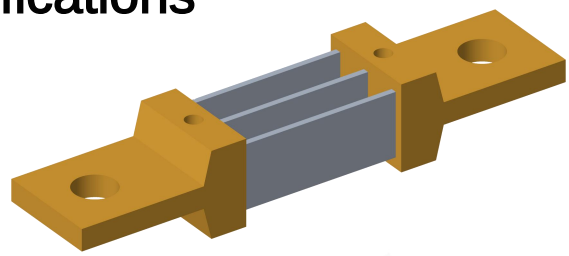
HoFL2 Series Shunt Selection Specifications



High stability brought by precision alloy

The shunt is used for current detection, and the detection current can range from hundreds of amperes to thousands of amperes. Due to its special alloy material, the shunt has good long-term stability and can withstand pulse current shocks several times higher than the rated current without damage.

Temperature coefficient is critical for current sensing applications

The resistance and surface temperature of a shunt vary continuously with the current applied. Factors contributing to this resistance change include the resistance temperature coefficient (RTC) and dimensional changes caused by thermal expansion. When heat generation and heat dissipation reach a dynamic equilibrium, the shunt's resistance stabilizes.

However, excessively large current coefficients can cause the shunt's resistance to vary beyond its nominal accuracyThe shunt's specialized doping, fabrication, and heat treatment processes result in a low current coefficient and excellent compensation characteristics.

Low thermal potential and low inductance

Because the voltage sampling point is always a certain distance from the resistor's heating center, resulting in a temperature difference between the two, a low thermoelectric potential is crucial. The shunt's effect on copper thermoelectric potential is less than 0.5μV/°C, minimally impacting millivolt-level voltage output. The shunt's flat structure results in an inductance of less than 3nH, ensuring excellent performance even at high frequencies.

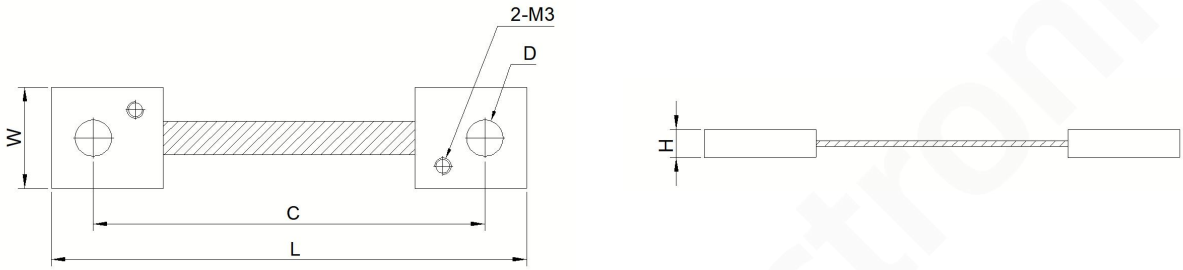
Example: HoFL2-300A75mVD12526NB

Ho	FL2	300A	75mV	D	12526	N	B
↓	↓	↓	↓	↓	↓	↓	↓
Manufacturer	Series	Rated Current	Rated Voltage	Tolerance	Product Size	Surface treatment	Plating area
Ho Milliohm Electronic	FL2	20A~2000A	75mV	A= ±0.1% C= ±0.2% D= ±0.5% F= ±1% J=±5%	L: 085=85mm 125=125mm W: 18=W 18mm 22=W 22mm.	N=Nickel Q=Paint B== Not Required	Q = Fully plated J=Partially plated B=No required

