electrohms®

Product Data sheet : Voltage Transducer - VH1K0T01

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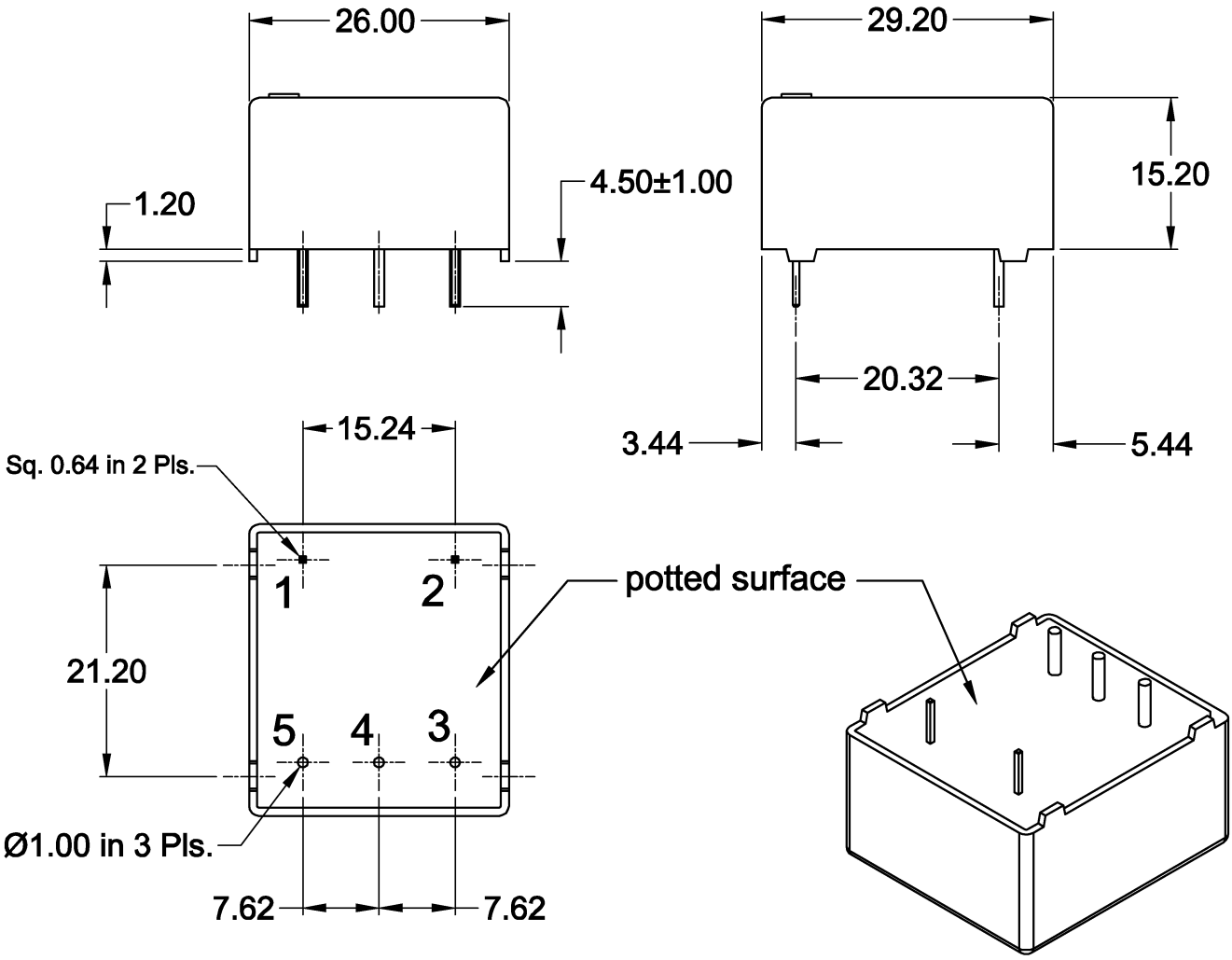
Customer: - - -	Customer part No.: - - -	

Pb RoHS Compliant
Pb solder exempt

● MECHANICAL DIMENSIONS



- Pin 1 : Input + Ve (See connection diagram for details)
- Pin 2 : Input - Ve (See connection diagram for details)
- Pin 3 : Output (Iout)
- Pin 4 : Supply Voltage (+Vcc)
- Pin 5 : Supply Voltage (-Vee)

● APPLICATION :

Used for measurement of electric voltage, AC, DC, Pulsed in electrical & electronic equipment.

