



080 Series 90° Scale

A range of metal case, sealed instruments for industrial and military applications involving extreme shock, vibration, temperature, dirt and humidity. Bezel sizes 57mm, 83mm comply with Ministry of Defence specification DEF STAN 66-7 or DEF STAN 66-9 for all standard ratings.

Description

Two bezel sizes of 57 x 57mm (083) and 83mm Ø (084), with barrel diameters of 53mm (083) and 67mm (084) and toughened glass windows are used throughout the series. To avoid fogging they are dried, evacuated and filled with dry nitrogen. Panel sealing gaskets are provided as standard with the exception of Model 083. Models 083 and 084 have steel cases with fixing holes in the flange. Sealed zero adjusters are provided. Standard instrument dials are finished in a white matt with black printing and parallel pointer. The scales form a true arc with zero on the left.

Options

Available options include dial illumination, a centre, off-set or suppressed zero, colour index lines, bands, zones or segments, a black dial with white printing and customer logo. Instruments operated by separate transducers indicate watts, VAR, frequency, phase angle, current, voltage and other physical/mechanical parameters are also available. Illumination options as follows:

Models 083/084: Edge, white or red bulb, 12 or 24V, illumination.

Specifications

Performance:	BS EN60051 (IEC51). DEF STAN 66-7 and 66.9 on request (084 only)
Accuracy:	Class 2.5 frequency meter 0.5% of mid frequency
Scaling:	To BS89, BS3693 or DEF STAN 66-7 and 66-9
Dielectric test @ 50 Hz:	2kV RMS; <50V 500V RMS All for 1 minute
Overloads:	x1.2 rated current or voltage for 2 hours. x 10 rated current for 5 seconds. x2 rated voltage for 5 seconds
Burdens:	AC ammeter: 1VA maximum. AC voltmeter: 3VA maximum
Frequency meter:	4VA maximum
Elapsed time meter:	2.5VA maximum
Enclosure code:	IP67 (NEMA 6 and 6P)
Case:	Black matt metal filled with dry nitrogen
Bezel:	Black matt metal
Bezel window:	Toughened glass
Operating temperature:	-40°C to +70°C (-45F to +158°F)
Standard calibration:	23°C (73°F)
Approvals:	EMC and LVD. DEF 66.7 and 66.9

Product Range

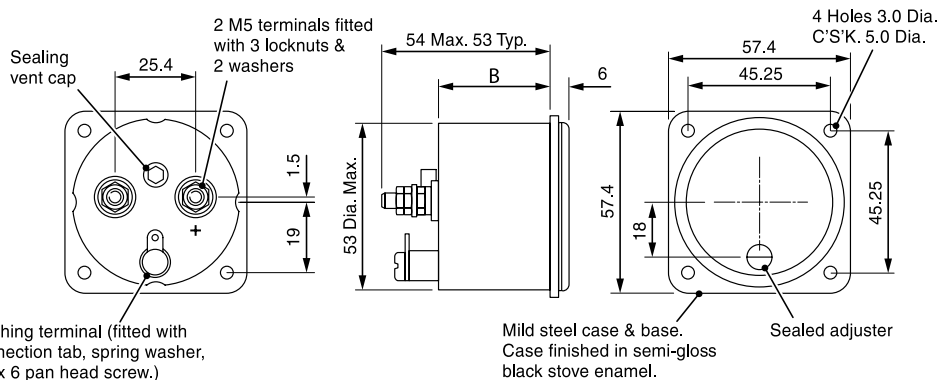
Type of instrument	Ranges	Case code		Product code
AC ammeter moving iron	1-30A	✓	-	083-75A
AC ammeter moving iron	1-30A	-	✓	084-75A
AC voltmeter moving iron	5-300V	✓	-	083-75V
AC voltmeter moving iron	5-300V	-	✓	084-75V
DC ammeter shunt operated	50, 60, 75, 100, 150mV	✓	-	083-80A
DC ammeter shunt operated	50, 60, 75, 100, 150mV	-	✓	084-80A
DC ammeter	50QA-30A	✓	-	083-80A
DC ammeter	50QA-30A	-	✓	084-80A
DC ammeter suppressed zero	4/20mA	✓	-	083-80R
DC ammeter suppressed zero	4/20mA	-	✓	084-80R
DC voltmeter	50mV-300V, 1000Ω/V	✓	-	083-80V
DC voltmeter	50mV-300V	-	✓	084-80V
DC voltmeter suppressed zero	1/5V	-	✓	084-80S
AC rectified ammeter	100QA-500mA.25Hz/3kHz	✓	-	083-80B
AC rectified ammeter	100QA-500mA.25Hz/3kHz	-	✓	084-80B
AC rectified voltmeter	15-600V, 900Ω/V	✓	-	083-80W
AC rectified voltmeter	15-600V	-	✓	084-80W
Elapsed time meter (99999.9)	12 or 24V DC	✓	✓	082/083/084-151
Elapsed time meter (99999.9)	50Hz/100-440V*	✓	✓	083/084-155
Elapsed time meter (99999.9)	60Hz/100-440V*	✓	✓	083/084-156
Frequency meter	50 or 60 or 400Hz/100-440V*	✓	-	083-41S
Frequency meter	50 or 60 or 400Hz/100-440V*	-	✓	084-41S
Transducer indicator speed	1, 5, 10, 20, and 4/20mA	-	✓	084/802
Transducer indicator frequency	1, 5, 10, 20, and 4/20mA	-	✓	084/803
Transducer indicator phase angle	1, 5, 10, 20, and 4/20mA	-	✓	084/804
Transducer indicator watts	1, 5, 10, 20, and 4/20mA	-	✓	084/805
Transducer indicator VARs	1, 5, 10, 20, and 4/20mA	-	✓	084/806
Transducer indicator VA	1, 5, 10, 20, and 4/20mA	-	✓	084/807

*100-440V - (100/125 or 200/250 or 380/440).



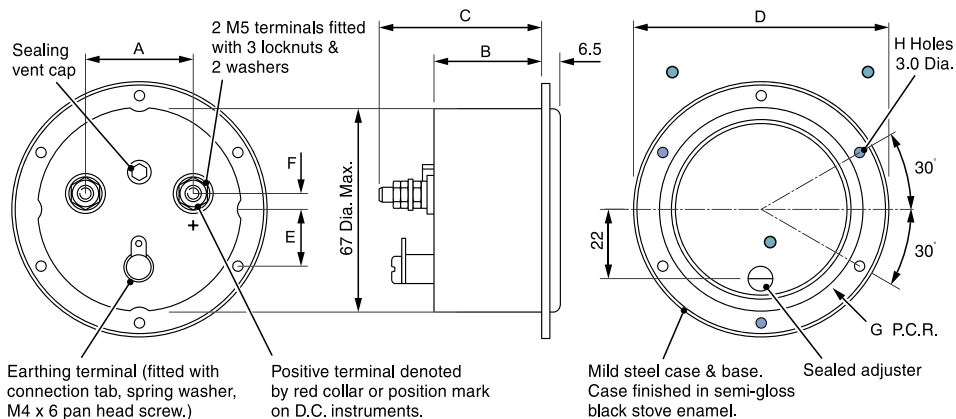
Dimensions

Model 083



	B
083-80	33.6
083-75	37.6

Model 084



*When fitted with terminal shunt for ranges above 20 amps.

	A	B	C	D	E	F	G	H
084-80	35	33.5	59	82.5	20	5	36.5	6 off
084-75	35	38	64	82.5	20	5	36.5	6 off

Panel Cut out 68.3ø - Holes 3.8ø

These ● holes on 084 only.