KM Range Moulded Case Current Transformers

An extensive range of high quality current transformers offering comprehensive measuring class accuracies. The KM range provides accurate measurement of high primary currents, converting to a 5 Amp secondary current, proportional to the primary current. To suit the requirements of most applications, the range offers a wide selection of system current ratings, busbar sizes, case widths and apertures.

General Specification

System Voltage :	720 V Maximum
Test Voltage :	3kV for 1 minute
System Frequency :	50Hz or 60Hz
Primary Ratings :	From 5A to 4000A
Secondary Ratings :	5A is standard, 1A on request
Short Circuit Thermal :	3kA for 1 second
Overload Withstand :	1.2 times rated current continuously
Rated Dynamic Current	7.5kA for 1 second
Saturation Coefficient :	<6
Insulation Class BS2757 IEC85 :	Class E
Secondary Terminals :	M5 screw clamps
Operating Temperature :	-20°C to + 70°C
Humidity :	Up to 95% RH (non condensing)
Enclosure :	Flame retardant glass filled ABS
Compliant With :	VDE 404 and IEC 185
Mounting Hardware :	Feet and busbar screws

Features

High Quality
Comprehensive Measuring Class
Accuracies
Wide Range of System Current
Ratings, and Case Widths
Aperture Sizes to Suit Industry
Standard Cable and Busbar
Dimensions
Wire Sealable Terminal Covers
Feet and Busbar Mounting Options

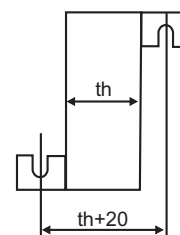
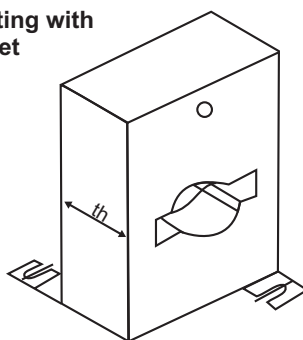
Benefits

Reduction of High Currents for
Ease of Metering
Accuracy up to Class 0.5 Isolated
Output for Safety
Long Product Life

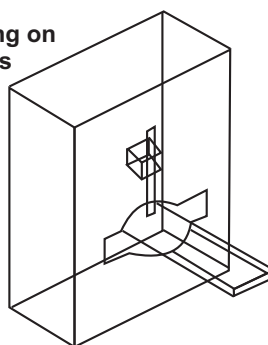
Applications

Switchgear
Distribution Systems
Generator Sets
Control Panels
Overload Protection
Control Devices

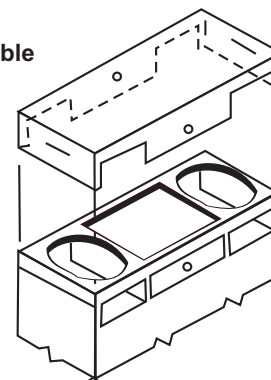
Mounting with
Bracket



Mounting on
bus bars



Sealeable
Cap



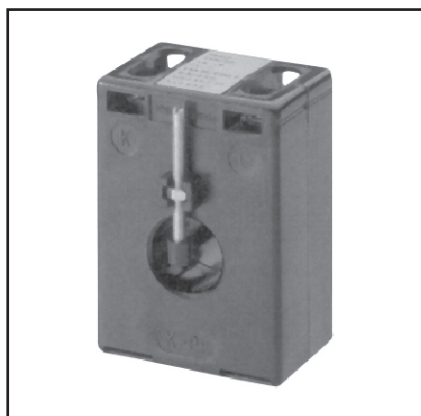
Moulded Case Measuring Current Transformers



KMWPL Range

Case Size : 55mm wide x 45 mm deep x 78mm high
2.1" wide x 1.7" deep x 3.0" high
Fixing : M8 stud primary bar
Weight : 0.45Kg

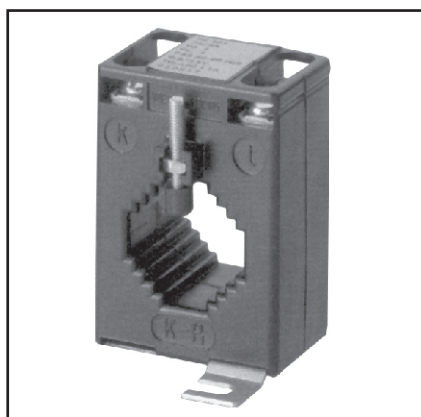
Model Type	Ratio Range	VA at Class 3	VA at Class 1	VA at Class 0.5
KMWPL	5/5	-	5	-
KMWPL	10/5	-	5	-
KMWPL	15/5	-	5	-
KMWPL	20/5	-	5	-
KMWPL	25/5	-	5	-
KMWPL	30/5	-	5	-
KMWPL	40/5	-	5	-
KMWPL	60/5	-	5	-



