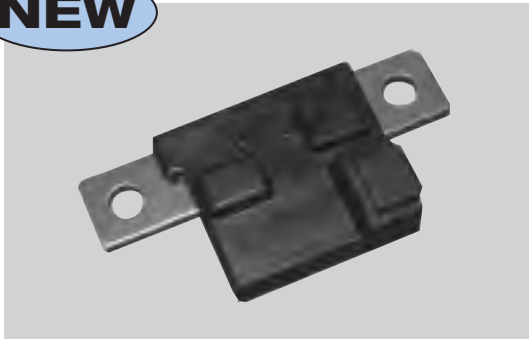


NEW

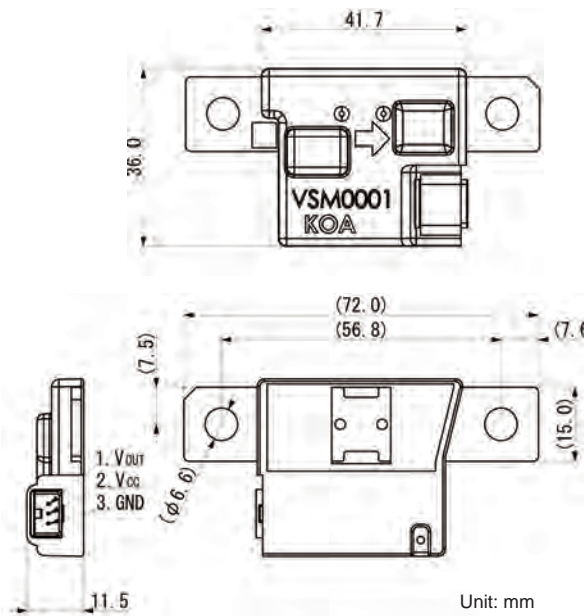
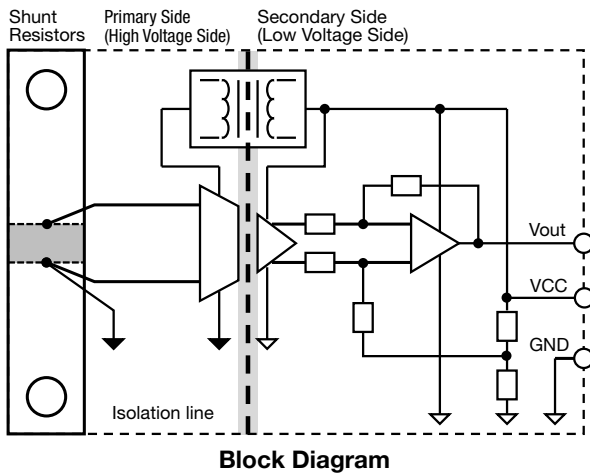


features

- Large current detection via shunt resistor
- High-precision current sensing
- Low input loss
- Isolation between current path and output circuit

current sense

dimensions and construction



Connector Information

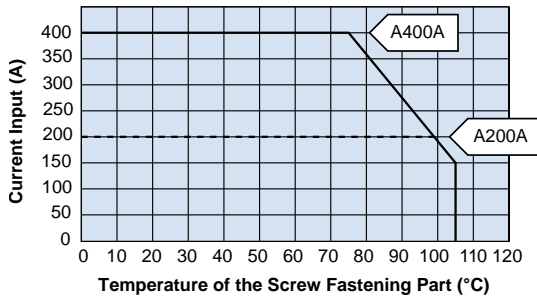
Pin Header	GT8E-3P-2H(55)	(HIROSE)
Housing	GT8E-3S-HU	

ordering information

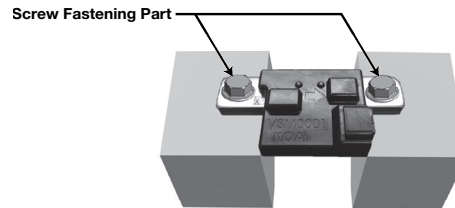
VSM0001	A	400	A
Product Code	A: Analog Output	Current Rating 400: ±400A 200: ±200A	Sub-Number

environmental applications

Derating Curve

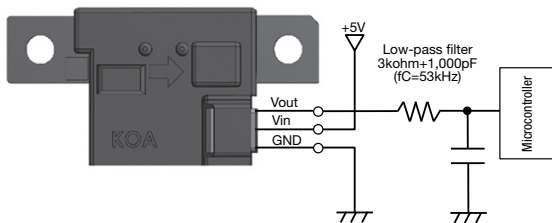


If the terminal temperature exceeds 75°C due to heat generated inside the shunt resistor, reduce the current according to the derating curve.

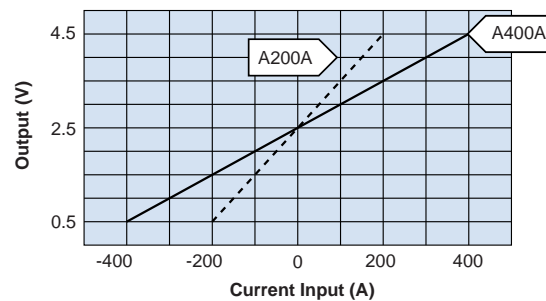


Recommended Operating Conditions

Low-pass filter is recommended on the output terminal for noise suppression.



Output Characteristics



Absolute Maximum Rating

Parameter	Min	Max	Unit	Condition	
Supply Voltage	—	5.5	V		
Rated Current (DC)	VSM0001 — A400A	−400	400	A	See derating curve
	VSM0001 — A200A	−200	200	A	
Maximum Current (≤ 1 sec)	−600	600	A		
Operating Temperature	−40	105	°C		
Rated Terminal Part Temperature	—	105	°C	Temperature of the screw fastening part	

Specifications (V_{CC}=5.0V, T_F=25°C*1)

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Supply Voltage	V _{CC}	4.75	5.0	5.25	V	
Current Consumption				40	mA	
Output (0A Input)	V _{ZERO}		V _{CC} /2		V	I _S =0A
Offset		−5		5	mV	I _S =0A
Output	V _{OUT}		0.5		V	VSM0001—A400A : I _S =−400A VSM0001—A200A : I _S =−200A
			4.5		V	VSM0001—A400A : I _S =+400A VSM0001—A200A : I _S =+200A
Full-Scale Error	FSError	−1.0		1.0	%	
Frequency Characteristic				10	kHz	−3dB
Response Time			3	5	μs	50% to 50%
Isolation Voltage		3.75kVms, 1 Minute			V	Leakage Current ≤0.2mA
Insulation Resistance		100			MΩ	at 1,500 V _{CC}
Shunt Resistance	R _{shunt}		100		μΩ	

*1 Temperature of the screw fastening part.