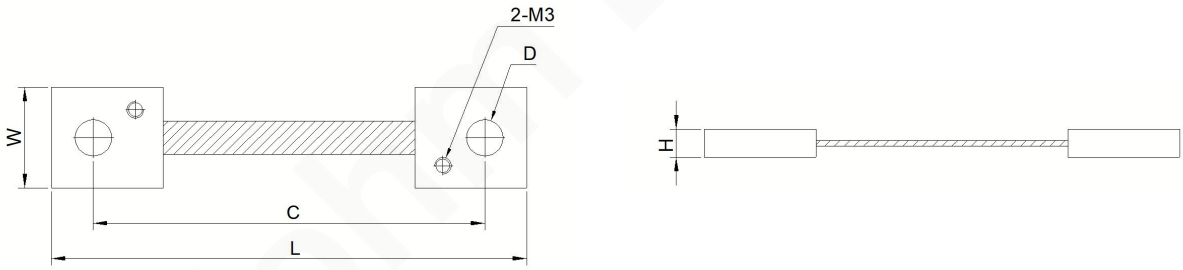
Note: Other part number can be customized by contacting the manufacturer

Features	Applications
The product has high precision,strong reliability, high overload capacity, high stability, wide operating temperature range and non-inductive design that meets Rohs requirements.	BMS, current sensing for power electronics, inverters,UPS, motor control, and electronic loads.

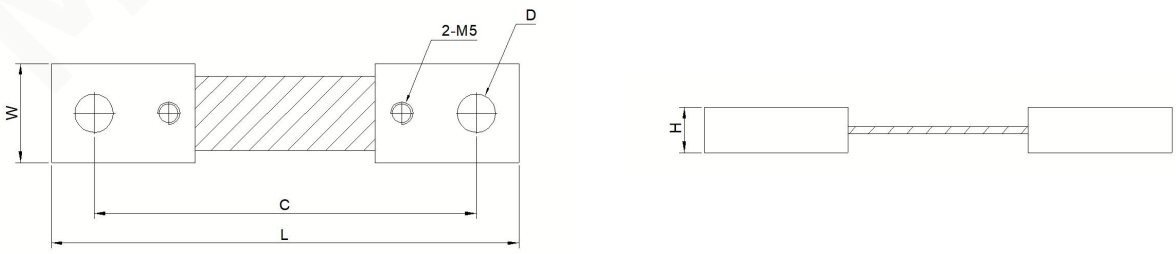
Product Size（unit：mm）



Part Number	L	W	C	H	D	Surface Color
20A-75mV	85±3	18±1	70±1	5±1	2*Φ6.5	Silver Yellow

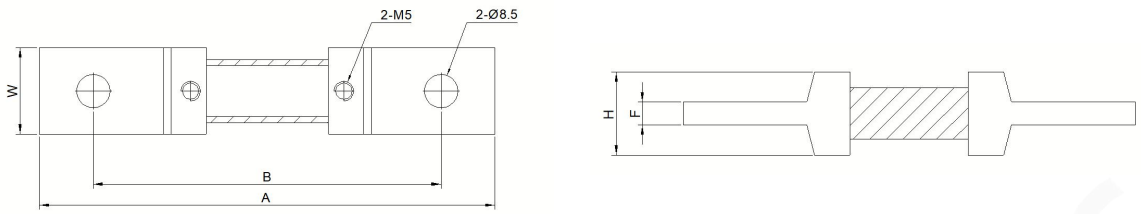


Part Number	L	W	C	H	D	Surface Color
50A-75mV	85±3	18±1	70±1	5±1	2*Φ6.5	Silver Yellow

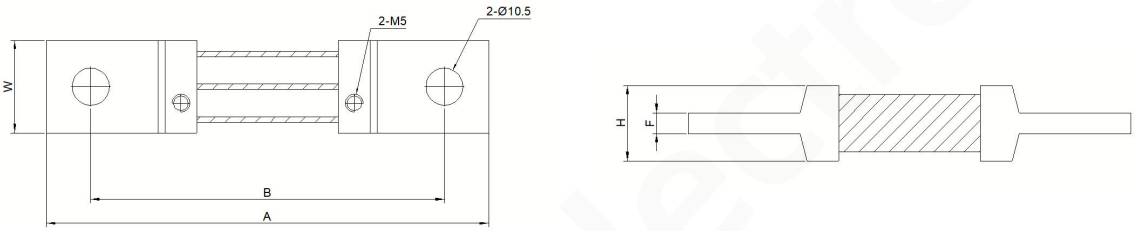


Part Number	L	W	C	H	D	Surface Color
100A-75mV	103±3	22±1	85±1	10±1	2*Φ8.5	Silver Yellow

