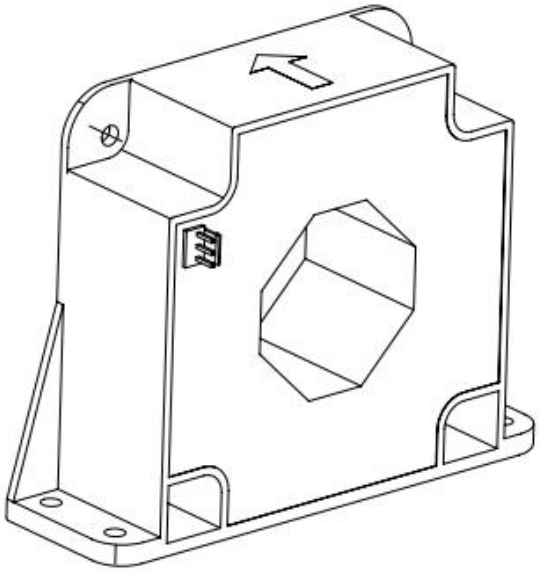
HS75-2000A-C Current Transducer

DESCRIPTION:

For the electronic measurement of current: DC, AC, pulsed ..., with galvanic separation between the primary and the secondary circuit.

FEATURES:

- Closed loop using the Hall effect
- Isolation of primary side and secondary side
- High precision and good linearity
- Wide range
- No insertion loss
- Raw materials recognized according to UL 94-V0



APPLICATIONS:

- AC variable frequency drive and servo motor drive
- DC motor driven static converter
- Battery powered application
- Uninterruptible Power Supplies (UPS)
- Switch Mode Power Supply (SMPS)
- Power supplies for welding applications

MODEL LIST:

PRODUCT MODEL		
Model	**Rated input current I_{PN} (A)**	**Measuring range I_{PM} (A)**
HS75-2000A-C	2000	±3000

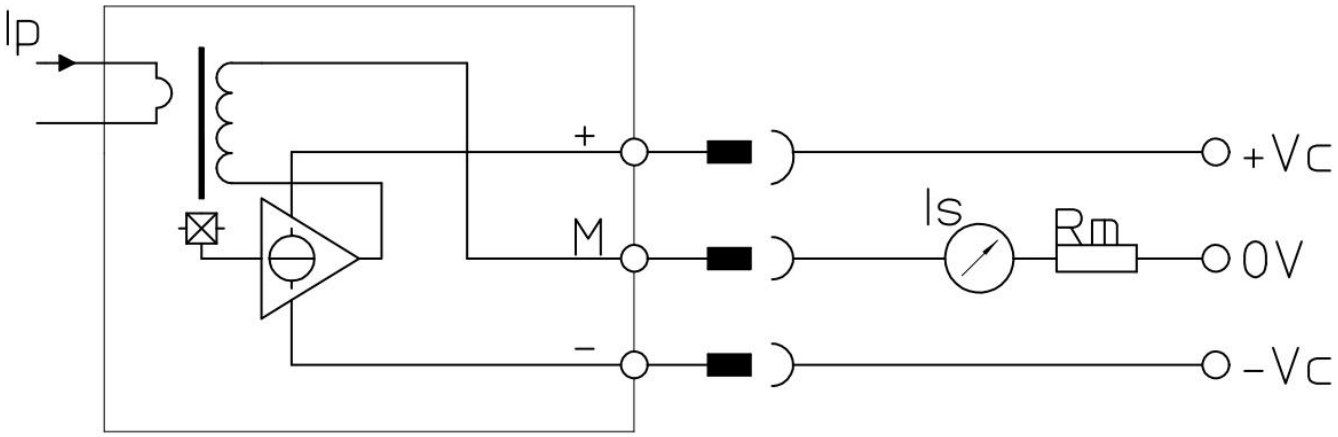
HS75-2000A-C SPECIFICATION

Parameter	Symbol	Unit	Value	Test Conditions
Electrical Data				
Primary rated input current	I_{PN}	A	2000	
Primary side measurement current range	I_{PM}	A	0~±3000	@$V_{C=}$±24V
Turns ratio	K_N	T	1:5000	
Supply voltage (±5%)	V_C	V	±15~24	
Current consumption	I_C	mA	33(@±24V)+Is	
Rated output current	I_{SN}	mA	400	
Performance Data				
Linearity [3] (0…± I_{PN})	ε_L	%of I_{PN}	<±0.1	
Precision	X	%	<±0.3	@ I_{PN}, TA = 25°C (remove zero offset voltage)
Offset current	I_O	mA	<±0.5	@T_A = 25°C
Magnetic offset current	I_{OM}	mA	<±0.2	@ I_P= 0， I_{PN} at specific R_M
Zero temperature drift	I_{OT}	mA	<±0.5	-25°C~+85°C
			<±1.5	-40°C~ -25°C
Response time	t_r	μS	<1	
Current following accuracy	di/dt	A/us	>50	
Frequency bandwidth	BW	KHz	100	
General Data				
Ambient operating temperature	T_A	℃	-40….+85	
Storage ambient temperature	T_S	℃	-50….+90	
Secondary coil resistance	Rs	Ω	25	@T_A = 70°C
			26	@T_A = 85°C
Mass	m	Kg	1.5	approximation

Insulation data:

