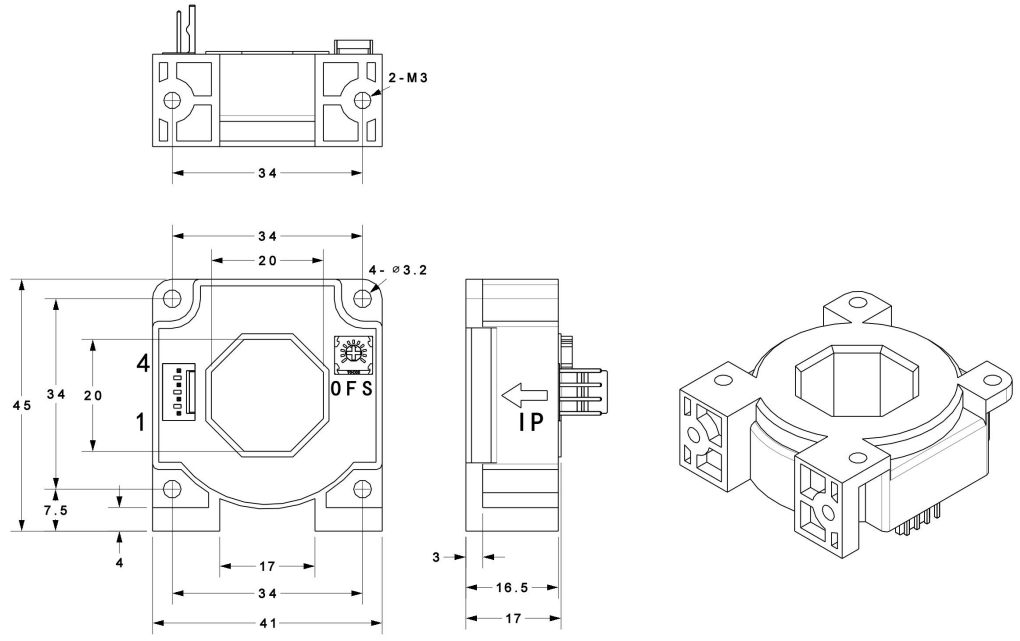
DCSM050LRSH/5V High-Precision Current Transducer

The current sensor applying the flux gate closed-loop principle features high precision, high stability, wide frequency band and no position error. It can measure the current of direct current, alternating current, pulses and various irregular wave forms under the condition of electrical isolation.

Electrical characteristics								
	Type	DCSM0.5 LRSH/5V	DCSM001 LRSH/5V	DCSM005 LRSH/5V	DCSM010 LRSH/5V	DCSM020 LRSH/5V	DCSM050 LRSH/5V	
I_{PN}	Primary nominal input current	0.5	1	5	10	20	50	A
I_P	Measuring range of primary current	0～±1	0～±2	0～±10	0～±20	0～±40	0～±75	A
V_{OUT}	Secondary nominal output voltage	5±0.2%	5±0.2%	5±0.1%	5±0.1%	5±0.1%	5±0.1%	V
K_N	Conversion ratio	1:200	1:200	1:500	1:500	1:1000	1:1000	
V_C	Supply voltage	±15(±5%)						V
I_C	Current consumption	V_C=±15V		15+I_P/K_N				mA
V_d	Insulation voltage	AC/50Hz/1min		2.5				kV
ε_L	Linearity	<0.01						%FS
V_0	Zero offset voltage	T_A=25℃		<±5				mV
V_{OT}	Thermal drift of V_O	I_P=0 T_A=-25～+85℃		<±0.01（≤1A±0.03）				mV/
Tr	Response time	<50	<25	<10	<5	<2	<1	μs
f	Frequency bandwidth(-3dB)	DC～3.5	DC～6	DC～35	DC～50	DC～100	DC～100	KHz
T_A	Ambient operating temperature	-25～+85						℃
T_S	Ambient storage temperature	-40～+100						℃
R_L	Load resistance	≥10K						Ω
m	Mass	46						g
	Standard	Q/320115QHKJ01-2016						
Dimensions of drawing (mm)								



Connection： 1,+15V 2,-15V 3,V_{OUT} 4,0V(GND) OFS,Zero adjustment

Remarks

1、Incorrect connection may lead to the damage of the transducer.After the sensor is powered on, when the measured current passes through in the direction of the arrow on the sensor, a voltage value in the same phase can be measured at the output terminal.

2、The dynamic characteristics (di/dt and response time) are optimal when the input current bar completely the primary side through hole.

3、The temperature of the original measuring cable or busbars should not exceed 100℃.

4、The environment where the sensor is installed and used should be free of conductive dust and corrosive gases.

5、The sensor is a precision device. When using it, please handle it with care and avoid severe vibration or temperature.