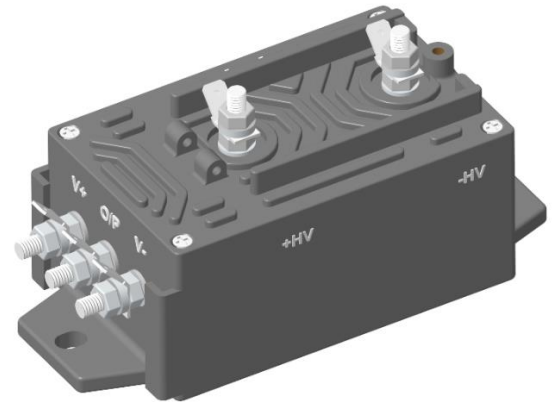


$V_{PN} = 1000V$



Features

- Plastic outer case compliant to UL 94-V0
- Bipolar and isolated measurement
- Current output

Advantage

- Low power consumptions
- Excellent accuracy
- Good response time
- Low temperature drift
- High immunity to external interferences.
- Compact design

Insulation characteristics

Parameters	Symbol	Typ	Units
Dielectric strength between input and output terminals,50Hz, 60 seconds.	V_d	7.5	kVrms
Comparative Tracking Index	CTI	250	V
Insulation Resistance (500Vdc)	R_{IS}	>200	$M\Omega$
Creepage distance in mm	See mechanical dimension drawing		
Clearance distance in mm	See mechanical dimension drawing		

Applications

- Auxiliary converters
- Inverters
- Propulsion and braking chopper
- AC & DC power drives

