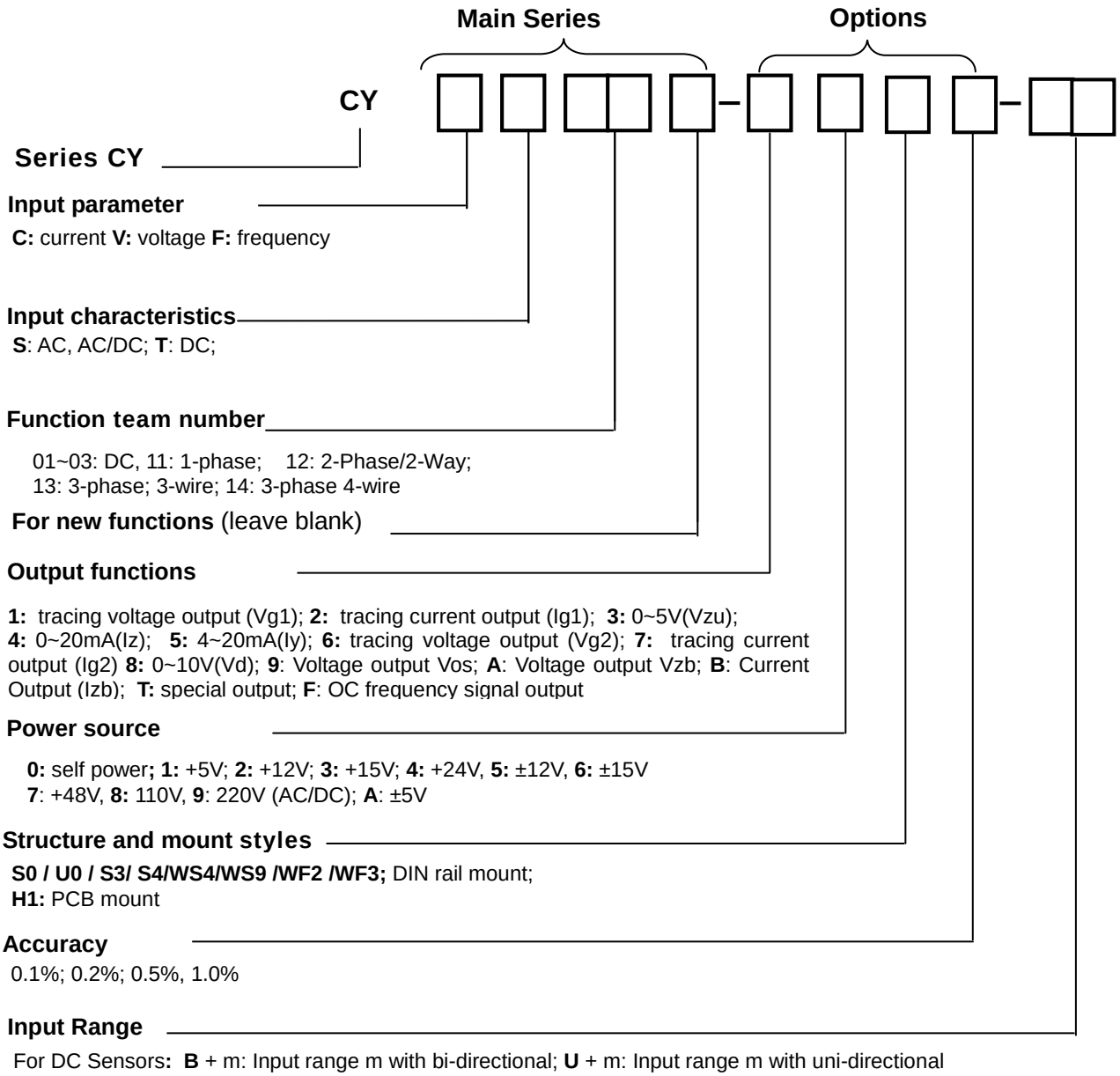
ChenYang
Technologies GmbH & Co. KG

Product Overview of Electric Analog Sensors

Part Number



- **B:** Bi-directional Input range, B20A means an input range of -20A DC ~ +20A DC
- **U:** Uni-directinal Input range, U20A means an input range of 0 ~ 20A DC

Typical Example:

CYCS11-32WS4-0.5-5A Single Phase AC Current Transducer, Output: 0-5V, Power Source: +12V, Accuracy: 0.5%, Case Style: WS4 with Window Φ4mm, Input Range: 0-5A AC/RMS.

