

Features

- ◆ Galvanic isolation between primary and secondary circuit
- ◆ Hall effect measuring principle
- ◆ Isolation voltage 3000V
- ◆ Low power consumption
- ◆ Extended measuring range(3*I_{PN})
- ◆ Power supply ±15V

Advantages

- ◆ Low insertion losses
- ◆ Easy to mount with automatic handling system
- ◆ Small size and space saving
- ◆ Only one design for wide current ratings range
- ◆ High immunity to external interference.

Industrial applications

- ◆ DC motor drives
- ◆ Switched Mode Power Supplies(SMPS)
- ◆ AC variable speed drives
- ◆ Uninterruptible Power Supplies(UPS)
- ◆ Battery supplied applications
- ◆ Power supplies for welding application

TYPES OF PRODUCTS		
Type	Primary nominal current r. m. s I_{PN} (A)	Primary current measuring range I_P (A)
SIOT1S10V2	10	±30
SIOT1S15V2	15	±45
SIOT1S20V2	20	±60
SIOT1S25V2	25	±75
SIOT1S30V2	30	±90

General Description

For the electronic measurement of currents : DC, AC, pulsed, mixed, with a galvanic isolation between the primary circuit and the secondary circuit.

Parameters Table

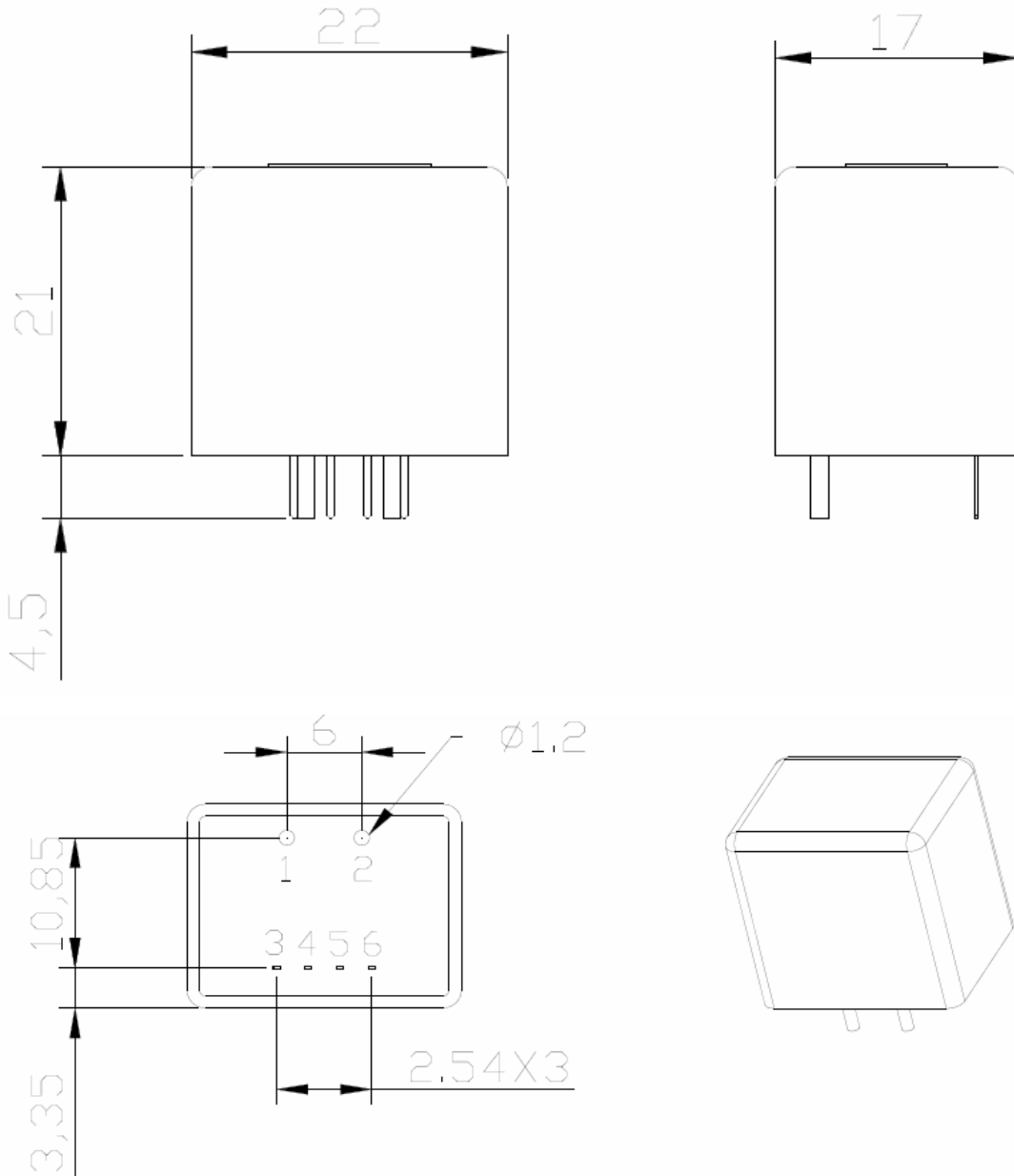
PARAMETERS	SYMBOL	UNIT	VALUE	CONDITIONS
Electrical data				