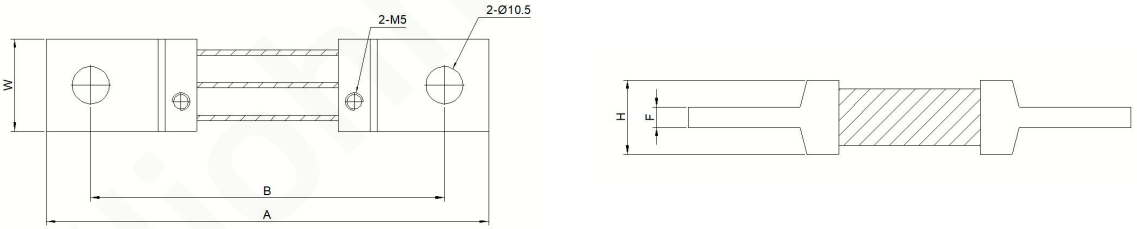
Product Size（unit：mm）



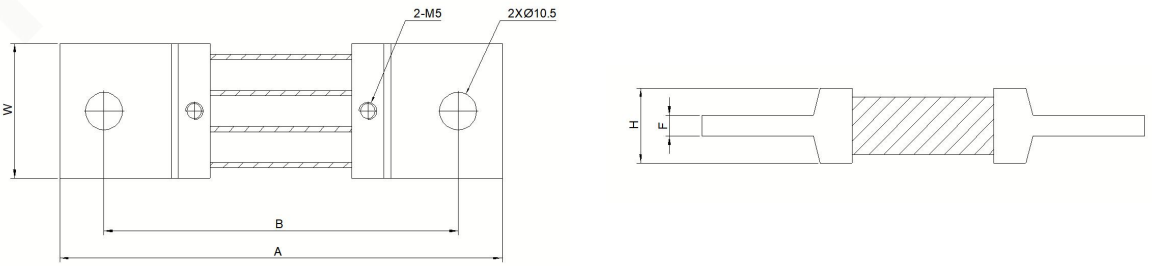
Part Number	A	B	W	F	H	Surface Color
200A-75mV	115±3	85±1	22±1	5.5±1	21.5±1	Silver
						Yellow



Part Number	A	B	W	F	H	Surface Color
250A-75mV	125±3	100±1	22±1	5.5±1	21.5±1	Silver
						Yellow

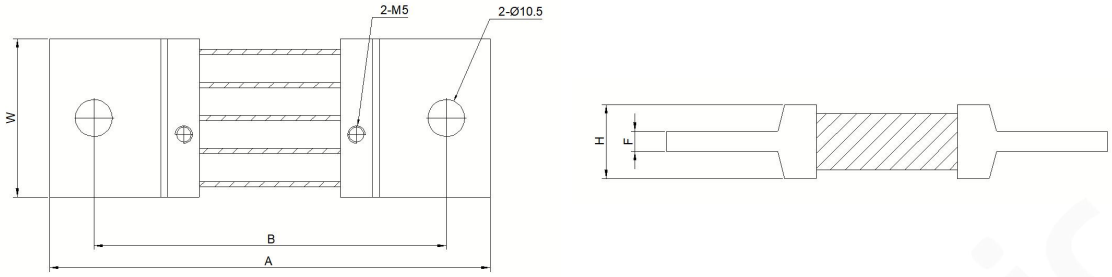


Part Number	A	B	W	F	H	Surface Color
300A-75mV	125±3	100±1	26±1	5.5±1	21.5±1	Silver
						Yellow

