

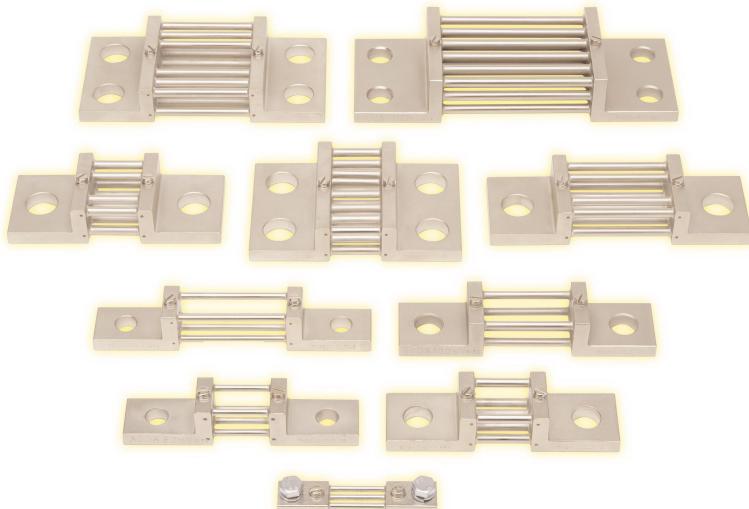
Thermovolt Shunts

Ideal for Telecommunications and Power Systems

High quality Thermovolt DC Ammeter Shunts have been made in Sweden since 1955. They are low resistance resistors with a flat temperature coefficient. When current flows through, a small voltage proportional to the current flow develops across the shunt. This voltage reading is converted to Amps by the measuring system.

Thermovolt Shunts are designed, engineered and manufactured to exact specifications to offer the strongest possible price value and feature/performance standards:

- Thermovolt offers a full line of shunts, in standard and custom configurations up to 40,000 Amps.
- The shunts are covered with a thin nickel plating, .04 microns thick, to provide extremely high corrosion resistance.
- Standard Thermovolt shunts are designed for use with 50mV or 100mV circuits. The shunts are calibrated at the factory for mV rating of +/- 0.5% at up to 75% of continuous rated current. This allows for the selection of a shunt with 12% less current rating than competitive shunts rated at only 66%. Shunts with custom ratings are also available.
- The shunt terminal blocks are made of pure copper stock to ensure even current distribution over the entire shunt surface.
- The shunt resistance rods are made of manganin, silver soldered to the two end copper terminal blocks. To assure that each shunt will achieve the highest vibration and high temperature tolerance over a long period, the silver solder is applied at 620°C compared to using tin solder normally applied at 200°C.

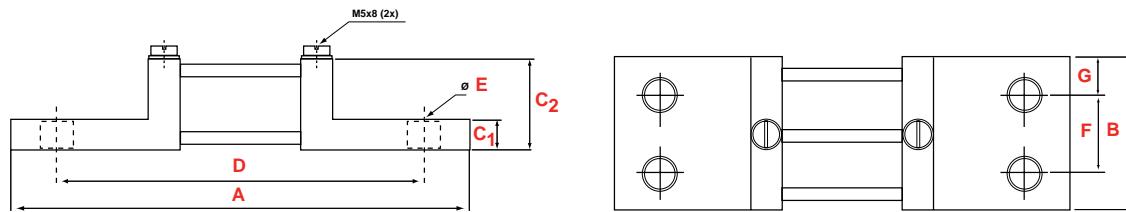


Stand alone DC Current shunts.



Integrated Bus Shunts

Shunt Technical Data



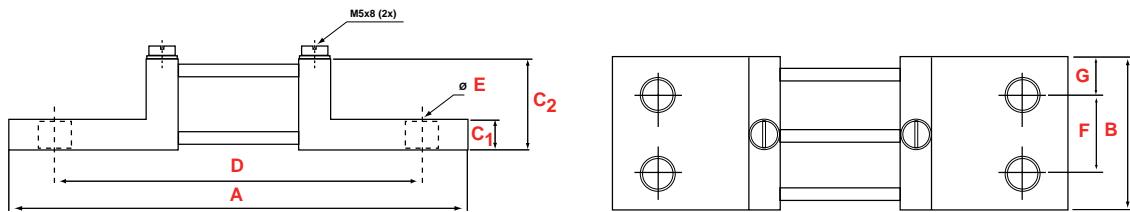
Curtis/Thermovolt Standard 30A - 2000 Amps (+-0.5% Accuracy)