KM 201 Range

Case Size : 55mm wide x 45 mm deep x 78mm high
2.1" wide x 1.7" deep x 3.0" high
Aperture : 20mm diameter
0.8" diameter
Weight : 0.45Kg

Model Type	Ratio Range	VA at Class 3	VA at Class 1	VA at Class 0.5
KM201	30/5	1.5	-	-
KM201	40/5	1.5	-	-
KM201	50/5	-	1.5	-
KM201	60/5	-	1.5	-
KM201	80/5	-	4	-
KM201	100/5	-	4	-
KM201	200/5	-	8	-
KM201	250/5	-	10	-

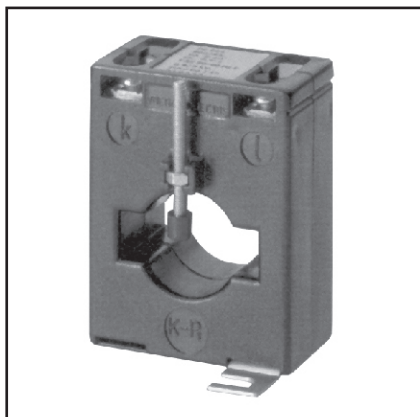


KM301 Range

Case Size : 55mm wide x 32mm deep x 70mm high
1.9" wide x 1.3" deep x 2.7" high
Aperture : 30 x 10mm, 25 x 15mm and 20 x 20mm horizontal & vertical
1.2" x 0.4", 1" x 0.6" and 0.8" x 0.8" horizontal & vertical
Weight : 0.22Kg

Model Type	Ratio Range	VA at Class 3	VA at Class 1	VA at Class 0.5
KM301	75/5	1	-	-
KM301	80/5	1	-	-
KM301	100/5	-	1	-
KM301	125/5	-	1	-
KM301	150/5	2.5	1	-
KM301	200/5	3	2.5	-
KM301	250/5	3	2.5	-
KM301	300/5	5	2.5	-
KM301	400/5	7.5	5	-
KM301	500/5	7.5	5	-
KM301	600/5	7.5	5	-

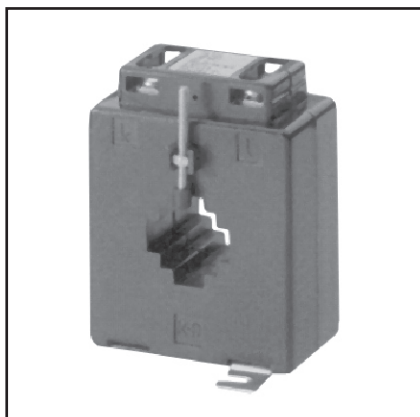
Moulded Case Measuring Current Transformers



KM 401 Range

Case Size : 60mm wide x 32mm deep x 78mm high
2.3" wide x 1.3" deep x 3.0" high
Aperture : 40 x 12mm and 28mm diameter
1.6" x 0.5" and 1.1" diameter
Weight : 0.3Kg

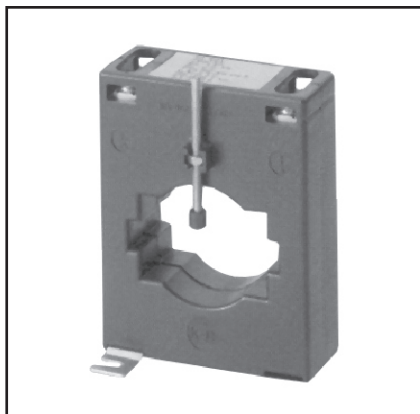
Model Type	Ratio Range	VA at Class 3	VA at Class 1	VA at Class 0.5
KM401	150/5	-	2.5	-
KM401	200/5	-	2.5	-
KM401	250/5	5	2.5	-
KM401	300/5	5	2.5	-
KM401	400/5	7.5	5	-
KM401	500/5	-	7.5	5
KM401	600/5	-	7.5	5
KM401	750/5	-	7.5	5
KM401	800/5	-	7.5	5



KM501 Range

Case Size : 78mm wide x 46mm deep x 100mm high
3.0" wide x 1.8" deep x 3.9" high
Aperture : 30 x 10mm, 20 x 20mm horizontal & vertical
1.2" x 0.4", 0.8" x 0.8" horizontal & vertical
Weight : 0.65Kg

Model Type	Ratio Range	VA at Class 3	VA at Class 1	VA at Class 0.5
KM501	100/5	7.5	5	2.5
KM501	150/5	15	10	7.5
KM501	200/5	25	15	10
KM501	250/5	25	15	10
KM501	300/5	25	15	10
KM501	400/5	-	-	30
KM501	500/5	-	-	30
KM501	600/5	-	-	30