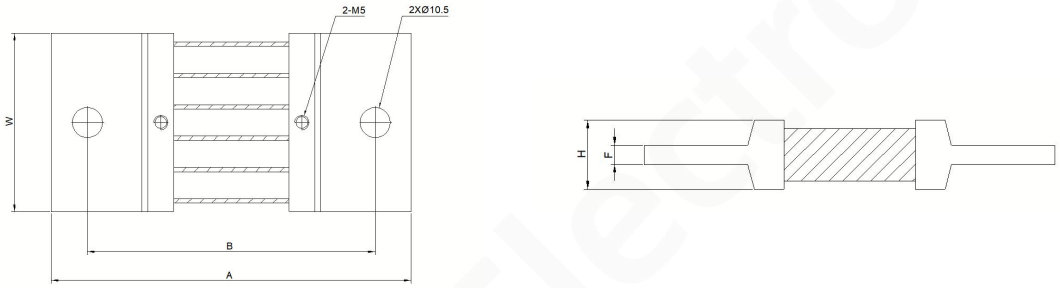


Part Number	A	B	W	F	H	Surface Color
400A-75mV	125±3	100±1	38±1	5.5±1	21.5±1	Silver
						Yellow

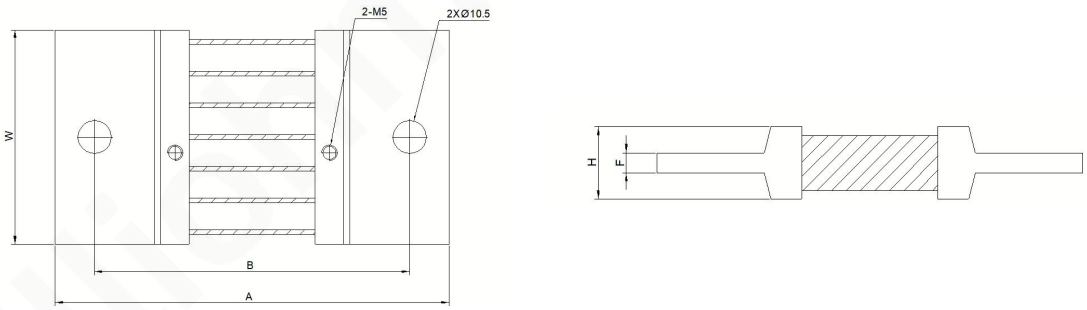
Product Size（unit：mm）



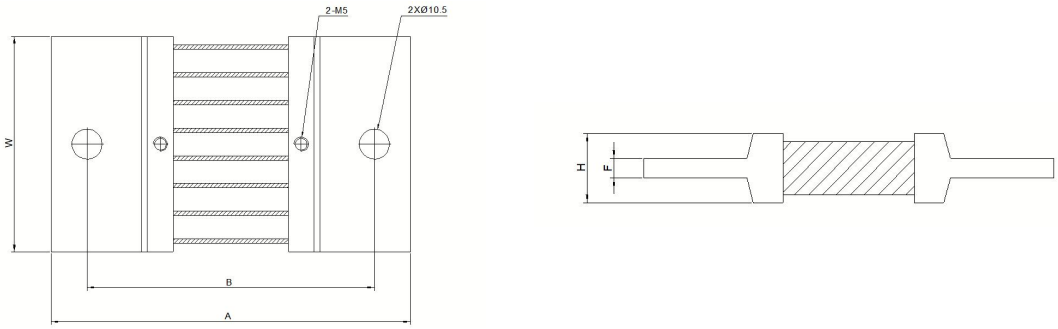
Part Number	A	B	W	F	H	Surface Color
500A-75mV	125±3	100±1	45±1	5.5±1	21.5±1	Silver
						Yellow



Part Number	A	B	W	F	H	Surface Color
600A-75mV	125±3	100±1	62±1	5.5±1	21.5±1	Silver
						Yellow

