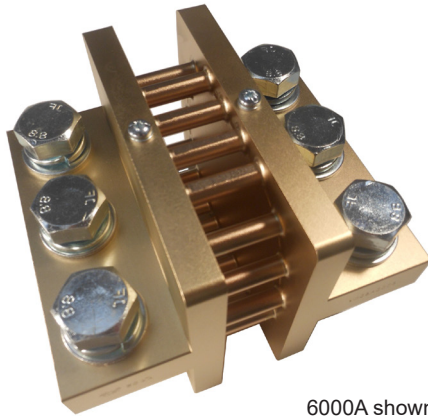


RSDIN Current Shunts

DIN 43703 Compliant high current shunts
4,000 Amp - 6,000 Amp



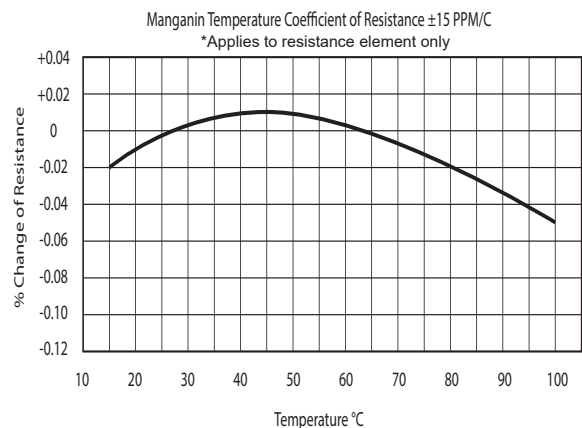
6000A shown

- **DIN 43709 Compliant**
- **4,000A and 6,000A options**
- **60mV output**
- **±0.5% tolerance (class 0.5)**
- **Common Applications:**
Power Conversion, UPS Systems, Industrial Power Supplies

SPECIFICATIONS			
Type	Rated Current (A) *	Operating Current (A)	Resistance (mΩ)
RSDIN-4000-60	4000	2666	0.015
RSDIN-6000-60	6000	4000	0.010
Rated Output	60mV Standard Custom outputs may be available on request		
Voltage Tolerance	±0.5% Standard		
Operating Temp.	+30°C to +70°C		
Storage Temp.	-55°C to 80°C		
Materials / Torque Specification	Resistance Elements	Manganin	
	Terminal Blocks	Brass	
	Primary Hardware Torque 311Nm	Zinc plated steel Bolts, Nuts, Washers	4000A - 4) M20x60
			6000A - 6) M20x75
Secondary Hardware Torque 4.3Nm	Zinc plated steel Screws, Washers	M5x8	

*Please consult factory for additional options

Operating Current Derating: For continuous operation, it is recommended that shunts are not run at more than two thirds (2/3) the rated current under normal conditions per IEEE standards for DC instrument shunts. At ambient temperatures above 40°C, the current must be further derated to prevent damage.

