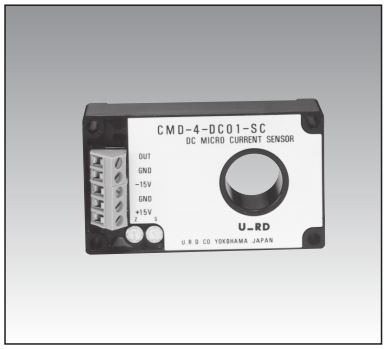
Servo type DC small current sensor

High precision sensor to measure small DC less than 100mA without contact

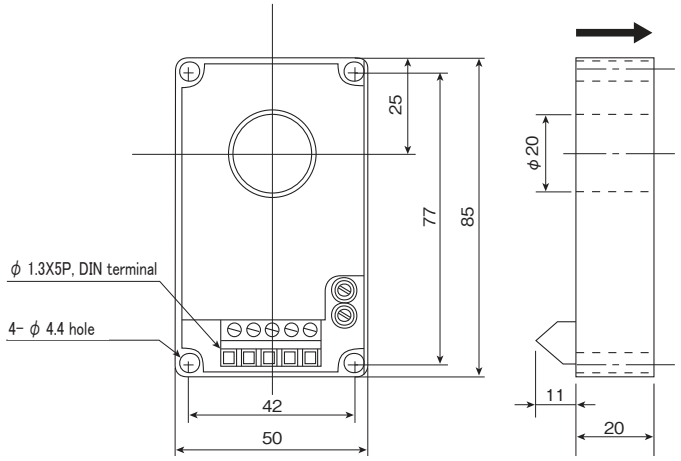


Model CMD-4-DC01-SC

〔Features〕

- Possible to measure small DC current less than 100mA without contact
- Super sensitivity as 100 μ A resolution
- Big output of 10V/100mA and high stability
- Excellent linearity

〔Outline drawing〕



This product needs ±15V (+15V and −15V DC bi-polar power supply) as control power supply. Even though the case of current detection of only plus direction, ±15V needs. In any case, it is not operated with only +15V.

Dedicated metal part (HLD-20) is prepared as separately selling for vertical mounting.

〔Specification〕

Model		CMD-4-DC01-SC
Rating current (FS)		± 100mA dc
Maximum current		± 150mA dc
Output voltage		± 10V ／± 100mA
Residual voltage		Within ± 50mV
Noise level		6mVp-p 以下
Accuracy		Within ± 1%FS
Linearity		Within ± 0.2%FS
Hysteresis(FS→0)		Within ± 20mV
Output voltage temperature coefficient		Within ± 0.01%/℃ (Ta=0℃～ 50℃)
Residual voltage temperature coefficient		Within ± 2.5mV/℃
Output impedance		1k Ω
Mass		DC ～ 2Hz
Screw torque		100 μ A
Mass		Within ± 10mV (H=50A/m DC)
Power supply	Voltage	± 15V ± 5%
	Current consumption	Within ± 10mA
Withstand voltage		AC2000V(50/60Hz), 1min (Aperture-output terminal in a lump)
Insulation resistance		DC500V, ≧ 500M Ω (Aperture-output terminal in a lump)
Operating temperature		−10℃～ +60℃ , ≦ 85%RH, no condensation
Storage temperature		−15℃～ +65℃ , ≦ 85%RH, no condensation
Screw torque		0.7N・m
Mass		approximately 140g

[Remark] (1) After overcurrent more than rating current, offset drift occur by proportional to that current, with hysteresis of core.

