

## FDIB-C16 series

### Fluxgate DC Leakage Current Transducer



#### 1. Brief introduction

**FDIB-C16** DC leakage current transducer uses Fluxgate principle (open loop) to measure small DC current. The output signal could be small current or low voltage that can be accepted by electronic circuit. The primary input current and the output signal is highly electric isolated. The transducer has a compact size but with a  $\Phi 22\text{mm}$  aperture hole. It can be used in Power Utility, Telecom, Oil & Gas, welding machine and New energy fields.

- ★ DC current measurement only      ★ Suitable for measuring small DC current
- ★ Good linearity      ★ Galvanic isolation between primary and secondary circuit      ★ Low power consumption
- ★ Standard DC signals interface (option)

#### 2. Order information (see right chart)

Nominal Current:

0.01 0.05 0.1 1.0 2.0 5.0 Adc

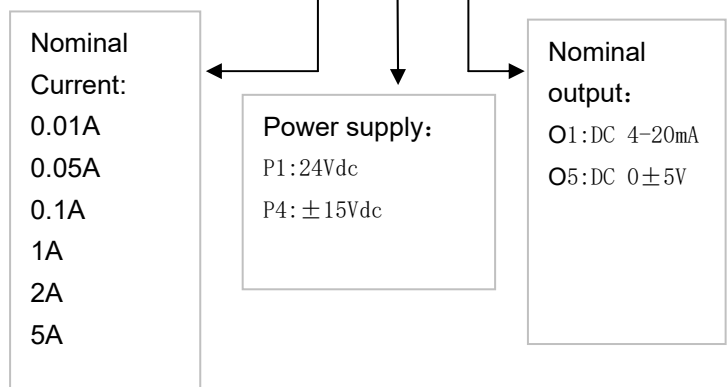
Nominal output:

O1:DC 4-20mA    O2:DC 0-5V    O3:DC 0-10V  
O5:DC 0±5V    O19:DC 0-20mA

Power supply:

P1: 24Vdc    P7: 12Vdc    P9:15Vdc

#### FDIB-C16-xxxPxOx



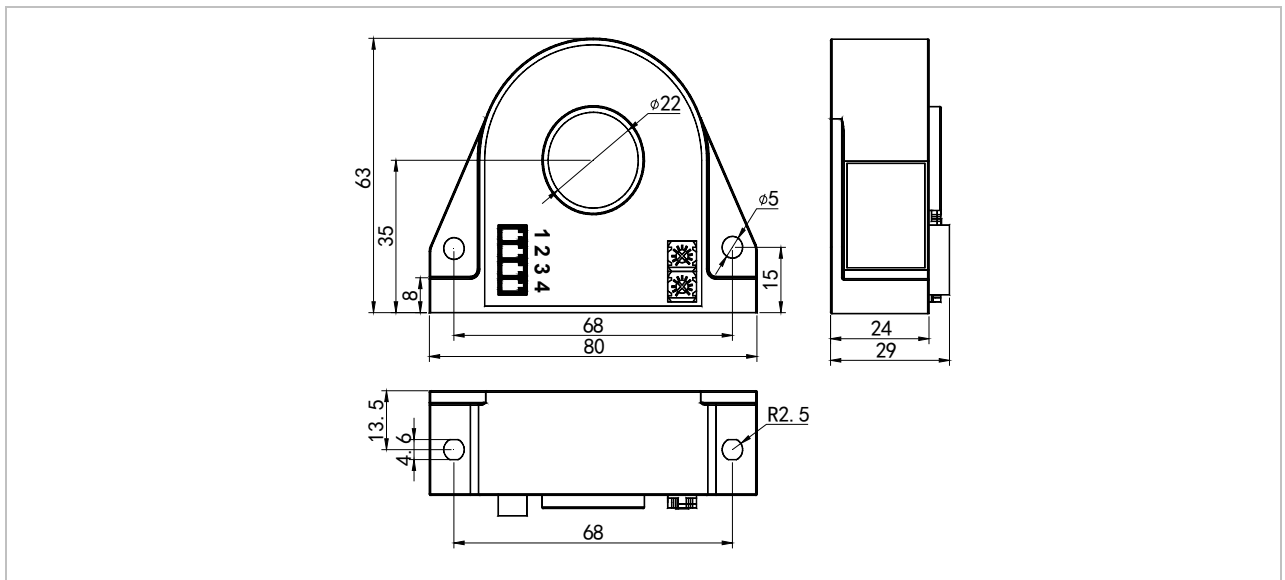
#### 3. Electrical data

Ip <sub>n</sub>	Primary nominal current (Adc)	0.01 0.05 0.1 1.0 2.0 5.0
Ip	Primary Current, measuring range(Adc)	120% x Ip <sub>n</sub>
V <sub>sn</sub> (for voltage output)	Secondary output (Vrms)	DC 0 ± 5V etc
I <sub>sn</sub> (for current output)	Secondary output (mArms)	DC 4-20mA etc
X	Accuracy (Ta =+25℃)	≤1%
E <sub>L</sub>	Linearity error	≤0.5%
V <sub>c</sub>	Power supply voltage	Pn(±5%)
V <sub>ofs</sub> /I <sub>ofs</sub>	Offset voltage/Offset current (Ta =+25℃)	≤50mV(for voltage output)/ ≤80uA (for current output)
Tr	Response time	≤ 120mS
f	Frequency bandwidth	DC
I <sub>c</sub>	Current consumption	25mA (for current output : + Is )
R <sub>L</sub>	Load resistance	>5KΩ(for voltage output)/ ≤450Ω(for current output)
V <sub>d</sub>	Isolation test(50HZ,1min)	5KV

