

# DIN 48x24mm 4 DIGIT, DIGITAL PANEL METER, DISPLAY ONLY

TYPE: CS3S



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"

## FEATURES

- Measuring DCA, DCV, ACA, ACV & PT100 inputs
- Optional TRMS versions
- Analogue signal inputs
- High accuracy, stability & resolution
- Wide range of AC & DC auxiliary supplies
- Special scaling
- CE marked

## DESCRIPTION & MODE OF OPERATION

Din 48x24mm 4 digit microprocessor based digital panel meters, available with a wide choice of both AC and DC voltage or current inputs including standard and non standard analogue signal inputs. PT100 temperature inputs can also be specified. 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 Din 48x24mm with outputs please see meter type CS3 on pages 198 &199

## SPECIFICATIONS

- Measuring accuracy (VAD):**  $\leq \pm 0.1\% \text{ FS} \pm 1 \text{ digit}$   
**Measuring accuracy (VAA):**  $\leq \pm 0.2\% \text{ FS} \pm 1 \text{ digit}$   
**Measuring accuracy (VAAT):**  $\leq \pm 0.2\% \text{ FS} \pm 1 \text{ digit}$   
**Measuring accuracy (TR):**  $\leq \pm 0.1\% \text{ FS} \pm 1 \text{ digit}$   
**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 red LED's  
**Display range:** -1999 to +9999  
**Decimal point:** At any point or not at all  
**Maximum over range:** Voltage x1.2 rated voltage continuous  
 Current x1.2 rated current continuous  
**Aux. Supply:** 5VDC (4.5-9VDC), 12VDC (9-18VDC), 24VDC (18-36VDC), 48VDC (36-72VDC)  
**ADH** 85-264VAC & 100-300VDC
- Power consumption:** AC:  $\leq 1.5\text{VA}$  DC:  $\leq 1\text{W}$   
**Operating temperature:** 0-60°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:** 48(W) x 24(H) x 78(D)  
**Panel cut out mm:** 45(W) x 22.5(H)  
**Case material:** ABS (UL 94V-0)  
**Terminals:** Screw max 2mm<sup>2</sup>

## 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

**dF iLT** 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		CURRENT		TEMPERATURE	
INPUT RANGE	INPUT RESISTANCE	INPUT RANGE	INPUT RESISTANCE	INPUT RANGE	INPUT RESISTANCE
0-199.9mV	$\geq 5\text{M Ohms}$	0-1.999uA	$\leq 1\text{K Ohms}$	PT100	$\geq 1\text{M Ohms}$
0-1.999V	$\geq 1\text{M Ohms}$	0-1.999mA	$\leq 100 \text{ Ohms}$	PT1000	$\geq 1\text{M Ohms}$
0-19.99V	$\geq 1\text{M Ohms}$	0-19.99mA	$\leq 10 \text{ Ohms}$		
0-199.9V	$\geq 1\text{M Ohms}$	0-199.9mA	$\leq 1 \text{ Ohm}$		
0-300V	$\geq 2\text{M Ohms}$	0-1.999A	$\leq 0.05 \text{ Ohms}$		
0-50mV	$\geq 5\text{M Ohms}$	0-1A	$\leq 0.1 \text{ Ohms}$		
0-60mV	$\geq 5\text{M Ohms}$	0-1mA	$\leq 100 \text{ Ohms}$		
0-100mV	$\geq 5\text{M Ohms}$	0-10mA	$\leq 250 \text{ Ohms}$		
0-1V	$\geq 1\text{M Ohms}$	0-20mA	$\leq 250 \text{ Ohms}$		
0-5V	$\geq 1\text{M Ohms}$	4-20mA	$\leq 250 \text{ Ohms}$		
0-10V	$\geq 1\text{M Ohms}$				

■ **ORDERING INFORMATION** (The meter will be scaled exactly to your requirements, please specify any special scaling required and any scaling to other engineering units)

	INPUT TYPE	INPUT RANGE V	INPUT RANGE A	PT100/PT1000 INPUT RANGE	AUX. SUPPLY
CS3S-	VAD (VDC or ADC)	0-199.9mV	0-1.999uA	-199.9-800.0°C*	5VDC (4.5-9VDC)
	VAA (VAC or AAC)	0-1.999V	0-1.999mA	-199.9-600.0°C**	12VDC (9-18VDC)
	VAT (TRMS)	0-19.99V	0-19.99mA	Special specify	24VDC (18-36VDC)
	TR1 (PT100)	0-199.9V	0-199.9mA		48VDC (36-72VDC)
	TR2 (PT1000)	0-300V	0-1.999A	*TR1	
		0-50mV	0-1A	**TR2	ADH 85-264VAC
		0-60mV	0-1mA		100-300VDC
		0-100mV	0-10mA		
		0-1V	0-20mA		
		0-5V	4-20mA		
		0-10V	Special specify		
		1-5V			
		2-10V			
		Special specify			



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

### FRONT PANEL

Operating key

Display area

Unit label

SET UP BUTTONS ARE TO BE "VISIBLE" OR "DISCRETE"

### DIMENSIONS

FRONT VIEW: 48.0 x 24.0 mm

PANEL CUT-OUT: 45.0<sup>+0.6</sup> x 22.5<sup>+0.3</sup> mm

### CONNECTION DIAGRAM

#### TERMINAL BLOCKS

4 5 6 7 8 9 10

SIGNAL INPUT: +, -

AUX. POWER: A, D

AC 85~264V  
DC 100~300V

### INSTALLATION

1.0-8.0 mm

FIX HOLDER 2 PCS

### CONNECTION DIAGRAM

#### TERMINAL BLOCKS

4 5 6 7 8 9 10

RTD INPUT: b, B, A

AUX. POWER: A, D

AC 85~264V  
DC 100~300V