



Switchboard Shunts

FR – 600 to 10,000 AMPS

GENERAL INFORMATION:

Extending measurement of currents beyond available limits of self-contained DC ammeters

APPLICATIONS:

Panel meters, Switchboard, solar, rail, or other DC applications

CONTINUOUS OPERATION

Recommended that shunts are not run at more than two-thirds (2/3) the rated current under normal conditions as per IEEE standards



| | |
|----------------|---------------------|
| Model | FR |
| Amperes | 600 – 10,000 |

MODEL FR – 600 to 10,000 AMPS

Approximate weight: 0.6 lbs.

50 mV Series

| CATALOG NUMBER | INPUT (AMPS) | OUTPUT (mV) | ACCURACY |
|----------------|--------------|-------------|----------|
| FR-1000-50 | 1,000 | 50 | ± 0.25% |
| FR-1200-50 | 1,200 | 50 | ± 0.25% |
| FR-1500-50 | 1,500 | 50 | ± 0.25% |
| FR-2000-50 | 2,000 | 50 | ± 0.25% |
| FR-2500-50 | 2,500 | 50 | ± 0.25% |
| FR-3000-50 | 3,000 | 50 | ± 0.25% |
| FR-4000-50 | 4,000 | 50 | ± 0.25% |
| FR-5000-50 | 5,000 | 50 | ± 0.25% |
| FR-6000-50 | 6,000 | 50 | ± 0.25% |
| FR-7500-50 | 7,500 | 50 | ± 0.25% |
| FR-8000-50 | 8,000 | 50 | ± 0.25% |
| FR-10,000-50 | 10,000 | 50 | ± 0.25% |

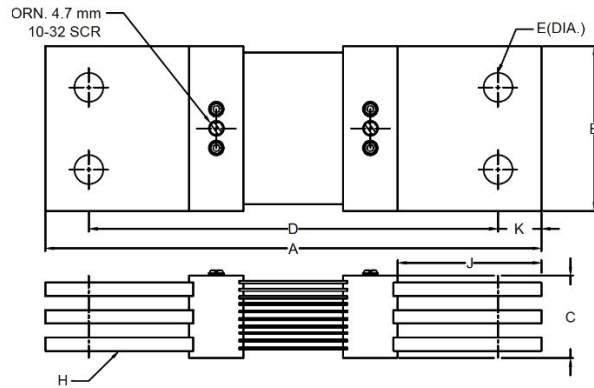
100 mV Series

| CATALOG NUMBER | INPUT (AMPS) | OUTPUT (mV) | ACCURACY |
|----------------|--------------|-------------|----------|
| FR-600-100 | 600 | 100 | ± 0.25% |
| FR-750-100 | 750 | 100 | ± 0.25% |
| FR-800-100 | 800 | 100 | ± 0.25% |
| FR-1000-100 | 1,000 | 100 | ± 0.25% |
| FR-1200-100 | 1,200 | 100 | ± 0.25% |
| FR-1500-100 | 1,500 | 100 | ± 0.25% |
| FR-2000-100 | 2,000 | 100 | ± 0.25% |
| FR-2500-100 | 2,500 | 100 | ± 0.25% |
| FR-3000-100 | 3,000 | 100 | ± 0.25% |
| FR-4000-100 | 4,000 | 100 | ± 0.25% |
| FR-5000-100 | 5,000 | 100 | ± 0.25% |
| FR-6000-100 | 6,000 | 100 | ± 0.25% |

Tolerances ± 0.015 in (0.381 mm) for hole diameters.

Other tolerances ± 0.030 in (0.762 mm) unless otherwise noted.

Dimensions are subjects to change without notice.