50 mV

| Amp | Curtis # | Max Amp | mm ("') | | | | | | | |
|-------|------------|---------|------------|-------------|-----------|-----------|------------|-------------|---------------|-----------|
| | | | A | B | C1 | C2 | D | E | F | G |
| 30 | 15052-30 | 22.5 | 91 (3.58) | 20 (.79) | 8 (0.32) | 8 (0.32) | 74 (2.92) | 8 (.32) | - | - |
| 40 | 15052-40 | 30 | 91 (3.58) | 20 (.79) | 8 (0.32) | 8 (0.32) | 74 (2.92) | 8 (.32) | - | - |
| 50 | 15052-50 | 37.5 | 91 (3.58) | 20 (.79) | 8 (0.32) | 8 (0.32) | 74 (2.92) | 8 (.32) | - | - |
| 75 | 15052-75 | 56.3 | 91 (3.58) | 20 (.79) | 8 (0.32) | 8 (0.32) | 74 (2.92) | 8 (.32) | - | - |
| 100 | 15053-10 | 75 | 91 (3.58) | 20 (.79) | 8 (0.32) | 8 (0.32) | 74 (2.92) | 8 (.32) | - | - |
| 125 | 15053-12.5 | 93.8 | 91 (3.58) | 20 (.79) | 8 (0.32) | 8 (0.32) | 74 (2.92) | 8 (.32) | - | - |
| 150 | 15053-15 | 113 | 91 (3.58) | 20 (.79) | 8 (0.32) | 8 (0.32) | 74 (2.92) | 8 (.32) | - | - |
| 200 | 15053-20 | 150 | 140 (5.52) | 30 (1.18) | 10 (0.39) | 30 (1.18) | 100 (3.94) | 13.5 (0.53) | - | - |
| 300 | 15053-30 | 225 | 140 (5.52) | 30 (1.18) | 10 (0.39) | 30 (1.18) | 100 (3.94) | 13.5 (0.53) | - | - |
| 400 | 15053-40 | 300 | 140 (5.52) | 40 (1.58) | 10 (0.39) | 30 (1.18) | 100 (3.94) | 17.5 (0.69) | - | - |
| 500 | 15053-50 | 375 | 140 (5.52) | 40 (1.58) | 10 (0.39) | 30 (1.18) | 100 (3.94) | 17.5 (0.69) | - | - |
| 600 | 15053-60 | 450 | 140 (5.52) | 40 (1.58) | 10 (0.39) | 30 (1.18) | 100 (3.94) | 17.5 (0.69) | - | - |
| 700 | 15053-70 | 525 | 140 (5.52) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 100 (3.94) | 17.5 (0.69) | - | - |
| 800 | 15053-80 | 600 | 140 (5.52) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 100 (3.94) | 17.5 (0.69) | - | - |
| 900 | 15053-90 | 675 | 160 (6.31) | 60 (2.36) | 10 (0.39) | 40 (1.58) | 110 (4.33) | 22 (0.87) | - | - |
| 1000 | 15054-10 | 750 | 160 (6.31) | 60 (2.36) | 10 (0.39) | 40 (1.58) | 110 (4.33) | 22 (0.87) | - | - |
| 1200 | 15054-12 | 900 | 160 (6.31) | 90 (3.55) | 10 (0.39) | 40 (1.58) | 110 (4.33) | 17.5 (.69) | 48 (1.89) | 21 (0.83) |
| 1500 | 15054-15 | 1125 | 160 (6.31) | 90 (3.55) | 10 (0.39) | 40 (1.58) | 110 (4.33) | 17.5 (.69) | 48 (1.89) | 21 (0.83) |
| 2000 | 15054-20 | 1500 | 160 (6.31) | 90 (3.55) | 10 (0.39) | 40 (1.58) | 110 (4.33) | 17.5 (.69) | 48 (1.89) | 21 (0.83) |
| 2500 | 15054-25 | 1875 | 160 (6.31) | 120 (4.73) | 10 (0.39) | 40 (1.58) | 110 (4.33) | 22 (0.87) | 60 (2.36) | 30 (1.18) |
| 3000 | 15054-30 | 2250 | 160 (6.31) | 120 (4.73) | 10 (0.39) | 40 (1.58) | 110 (4.33) | 22 (0.87) | 60 (2.36) | 30 (1.18) |
| 4000 | 15054-40 | 3000 | 160 (6.31) | 120 (4.73) | 10 (0.39) | 40 (1.58) | 110 (4.33) | 22 (0.87) | 60 (2.36) | 30 (1.18) |
| 5000 | 15054-50 | 3750 | 170 (7) | 150 (5.91) | 15 (0.59) | 70 (2.76) | 120 (4.73) | 22 (0.87) | (2) 50 (1.97) | 25 (.99) |
| 6000 | 15054-60 | 4500 | 170 (7) | 150 (5.91) | 15 (0.59) | 70 (2.76) | 120 (4.73) | 22 (0.87) | (2) 50 (1.97) | 25 (.99) |
| 8000 | 15054-80 | 6000 | 170 (7) | 200 (7.88) | 15 (0.59) | 70 (2.76) | 120 (4.73) | 22 (0.87) | (3) 50 (1.97) | 25 (.99) |
| 10000 | 15055-10 | 7500 | 170 (7) | 250 (9.85) | 15 (0.59) | 70 (2.76) | 120 (4.73) | 22 (0.87) | (4) 50 (1.97) | 25 (.99) |
| 12000 | 15055-12 | 9000 | 170 (7) | 300 (11.82) | 15 (0.59) | 70 (2.76) | 120 (4.73) | 22 (0.87) | (5) 50 (1.97) | 25 (.99) |

