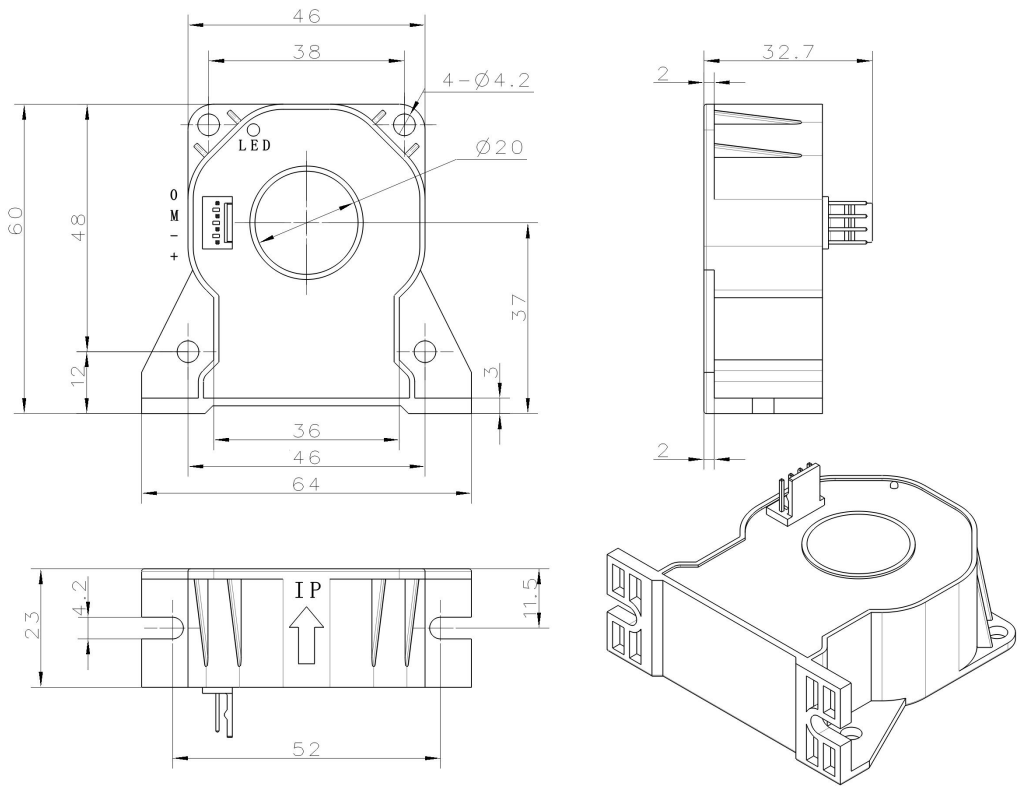
DCSM300LDGH High-Precision Current Transducer

DCSM300LDGH Current Transducer using the principle of flux gate .It can measure DC, AC, pulse, and various irregular wave form current under electrical isolation conditions.It has ultra-high accuracy and linearity features.

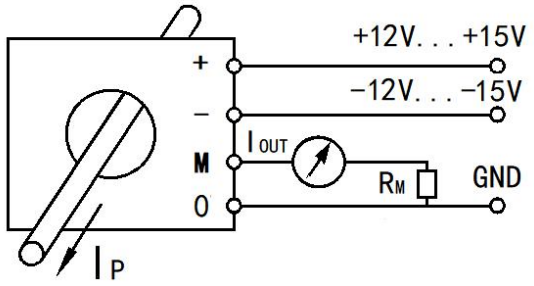
Electrical characteristics			
	Type	DCSM300LDGH	
I_{PN}	Primary nominal input current	±300	A(DC)
I_{PNAC}	Primary nominal RMS current	212	A(AC)
I_P	Measuring range of primary current	0~±440（±15V，10Ω）	A
I_{OUT}	Secondary nominal output current	±150	mA
K_N	Conversion ratio	1:2000	
R_M	Measuring resistance	with±12V @±300Amax 0(min) 21(max)	Ω
		with±15V @±300Amax 0(min) 40(max)	Ω
V_C	Supply voltage	±12~±15(±5%)	V
I_C	Current consumption	$20+I_P/K_N$	mA
V_D	Insulation voltage	AC/50Hz/1min 5	kV
ε_L	Linearity	@I_P=0-±I_{PN} ±0.02	%FS
X	Accuracy	@T_A=25℃ <0.05	%
I_O	Zero offset current	@T_A=25℃ <±10	uA
I_{OT}	Thermal drift of I_O	@I_{PN}=0 T_A=-40~+85℃ <±10	uA
I_{OUTT}	Thermal drift of I_{OUT}	@T_A=-40~+85℃ <10	ppm
T_R	Response time	@100A/μS, 10%-90% ≤1	μs
f	Frequency bandwidth	@-3dB DC～100	kHz
di/dt	di/dt accurately followed	＞100	A/μs
T_A	Ambient operating temperature	-40~+85	℃
T_S	Ambient storage temperature	-40~+125	℃
R_S	Secondary coil resistance	@T_A=25℃ 48	Ω
m	Mass	110	g
	Standard	Q/320115QHKJ01-2016	

Dimensions of drawing (mm)



Connection

Pin	+	-	M	0
Definition	+15V Supply	-15V Supply	I Output	GND



Remarks

● Incorrect connection may lead to the damage of the transducer.

● I_{OUT} is positive when the I_P flows in the direction of the arrow.

● Operating Status Instructions

1, Normal Status:The green indicator is “on” under the normal working conditions.

2, Fault Status:The green light is“off”that indicates the transducer is in fault mode.

Trouble-shooting:

a)When the green light is off, the power supply should be checked as the first step;

b) If the power supply is normal, then the primary current is over the specified measurement range and the transducers will be in overload mode. In this mode, the transducers will be working in non-zero flux status, the secondary and primary currents are not in proportional. Once the primary current return to the specified measurement range, the transducers will be running normally.

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