Supply voltage($\pm 5\%$) ⁽¹⁾	V_C	V	± 15	
Current consumption	I_C	mA	$< \pm 15$	
Output voltage	V_{out}	V	± 4	@ $\pm I_{PN}$, $R_L = 10\text{ k}\Omega$, $T_A = 25^\circ\text{C}$
Output internal resistance	R_{OUT}	Ω	< 50	
Load resistance	R_L	$\text{K}\Omega$	$\cong 10$	
R. m. s voltage for AC isolation test	V_d	KV	> 3	@50/60Hz, 1 min
Accuracy - Dynamic performance data				
Linearity($0 \dots \pm I_{PN}$)	ε_L	% of I_{PN}	$< \pm 1$	@ I_{PN} , $T_A = 25^\circ\text{C}$
Accuracy($0 \dots \pm I_{PN}$)	X	% of I_{PN}	$< \pm 1.5$	@ I_{PN} , $T_A = 25^\circ\text{C}$ (without offset)
Electrical offset voltage	V_{OE}	mV	$< \pm 40$	@ $T_A = 25^\circ\text{C}$
Hysteresis offset voltage	V_{OH}	mV	$< \pm 30$	@ $I_p = 0$
Response time	t_r	μS	$\cong 3$	@ 90% of I_{PN}
Frequency bandwidth	BW	kHz	DC~50	@ -3dB
Thermal drift of V_{OE}	V_{OT}	mV/K	± 1.5	
Thermal drift of the gain	$TC\varepsilon_G$	%/K	± 0.1	
General data				
Ambient operating temperature	T_A	$^\circ\text{C}$	-40 ~ +85	
Ambient storage temperature	T_S	$^\circ\text{C}$	-40 ~ +105	

Notes:

- 1) Operating at $\pm 12\text{V} < V_C < \pm 15\text{V}$ will reduce measuring range.

Dimensions SIOT1SV2M (in mm. 1 mm = 0.0394 inch)

