



## CHALLENGER ANALOG PANEL METERS

### ANALOG POWER METERS

#### KEY FEATURES

- Measurement and indication of AC amps, volts, frequency and DC signals
- Surface or window mounting
- Rear zero adjuster on moving coil meters
- High torque pivot and jewel movement
- True RMS measurement meters
- AC and DC inputs
- Up to 40 A DC direct connected
- Up to 50 A AC direct connected

TE Connectivity's (TE) Crompton Instruments Challenger range of analog panel meters offers accurate measurement and indication of most electrical and electronic parameters in industry standard 1½", 2½", 3½" and 4½" case sizes.

This innovative design features a detachable lower fascia plate, which allows the flexibility of either surface or window mounting. The fascia is simply unclipped to achieve the completely flush panel appearance of rear of panel window mounting.

AC moving coil rectified meters provide 1.5% accuracy of the full scale value and feature a rear zero adjuster screw for tamperproof installation. AC moving iron meters also provide 1.5% high accuracy and true RMS measurement.

**Customers can count on consistent, high quality products, driven by TE's proven innovation and backed by our extraordinary customer support.**

## Challenger Analog Panel Meters



SPECIFICATIONS	
<b>Accuracy</b>	
DC ammeters and voltmeters	1.5% 0-100% of full scale deflection
AC ammeters and voltmeters	Moving iron: 1.5% 10-100% of full scale deflection Moving coil: 1.5% 10-100% of full scale deflection
Frequency meters	0.5% of end scale value
<b>Input ratings</b>	
DC moving coil ammeters	100 $\mu$ A - 30 A DC. (Model 361: 10 A max)
DC moving coil voltmeters	50 mV - 600 V DC
DC moving coil center zero ammeters	+/-50 mA to +/-30 A DC. (Model 361: 10 A max)
DC moving coil center zero voltmeter	+/-50 mV to +/-600 V DC. Standard 1 k ohm/volt
DC moving coil suppressed zero ammeters	4/20 mA DC
DC moving coil suppressed zero voltmeters	1/5, 8/16, 16/32 or 12/24 V DC
AC moving coil ammeters	100 $\mu$ A - 750 mA AC
AC moving coil voltmeters	50 - 600 V AC. Standard 900 ohms/volt
AC moving iron ammeters	1 - 50 A AC (Model 361: non applicable)
AC moving iron voltmeters	50 - 600 V AC (Model 361: non applicable)
Frequency	100/130 V, 200/250 V, 360/440 V, 50 Hz, 60 Hz or 400 Hz (Model 361: non applicable)
Burden	Ammeter: 0.5 VA Voltmeter: 4.5 VA
Frequency	4 VA
Overload	1.2 continuous x 10 for 0.5 seconds
<b>Enclosure</b>	
Movement	High torque pivot and jewel moving coil and moving iron
Scale balance	Within 1% of scale length
Relative humidity	25% - 80% nominal range of use
Operating temperature	0°C to +40°C (-32°F to +104°F)
Storage temperature	-20°C +55°C (-4°F to +131°F)
Case and lower mask	Black matt case UL94V. Polycarbonate cover
Window	Shatterproof polycarbonate
Surface mounting	4 corner studs
Rear of panel mounting	2 through hole mounts (Model 361: facility pending)
<b>Compliant with</b>	
UL and CSA	File no: E203000
Performance	ANSI C39.1 1981 and IEC 51
Scaling	ANSI C39.1 1981
Safety	IEC61010-1 (LVD) and BS EN61326:1998 (EMC)
Vibration	ANSI C39.1 1981 cl. 5.13

PRODUCT CODES - DC VOLTMETERS SENSITIVITY 1000 $\Omega$ /VOLT (ACCURACY $\pm$ 2% ES)2% ES)		
Rating	Scaling	Cat. no.
0-15 V	0-15 V	(36*)-01VA-NDND
0-30 V	0-30 V	(36*)-01VA-NLNL
0-50 V	0-50 V	(36*)-01VA-NTNT
0-150 V	0-150 V	(36*)-01VA-PZPZ
0-300 V	0-300 V	(36*)-01VA-RXR X
0-600 V	0-600 V	(36*)-01VA-SJSJ
PRODUCT CODES - DC AMMETER (ACCURACY $\pm$ 2% ES)		
0-1 mA	To suit requirements	(36*)-01AA-FA**
0-5 mA	0-5 mA	(36*)-01AA-FXFX
0-10 mA	0-10 mA	(36*)-01AA-GZGZ
0-20 mA	0-20 mA	(36*)-01AA-HFHF
0-50 mA	0-50 mA	(36*)-01AA-HYHY
100 mA	0-100 mA	(36*)-01AA-JRJR
0-200 mA	0-200 mA	(36*)-01AA-KAKA
0-500 mA	0-500 mA	(36*)-01AA-KMKM
0-1 A	0-1A	(36*)-01AA-LALA
0-2 A	0-2 A	(36*)-01AA-LELE
0-5 A	0-5 A	(36*)-01AA-LSLS
0-10 A	0-10 A	(36*)-01AA-MTMT
0-50 mV	To suit	(36*)-01AA-EC**
PRODUCT CODES - AC VOLTMETER TRUE RMS READING (ACCURACY $\pm$ 2% ES)		
150 V	0-150 V	(36*)-02VA-PZPZ-C7
300 V	0-300 V	(36*)-02VA-RXR X-C7
600 V	0-600 V	(36*)-02VA-SJSJ-C7
150 V	Transformer rated	(36*)-02VA-PZ**-C7

APPROVALS	
ANSI C39.1 1981	
IEC 51	
UL3111-1	
EMC	
LVD	
UL CSA	

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