100mV

| Amp | Curtis # | Max Amp | mm ("') | | | | | | | |
|------|-------------|---------|------------|-----------|-----------|-----------|------------|-------------|-----------|-----------|
| | | | A | B | C1 | C2 | D | E | F | G |
| 30 | 115052-30 | 22.5 | 121 (4.77) | 20 (.79) | 8 (0.32) | 8 (0.32) | 104 (4.1) | 8 (.32) | - | - |
| 40 | 115052-40 | 30 | 121 (4.77) | 20 (.79) | 8 (0.32) | 8 (0.32) | 104 (4.1) | 8 (.32) | - | - |
| 50 | 115052-50 | 37.5 | 121 (4.77) | 20 (.79) | 8 (0.32) | 8 (0.32) | 104 (4.1) | 8 (.32) | - | - |
| 75 | 115052-75 | 56.3 | 121 (4.77) | 20 (.79) | 8 (0.32) | 8 (0.32) | 104 (4.1) | 8 (.32) | - | - |
| 100 | 115053-10 | 75 | 121 (4.77) | 20 (.79) | 8 (0.32) | 8 (0.32) | 104 (4.1) | 8 (.32) | - | - |
| 125 | 115053-12.5 | 93.8 | 121 (4.77) | 20 (.79) | 8 (0.32) | 8 (0.32) | 104 (4.1) | 8 (.32) | - | - |
| 150 | 115053-15 | 113 | 121 (4.77) | 20 (.79) | 8 (0.32) | 8 (0.32) | 104 (4.1) | 8 (.32) | - | - |
| 200 | 115053-20 | 150 | 170 (6.7) | 30 (1.18) | 10 (0.39) | 30 (1.18) | 130 (5.12) | 13.5 (0.53) | - | - |
| 300 | 115053-30 | 225 | 170 (6.7) | 30 (1.18) | 10 (0.39) | 30 (1.18) | 130 (5.12) | 13.5 (0.53) | - | - |
| 400 | 115053-40 | 300 | 170 (6.7) | 40 (1.58) | 10 (0.39) | 30 (1.18) | 130 (5.12) | 17.5 (0.69) | - | - |
| 500 | 115053-50 | 375 | 170 (6.7) | 40 (1.58) | 10 (0.39) | 30 (1.18) | 130 (5.12) | 17.5 (0.69) | - | - |
| 600 | 115053-60 | 450 | 170 (6.7) | 40 (1.58) | 10 (0.39) | 30 (1.18) | 130 (5.12) | 17.5 (0.69) | - | - |
| 700 | 115053-70 | 525 | 170 (6.7) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 130 (5.12) | 17.5 (0.69) | - | - |
| 800 | 115053-80 | 600 | 170 (6.7) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 130 (5.12) | 17.5 (0.69) | - | - |
| 900 | 115053-90 | 675 | 190 (7.49) | 60 (2.36) | 10 (0.39) | 40 (1.58) | 140 (5.52) | 22 (0.87) | - | - |
| 1000 | 115054-10 | 750 | 190 (7.49) | 60 (2.36) | 10 (0.39) | 40 (1.58) | 140 (5.52) | 22 (0.87) | - | - |
| 1200 | 115054-12 | 900 | 190 (7.49) | 90 (3.55) | 10 (0.39) | 40 (1.58) | 140 (5.52) | 17.5 (.69) | 48 (1.89) | 21 (0.83) |
| 1500 | 115054-15 | 1125 | 190 (7.49) | 90 (3.55) | 10 (0.39) | 40 (1.58) | 140 (5.52) | 17.5 (.69) | 48 (1.89) | 21 (0.83) |
| 2000 | 115054-20 | 1500 | 190 (7.49) | 90 (3.55) | 10 (0.39) | 40 (1.58) | 140 (5.52) | 17.5 (.69) | 48 (1.89) | 21 (0.83) |