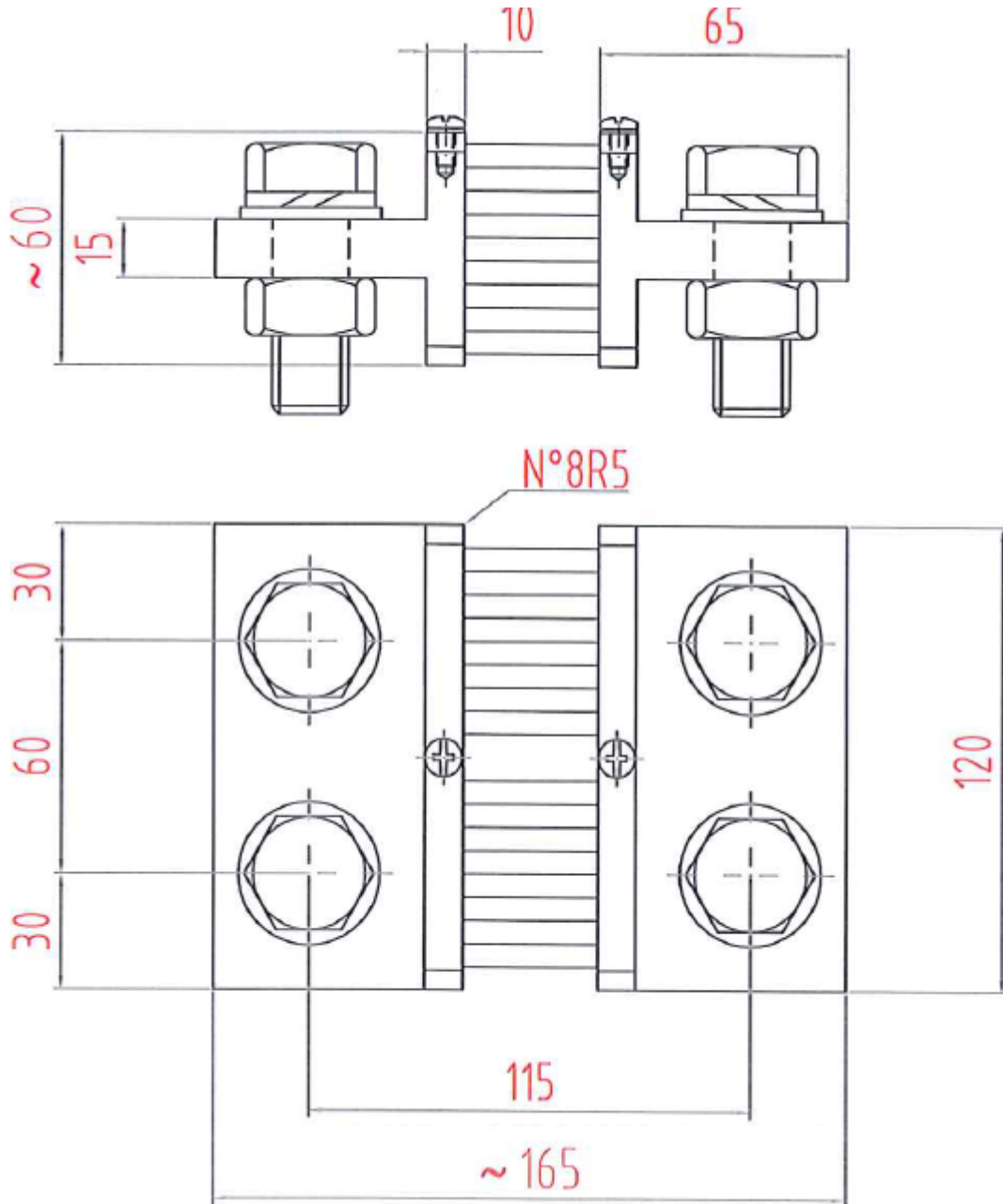


RSDIN Current Shunts

DIN 43703 Compliant high current shunts
4,000 Amp - 6,000 Amp

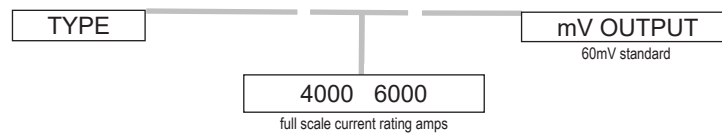


RSDIN-4000-60



Ordering Information

Example: **RSDIN-6000-60**

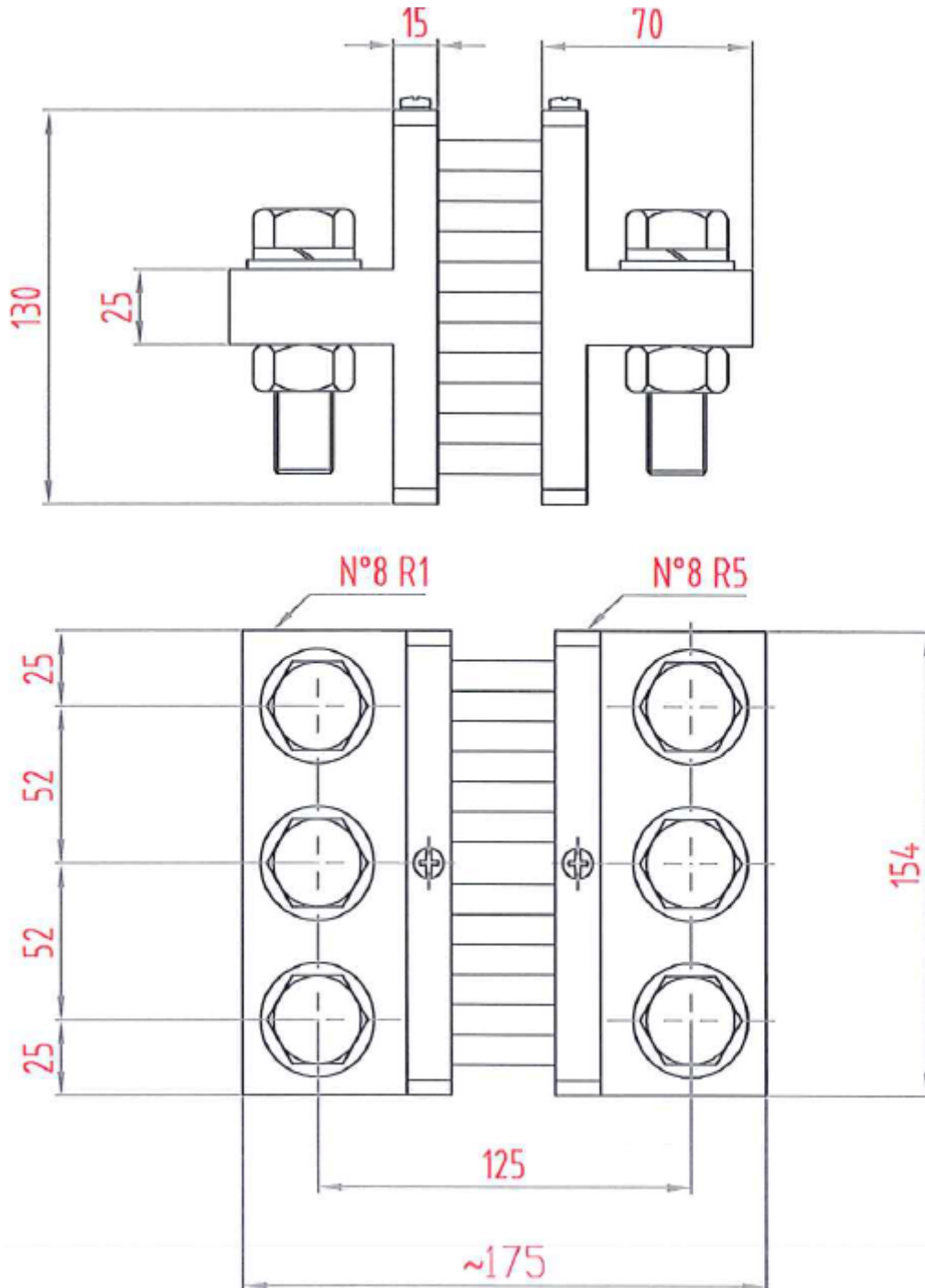


RSDIN Current Shunts

DIN 43703 Compliant high current shunts
4,000 Amp - 6,000 Amp



RSDIN-6000-60



RSDIN Current Shunts

DIN 43703 Compliant high current shunts
4,000 Amp - 6,000 Amp



TECHNICAL NOTES

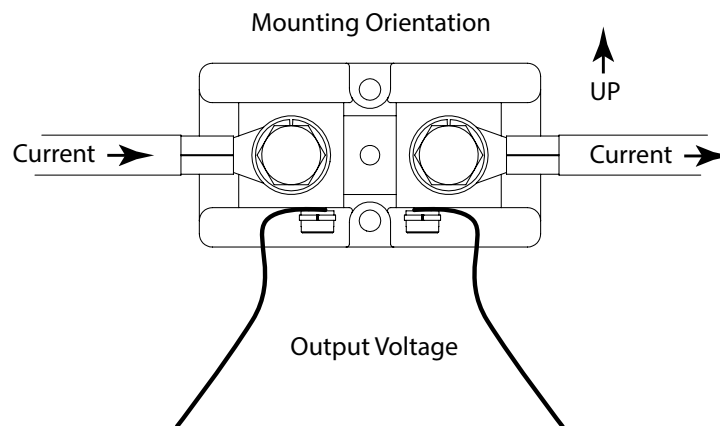
Mounting: Shunts should be mounted with manganin resistive blades in a vertical position in order to promote the free convectional flow of air. If vertical mounting is not practical, forced air cooling or adding heat sinks to the blocks can reduce the operating temperature. The manganin blades must never exceed +145°C, otherwise permanent resistance change may occur.

When current of 100A or greater is passing through the shunt, the major portion of heat generated is dissipated by conduction through the shunt terminal blocks into the connecting buss bar or cable. Therefore it is necessary to insure that good contact is made between the shunt terminal blocks and the conductor terminals and that the conductors have adequate cross section to keep the temperature of the shunt from exceeding 145°C (125°C recommended).

If the shunt is mounted in an enclosure, care must be taken to ensure adequate cooling. If the power density is greater than 1/4 watt per square inch of the enclosure surface for all enclosed devices, additional cooling must be supplied in the form of air vents or fans.

Shunts also must be installed in a way that protects them from thermal expansion forces produced from buss bar or short-circuit forces. Flexible wiring may be required in high pulse current, high vibration, or high temperature applications.

Where possible, all shunts should be mounted on the ground side of the circuit. For circuits above 750VDC, RS shunts **must** be mounted on the ground side due to the dielectric strength of the shunt base.



Operating Current Derating: For continuous operation, it is recommended that shunts are not run at more than two thirds (2/3) the rated current under normal conditions per IEEE standards for DC instrument shunts. At ambient temperatures above 40°C, the current must be further derated to prevent damage.

Pulse Operation: Shunts that do not need continuous operation and are only exposed to intermittent pulses can be operated at levels above their rated current for short periods of times. Pulses are limited to the maximum temperature of the blades not exceeding 145°C (125°C recommended). Many variables such as ambient temperature, cross section of the current carrying conductors, and pulse duration make calculating exact values difficult. Shunt size will need to be validated by customer for pulse current and duty cycle on a case by case basis.