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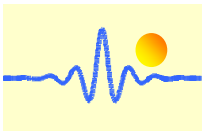

CYCT03-32S3-1.0-U10A DC Current Transducer, Output: 0-5V, Power Source: +12V, Accuracy: 1.0%, Case Style: S3 with Window Φ20mm, Input Range: 0~10A DC.

CYCT03-A2S3-1.0-B10A DC Current Transducer, Output: -5V ~+5VDC, Power Source: +12V, Accuracy: 1.0%, Case Style: S3 with Window Φ20mm, Input Range: -10A ~ +10A DC.

Output Function Codes

Code	Symbol	Definition	Applications
1	Vg1	Tracing Voltage Output	5V (V_{p-p}), suitable for AC/DC or peak value sampling system, quick response, high precision.
2	Ig1	Tracing Current Output	20mA (I_{p-p}), suitable for AC/DC sampling and peak value sampling system, high precision, and quick response.
3	Vzu	DC Voltage Output	0-5V DC, can be connected direct to A/D converter, digit panel, indicator, PLC
4	Izu	DC Current Output	0-20mA DC, suitable for long distance signal transmission, resistance to interference.
5	Iy	DC Current Output	4-20mA DC, suitable for long distance signal transmission, resistance to interference.
6	Vg2	Tracing Voltage Output	4V (V_{p-p}), suitable for AC/DC or peak value sampling system, quick response, high precision
7	Ig2	Tracing Current Output	20mA ~ 200mA (I_{p-p}), suitable for AC/DC sampling and peak value sampling system, high precision, and quick response.
8	Vd	DC Voltage Output	0-10 V DC, can be connected direct to digit panel, indicator etc. (power source ≥15V).
9	Vos	Tracing Voltage Output with Offset	+2.5VDC +/-1.0V or +2.5VDC +/-0.625V, suitable for single power supply systems
A	Vzb	DC Voltage Output	-5V ~ +5VDC, can be connected direct to A/D converter, digit panel, indicator, PLC
B	Izb	DC Current Output	-20mA ~ +20mADC, suitable for long distance signal transmission, resistance to interference.
F	F	OC frequency signal output	0~10 kHz frequency signal or custom frequency signal, photoelectric isolation OC output
T	T	Special Output	Reserved for special output configurations.

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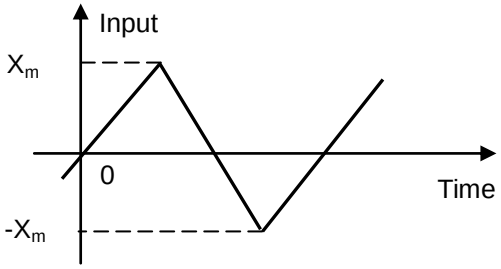
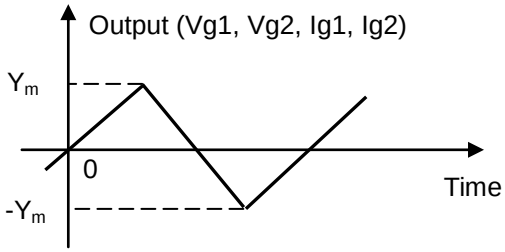
Typical Operating Specifications

Item	Test condition	Index	
		Class 0.2	Class 0.5
Thermal Drift	+12V, 25°C	≤200ppm/°C	≤500ppm/°C
Output Ripple	+12V, 25°C	10mV	15mV
Output Load	+12V, 25°C Vz (**3**) output	≥2kΩ	
	+12V, 25°C Iz (**4**) and Iy (***5***) output	≤250Ω	
Operating Temperature	+12V	-10°C ~ +70°C	
Isolation Withstanding Voltage	1 min.	≤2500 V DC	
	1 min.	≤1500 V DC RMS	

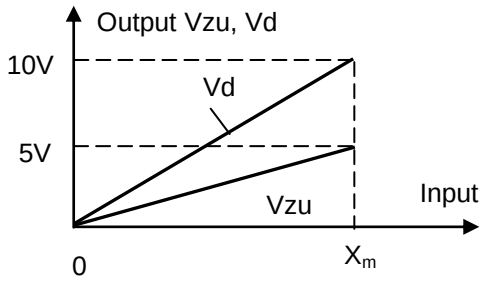
Input / Output Graphs.