Application domain

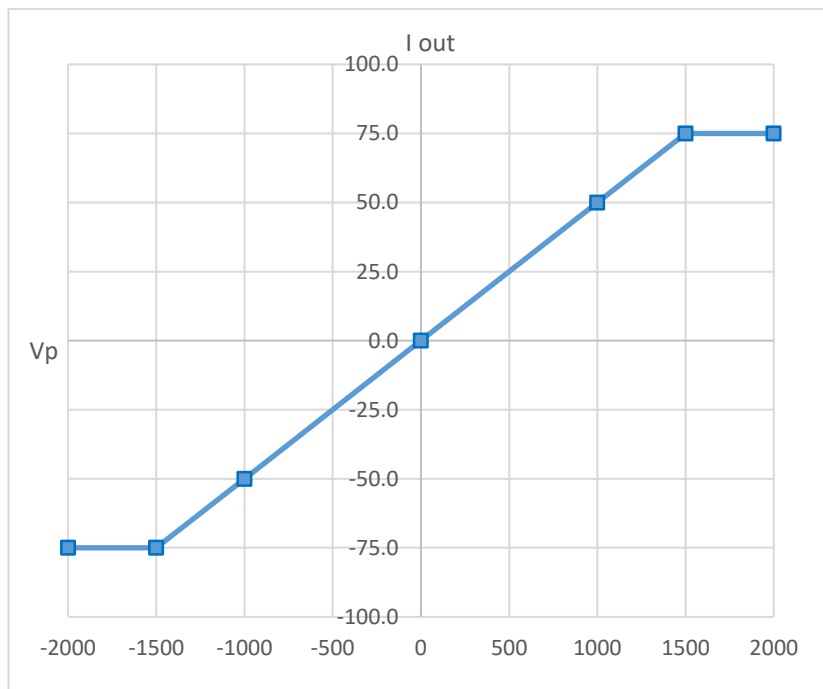
- Industrial
- Traction

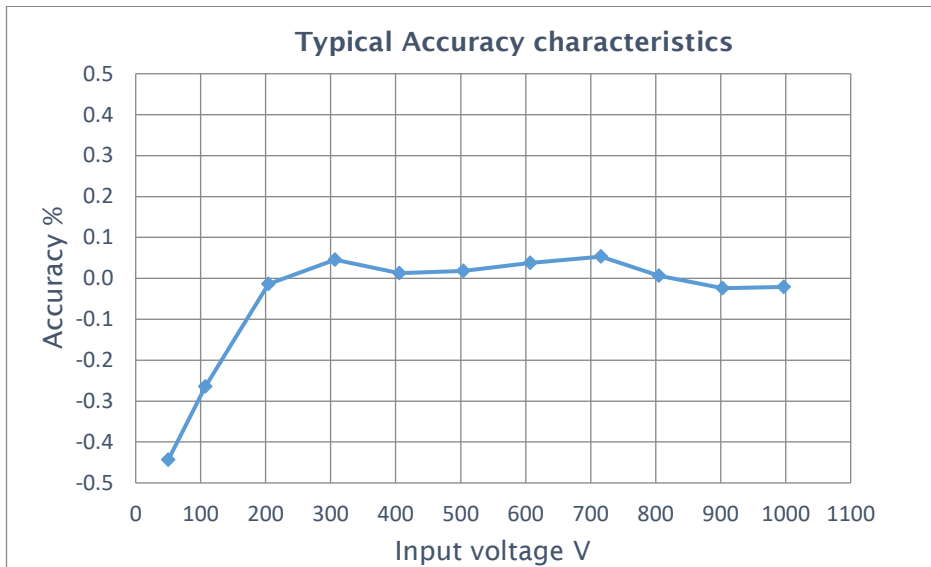
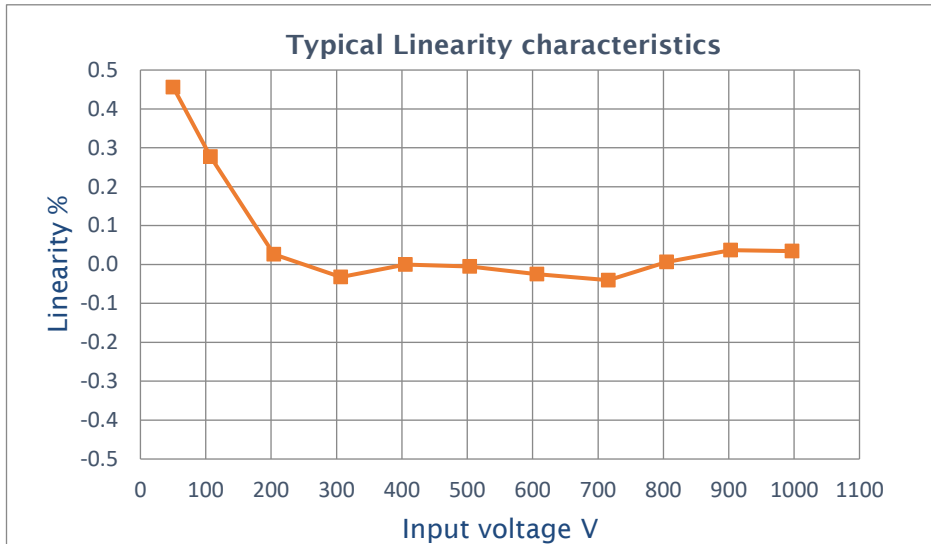
Optically Isolated Voltage Sensor VJ1K0T03

Specifications (Unless otherwise specified temperature is 25°C)

Parameters	Symbol	Conditions	Min	Typ	Max	Units
Input voltage nominal	V_{PN}			1000		Vrms
Input voltage measuring range	V_{PM}		-1500		+1500	V
Measuring resistance	R_b		40	50	60	Ω
Output Current @ V_{PN} (I_{out})	I_{out}			50		mA
Supply Voltage	$\pm V_s$		± 13.5	± 24	± 26.4	V
Current consumption @ $V_s = \pm 24$ V	I_c	@25°C		$50 + I_{OUT}$		mA
Offset current	I_o			± 70		μA
Temperature variation of I_o	I_{OT}	-40 to +85 °C		± 200		μA
Sensitivity	G			50		$\mu A/V$
Sensitivity error	Σ_G			0.2		%
Thermal drift of sensitivity		-40 to +85 °C		± 0.5		%
Linearity error	Σ_L	$\pm 1000V$ Range		± 0.5		% of V_{PN}
Overall accuracy	X_G	-40 to +85 °C		± 1		% of V_{PN}
Response time @ 90 % of V_{PN}	T_r			50	60	μS
Frequency bandwidth	BW	-3dB		14		kHz
Input Resistance	R_p			1.32		M Ω
Input power loss @ V_{PN}	P_p			0.757		W
Ambient operating temperature				-40 to +85		°C
Ambient storage temperature				-50 to +90		°C
Mass				520		g