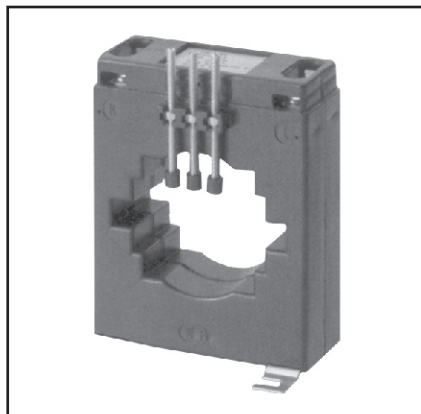


KM 601 Range

Case Size : 85mm wide x 32mm deep x 108mm high
3.3" wide x 1.3" deep x 4.2" high
Aperture : 60 x 10mm, 50 x 30mm and 45mm diameter
2.3" x 0.4", 1.9" x 1.2" and 1.7" diameter
Weight : 0.45Kg

Model Type	Ratio Range	VA at Class 3	VA at Class 1	VA at Class 0.5
KM601	400/5	-	10	-
KM601	500/5	-	10	-
KM601	600/5	-	15	10
KM601	750/5	-	15	10
KM601	800/5	-	15	10
KM601	1000/5	-	15	10
KM601	1200/5	-	-	15
KM601	1250/5	-	-	15
KM601	1500/5	-	-	15
KM601	1600/5	-	-	15

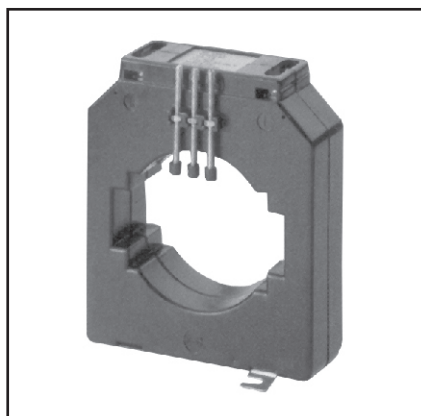
Moulded Case Measuring Current Transformers



KM801 Range

Case Size : 100mm wide x 40mm deep x 122mm high
 3.9" wide x 1.6" deep x 4.8" high
Aperture : 80 x 10mm, 60 x 30mm, 50 x 50mm and 60mm diameter
 3.1" x 0.4", 2.3" x 1.2", 1.9 x 1.9" and 2.3" diameter
Weight : 0.5Kg

Model Type	Ratio Range	VA at Class 3	VA at Class 1	VA at Class 0.5
KM801	400/5	-	5	5
KM801	500/5	-	7.5	5
KM801	600/5	-	7.5	5
KM801	750/5	-	15	10
KM801	800/5	-	15	10
KM801	1000/5	-	15	10
KM801	1200/5	-	-	10
KM801	1250/5	-	15	10
KM801	1500/5	-	15	10
KM801	1600/5	-	15	10
KM801	2000/5	-	15	10

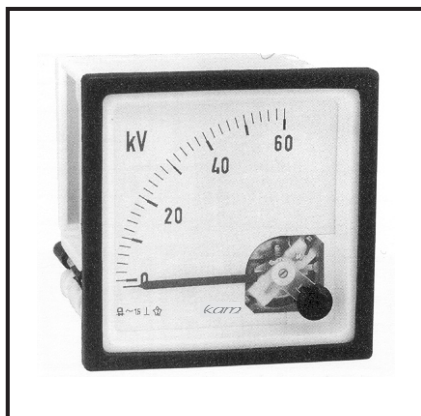


KM 1001 Range

Case Size : 135mm wide x 40mm deep x 160mm high
 5.3" wide x 1.6" deep x 6.2" high
Aperture : 100 x 30mm, 80 x 50mm and 85mm diameter
 3.9" x 1.2", 3.1" x 1.9" and 3.3" diameter
Weight : 0.7Kg

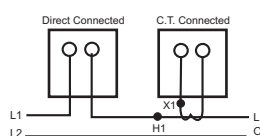
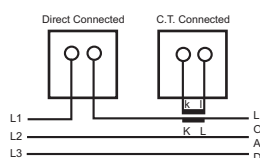
Model Type	Ratio Range	VA at Class 3	VA at Class 1	VA at Class 0.5
KM1001	400/5	-	-	5
KM1001	500/5	-	10	5
KM1001	600/5	15	10	5
KM1001	750/5	-	15	10
KM1001	800/5	-	15	10
KM1001	1000/5	-	15	15
KM1001	1200/5	-	15	15
KM1001	1250/5	-	15	15
KM1001	1500/5	-	30	15
KM1001	1600/5	-	30	15
KM1001	2000/5	-	30	15
KM1001	3000/5	-	-	30
KM1001	4000/5	-	-	30

EURODIN Panel Meters

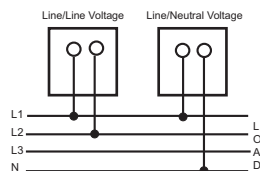


Connections

A.C. Ammeter



A.C. Voltmeter



Moving Iron A.C. Ammeters and Voltmeters

Designed to measure A.C. current or voltage, these meters indicate true r.m.s. values and are substantially independent of system waveform. Scales are calibrated down to 20%, and ammeters can have overload scales x2, x3, x5 or x6 for motor start duty.