50mV MODEL TYPE FR 1000 THROUGH 10,000 AMPERES

| CATALOG No. | AMP | A | | B | | C | | D | | E | | F | | G | | H | J | | K | |
|--------------|--------|--------|----------|-------|----|-------|-------|--------|----------|-------|---------|-------|-------|-------|-------|---|--------|---------|-------|---------|
| | | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | | mm | in | mm | in |
| FR-1000-50 | 1000 | 230.19 | 9 1/16 | 76.2 | 3 | 38.1 | 1 1/2 | 189.71 | 7 15/32 | 13.49 | 17/32 | 38.1 | 1 1/2 | 19.05 | 3/4 | 2 | 66.68 | 2 5/8 | 20.24 | 51/64 |
| FR-1200-50 | 1200 | 230.19 | 9 1/16 | 76.2 | 3 | 38.1 | 1 1/2 | 189.71 | 7 15/32 | 13.49 | 17/32 | 38.1 | 1 1/2 | 19.05 | 3/4 | 2 | 66.68 | 2 5/8 | 20.24 | 51/64 |
| FR-1500-50 | 1500 | 230.19 | 9 1/16 | 76.2 | 3 | 50.8 | 2 | 189.71 | 7 15/32 | 13.49 | 17/32 | 38.1 | 1 1/2 | 19.05 | 3/4 | 3 | 66.68 | 2 5/8 | 20.24 | 51/64 |
| FR-2000-50 | 2000 | 230.19 | 9 1/16 | 101.6 | 4 | 50.8 | 2 | 189.71 | 7 15/32 | 13.49 | 17/32 | 50.8 | 2 | 25.4 | 1 | 3 | 66.68 | 2 5/8 | 20.24 | 51/64 |
| FR-2500-50 | 2500 | 396.88 | 15 5/8 | 101.6 | 4 | 76.2 | 3 | 301.23 | 11 55/64 | 16.67 | 21/32 | 50.8 | 2 | 25.4 | 1 | 3 | 139.7 | 5 1/2 | 47.63 | 17/8 |
| FR-3000-50 | 3000 | 396.88 | 15 5/8 | 101.6 | 4 | 76.2 | 3 | 301.23 | 11 55/64 | 16.67 | 21/32 | 50.8 | 2 | 25.4 | 1 | 4 | 139.7 | 5 1/2 | 47.63 | 17/8 |
| FR-4000-50 | 4000 | 396.88 | 15 5/8 | 127 | 5 | 76.2 | 3 | 301.23 | 11 55/64 | 20.64 | 13/16 | 50.8 | 2 | 38.1 | 1 1/2 | 4 | 139.7 | 5 1/2 | 47.63 | 17/8 |
| FR-5000-50 | 5000 | 396.88 | 15 5/8 | 127 | 5 | 101.6 | 4 | 301.23 | 11 55/64 | 20.64 | 13/16 | 50.8 | 2 | 38.1 | 1 1/2 | 5 | 139.7 | 5 1/2 | 47.63 | 17/8 |
| FR-6000-50 | 6000 | 396.88 | 15 5/8 | 152.4 | 6 | 101.6 | 4 | 313.93 | 12 23/64 | 20.64 | 13/16 | 69.85 | 2 3/4 | 41.28 | 1 5/8 | 5 | 139.7 | 5 1/2 | 41.67 | 1 41/64 |
| FR-7500-50 | 7500 | 396.88 | 15 5/8 | 152.4 | 6 | 101.6 | 4 | 313.93 | 12 23/64 | 20.64 | 13/16 | 69.85 | 2 3/4 | 41.28 | 1 5/8 | 6 | 139.7 | 5 1/2 | 41.67 | 1 41/64 |
| FR-8000-50 | 8000 | 396.88 | 15 5/8 | 152.4 | 6 | 101.6 | 4 | 313.93 | 12 23/64 | 20.64 | 13/16 | 69.85 | 2 3/4 | 41.28 | 1 5/8 | 6 | 139.7 | 5 1/2 | 41.67 | 1 41/64 |
| FR-10,000-50 | 10,000 | 402.83 | 15 55/64 | 203.2 | 8 | 101.6 | 4 | 313.93 | 12 23/64 | 26.69 | 1 11/16 | 69.85 | 2 3/4 | 57.15 | 2 1/4 | 6 | 140.49 | 5 17/32 | 38.1 | 1 1/2 |

