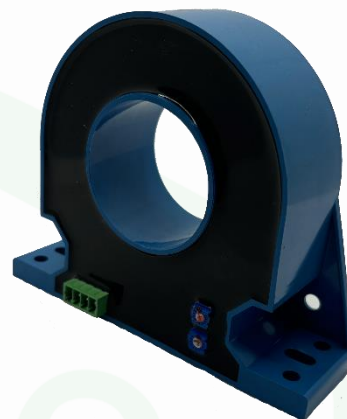


Technical Specification

Hall Current Sensor VPS-3000M3

Features :

- ◆ Low temperature drift
- ◆ Only one design for wide current ratings range
- ◆ Low power consumption
- ◆ High immunity to external interference
- ◆ Very low insertion losses
- ◆ Current overload capability



The VPS-3000M3 is an open-loop current transducer specifically designed for the electronic measurement of DC, AC, pulsed and mixed currents. It provides galvanic isolation between the primary circuit (high power) and the secondary circuit (electronics), enabling accurate measurements over a wide range of current waveforms. Its shape makes it easy to fit into compact spaces, making it particularly suitable for cables and busbars up to 45mm wide.

Applications :

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

Application Domaine:

- Industrial

Part Number	Connector
VPS-XXXM3	Molex 22272041
VPS-XXXS3	JST BH3P-VH-1
VPS-XXXH3	Phoenix Contact 3Pts
VPS-XXXK3	Cable 2 m
VPS-XXXJ3	Molex minifit Jr5566

Part Number	Primary Nominal Current	Primary Current Measuring Range
VPS-3000M3	3000A	±4000 A

Technical Specification

SPECIFICATIONS:

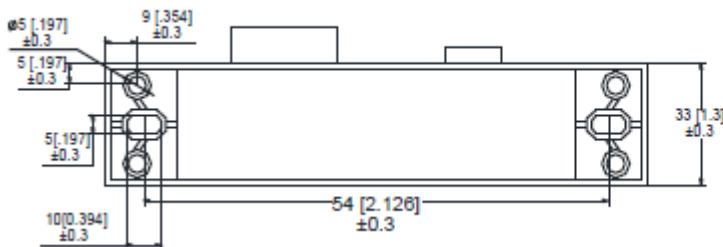
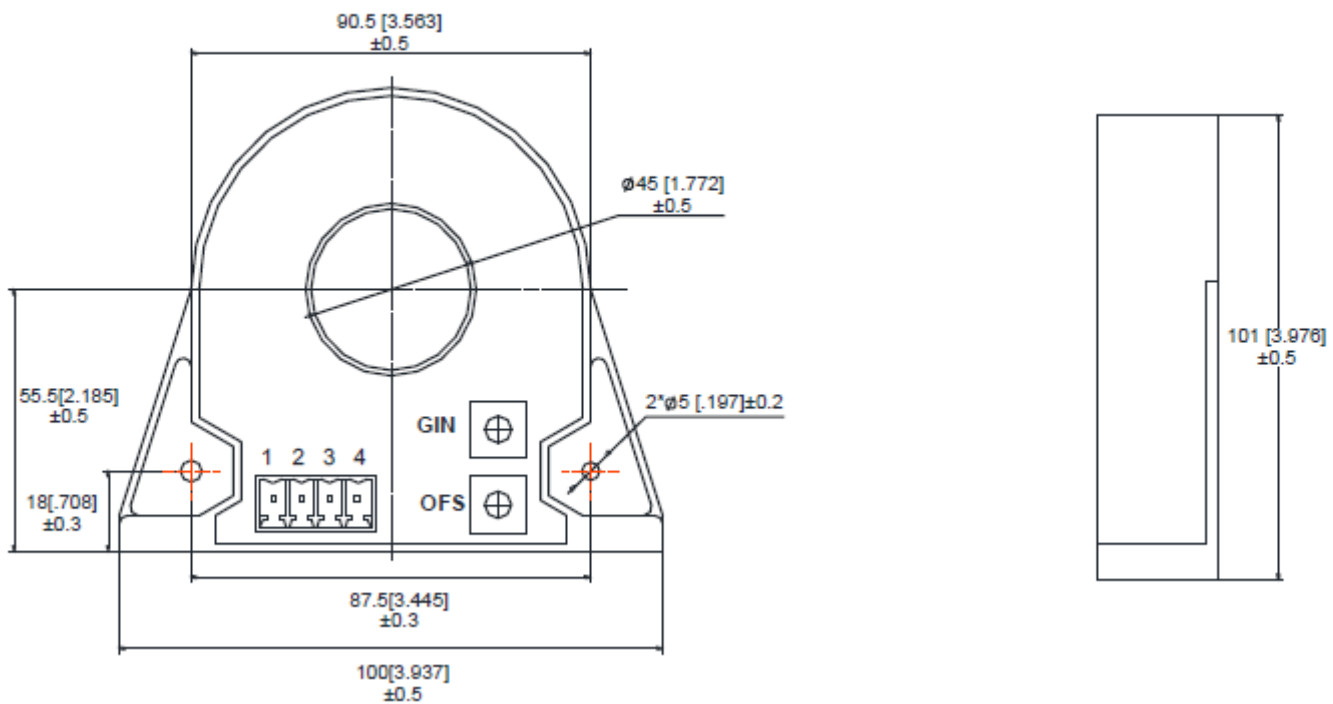
$T_A = +25^{\circ}\text{C}$, $V_{CC} = \pm 15\text{V}$, $R_L = 10\text{ K}\Omega$, unless otherwise noted