#### 4. General data:

Ta	Ambient operating temperature	-25 - +70 °C
Ts	Ambient storage temperature	-40 - +85 °C
W	Mass	200g
St	Standards	IEC688:1992;EN61326
Ha	Ambient operating humidity	20-90% RH
	Case material	According to UL94-V0

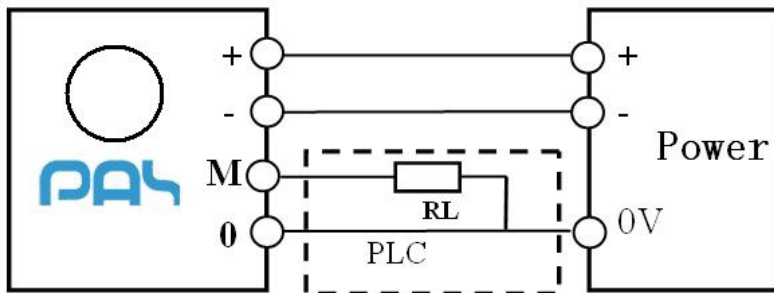
#### 5. Dimensions



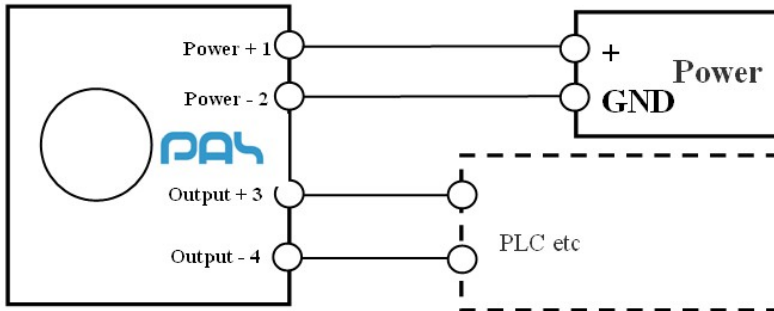
General tolerance	$\pm 1\text{mm}$	
Primary window size	$\Phi 22\text{mm}$	
Fastening	Bottom: 2 x $\Phi 4.6\text{mm}$	Side: 2 x $\Phi 5\text{mm}$

#### 6. Connection

Pin	Definition
1	电源正 +
2	电源负 -
3	信号输出 M
4	电源地 0V



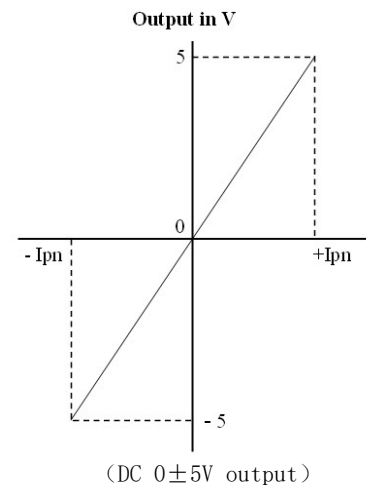
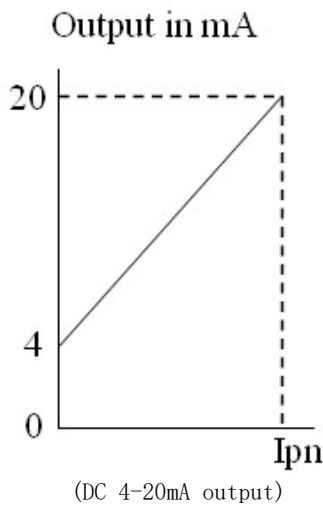
Bi-power supply connection



Single power supply connection

Pin	Definition
1	Supply voltage+
2	Supply Gnd
3	Output signal +
4	Output signal -

## 7. Output figure



## 8. Safety items



1. Only qualified people can operate with such electrical products.
2. Wrong connection may destroy the products.
3. ESD protection is necessary, please follow the correct process.
4. Do not use in the environment with conductive dust and corrosive gas.
5. The Potentiometers on the product are used by PAS internal, the user can not calibrate.
6. Strong vibration and very high temperature may damage the products.



1. After the installation, the bus bar may be connected to the high voltage equipment, please do not touch the exposed parts of the transducers to avoid electric shock!

Note: 1.Passion technology company reserves the right to modify the datasheets at any time without previous notifications.  
2.Any question about the datasheet, please contact our TCS.