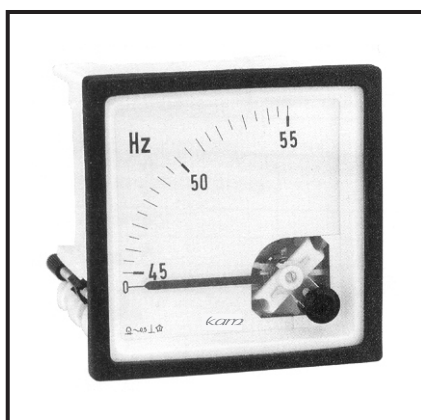
Ammeters can be supplied for use with -/1A or -/5A current transformers, whilst voltmeters can be scaled for use with voltage transformers. Heavy damping is available as an option. Meters can be used to measure D.C. at reduced accuracy.

Specification

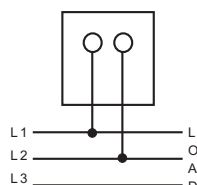
Accuracy :	Class 1.5
Frequency	50 or 60 Hz, (400 Hz on request)
Burden at 50 Hz :	Ammeters : 0.5 VA Voltmeters: Upto 4.5VA maximum
Ratings:	Ammeters: 0.5A to 100A A.C. direct connected (40A for E242-75A and E246-07A). Maximum system voltage 600 V A.C. Low load / high middles maximum 10A
Voltmeters:	6V to 600V

Product Codes

Bezel Size mm	48	72	96	144
Scale length mm	42	65	94	145
Product Codes				
A.C. ammeter	E242-75A	E243-02A	E244-02A	E246-02A
x2 overload ammeter	E242-752A	E243-022A	E244-022A	E246-022A
x3 overload ammeter	E242-753A	E243-023A	E244-023A	E246-023A
x5 overload ammeter	E242-755A	E243-025A	E244-025A	E246-025A
x6 overload ammeter	E242-756A	E243-026A	E244-026A	E246-026A
A.C. voltmeter	E242-75V	E243-02V	E244-02V	E246-02V



Connections



Frequency Meters

These Frequency meters use an intergral electronic converter and a moving coil indicator. This meter is easy to read with an accuracy class 0.5

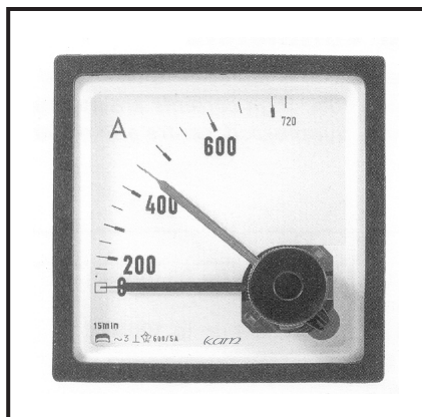
Specification

Ratings:	100V-125V A.C. 200V-250V A.C. 380V-440V A.C.* 500V A.C.* *Use E242-013 and 253-THZ in place of E242-41S on voltages over 380V Models available for use with V.T.s
Frequency:	0.5%: 45/55Hz, 55/65Hz, 45/65Hz, 360/440Hz
Burden:	4VA Maximum

Product Codes

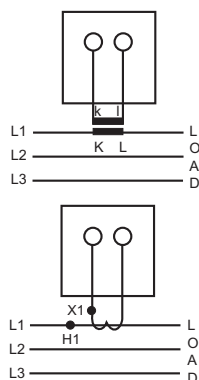
Bezel Size mm	48	72	96	144
Scale length mm	42	65	94	145
Product Codes	E242-41S	E243-41S	E244-41S	E246-41S

EURODIN Panel Meters



Connections

Maximum Demand Indicators



Maximum Demand Indicators

The thermal/time characteristic of an MDI monitors the most economic use of cable, fusegear and transformers. The directly heated bimetal element indicates mean r.m.s. current over 8, 15, or 20 mins, and a red slave pointer shows the highest value reached. The reset knob is wire sealable. Scales are calibrated to match the C.T. primary plus 20% overload. End values are selected from : 1.2, 1.8, 2.4, 3, 3.6, 4.8, 6, 7.2, 9 Amps and their multiples of 10 and 100.