● FEATURES :

- Closed loop Voltage sensor.
- Through Hole PCB mounting type.
- Current output.
- Plastics compliant to UL94-V0.

GENERAL TOL. ±0.5 mm	
ALL DIMENSIONS ARE IN 'mm'	SCALE -NTS

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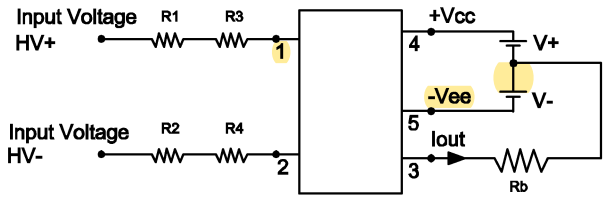
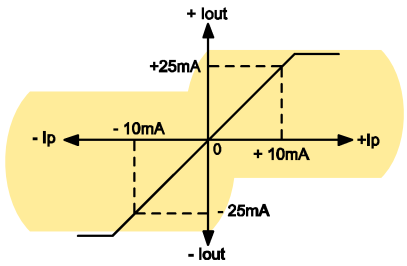
CONNECTIONS DIAGRAM



INPUT & OUTPUT CHARACTERISTICS



Iout is positive when Ipn enters from HV + terminal

SPECIFICATIONS @ 25° C **

PARAMETERS	VALUES	UNITS
Input Nominal Current, Ipn (See note 1)	10	mA
Input Current, measuring range (Ip)	0 to ±14	mA
Burden Resistance (Rb) @ ± 15V Ipn = ±10 mA Ipn = ±14 mA	 100 to 340 100 to 180	Ω
Conversion Ratio (K)	2500 : 1000	---
Current output @ Ipn (Iout)	25	mA
Supply Voltage (V+ / V-), ± 5%	± 15	V
Current consumption @ ±15V (Ic)	12 + Iout	mA
Accuracy @ Ipn (See note 1)	± 0.8	%
Linearity	< 0.2	%
Output offset current @ Ip = 0, Ta = 25°C	± 0.20 (Typical)	mA
Offset current variation with respect to temperature (- 40 to + 85°C)	0.8 (max.)	mA
Response time 90% of Ipn	25	µs
Primary Coil Resistance	190 (Typical)	Ω
Secondary Coil Resistance	46 (Typical)	Ω
Dielectric Strength between input & output 50 Hz for 1 min.	4.2	kVrms
Creepage distance	19.50	mm
Clearance	19.50	mm
Operating Temperature Range	- 40 to + 85	°C
Storage Temperature	- 40 to + 90	°C
Weight	30 (Typ.)	g

** Specifications subject to change.

Note:

1. The resistors R1 , R2 , R3 & R4 are to be connected externally. For example : If the nominal voltage to be measured is 1000V, then the current will be 10mA for which the corresponding resistance will be 100kΩ.R1 = R2 = R3 = R4 = 25KΩ, 10 watts each. If voltage to be measured is 500V, to drive 10mA current into the sensor, the corresponding resistance will be 50kΩ. In which use only resistors R1 & R2 of value R1 = R2 = 25KΩ , 10 watts each.
   For any other input voltage please contact Electrohms if necessary. The over all accuracy of the sensor will depend on the external resistors tolerance & temperature characteristics.
2. The sensor accuracy is optimum when operating at nominal input current (Ipn). Hence external input resistor should be selected such that, current should be Ipn (10mA) corresponding to nominal measuring voltage.

ELECTROHMS Pvt. Ltd.,
No. 67/6-1, Ullas Theatre Road,
Industrial Suburb,
Yeshwantpur,
Bengaluru 560 022. INDIA

www.electrohms.com
e-mail: sales@electrohms.com

Unit 2: #129 EPIP 2nd phase,
KIADB Industrial area,
Whitefield,
Bengaluru - 560 066, India.