Ta=25℃

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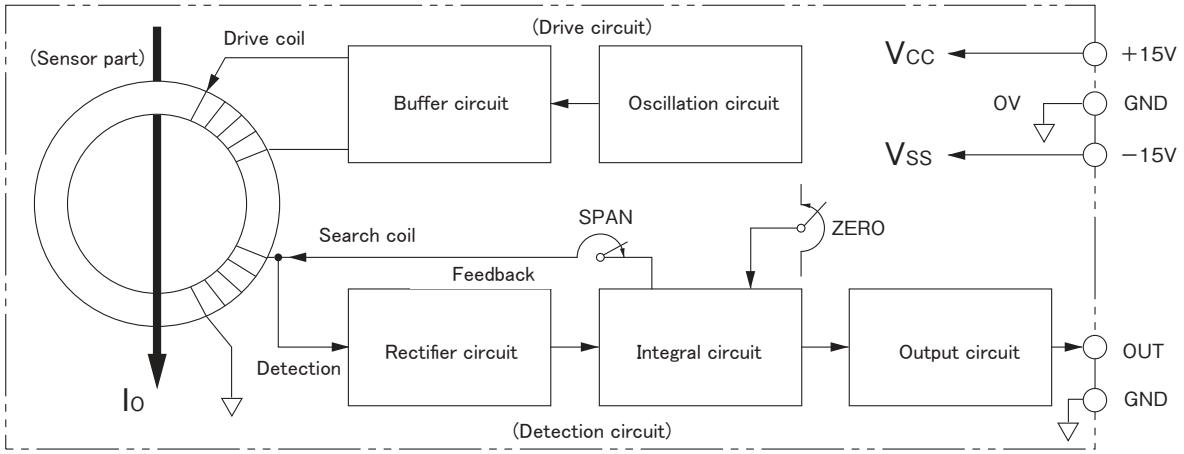
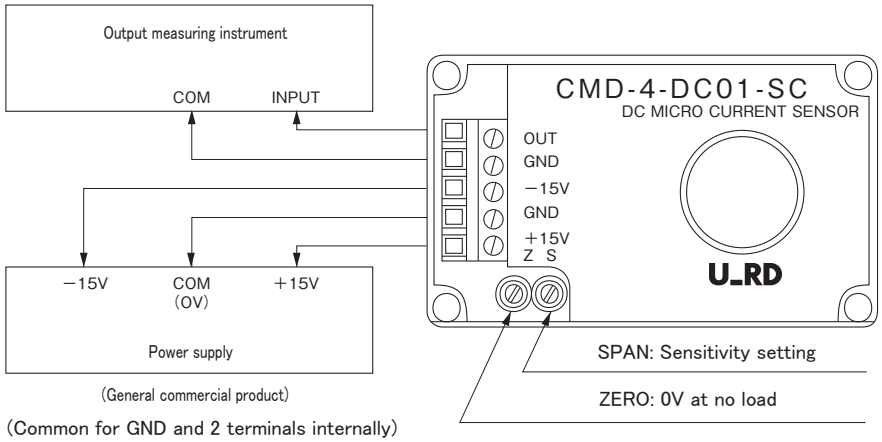
〔Circuit diagram〕

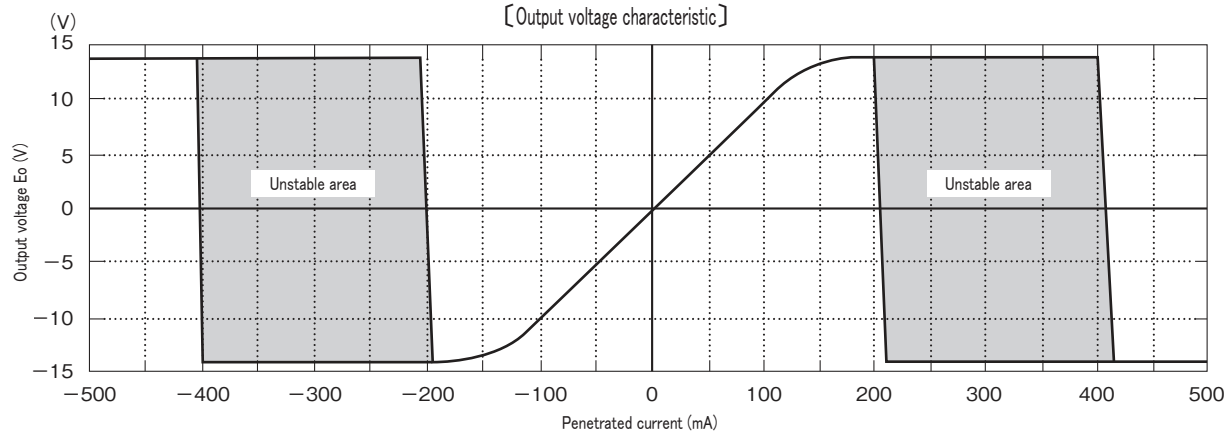


〔Connection〕



(Common for GND and 2 terminals internally)

〔Output voltage characteristic〕



Attention 1. Unstable within ± 200mA ～± 400mA area
Attention 2. Reverse polarity and saturated output over ± 400mA area

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