Specification

Accuracy :	Class 3
Options:	5A for use with separate C.T. 5/5A saturating C.T. 1/5A Saturating C.T.
Burden at 50 Hz:	MDI - 2.5VA, C.T. - 2VA
Overload withstand:	Standard: 5 x FL for 5 seconds, 10 x FL 1 second With Saturating C.T.: 10 x FL for 3 seconds 20 x FL for 1 second
Frequency:	50/60Hz

Product Codes

Bezel Size mm	72	96
Scale length mm*	65	94
Product Codes		
8 Minute Time Lag		
Without limiting C.T. for use with 5A C.T.	E243-16B	E244-16B
15 Minute Time Lag		
Without limiting C.T. for use with 5A C.T.	E243-16A	E244-16A
20 Minute Time Lag		
Without limiting C.T. for use with 5A C.T.	E243-16J	E244-16J

*Scaled 0/100/120% of C.T. primary value.

Combined A.C. Ammeter and Maximum Demand Indicator

Where the instantaneous and maximum demand currents are required, these instruments combine both movements in one case. It can also replace an existing A.C. Ammeter. Specification as above.

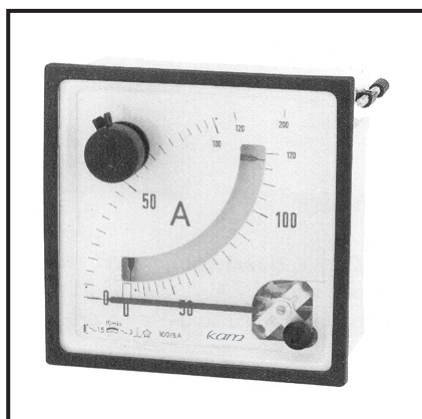
Specification

Accuracy:	Moving Iron Ammeter: Class 1.5 MDI: Class 3
Burden at 50Hz:	MI - 0.5 VA, MDI - 2.5VA Saturating C.T. - 2 VA

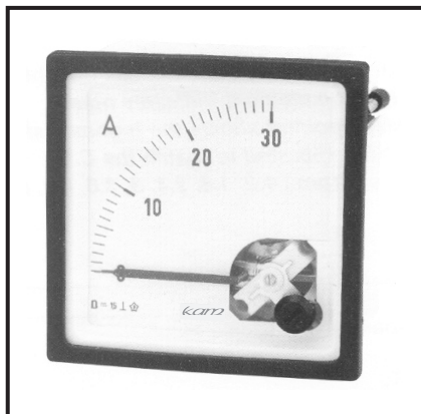
Product Codes

Bezel Size mm	96
Scale length mm*	94
Product Codes	
8 Minute Time Lag	
Without limiting C.T. for use with 5A C.T. 3VA	E244-16Q
15 Minute Time Lag	
Without limiting C.T. for use with 5A C.T. 3VA	E244-16C
20 Minute Time Lag	
Without limiting C.T. for use with 5A C.T. 3VA	E244-16H

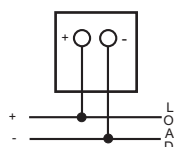
* scales 0/100/120% of C.T. primary value.



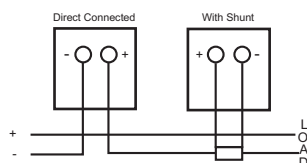
EURODIN Panel Meters



Connections
D.C. Voltmeter



D.C. Ammeter



Moving Coil D.C. Ammeters and Voltmeters

Moving Coil Meters are suitable for all D.C. systems. The linear scale is calibrated down to zero and the accuracy maintained down to 10%. High currents are measured with separate shunts and suitably scaled indicators. Suppressed, centre and offset zero models are available.

Specification

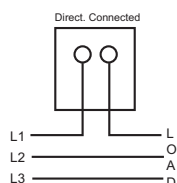
Accuracy :	Class 1.5
Ratings:	Ammeters: 100 μ A to 25A, (200 μ A for 05 model) 4/20mA suppressed zero 40A for model E242, E243 & E244 up to 100A Volts: 50mV to 600V 1/5V suppressed zero 50, 60, 75, 100, 150mV for use with shunts
Impedance:	Ammeters: 75mV internal shunt above 60mA Volts: 1000 Ω /V above 1V