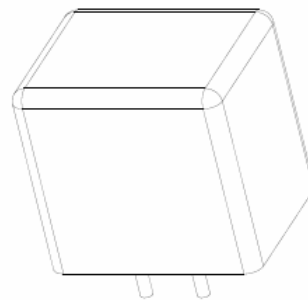
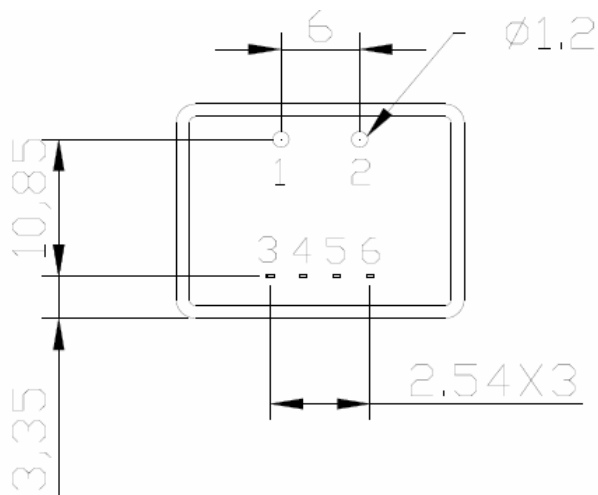
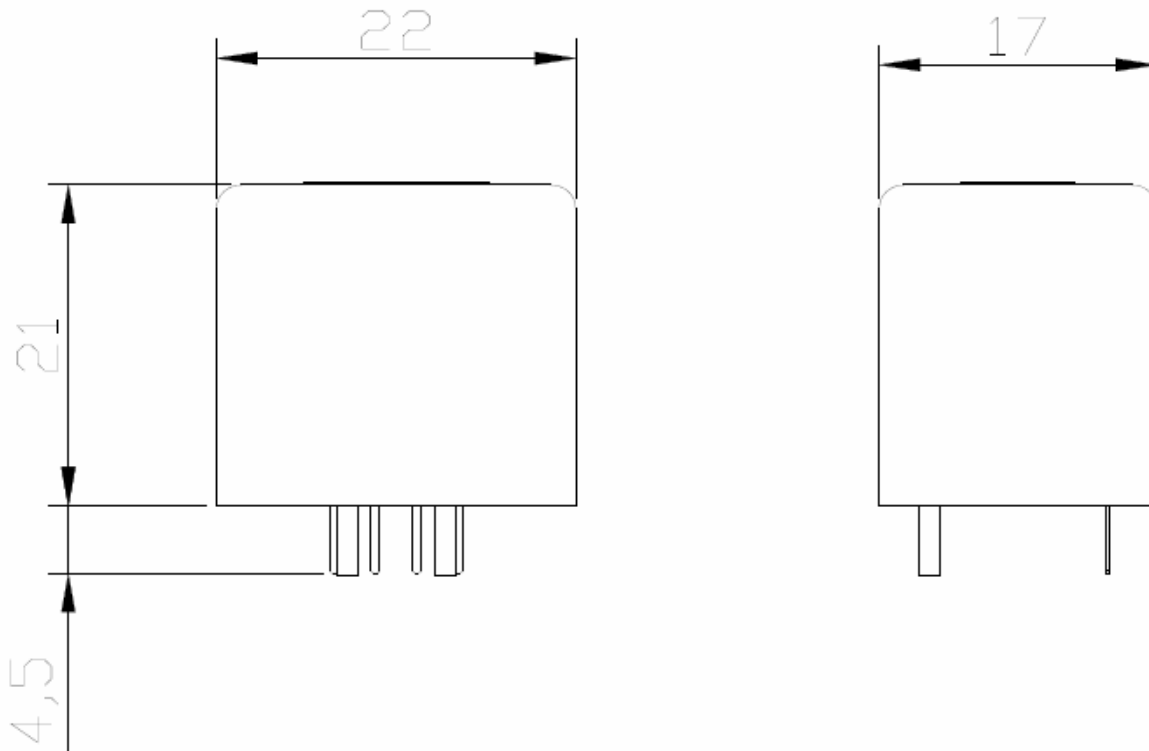
1) **SIOT1S10...15V2M**