100mV MODEL TYPE FR 600 THROUGH 6,000 AMPERES

| CATALOG No. | AMP | A | | B | | C | | D | | E | | F | | G | | H | J | | K | |
|-------------|-------|--------|---------|-------|----|-------|-------|-------|--------|-------|---------|------|-------|-------|-------|---|--------|--------|-------|---------|
| | | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | | mm | in | mm | in |
| FR-600-100 | 600 | 304.8 | 12 | 76.2 | 3 | 38.1 | 1 1/2 | 266.7 | 10 1/2 | 13.49 | 17/32 | 38.1 | 1 1/2 | 19.05 | 3/4 | 2 | 66.68 | 2 5/8 | 19.05 | 3/4 |
| FR-750-100 | 750 | 304.8 | 12 | 76.2 | 3 | 38.1 | 1 1/2 | 266.7 | 10 1/2 | 13.49 | 17/32 | 38.1 | 1 1/2 | 19.05 | 3/4 | 2 | 66.68 | 2 5/8 | 19.05 | 3/4 |
| FR-800-100 | 800 | 304.8 | 12 | 76.2 | 3 | 38.1 | 1 1/2 | 266.7 | 10 1/2 | 13.49 | 17/32 | 38.1 | 1 1/2 | 19.05 | 3/4 | 2 | 66.68 | 2 5/8 | 19.05 | 3/4 |
| FR-1000-100 | 1000 | 304.8 | 12 | 76.2 | 3 | 50.8 | 2 | 266.7 | 10 1/2 | 13.49 | 17/32 | 38.1 | 1 1/2 | 19.05 | 3/4 | 3 | 66.68 | 2 5/8 | 19.05 | 3/4 |
| FR-1200-100 | 1200 | 304.8 | 12 | 101.6 | 4 | 50.8 | 2 | 266.7 | 10 1/2 | 16.67 | 21/32 | 50.8 | 2 | 25.4 | 1 | 3 | 66.68 | 2 5/8 | 19.05 | 3/4 |
| FR-1500-100 | 1500 | 469.9 | 18 1/2 | 101.6 | 4 | 76.2 | 3 | 381 | 15 | 16.67 | 21/32 | 50.8 | 2 | 25.4 | 1 | 3 | 134.14 | 5 9/32 | 44.45 | 1 3/4 |
| FR-2000-100 | 2000 | 469.9 | 18 1/2 | 101.6 | 4 | 76.2 | 3 | 381 | 15 | 20.64 | 13/16 | 50.8 | 2 | 25.4 | 1 | 3 | 134.14 | 5 9/32 | 44.45 | 1 3/4 |
| FR-2500-100 | 2500 | 469.9 | 18 1/2 | 127 | 5 | 76.2 | 3 | 381 | 15 | 20.64 | 13/16 | 50.8 | 2 | 38.1 | 1 1/2 | 3 | 134.14 | 5 9/32 | 44.45 | 1 3/4 |
| FR-3000-100 | 3000 | 469.9 | 18 1/2 | 127 | 5 | 101.6 | 4 | 381 | 15 | 20.64 | 13/16 | 50.8 | 2 | 38.1 | 1 1/2 | 4 | 134.14 | 5 9/32 | 44.45 | 1 3/4 |
| FR-4000-100 | 4000 | 471.49 | 18 9/16 | 127 | 5 | 101.6 | 4 | 381 | 15 | 20.64 | 13/16 | 63.5 | 2 1/2 | 31.75 | 1 1/4 | 4 | 134.14 | 5 9/32 | 44.45 | 1 3/4 |
| FR-5000-100 | 5000 | 471.49 | 18 9/16 | 127 | 5 | 101.6 | 4 | 381 | 15 | 20.64 | 13/16 | 63.5 | 2 1/2 | 31.75 | 1 1/4 | 5 | 134.14 | 5 9/32 | 44.45 | 1 3/4 |
| FR-6000-100 | 6,000 | 471.49 | 18 9/16 | 152.4 | 6 | 101.6 | 4 | 393.7 | 15 1/2 | 26.69 | 1 11/16 | 76.2 | 3 | 38.1 | 1 1/2 | 5 | 134.14 | 5 9/32 | 38.89 | 1 17/32 |

Tolerances ± 0.015 in (0.381 mm) for hole diameters.

Other tolerances ± 0.030 in (0.762 mm) unless otherwise noted.

Dimensions are subjects to change without notice.