Parameter	Symbol	Condition	Min	Typ	Max	Unit
ELECTRICAL DATA						
Primary nominal r.m.s Current	I_{PN}		-	3000	-	A
Primary Current measuring range	I_{PM}		-4000	-	4000	A
Output Voltage	V_{OUT}	$V_{OE} + S \times I_P$	-	± 4	-	mV
Supply Voltage	V_{CC}	$\pm 5\%$	-	$\pm 12 \dots \pm 15$	-	V
Current Consumption	I_C	@ $\pm 15\text{V}$	-	< 25	-	mA
Offset voltage	V_O	@ $I_{PN}=0, T_A=25^{\circ}\text{C}$		≤ 15		mV
Load Resistance	R_L	$I_P=0$ To $\pm I_{PN}$	1	10	-	K Ω
STATIC PERFORMANCE DATA						
Linearity Error	ε_L	$T_A = 25^{\circ}\text{C}, I_P: 0 \text{ to } \pm I_{PN}$	-	$< \pm 0.5\%$	-	% I_{PN}
Accuracy	X_G	$T_A = +25^{\circ}\text{C}, @ I_{PN}$		$< \pm 1\%$		% I_{PN}
Thermal drift of V_O	V_{OT}			2		mV/ $^{\circ}\text{C}$
Thermal drift of V_{OUT}	$TC_{\varepsilon G}$			< 0.04		%/ $^{\circ}\text{C}$
Hysteresis Offset Voltage	V_{OH}	$T_A = +25^{\circ}\text{C}$ $\pm 2 I_{PN} \rightarrow 0$		$\leq \pm 50$		mV
Isolation voltage	V_d	@50(60)HZ/1min		2.5		KV
Isolation resistance	R_{IS}	@500V		500		M Ω
DYNAMIC PERFORMANCE DATA						
Bandwidth	BW		DC	20	-	kHz
Material	Insulated plastic case recognized according to UL 94-V0					
Operating temperature	T_O		-25	-	+ 70	$^{\circ}\text{C}$
Storage temperature	T_S		-25	-	+85	$^{\circ}\text{C}$
Mass	m			650		g

Technical Specification

DIMENSION

Front View



Secondary terminals	
terminal 1	+VCC
terminal 2	-VCC
terminal 3	OUTPUT
terminal 4	GND

Technical Specification

MOUNTING RECOMMENDATION

1. **Mounting method:** $2 \times \Phi 5$ mm holes (pick one)
2. **Primary through-hole dimensions:** $\varnothing : 45$ mm
3. **Secondary terminal:**
Molex 22041041
Crimp Housing: Molex 22011042, Crimping Terminal: Molex 08500113

REMARKS

- ◆ I_{OUT} is positive when IP flows in the direction of the arrow.
- ◆ Temperature of the primary conductor should not exceed 100°C.
- ◆ These are standard models. For different versions (supply voltages, secondary connections, unidirectional measurements, operating temperatures, etc.) please contact us.