Parameter	Symbol	Unit	Value	Remark
AC isolation withstand voltage test RMS @ 50Hz, 1min	U_D	KV	6	
Impulse withstand voltage 1.2/50uS	U_W	KV	-	
Shell material	-	-	UL94-V0	
Relative tracking index	CTI	-	600	
Creepage distance	d_{CP}	mm	29.1	
Electrical clearance	d_{Cl}	mm	27.1	

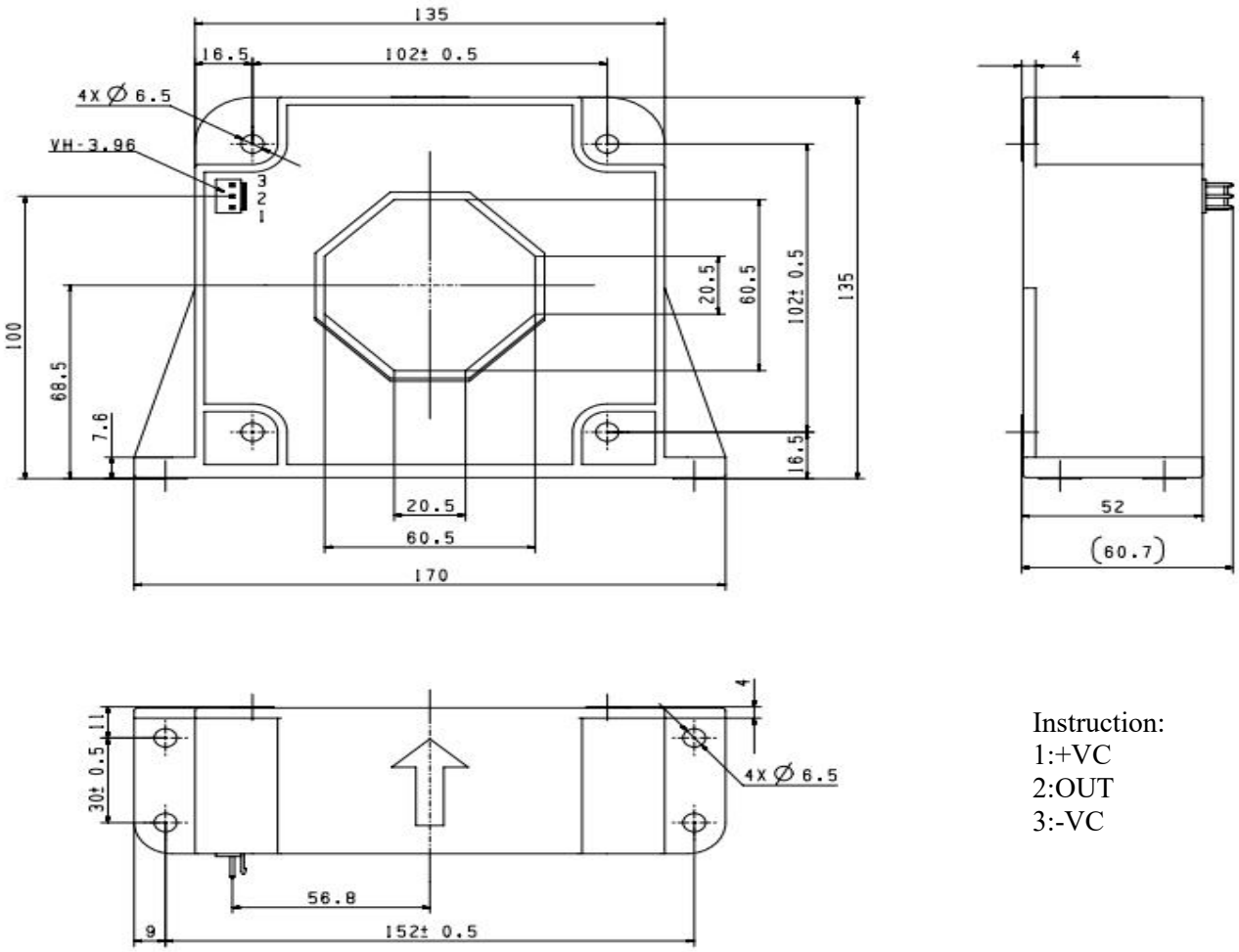
Wiring diagram:



R_M measure resistance:

		T_A = 70°C			T_A = 85°C		Ω
		R_M min	R_M max		R_M min	R_M max	
$V_{C=}$±15V	@±2000Amax	0	8	@±2000Amax	0	7	
	@±2200Amax	0	5	@±2200Amax	0	4	
$V_{C=}$±24V	@±2000Amax	5	29	@±2000Amax	13	28	
	@±3000Amax	5	11	@±2800Amax	13	13	

Dimensions (in mm) :



Instruction:
1:+VC
2:OUT
3:-VC

Safety

This device must be used according to IEC610101.

This device must be used in electric/electronic equipment with respect to applicable standards and safety requirements in accordance with the operating instructions.

Caution, risk of electrical shock.

When operating the device, certain parts can carry hazardous voltage (eg. primary busbar, power supply).
Ignoring this warning can lead to injury and/or cause serious damage.
This is a builtin device, whose conducting parts must be inaccessible after installation.
A protective housing or additional shield can be used.
Main supply must be able to be disconnected.