

Long scale rectified AC ammeter and voltmeter

FEATURES

- Measures AC current or voltage
- CT connected ammeters
- Direct and VT connected voltmeters
- Linear scaling
- 240° long scale version
- x6 overload



APPLICATIONS

- AC switchgears, panels and distribution boards

CONSTRUCTION

- Mean value measurement of current or voltage
- Containing germanium diodes of low reverse current
- Slot in screw fixing

APPROVALS

- CE marked



BENEFITS

- Easy to operate
- Exchangeable dial
- Low consumption
- Terminal cover included

SPECIFICATION

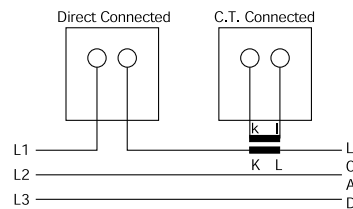
Accuracy class	1.5
Maximum continuous overload	1.2 x I _n , 1.2 x U _n
Maximum short duration overload	10xI _n - 9x0.5s+1x5s/60s - 2xU _n - 9x0.5s+1x5s/60s
Frequency	50/60 Hz

PRODUCT CODES

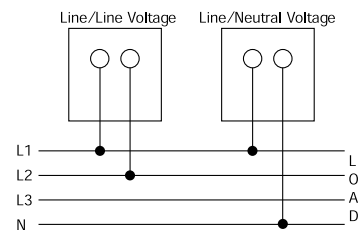
Bezel size (mm)	48	72	96	144
Scale length (mm)	71	113	155	235
AC ammeter rectified 240°	M242-05B	M243-05B	M244-05B	M246-05B
AC voltmeter rectified 240°	M242-05W	M243-05W	M244-05W	M246-05W
AC ammeter rectified 240° x6 overload		M243-056B	M244-056B	
Standard input ranges				
AC ammeter rectified 240° scaling (0/x A) meter (0/x A), (0/ x A x6), 1, 5A M243, M244	1, 5 A (M242-05B delivered with separated current transformer)			
AC voltmeter rectified 240° scaling (0/x V)	20, 15, 20, 30, 60, 100, 150, 250, 300 (limit at M242). 400, 500, 600 V			
AC voltmeter for VT connection (0/x V)	120 V (for use with VT's x/100 V), 132 V (for use with VT's x/110 V), 144 V (for use with VT's 120 V), 125 V, 137,5 V, 150 V (for use with some VT's having primary voltage less than 1 kV)			

CONNECTION DIAGRAMS

AC ammeter



AC voltmeter



ORDER DATA/EXAMPLES

AMMETER

- 1) Select type: M243-05B,
- 2) Specify input: 0-1 A,
- 3) Specify scaling: 0-1 kA,
- 4) Specify frequency: 50/60 Hz

VOLTMETER

- 1) Select type: M244-05 W,
- 2) Specify input: 0-500 V,
- 3) Specify scaling: 0-500 V,
- 4) Specify frequency: 50/60 Hz

VOLTMETER, VT CONNECTED

- 1) Select type: M244-05 W,
- 2) Specify input: 0-120 V,
- 3) Specify scaling: 0-12 kV,
- 4) Specify frequency: 50/60 Hz,
- 5) Specify VT ratio: 10/0.1 kV

Long scale DC ammeter and voltmeter

FEATURES

- Measures DC current or voltage
- Direct and shunt connected ammeters
- Direct connected voltmeters
- Live zero ammeters and voltmeters
- Centre zero ammeters and voltmeters
- Linear scaling
- 240° long scale version



APPLICATIONS

- DC switchgears, panels and distribution boards
- Control boards
- Process indication
- Battery supervision

CONSTRUCTION

- Magnet core none sensitive to external fields
- Slot in screw fixing

APPROVALS

- CE marked



BENEFITS

- Easy to operate
- Exchangeable dial
- Terminal cover included

SPECIFICATION

Accuracy class	1.5
Maximum continuous overload	1.2 x In, 1.2 x Un
Maximum short duration overload	10xIn - 9x0.5s+1x5s/60s, 2xUn - 9x0.5s+1x5s/60s

