

DIN 96x48mm 4 DIGIT DISPLAY ONLY MICROPROCESSOR METER AC & DC VOLTAGE & CURRENT, DC ANALOGUE SIGNALS, THERMOCOUPLE, PT100 & PT1000 INPUTS

TYPE: CM2

FEATURES

- Measuring DCA, DCV, ACA, ACV
- Optional TRMS versions
- Measuring DC analogue signals inputs
- Measuring thermocouple inputs
- Measuring PT100 & PT1000 inputs
- High accuracy, stability & resolution
- Optional excitation supply available
- Wide range of auxiliary supplies
- Special scaling
- CE marked

DESCRIPTION & MODE OF OPERATION

Din 96x48mm 4 digit panel meters, available with a wide choice of AC & DC voltage and current inputs, including DC analogue signal inputs, thermocouple inputs and PT100, PT1000 inputs. The meters are can be programmed by four tactile switches that can be specified to be accessed directly on the front panel or specified as discrete, where the buttons are hidden behind the front screen. These meters are display only meters and have no outputs, for meters with outputs please see meter range CS1.

All meters, in particular analogue input meters can be scaled to other engineering values, including negative to positive scaling and offset zero.

FEATURES

The following functions can be set up at the time of ordering, or programmed if required at a later date:

AvG to increase or decrease the response time, factory default 100mSec

dFILT to increase filtering on noisy supplies possibly to be utilised in conjunction with AvG.

LoCuT to ignore induced readings at zero from leaky circuits or noise pick up, but not at the detriment of a real reading. For example if LoCuT value of 5 set, any reading of 5 or below is ignored, but when reading is genuinely say 100 the meter reads 100 and not 95.

AoLS low scale point when scaling say to other engineering values, can be set from -1999 to +9999 the meter has the facility to also fine adjust.

AoHS high scale point when scaling say to other engineering values, can be set from -1999 to +9999 the meter has the facility to also fine adjust

Further details and assistance on the above set up features are available from our sales office.

MEASUREMENT

VOLTAGE INPUT RANGE	INPUT RESISTANCE	VOLTAGE INPUT RANGE	INPUT RESISTANCE	CURRENT INPUT RANGE	INPUT RESISTANCE
0-199.9mV	> 5M Ohms	0-1V	> 1M Ohms	0-1mA	250 Ohms
0-1.999V	> 1M Ohms	0-5V	> 1M Ohms	0-10mA	250 Ohms
0-19.99V	> 1M Ohms	1-5V	> 1M Ohms	0-20mA	250 Ohms
0-199.9V	> 1M Ohms	0-10V*	> 1M Ohms*	4-20mA	250 Ohms
0-300V	> 2M Ohms	0-10V	> 100K Ohms	0-1.999mA	100 Ohms
0-600V	> 3M Ohms	2-10V	> 100K Ohms	0-19.99mA	10 Ohms
0-50mV	> 5M Ohms		*Special request	0-199.9mA	1 Ohm
0-60mV	> 5M Ohms			0-1.999A	0.05 Ohms
0-100mV	> 5M Ohms			0-1A	0.1 Ohms
				0-5A	0.02 Ohms
				0-10A	0.01 Ohms



PRODUCT GROUP DD

Programming & set up buttons can be specified with "Visible Buttons" on the front panel or "Discrete Buttons" behind the front screen. If not specified, meter will be supplied with "Discrete Buttons"

SPECIFICATIONS

Measuring accuracy (PR): $\leq \pm 0.1\% \text{ FS} \pm 1 \text{ digit}$

Measuring accuracy (TC): $\leq \pm 0.2\% \text{ FS} \pm 1 \text{ digit}$

Measuring accuracy (TR): $\leq \pm 0.2\% \text{ FS} \pm 1 \text{ digit}$

Temperature effect: $\leq 100 \text{ PPM}/^{\circ}\text{C}$

Sampling rate: 15 cycles / sec

Response time: $\leq 100 \text{ mSec}$ (standard)

Can be altered in set up

Display: 4 x 20mm high red LED's

Display range: -1999 to +9999

Decimal point: At any point or not at all

Over range indication: "ouFL" when input is $> 110\%$ of input range

Under range indication: "-ouFL" when input is $< \text{LoSC}$ value

Aux. Supply ADH: 85-264VAC & 100-300VDC

ADL: 20-56VAC/DC

Power consumption: AC: $\leq 8\text{VA}$ DC: $\leq 4\text{W}$

Back up memory: EPROM

Operating temperature: $0-60^{\circ}\text{C}$

Operating humidity: 20-95% RH

Dielectric strength: 2KV for 1 min, between input & aux.