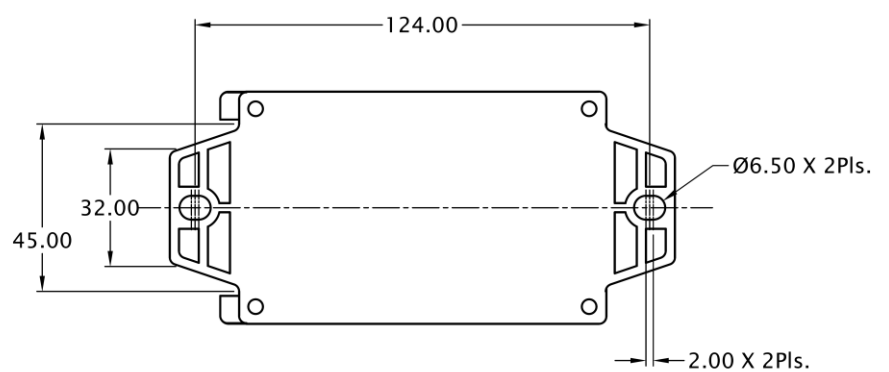
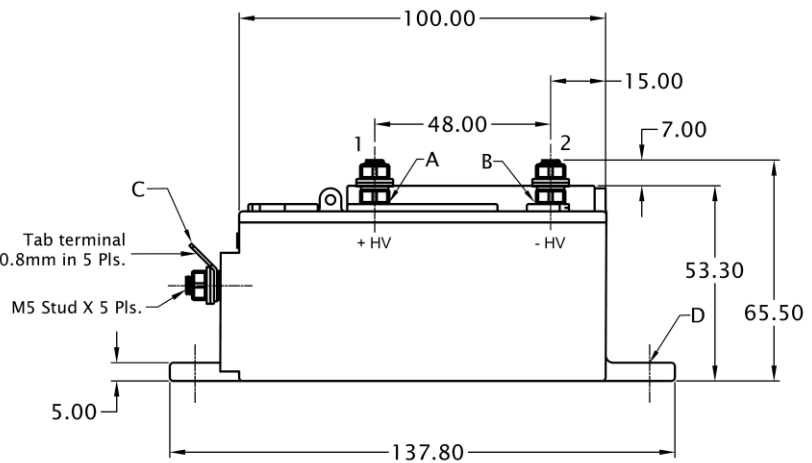
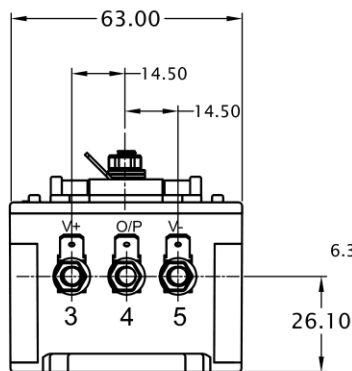
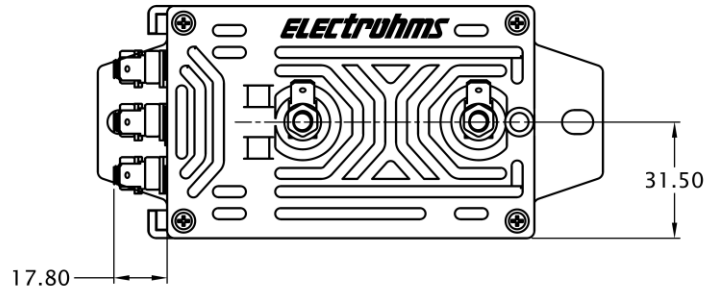
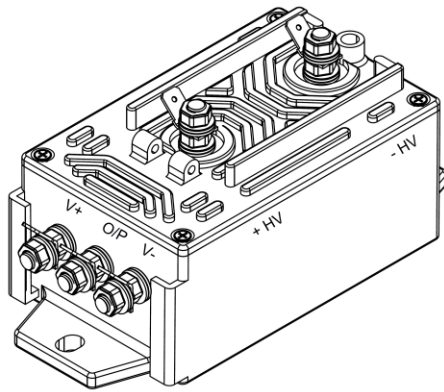
Input & Output Characteristics



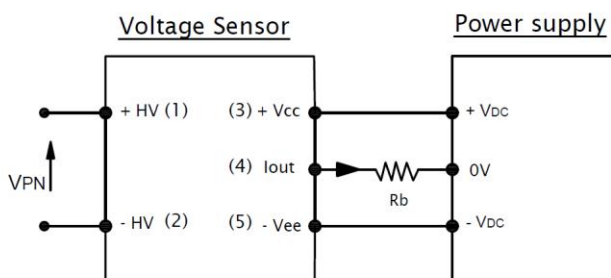


Mechanical dimensions

GENERAL TOL. ± 1.0 mm	
ALL DIMENSIONS ARE IN 'mm'	SCALE -NTS



Connection Diagram:



	Clearance distance in mm	Creepage distance in mm
A - B	38	60
A - C	41	60
B - D	45	58

- Connector on the product: M5 Studs with Faston tab Part no- 61365-1, TE Connectivity AMP Connectors
- Suggested mating connector: Faston receptacle terminal Part no- 63609-2, TE Connectivity AMP Connectors
- Input & Output connection M5 Studs in 5 Places, recommended fastening torque 2.2 N-m
- Sensor mounting: 2 slots X Ø 6.5mm, M6 steel screws, recommended fastening torque 4.6 N-m
- Output is positive when HV+ input terminal is higher potential than HV- terminal
- Power supply and output terminal is not protected against polarity reversal
- Protective covers are assembled on the transducer for high voltage terminals on request with different part number.

Wiring and mounting instructions

Each configuration being different, please consult us for advice. (Note that non-proper installation or incorrect use of the sensor can result in sensor poor performances or malfunction)

Safety



- This Sensor must be used in electric/electronic equipment with respect to applicable standards and safety requirements in accordance with the manufacturer's operating instructions.



- Caution, risk of electrical shock
- When operating the Sensor, certain parts of the module can carry hazardous voltage
- Ignoring this warning can lead to injury and/or cause serious damage.
- A protective housing or additional shield could be used.
- This Sensors must be used in electrical or electronic systems as per the applicable standards.
- When installing the sensor, ensure that the safe separation (between primary circuit and secondary circuit) is maintained over the whole circuits and their connections.

General information:

Electrohms the reserves right to make modifications on products for improvements without prior notice.