GENERAL	
Standard	EN61010-1 EN61010-2-201 EN61131-2
Dimensions (W × H × D)	72x90x62mm
Weight	270g
Mounting	Top hat rail EN50022, 35mm
ENVIRONMENTAL CONDITIONS	
Operating ambient temperature	0°C – 55°C
Relative humidity – non-condensing	80 % for temp. up to 31 °C, decreasing linearly to 50 % relative humidity at 55 °C
Pollution Degree	PD2
Altitude	up to 2000m AMSL
Vibration (5 ≤ f ≤ 9 Hz)	1,75 mm amplitude sinus 3,5 mm amplitude random
Vibration (9 ≤ f ≤ 150 Hz)	0,5 g acceleration sinus 1,0 g acceleration random
Transport and Storage	-20°C – +70°C 10 to 90% no condensation Altitude 3000m AMSL
Shock response	15g, 11ms half sinus all 3 axes
I/O	
Supply voltage	24 V
USB (Power for programming only)	USB-B, 2.0
Ethernet	RJ45, 10/100Mbps
Analog inputs	2x 0-10 V
Analog outputs	2x 0-10 V or 0-20 mA
Inputs, no galvanic insulation	18
Common analog/digital	12
Digital	4
Fixed digital, ext. Interrupt usable	2
Digital Outputs, no galvanic insulation	8
Relay Outputs, galvanic insulation	5
PIN Header, no galvanic insulation	
Logic level I/Os	42, partially parallel to terminal I/Os
Analog 0-5V Inputs	12
Communication	SPI, 2xUART, I2C, Reset
Internal Power	+3,3 V, +5 V, ARef, GND
TERMINAL CAPACITIES	
Relay Output, Power Input	2,5mm² (24-12AWG)
Strip length	6-7mm
Max. tightening torque	0,5Nm
Digital, Analog Input Output	1,5mm² (30-16AWG)
Strip length	5-6mm
Max. tightening torque	0,2Nm
Pin header connector	2x 26 Pin, Dual row, 2.54 pitch
PROTECTION	
ESD HBM Class 0	Contact discharge: ±4kV Air discharge: ±8kV
Supply input over current protection	Internal Fuse 20A
Relay Output	External Fuse required
Digital Output	Overload, short circuit, ESD

Signal Input	Overvoltage, ESD	
Pin header connector	ESD	
Current +5V, +3,3V	total 200mA, resettable fuse	
ELECTRICAL CHARACTERISTICS		
	Condition	**Value**
Supply voltage (Absolute Maximum)	24 V range	20,4 V – 30,0 V
Signal input low level	24 V range	0V–7,2V
Signal input high level	24 V range	18V–26,4V
Analog signal input	24 V range	0V–26,4V
Signal input current	max. current	< 3 mA
Logic “0” level	@ pin header	0V–1,5V
Logic “1” level	@ pin header	3V–5,5V
Signal output low level	24 V range	0V–4,8V
Signal output high level		Vin – 10 %
Signal output – PWM functionality	Duty cycle	5% - 95%
Relay output, Contact rating	Resistive	16A250VAC/
	Load	30VDC
Common Relay terminal	max. current	16A
Galvanic insulation	coil to contact	3000 VAC
		1 min
Relay ON in case of PWM functionality	Duty cycle	>30%
LED SIGNALIZATION		
Power LEDs coding	Color of power LED	
input voltage out of range	24V orange	
only USB powered	24V orange	
input voltage 20.4V – 30,0V	24V green	
input voltage < 7V	LEDs off	
Device in reset state	Reset LED yellow	
Device in run state	Reset LED off	
Signal input at high (logic 1) level	Corresponding LED green	
Signal input at low (logic 0) level	Corresponding LED off	
Signal input in use as analog input	Corresponding LED green on when input level reach high (logic 1) state	
Signal/Relay output set to active	Corresponding LED green	
Signal/Relay output set to inactive	Corresponding LED off	

PHYSICAL DIMENSIONS