

VCONHL-FC Isolating Signal Converter for AC Power Input

The VCON family of Isolating Signal Converters can accept a wide range of AC Current or Voltage inputs. The units produce a high level DC output of either voltage or current. Full 3 port isolation is standard but the unit can be supplied as:-

Non-Isolated | Input Only Isolation | Output Only Isolation | Full 3-Port Isolation

Typical applications include the isolation and conversion to 4-20mA of the 0-1A AC or 0-5A AC outputs from industry standard current transformers. The units can also accept the 0 – 330mV AC outputs from voltage transformers and convert to a 4-20mA or 0-10V DC output.

For high voltage AC conversions a Divider unit may be required to lower the AC voltage before feeding it into the VCON unit. The unit may be powered from a wide range of power supplies, ranging from 12V DC to 24V AC.

Features

- AC current and voltage inputs
- Isolated mA or voltage outputs
- Zero & span pots for output
- Optional isolated transmitter supply
- High accuracy, low cost
- Only 12.5mm wide on DIN Rail



Specifications

Inputs Factory configured inputs for AC current & voltage

AC Current	0 to 100mA rms 0 to 5A rms
AC Voltage	0 to 200mV rms 0 to 250V rms

NOTE: For input voltage greater than 30V AC, a divider unit must be specified.

Outputs Factory configured ranges up to a max. of

Current	0-20mA
Voltage	0-15V DC

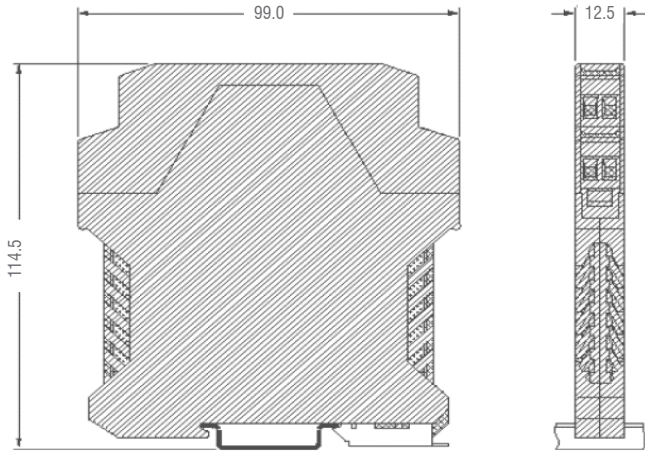
NOTE: Standard User Configurable Ranges: 0-20mA, 4-20mA into 750Ω max | 0-5V, 0-10V into a 100kΩ min

Parameter	Min	Typ	Max	Comments
Supply Voltage		24V		Options: 12, 24VDC & 24VAC
Supply Current		45mA		Based on 24VDC supply
Input Impedance (Volt)	100kΩ	1MΩ	10MΩ	Dependent on range (Typ=10V)
Input Impedance (mA)	0.02Ω	5Ω	2kΩ	Dependent on range (Typ=20mA)
Volt Drop (mA input)		0.1	0.15	At 20mA input
Output Linearity Error		±0.03%	±0.1%	R _L = 250Ω (1% for sinusoidal AC input)
Temp Coefficient			±100ppm/°C	
Load Resistance Error			-20ppm/Ω	0 < R _L < 750Ω
Time Constant (10-90%)		30ms		Damping option can be selected
Operating Ambient	0°C		55°C	
Relative Humidity	0%		90%	
Isolation Voltage	1kV			
Surge Voltage	2.5kV for 50μS		Transient of 10kV/μS	
Notes	Absolute maximum ratings indicate sustained limits beyond which damage to the device may occur. Accuracy figures based on 24Vdc supply, 4-20mA output with 250Ω load and 20°C ambient. Device is protected against reverse polarity connection. VCONHL does NOT provide safety isolation when the input is connected to the mains.			

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for AC Power Input

Dimensions (mm)



Installation Data

Mounting	DIN Rail TS35
Orientation	Any
Connections	Screw Clamp with pressure plate
Conductor Size	0.5 - 4.0mm
Insulation Stripping	12mm
Weight	Approx 95g

Connection Details

1	Power Input	-ve
2	Power Input	+ve
4	Process Input	-ve
5	Process Input	+ve
3	Trans Supply	+ve
6	Trans Supply	-ve
10	Output	-ve
12	Output	+ve

Ordering Information

When ordering, please supply Part Number, Input type (mA, Volt etc), Input Range (4-20, 0-10 etc), Output Type (mA, Volt etc), Output Range (4-20mA, 0-10V etc), Power Supply (24V DC etc), and is Transmitter Supply is required.