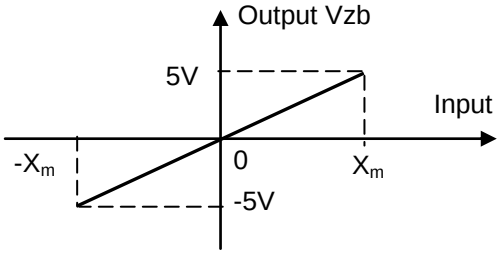
a) Tracing Voltage Output (Vg1, Vg2) or Tracing Current Output (Ig1, Ig2)

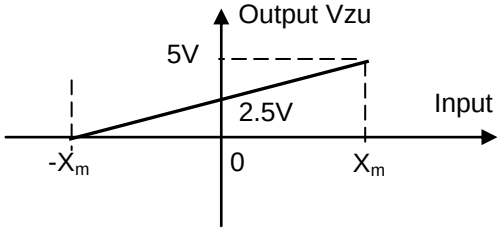


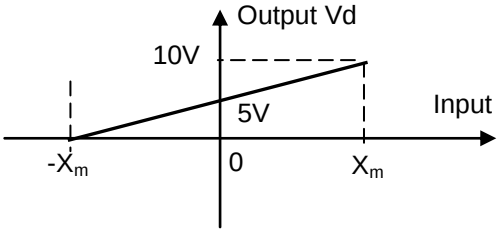


b) DC Voltage Output Vzu, Vd and Vzb









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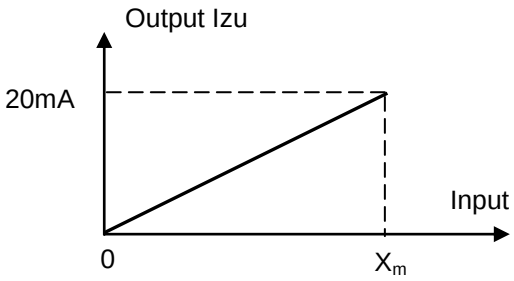
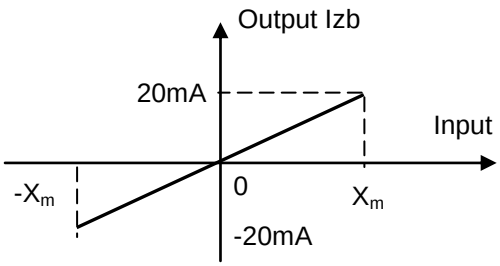
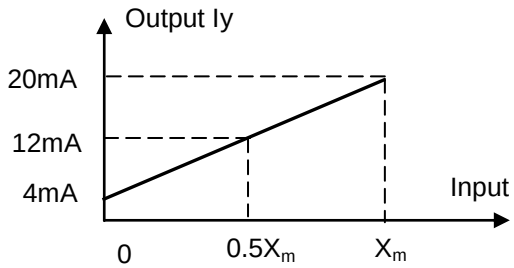
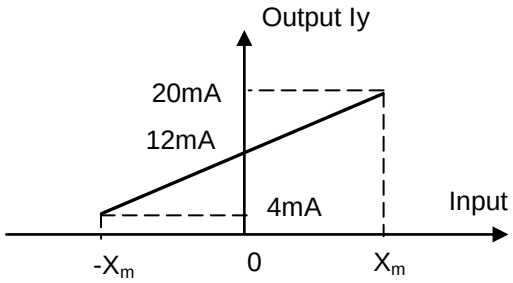
c) DC Current Output Izu and Izb