Terminal Pin

1. Primary input Current(-)
2. Primary input Current(+)
3. Output
4. +15V
5. 0V
6. -15V

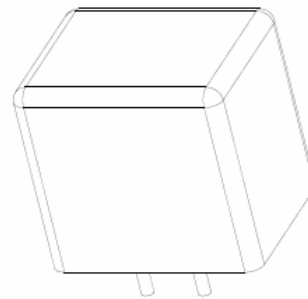
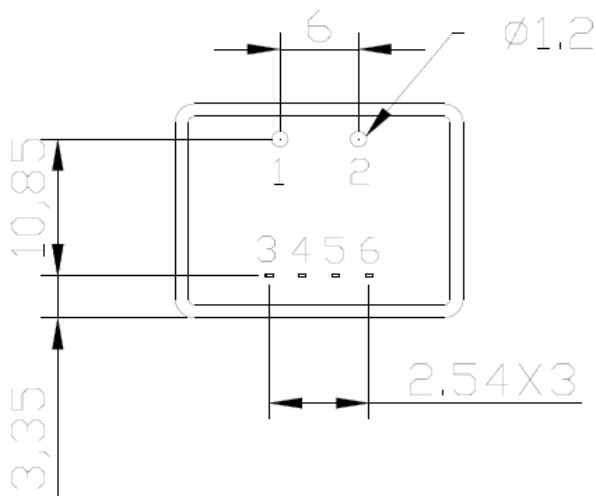
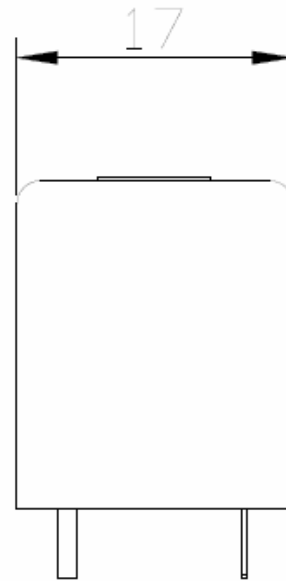
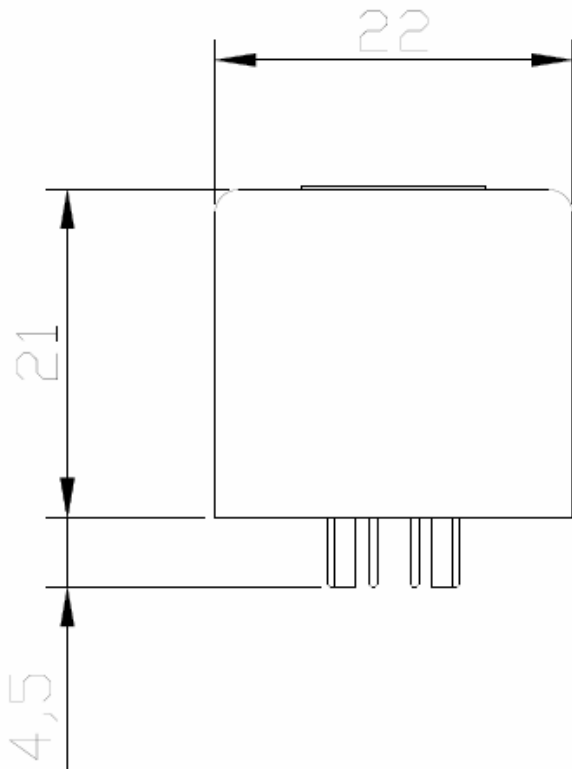
2) SIOT1S20...25V2M



Terminal Pin

1. Primary input Current(-)
2. Primary input Current(+)
3. Output
4. +15V
5. 0V
6. -15V

3) SIOT1S30V2M



Terminal Pin

- 1. Primary input Current(-)
- 2. Primary input Current(+)
- 3. Output
- 4. +15V
- 5. 0V
- 6. -15V

Instructions of use

- 1) When the test current passes through the sensors you can get the size of the output voltage.(Warning: wrong connection may lead to sensors damage)
- 2) Based on user needs, the sensors output range can be appropriately regulated.
- 3) According to user needs, different rated input currents and output voltages of the sensors can be customized.

RESTRICTIONS ON PRODUCT USE

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