Curtis/Thermovolt

300A - 1200 Amps (+-0.5% Accuracy)

CSI " Type E" mounting equivalent shunt family.

50 mV

| Amp | Curtis # | Max Amp | CSI part # | Max Amp | mm (") | | | | | | | |
|------|-----------|---------|------------|---------|------------|-----------|-----------|-----------|--------------|-----------|-------------|--------------|
| | | | | | A | B | C1 | C2 | D | E | F | G |
| 300 | E15053-30 | 225 | E300-50 | 200 | 150 (5.91) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 120.6 (4.75) | 11 (0.43) | 25.4 (1) | 12.3 (0.48) |
| 400 | E15053-40 | 300 | E400-50 | 267 | 150 (5.91) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 120.6 (4.75) | 11 (0.43) | 31.8 (1.25) | 9.1 (0.36) |
| 500 | E15053-50 | 375 | E500-50 | 333 | 150 (5.91) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 120.6 (4.75) | 11 (0.43) | 31.8 (1.25) | 9.1 (0.36) |
| 600 | E15053-60 | 450 | E600-50 | 400 | 150 (5.91) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 120.6 (4.75) | 11 (0.43) | 31.8 (1.25) | 9.1 (0.36) |
| 800 | E15053-80 | 600 | E800-50 | 533 | 150 (5.91) | 60 (2.36) | 10 (0.39) | 30 (1.18) | 120.6 (4.75) | 11 (0.43) | 38.1 (1.5) | 10.95 (0.43) |
| 1000 | E15054-10 | 750 | E1000-50 | 667 | 150 (5.91) | 60 (2.36) | 10 (0.39) | 30 (1.18) | 120.6 (4.75) | 11 (0.43) | 38.1 (1.5) | 10.95 (0.43) |
| 1200 | E15054-12 | 900 | E1200-50 | 800 | 150 (5.91) | 60 (2.36) | 10 (0.39) | 30 (1.18) | 120.6 (4.75) | 11 (0.43) | 38.1 (1.5) | 10.95 (0.43) |

100 mV

| Amp | Curtis # | Max Amp | CSI part # | Max Amp | mm (") | | | | | | | |
|------|------------|---------|------------|---------|--------------|-----------|-----------|-----------|--------------|-----------|-------------|--------------|
| | | | | | A | B | C1 | C2 | D | E | F | G |
| 300 | E110053-30 | 225 | E300-100 | 200 | 197.6 (7.78) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 168.2 (6.62) | 11 (0.43) | 25.4 (1) | 12.3 (0.48) |
| 400 | E110053-40 | 300 | E400-100 | 267 | 197.6 (7.78) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 168.2 (6.62) | 11 (0.43) | 31.8 (1.25) | 9.1 (0.36) |
| 500 | E110053-50 | 375 | E500-100 | 333 | 197.6 (7.78) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 168.2 (6.62) | 11 (0.43) | 31.8 (1.25) | 9.1 (0.36) |
| 600 | E110053-60 | 450 | E600-100 | 400 | 197.6 (7.78) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 168.2 (6.62) | 11 (0.43) | 31.8 (1.25) | 9.1 (0.36) |
| 800 | E110053-80 | 600 | E800-100 | 533 | 197.6 (7.78) | 60 (2.36) | 10 (0.39) | 30 (1.18) | 168.2 (6.62) | 11 (0.43) | 38.1 (1.5) | 10.95 (0.43) |
| 1000 | E110054-10 | 750 | E1000-100 | 667 | 197.6 (7.78) | 60 (2.36) | 10 (0.39) | 30 (1.18) | 168.2 (6.62) | 11 (0.43) | 38.1 (1.5) | 10.95 (0.43) |
| 1200 | E110054-12 | 900 | E1200-100 | 800 | 197.6 (7.78) | 60 (2.36) | 10 (0.39) | 30 (1.18) | 168.2 (6.62) | 11 (0.43) | 38.1 (1.5) | 10.95 (0.43) |

