## **VI Voltage CHARM**

VI Voltage CHARM is a single channel measuring module for the connection of dynamic voltage input signals in a range of  $\pm 24$  V. VI Voltage CHARM converts the analog measuring data provided by the connected signal source into a digital signal. The signal is preprocessed and provided to the processor of the system where the CHARM is installed. Parameters for the pre-processing of the measuring data are software configurable. VI Voltage CHARM can be installed in AMS Asset Monitor only. The standard CHARM terminal block KL4502X1-BA1 is required for the installation.

Electrical Data				
Supply				
Charm Power Requirements	25 mA @ 24 VDC			
Charm Power Dissipation	0.6 W			
Signal Input				
Sensor Types	2-wire voltage input			
Nominal Signal Range	-28 to +28V			
Input Frequency Range	0 to 40 kHz	Attenuation < 3 dB		
Dynamic Range	> 99 dB			
Input Impedance	> 100 kΩ			
A/D Resolution	24 bit A/D converter			
Accuracy				
Basic Accuracy	±0.8 %, ±5.0 mV			
Accuracy Over Temperature	±0.5 %, ±5.0 mV			







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Environmental Conditions and Mechanical Design				
Environmental Conditions				
Operating Temperature	-40 to +70°C			
Storage Temperature	-40 to +85°C			
Humidity	5 to 95%	Noncondensing		
Ip Protection Class	IP 20	According to IEC 60529		
Shock	150 m/s <sup>2</sup>	According to IEC 60068- 2-27, 4000 shocks per axis		
Vibration	0.15 mm	10 to 58.1 Hz		
	20 m/s <sup>2</sup>	58.1 to 150 Hz		
	Floating sinus, 20 cycles, three axes	According to IEC 60068-2-6		
Operating Altitude	< 2,000 m	Above sea level		
Mechanical Data				
Status Indication	LED	One red/green bicolored LED		
Weight	< 40 g (0.1 lb)	Without packaging		
Dimensions	A = 116 mm ( 4.57 in ) B = 47 mm ( 1.85 in ) C = 11 mm ( 0.43 in )	A B		

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Compliance and Certifications		
CE	2014/30/EU (EN 61326-1) 2014/34/EU (EN 60079-0, EN 60079-11, EN 60079-15, DEKRA EXAM GmbH) 2011/65/EU (DIN EN 50581)	
CSA	CAN/CSA C22.2 No. 61010-1-12, UPD1:2015, UPD2:2016 UL Std. No. 61010-1 (3rd Edition) CAN/CSA C22.2 No. 60079-0:19 CAN/CSA-C22.2 No. 60079-11:14 CAN/CSA-C22.2 No. 60079-15:16 Class I Division 2 Groups ABCD T4 Class I Zone 2 A/Ex ec IIC T4 Gc	
IEC Ex	Ex ec nA nC [ic] IIC T4 Gc Ex tb [ic] IIIC T75°C Db	
ATEX	II 3G Ex ec nA nC [ic] IIC T4 Gc II 2D Ex tb [ic] IIIC T75°C Db	
Marine	DNV GL rules for classification - Ships, offshore units, and high speed and light craft	
RoHS, REACH		

Only specifications with indicated tolerances or limit values are required. Data without tolerances or without error limits are informative data and not guaranteed. Technology is under constant development and specifications are subject to change without notice. If not otherwise specified, all data refer to a nominal supply voltage of 24 VDC and an environmental temperature of 23°C (73°F).

## **Ordering Information**

Model Number	Product Description
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