PRODUCT CODES

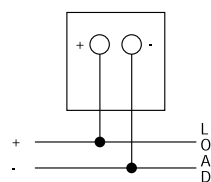
Bezel size (mm)	48	72	96	144
Scale length (mm)	71	113	155	235
DC ammeter 240°	M242-05A	M243-05A	M244-05A	M246-05A
DC voltmeter 240°	M242-05V	M243-05V	M244-05V	M246-05V
DC ammeter 240° live zero	M242-05R	M243-05R	M244-05R	M246-05R
DC voltmeter 240° live zero	M242-05S	M243-05S	M244-05S	M246-05S
DC ammeter 240° centre zero	M242-05C	M243-05C	M244-05C	M246-05C
DC voltmeter 240° centre zero	M242-05N	M243-05N	M244-05N	M246-05N

Standard input ranges

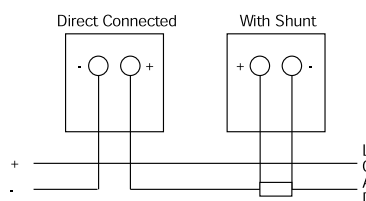
DC ammeter 240° scaling (0/x A)	1, 1.5, 2.5, 4, 5, 6, 10, 15, 20, 25 (limit on M242), 30, 40, 50, 60 A
DC ammeter 240° scaling, process and shunt indicators	0-1, 0-5, 0-10, 0-20, 4-20 mA, 0-50, 0-60, 0-75 mV
DC ammeter 240° scaling, centre zero (x-0-x A)	1-0-1, 1.5-0-1.5, 2.5-0-2.5, 4-0-4, 5-0-5, 6-0-6, 10-0-10 (limit on M242), 15-0-15, 20-0-20, 25-0-25, 30-0-30A
DC ammeter 240° scaling, centre zero process and shunt indicators	1-0-1, 5-0-5, 10-0-10, 20-0-20 mA, 50-0-50, 60-0-60, 75-0-75 mV
DC voltmeter 240° scaling (0/x V)	10, 15, 20, 30, 60, 100, 150, 250, 300 (limit on M242). 400, 500, 600 V
DC voltmeter 240° scaling, process indicators	1-5, 2-10 V
DC voltmeter 240° scaling, centre zero (x-0-x V)	10-0-10, 15-0-15, 20-0-20, 30-0-30, 60-0-60, 100-0-100, 150-0-150 (limit on M242) 250-0-250, 300-0-300 V

CONNECTION DIAGRAMS

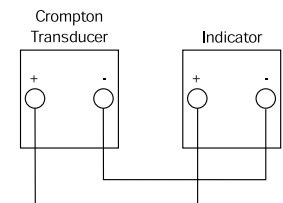
DC voltmeter



DC ammeter



Transducer indicator



ORDER DATA/EXAMPLES

AMMETER

EXAMPLE A

- 1) Select type: M243-05 A,
- 2) Specify input: 0-10 A,
- 3) Specify scaling: 0-10 A

EXAMPLE B

- 1) Select type: M244-05R,
- 2) Specify input: 4-20 mA,
- 3) Specify scaling: 0-100 MVA

EXAMPLE C

- 1) Select type: M244-05C,
- 2) Specify input: 60-0-60 mV,
- 3) Specify scaling: 150-0-150 A

VOLTMETER

EXAMPLE A

- 1) Select type: M244-05 V,
- 2) Specify input: 0-15 V,
- 3) Specify scaling: 0-15 V

EXAMPLE B

- 1) Select type: M244-05S,
- 2) Specify input: 2-10 V,
- 3) Specify scaling: 0-100 %

EXAMPLE C

- 1) Select type: M242-05N,
- 2) Specify input: 10-0-10 V,
- 3) Specify scaling: 20-0-20 A