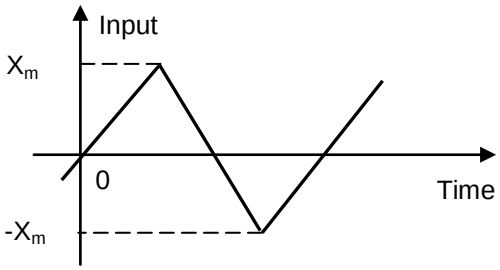


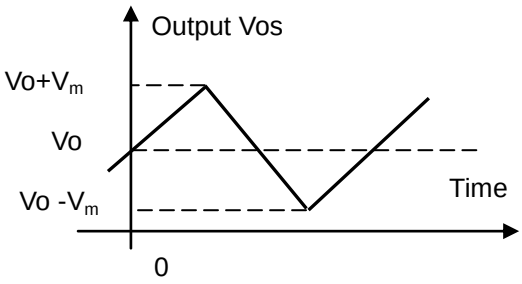
d) DC Current Output Iy





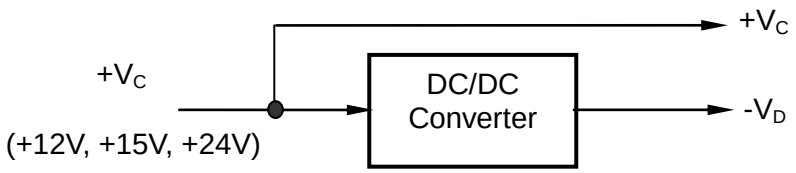
e) Tracing Voltage Output Vos

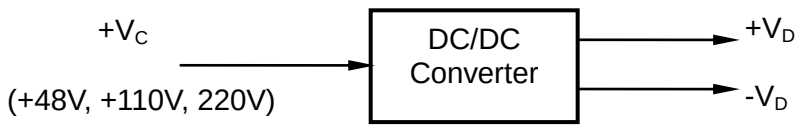




Output Signal Limitations of Sensors with Single Power Supply

Internal DC/DC Converting of Single Power Supply:





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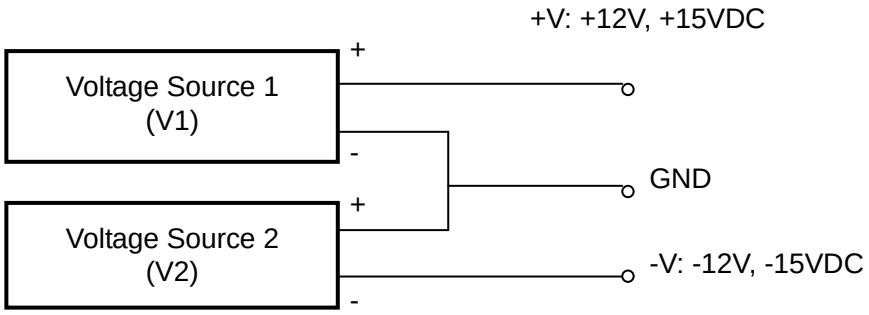
Power supply V_C	Power supply V_D	Output Signal
+12VDC	-6VDC	Not 0-10VDC and -10V~+10VDC, all other output signals are available
+15VDC	-6VDC	Not -10V ~ +10VDC, all other output signals are available
+24VDC	-15VDC	All output signals are available
±12VDC	x	Not -10V ~ +10VDC, all other output signals are available
±15VDC	x	All output signals are available
+48VDC	±15VDC or ±24VDC	All output signals are available
+110VDC	±15VDC or ±24VDC	All output signals are available
220V DC/AC	±15VDC or ±24VDC	All output signals are available

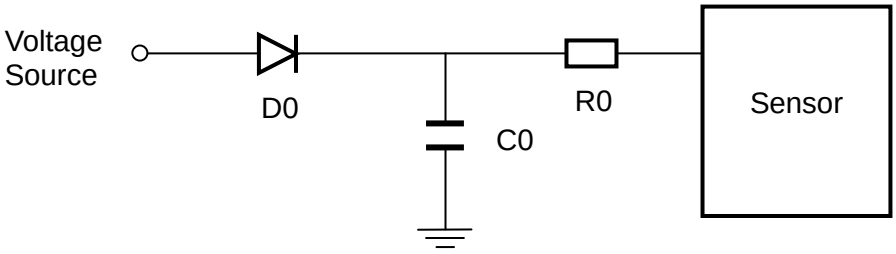
Application Notes

1. Connection of Double Power Supplies



2. Reduction of Power supply

The deviation of the power supply is normally ±5% ~ ±10%. If the voltage source is higher than the power supply one can use the following circuit to reduce the voltage source.



D0: general diode (one can also use two diodes)
C0: decoupling capacitor 1µF (recommended)
R0: 1~5kΩ, 0.5W~1W

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