Product Codes

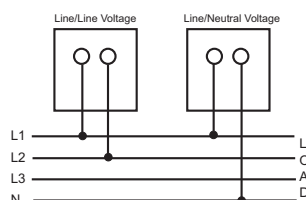
Bezel Size mm	48	72	96	144
Scale length mm	42	65	94	145
Product Codes				
Ammeters	E242-89A	E243-01A	E244-01A	E246-10A
Ammeters suppressed zero	E242-89R	E243-01R	E244-01R	E246-10R
Volts	E242-89V	E243-01V	E244-01V	E246-10V
Volts suppressed zero	E242-89S	E243-01S	E244-01S	E246-10S



Connections
A.C. Ammeter



A.C. Voltmeter



Moving Coil Rectified A.C. Ammeters and Voltmeters

For high frequency or linear full scale A.C. measurements, these instruments measure average values of sinusoidal waveforms and are scaled in r.m.s. values. The high quality silicon bridge rectifier gives a linear scale down to near zero, where some compression occurs.

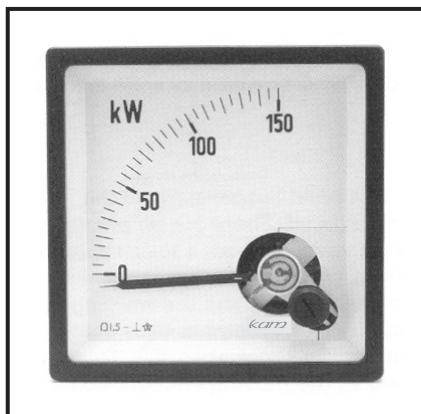
Specification

Accuracy:	1.5% ES
Rating:	Ammeters: 250 μ A to 1A A.C. Over 1A via C.T.s Volts: 15V to 600V a.c. direct connected Models available for use with V.T.s
Frequency:	50/60Hz, (Single Frequencies 25Hz to 3kHz on request)

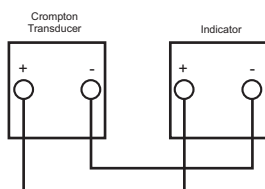
Product Codes

Bezel Size mm	48	72	96	144
Scale length mm	42	65	94	145
Product Codes				
Ammeters	E242-89B	E243-01B	E244-01B	E246-10B
Volts	E242-89W	E243-01W	E244-01W	E246-10W

EURODIN Panel Meters



Connections



Process Indicators

Used to check process functions locally or remotely at centralised controls. These moving coil instruments offer a wide variety of electrical and mechanical readouts operated by transducer, tachogenerator, the mocouple, resistance bulb or other D.C. analogue signals. Suppressed, centre and offset zero models are available on request.

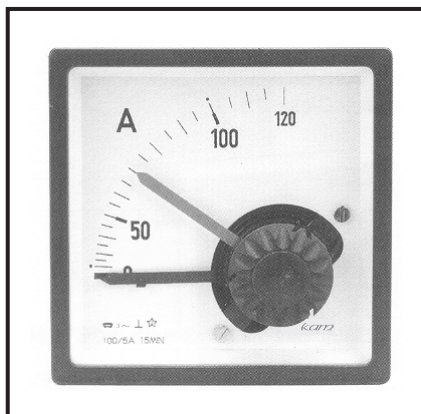
Specification

Accuracy :	Class 1.5
Ratings:	1,2,5,10 & 20mA 4/20mA suppressed zero

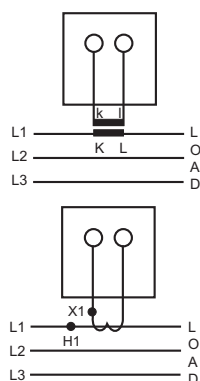
Product Codes

Bezel Size mm	48	72	96	144
Scale length mm	42	65	94	145
Product Codes				
A.C. Current	E242-89A	E243-01A	E244-01A	E246-10A
A.C. Voltage	E242-89V	E243-01V	E244-01V	E246-10V
Speed	E242-892	E243-012	E244-012	E246-102
Frequency	E242-893	E243-013	E244-013	E246-103
Phase Angle	E242-894	E243-014	E244-014	E246-104
Watts	E242-895	E243-015	E244-015	E246-105
VArs	E242-896	E243-016	E244-016	E246-106
VA	E242-897	E243-017	E244-017	E246-107

240 Series DIN Panel Meters



Connections



Maximum Demand Indicators

The thermal/time characteristic of an MDI monitors the most economic use of cable, fusegear and transformers. The directly heated bimetal element indicates mean r.m.s. current over 8, 15, or 20 mins, and a red slave pointer shows the highest value reached. The reset knob is wire sealable. Scales are calibrated to match the C.T. primary plus 20% overload. End values are selected from : 1.2, 1.8, 2.4, 3, 3.6, 4.8, 6, 7.2, 9 Amps and their multiples of 10 and 100.