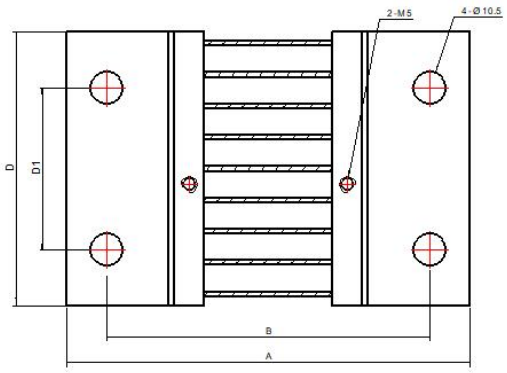


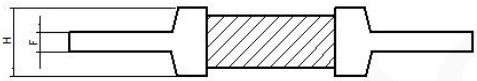
Part Number	A	B	W	F	H	Surface Color
700A-75mV	125±3	100±1	68±2	5.5±1	21.5±1	Silver
						Yellow



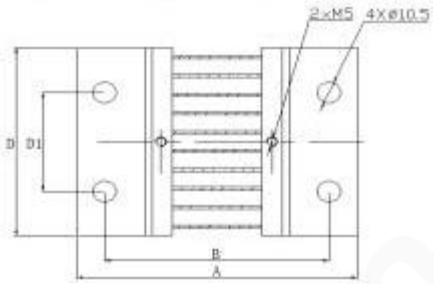
Part Number	A	B	W	F	H	Surface Color
800A-75mV	125±3	100±1	75±2	5.5±1	21.5±1	Silver
						Yellow

Product Size（unit：mm）

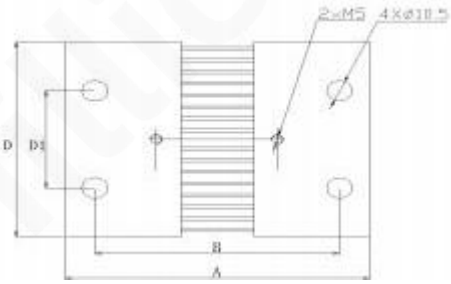




Part Number	A	B	D	F	H	D1	Surface Color
900A-75mV	125±3	100±1	85±2	5.5±1	21.5±1	50±1	Silver Yellow



Part Number	A	B	D	F	H	D1	Surface Color
1000A-75mV	125±3	100±1	95±2	5.5±1	21.5±1	50±1	Silver Yellow



Part Number	A	B	D	F	H	D1	Surface Color
2000A-75mV	125±3	100±1	100±2	/	20±1	50±1	Silver Yellow

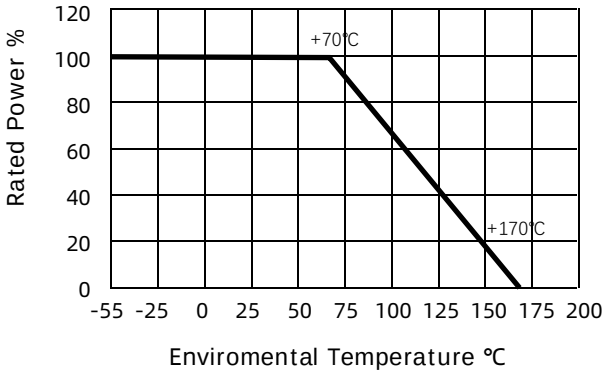
Parameters

Rated Current	20A~2000A
Voltage Drop	75mV
Tolerance Class	0.1%~5%
T.C.R (ppm / ℃)	≤50
Copper Material	National Standard Precision Copper
Terminal Material	National standard brass
Operating Temperature	-55℃~+170℃

Performance Test

Item	Conditions of testing	Resistance Range
Thermal shock	-40℃ to +150℃, 1000 cycles, 15 minutes at each extreme	±0.5%R
Short-term overload	2.5 times rated power, lasting 5 seconds	±0.5%R
Low temperature operation	-40°C, 45 minutes	±0.5%R
High temperature exposure	1000 hours at +170°C	±1.0%R
Deviation humidity	+85℃, 85%RH, 10% deviation, 1000 hours	±0.5%R
Mechanical shock	100 ms, 6 ms, 5 pulses	±0.5%R
Vibration	Frequency changes from 10Hz to 2000Hz in 1 minute, 3 directions, 12 hours	±1.0%
Load life	1000 hours at +70°C, 1.5 hours "on", 0.5 hours "off"	±0.5%
Moisture-proof	MIL-STD-202	±0.5%

