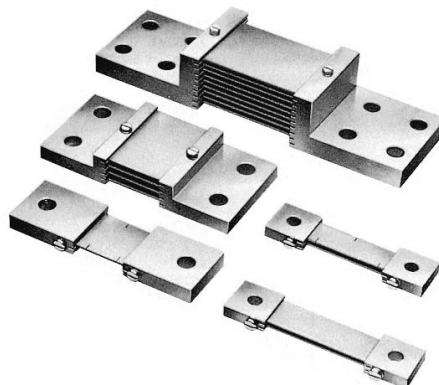


# Industrial, Switchboard and DEF66-13 Shunts

## 880 Series

### Features

- » Rivetted and soldered construction
- » Long term stability
- » In-line busbar mounting
- » Shock and vibration tested
- » ABS American Bureau of Shipping Approved



*Designed and manufactured to give maximum reliability in arduous conditions, these heavy duty shunts provide an accurate D.C. millivolt signal suitable for ammeter indicators, overload protection and control devices.*

*The 880 Series of shunts can be supplied in a variety of formats and configurations conforming with the standards and/or practice of most countries and several specific specifying authorities.*

### Specification

The 880 Series complies with IEC51 (BS89) and when specified they conform to DEF Stan 66-13.

<b>Model N°:</b>	Ratings:	<b>5 Second withstand:</b>	10A-500A = 10 x rated current
<b>Model 881-92</b>	1, 2, 5, 10, 15, 20, 25 & 30A on insulated bases.		501A-2000A = 5 x rated current
<b>Model 882-92</b>	30, 40, 50, 60, 75, 80, 100A, & 150A		2001A-12000A = 2 x rated current for 5 seconds
<b>Model 883-92</b>	150, 200, 250, 300 & 500A	<b>Temperature coefficient:</b>	0.002% per °C between 25° & 80°C
<b>Model 884-92</b>	600, 750, 800, 1000A	<b>Ambient Temperature:</b>	Calibrated for 20°C the working range is -20°C to +60°C
<b>Model 885-92</b>	1500, & 2000A	<b>Temperature rise:</b>	Correctly mounted in freely circulating air, the temperature rise will not exceed 90°C at the centre line of the element, and 60°C at the joint line, based on an ambient of 20°C
<b>Model 886-92</b>	2500, 3000, 4000, 5000, 6000, 8000, 10000 & 12000A	<b>Maximum load:</b>	(Potential circuit) for maximum accuracy, the load should not exceed 0.1% of the shunt current rating.
<b>Intermediate ratings are available on request.</b>			
<b>Accuracy Class:</b>	0.5 (0.25 USA) 0.2 available on request		
<b>Outputs:</b>	Standard outputs are 50, 60, 75, 100, 150mV and other millivolt drop values are available on request.		
<b>Overloads withstand:</b>	1.2 rated current continuously		

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## 880 Series

### Shunt leads

Where ammeter indicators are ordered with the shunts, leads 1 metre long, total resistance 25mΩ should be used.

Other lengths are available to order.

### Construction

Highest quality materials, rugged design and advanced manufacturing techniques are used throughout. The substantial solid brass end blocks have conservatively rated contact surface areas and fixing hole dimensions to IEC51: (BS89): For maximum long term stability and strength, copper manganese resistance elements are both rivetted and

soldered into slots in the end blocks. Above 2000A, end blocks are multibladed. For current ratings below 30A model 881 base mounted shunts are supplied as standard unless otherwise specified. For base mounted shunts up to 100A see our model 829 range.

### Installation

For maximum heat dissipation, mount shunts in the horizontal plane, with the blade facing vertical. If the shunt is mounted in the vertical position the '+ positive' potential terminal should be the lower or bottom one due to the "Peltier" effect. Utilise the full end block surface area. Ample ventilation should be provided. Busbars should be adequately rated, clean and level, with a thin coat of

silicone grease applied to the contact surface area. Use M10 (3/8in) fixing bolts with model 882 and M12 (1/2in) for all other shunts. Use flat and tension washers under the nuts and tighten fully.

Insulated mounting blocks are available for models 882, 883.

### DEF 66-13 Shunts

Shunts with metric threads and dimensions are fully compliant with and approved to DEF 66-13 and have a silver soldered end block and painted resistance elements.