Specification

Accuracy :	Class 3
Options:	5A for use with separate C.T. 5/5A saturating C.T. 1/5A Saturating C.T.
Burden at 50 Hz:	MDI - 2.5A, C.T. - 2VA
Overload withstand:	Standard: 5 x FL for 5 seconds, 10 x FL 1 second With Saturating C.T.: 10 x FL for 3 seconds 20 x FL for 1 second
Frequency:	50/60Hz

Product Codes

Bezel Size mm	72	96	144
Scale length mm*	65	94	145
Product Codes			
8 Minute Time Lag			
Without limiting C.T. for use with 5A C.T.	243-16B	244-16B	-
With self-contained 5/5A limiting C.T.	-	244-16R	-
15 Minute Time Lag			
Without limiting C.T. for use with 5A C.T.	243-16A	244-16A	246-16A
With self-contained 5/5A limiting C.T.	-	244-16E	-
20 Minute Time Lag			
Without limiting C.T. for use with 5A C.T.	243-16J	244-16J	246-16J
With self-contained 5/5A limiting C.T.	-	244-16K	-

*Scaled 0/100/120% of C.T. primary value.

Combined A.C. Ammeter and Maximum Demand Indicator

Where the instantaneous and maximum demand currents are required, these instruments combine both movements in one case. It can also replace an existing A.C. Ammeter. Specification as above.

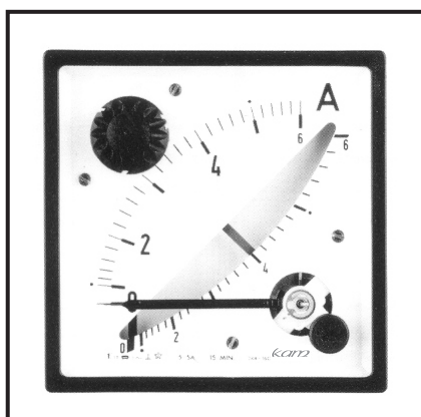
Specification

Accuracy:	Moving Iron Ammeter: Class 1.5 MDI: Class 3
Burden at 50Hz:	MI - 0.5 VA, MDI - 2.5VA Saturating C.T. - 2 VA

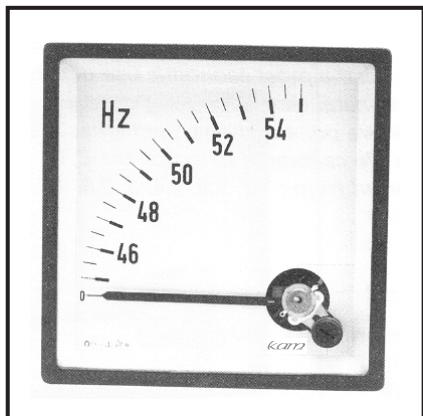
Product Codes

Bezel Size mm	72	96	144
Scale length mm*	65	94	145
Product Codes			
8 Minute Time Lag			
Without limiting C.T. for use with 5A C.T. 3VA	-	244-16Q	-
With self-contained 5/5A limiting C.T. 5VA	-	244-16T	-
15 Minute Time Lag			
Without limiting C.T. for use with 5A C.T. 3VA	-	244-16C	246-16C
With self-contained 5/5A limiting C.T. 5VA	-	244-16F	246-16F
20 Minute Time Lag			
Without limiting C.T. for use with 5A C.T. 3VA	-	244-16H	-
With self-contained 5/5A limiting C.T. 5VA	-	244-16L	-

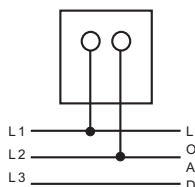
*Scaled 0/100/120% of C.T. primary value.



240 Series DIN Panel Meters



Connections



Frequency Meters

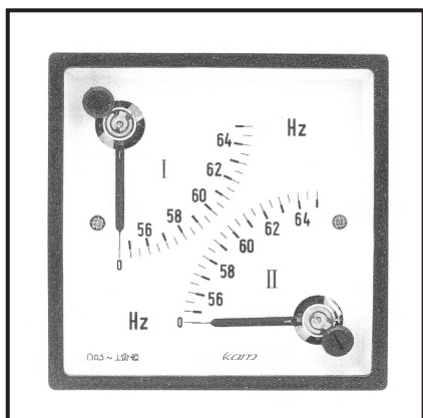
These Frequency meters use an integral electronic moving coil indicator. This meter is easy to read with an accuracy Class 0.5.