Insulation resistance: $\geq 100\text{M}\Omega$ @ 500VDC between input & aux

EMC: EN55011:2002 & EN 61326:2003

Low voltage directive: EN61010-1:2010

Dimensions mm: 96(W) x 48(H) x 80(D)

Panel cut out mm: 92(W) x 45(H)

Case material: ABS (UL 94V-0)

Terminals: Screw max 2mm²

ORDERING INFORMATION

(The meter will be scaled exactly to your requirements)

	INPUT TYPE	VOLTAGE INPUT	CURRENT INPUT	PR INPUT RANGE	TC INPUT RANGE**	TR & TRK INPUT RANGE**	AUX SUPPLY
CM2-	VAD (VDC or ADC) VAA (VAC or AAC) VAT (TRMS) PR (DC analogue signals) TC (Thermocouple) TR (PT100) TRK (PT1000)	0-199.9mV 0-1.999V 0-19.99V 0-199.9V 0-300V 0-600V* 0-50mV 0-60mV 0-100mV Special specify	0-1.999mA 0-19.99mA 0-199.9mA 0-1.999A 0-1A 0-5A 0-10A Special specify	0-1V 0-5V 1-5V 0-10V 2-10V 0-1mA 0-10mA 0-20mA 4-20mA*** Special specify	K (-270°C to +1372°C) K1 (-128.8°C to +537.7°C) J (-210°C to +1200°C) J1 (-128.8°C to +537.7°C) E (-270°C to +1000°C) E1 (0°C to +537.7°C) T (-270°C to +400°C) T1 (-128.8°C to +400°C) R (-50°C to +1768°C) S (-50°C to +1768°C) B (+250°C to +1820°C) N (-200°C to +1300°C)	PT100 (-199.9°C to +800°C) PT1000 (-199.9°C to +800°C)	ADH 85-264VAC 100-300VDC ADL 20-56VAC/DC

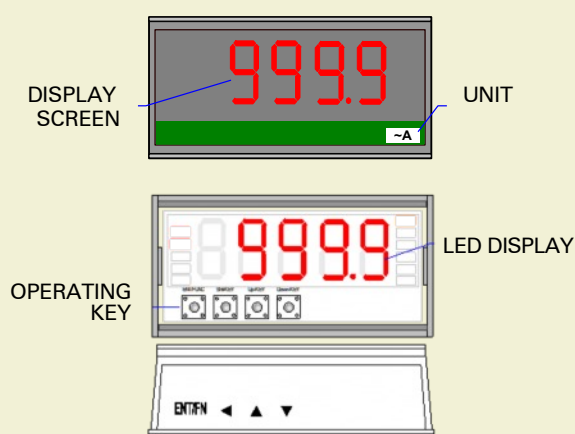
*For voltage inputs in excess of 600V, please use meter type CS1, see pages 204 to 207

**On TC, TR & TRK input meters, scaling can also be on request in 'F'

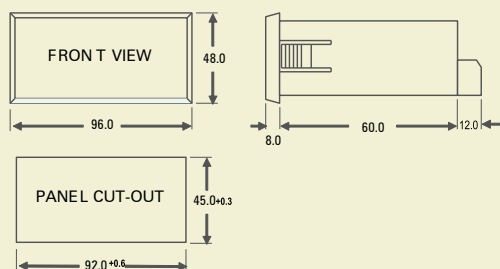
***An optional (extra cost) 24VDC built in excitation voltage output can be specified, max 30mA

Please also specify if front programming / set up buttons are to be "Visible" or "Discrete"

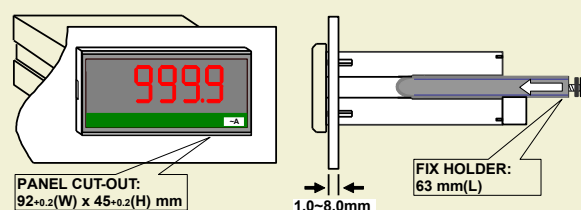
FRONT PANEL



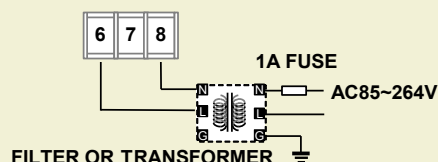
DIMENSIONS



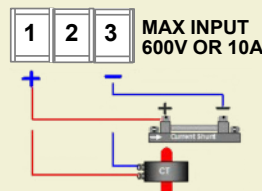
INSTALLATION



CONNECTION DIAGRAM



CM2-VA INPUT CONNECTION



TERMINAL BLOCKS

20A/300Vac, M3.5, 0.5~2.0mm² (22~14AWG)