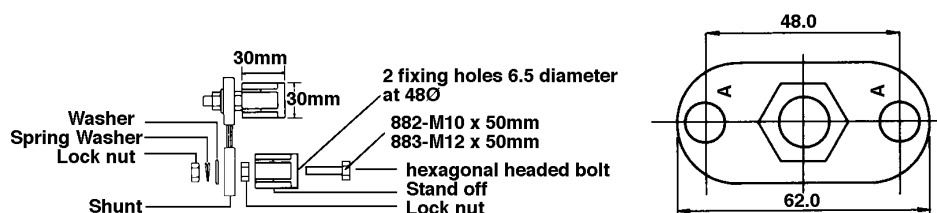
They are supplied with removable solder tags on the potential terminals as additionally required by MoD (Naval). Consult factory for more details.

### Warning

Shunts are uninsulated and protection against accidental contact may be necessary in order to comply with Health & Safety regulations.

### Mounting Blocks

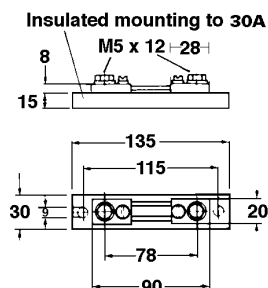
Insulated mounting blocks available for 882 and 883 sizes



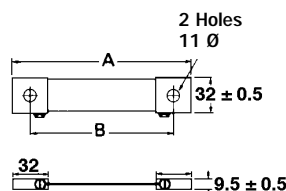
# Industrial, Switchboard and DEF66-13 Shunts

## 880 Series

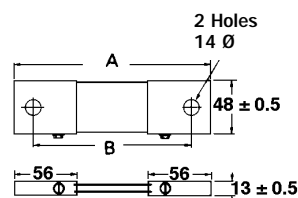
### Model 881 1 - 30A



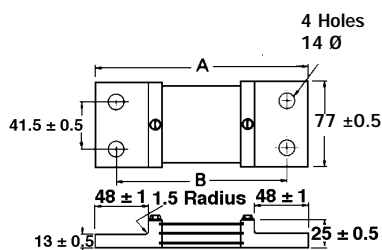
### Model 882 10 - 150A



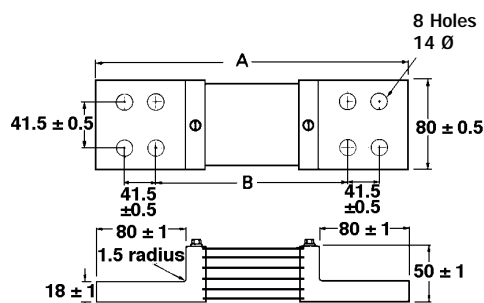
### Model 883 101 - 500A



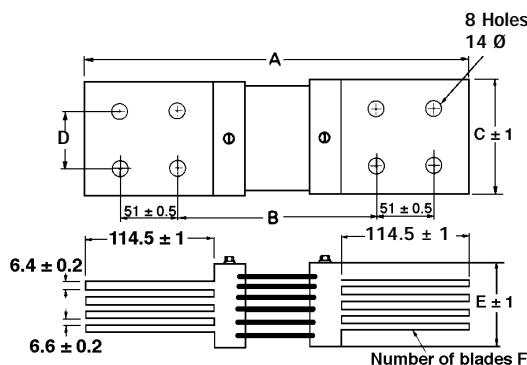
### Model 884 501 - 1000A



### Model 885 1001 - 2000A



### Model 886



Current in Amps	C	D	E	F
2001 - 2500	102	51	38	2
2501 - 3000	102	51	51	3
3001 - 5000	102	51	76	4
5001 - 6000	102	51	102	5
6001 - 7000	127	63.5	102	5
7001 - 9000	127	63.5	102	6
9001 - 10000	127	63.5	127	7
10001 - 11500	127	63.5	134	8
11501 - 12000	127	63.5	142	8

Model 886 is designed for 1/4" (6.35mm) busbars. Alternatively Model 887 may be specified for 3/8" (9.52mm) busbars.

### Design Options

- Other mV outputs and current ratings
- DEF stan 66 - 13 (NATO stock)
- Other accuracy classes e.g.0.2

Dimensions in mm	50mV	60mV	75mV	100mV	150mV
Model 882 A ± 1	122	135	154	185	249
B ± 0.5	95	108	127	158	222
Model 883 A ± 1.5	154	162	175	196	238
B ± 0.5	119	127	140	161	203
Model 884 A ± 2	167	176	190	214	260
B ± 0.5	129	138	152	176	222
Model 885 A ± 4	252	263	279	307	362
B ± 0.5	138	149	165	193	248
Model 886/887 A ± 3	321	330	342	362	404
B ± 0.5	168	177	189	210	251