Curtis/Thermovolt

1000A - 3000 Amps (+-0.5% Accuracy)

CSI " Type FL" mounting equivalent shunt family.

50 mV

| Amp | Curtis # | Max Amp | CSI part # | Max Amp | mm (") | | | | | | | |
|------|------------|---------|------------|---------|-------------|-----------|-----------|-----------|-------------|------------|----------|-------------|
| | | | | | A | B | C1 | C2 | D | E | F | G |
| 1000 | FL15054-10 | 666 | FL1000-50 | 666 | 96.2 (3.79) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 76.2 (3) | 10.5 (.41) | 25.4 (1) | 12.3 (0.48) |
| 1200 | FL15054-12 | 800 | FL1200-50 | 800 | 96.2 (3.79) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 76.2 (3) | 10.5 (.41) | 25.4 (1) | 12.3 (0.48) |
| 1500 | FL15054-15 | 1000 | FL1500-50 | 1000 | 92.9 (3.66) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 72.9 (2.87) | 10.5 (.41) | 25.4 (1) | 12.3 (0.48) |
| 2000 | FL15054-20 | 1333 | FL2000-50 | 1333 | 89.9 (3.54) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 69.9 (2.75) | 10.5 (.41) | 25.4 (1) | 12.3 (0.48) |
| 2500 | FL15054-25 | 1666 | FL2500-50 | 1666 | 86.5 (3.41) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 66.5 (2.62) | 10.5 (.41) | 25.4 (1) | 12.3 (0.48) |
| 3000 | FL15054-30 | 2000 | FL3000-50 | 2000 | 83.5 (3.29) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 63.5 (2.50) | 10.5 (.41) | 25.4 (1) | 12.3 (0.48) |

100mV

| Amp | Curtis # | Max Amp | CSI part # | Max Amp | mm (") | | | | | | | |
|------|-------------|---------|------------|---------|--------------|-----------|-----------|-----------|-------------|------------|----------|-------------|
| | | | | | A | B | C1 | C2 | D | E | F | G |
| 1000 | FL110054-10 | 666 | FL1000-100 | 666 | 108.9 (4.29) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 88.9 (3.50) | 10.5 (.41) | 25.4 (1) | 12.3 (0.48) |
| 1200 | FL110054-12 | 800 | FL1200-100 | 800 | 108.9 (4.29) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 88.9 (3.50) | 10.5 (.41) | 25.4 (1) | 12.3 (0.48) |
| 1500 | FL110054-15 | 1000 | FL1500-100 | 1000 | 105.6 (4.16) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 85.6 (3.37) | 10.5 (.41) | 25.4 (1) | 12.3 (0.48) |
| 2000 | FL110054-20 | 1333 | FL2000-100 | 1333 | 102.6 (4.04) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 82.6 (3.25) | 10.5 (.41) | 25.4 (1) | 12.3 (0.48) |
| 2500 | FL110054-25 | 1666 | FL2500-100 | 1666 | 99.2 (3.90) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 79.2 (3.12) | 10.5 (.41) | 25.4 (1) | 12.3 (0.48) |
| 3000 | FL110054-30 | 2000 | FL3000-100 | 2000 | 96.2 (3.79) | 50 (1.97) | 10 (0.39) | 30 (1.18) | 76.2 (3) | 10.5 (.41) | 25.4 (1) | 12.3 (0.48) |