Specification

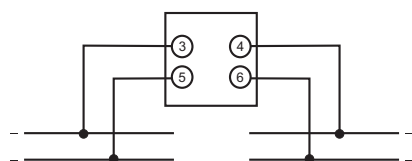
Accuracy :	Class 0.5
Ratings:	100V-125V A.C. 200V-250V A.C. 380V-440V A.C.* 500V A.C.* * For voltages above 380V use 242-013 with a 253-THZ, in place of 242-41S Models available for use with V.T.s
Frequency 0.5%:	45/55Hz, 55/65Hz, 45/65Hz, 360/440Hz Other scalings available on request
Burden:	4VA Maximum

Product Code

Bezel Size mm	48	48	72	72	96	96	144	144
Scale length mm*	42	72	65	112	94	145		
Product Code	242-41S	242-053 +253-THZ	243-41S +253-THZ	243-053	244-41S	244-41L	246-41S	246-41L



Connections



Dual Frequency Meters

Two instruments in one case can be used to measure a wide range of frequencies. These dual instruments save both panel space and assembly time. The 244-41D is an ideal component in synchronizing applications.

Specification

Accuracy :	Class 0.5
Ratings:	100V-125VA.C 200V-250V A.C. 380V-440V A.C.* 500V A.C.* Models available for use with V.T.s
Frequency 0.5%:	45/55Hz, 55/65Hz, 45/65Hz, 360/440Hz
Burden:	4VA Maximum

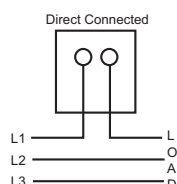
Product Code

Bezel Size mm	96
Scale length mm*	65
Product Code	244-41D

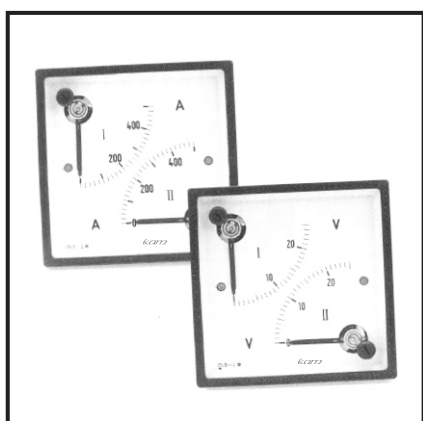
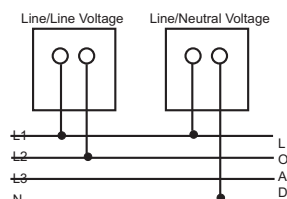
240 Series DIN Panel Meters



Connections
A.C. Ammeter



A.C. Voltmeter



Moving Coil Rectified A.C. Ammeters and Voltmeters

For high frequency or linear full scale A.C. measurements, these instruments measure average values of sinusoidal waveforms and are scaled in r.m.s. values. The high quality silicon bridge rectifier gives a linear scale down to near zero, where some compression occurs.

Specification - Short Scale

Accuracy :	1.5% ES
Ratings:	Ammeters: Model 242 from 250 μ A to 20mA Model 243 from 250 μ A to 1A Models 244/246 from 250 μ A to 20A Voltsmeters: 15V to 600V a.c. direct connected Models available for use with V.T.s
Frequency:	50/60Hz, (Single Frequencies 25Hz to 3kHz on request)

Product Codes - Short Scale

Bezel Size mm	48	72	96	144
Scale length mm	42	65	94	145
Product Code				
Ammeters	242-89B	243-01B	244-01B	246-10B
Voltsmeters	242-89W	243-01W	244-01W	246-10W

Specification - Long Scale

Accuracy :	1.5% ES
Ratings:	Ammeters: 250 μ A to 1A A.C. Up to 30A on models 244/246-05B Voltsmeters: 15V to 600V Direct connected Models available for use with V.T.s
Frequency:	50/60Hz, (Single frequencies 25Hz to 3kHz on request)

Product Code - Long Scale

Bezel Size mm	48	72	96	144
Scale length mm	72	112	150	230
Product Code				
Ammeters	242-05B	243-05B	244-05B	246-05B
Voltsmeters	242-05W	243-05W	244-05W	246-05W

Dual A.C. Ammeters and Voltmeters

The Two instruments in one case can be used for independent measurement of 2 parameters or the comparison of the two inputs. For example, when as A.C. generator is to be connected in parallel with mains supply where voltage, phase and frequency must coincide.

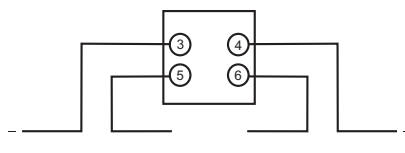
Specification

Accuracy :	1.5% FS
Ratings:	Ammeter: 250 μ A to 10A A.C. Voltmeter: 15 to 600V direct connected
Frequency:	50/60Hz (single frequencies 25Hz to 3kHz on request)

Product Codes

Bezel Size mm	96
Scale length mm	65
Product Code	
Ammeters	244-80F
Voltsmeters	244-80F

Dual A.C. Ammeter
Direct Connected



Dual A.C. Voltmeter