Power curve



Operating temperature range -55~ +170℃, power reduction diagram when the resistor temperature reaches 70 ℃

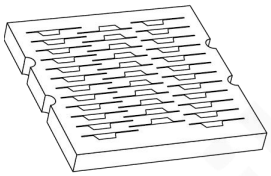
Precautions

1. Assembly direction: The product's silk-screened side is the front. During assembly, the product's front should face upward;
2. Optimal assembly time: At room temperature, the optimal assembly time is one to three months. If the product packaging is sealed intact, the optimal assembly time can be extended to six months. Within the optimal assembly time, the product's surface remains smooth and bright, with no rust spots. If the time is exceeded or the product packaging bag's seal is damaged, or if the humidity in the storage warehouse is too high, it may cause the product's surface to oxidise;
3. Product storage environment temperature: 5 – 35°C, humidity <65% RH, and humidity should be kept as low as possible;
4. Product packaging and assembly: Gloves or finger cots must be worn during the installation process.

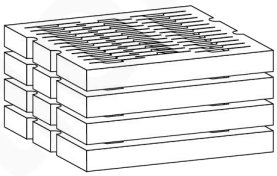
Packing method

1. The product is packed in a pearl-shaped cotton ball.
2. Each bundle contains 4 trays.
3. Each bundle must be heat-sealed with plastic film.
4. Each box must be sealed with transparent tape and placed in a cardboard box.

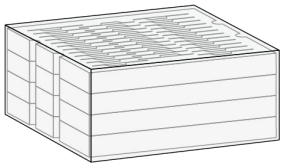
Packing Example



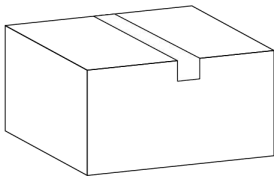
1. Each plate of product



2. Each 4 plates make a bundle



3. Each bundle of products needs to be heat-sealed with plastic film



4. Each box is sealed with transparent tape and placed in a carton

Disclaimer

All products, specifications, and data are subject to change without notice.

Shenzhen Milliohm Electronic Co., Ltd. and its affiliates, agents, employees, and any otherperson acting on its behalf (collectively, "Mohm Electronics") assume no legal liability forany errors, inaccuracies, or incompleteness in the information relating to the Products contained in this Agreement or otherwise disclosed.

Product specifications do not constitute an extension or amendment to Mohm Electronics'terms and conditions of purchase, including but not limited to the warranties under thisAgreement. Mohm Electronics makes no warranties, representations, or guarantees except as otherwise provided in the terms and conditions of purchase.

To the maximum extent permitted by applicable law, Mohm Electronics specifically disclaims the following:
(1) All liability arising from the use of the Products;
(2) All liability resulting from special, consequential, or incidental damages;
(3) All implied warranties, including warranties of fitness for a particular purpose, non-infringement, and merchantability.

The information provided in the specifications and parameter tables may vary in differentapplications, and the performance of the products may change over time. Recommendedproduct applications are based on Million Electronics' knowledge and experience of typicalrequirements. Customers are responsible for verifying the suitability of the product for aspecific application based on the parameters provided in the product manual. Beforeinstalling or using the product, you should ensure you have the latest version of the relevant information.

The signing of this Agreement does not constitute any license, express, implied, or otherwise, to any intellectual property rights related to Million Electronics products.

Unless otherwise expressly stated, the products listed in this Agreement are not intendedfor use in life-saving or life-sustaining applications. Unless expressly stated otherwise,customers use the products listed at their own risk and agree to fully indemnify MillionElectronics for all losses resulting from such sale or use. For written terms and conditionsregarding products designed for specific applications, please contact authorized Million Electronics personnel.

The names and logos used on the listed products may be trademarks of others.

Revision History

Version	Revised Date	Content Of Revised	Revised By	Approved By
Ho-A0	2025/02/15	Bound into a book	/	/