Bolt-on Shunt Contactor

Greater Efficiency

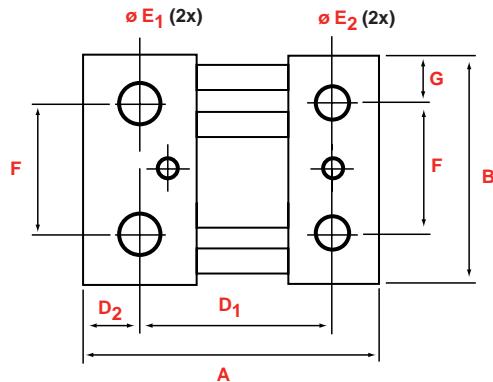
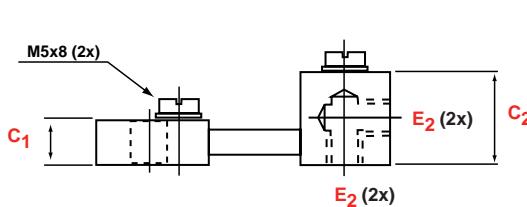
Instead of wiring, installing and fitting in two separate components, the Curtis Bolt-On Shunt Contactor acts as a single integrated component with a small footprint and optimum space efficiency. Mounting is fast and easy thanks to fewer connections and resistance points. The two-in-one unit eliminates installation steps and saves space.

Measurement of Voltage and Current is Consistently Accurate

The shunts are calibrated at the factory for mV rating of +/- 0.5% at up to 75% of continuous rated current. This allows for the selection of a shunt with 12% less current rating than competitive shunts rated at only 66%.

Standard or Custom Configurations Allow Wide Flexibility

These units are configured to meet your requirements by integrating the right shunt with the right contactor for an optimum combination, from 1 to 1,200 amps.



Curtis/Thermovolt

300A - 1800 Amps (+-0.5% Accuracy)

Bolt-on Shunts

30 mV

| Max Amp (Contactor) | Curtis # | Shunt Max Amp | mm (") | A | B | C1 | C2 | D1 | D2 | E1 | E2 | F | G |
|------------------------|------------|------------------|-----------|------------|-----------|-----------|-------------|------------|-------------|-----|-------------|--------------|---|
| 300(SW260) | BLT3053-30 | 300 | 65 (2.56) | 50 (1.97) | 10 (0.39) | 20 (0.79) | 42.5 (1.68) | 12.5 (.49) | 8.5 (0.34) | M8 | 28.7 (1.13) | 10.65 (0.42) | |
| 500(SW500) | BLT3053-50 | 500 | 65 (2.56) | 50 (1.97) | 10 (0.39) | 20 (0.79) | 42.5 (1.68) | 12.5 (.49) | 8.5 (0.34) | M8 | 28.7 (1.13) | 10.65 (0.42) | |
| 600(SW560) | BLT3053-60 | 600 | 65 (2.56) | 63 (2.48) | 10 (0.39) | 20 (0.79) | 42.5 (1.68) | 12.5 (.49) | 8.5 (0.34) | M8 | 28.7 (1.13) | 17.15 (0.68) | |
| 600(SW600) | BLT3053-60 | 600 | 65 (2.56) | 50 (1.97) | 10 (0.39) | 20 (0.79) | 42.5 (1.68) | 12.5 (.49) | 8.5 (0.34) | M8 | 28.7 (1.13) | 10.65 (0.42) | |
| 800(SW800) | BLT3053-80 | 800 | 65 (2.56) | 63 (2.48) | 10 (0.39) | 20 (0.79) | 42.5 (1.68) | 12.5 (.49) | 8.5 (0.34) | M8 | 44.5 (1.75) | 9.25 (0.36) | |
| 1200(SW1000) | BLT3054-12 | 1200 | 75 (3) | 76 (2.99) | 10 (0.39) | 25 (0.99) | 47.5 (1.87) | 15 (0.59) | 10.5 (0.41) | M10 | 44.5 (1.75) | 15.75 (0.62) | |
| 1800(SW1500) | BLT3054-18 | 1800 | 75 (3) | 100 (3.94) | 10 (0.39) | 25 (0.99) | 47.5 (1.87) | 15 (0.59) | 10.5 (0.41) | M10 | 44.5 (1.75) | 27.75 (1.09) | |

www.curtisinst.com

CURTIS INSTRUMENTS, INC. • 200 KISCO AVENUE, MT. KISCO, NY 10549 USA TEL (914) 666-2971 • FAX (914) 666-2188

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