



AS-Interface power supply

VAN-24DC-K28

- Output current max. 4 A
- PELV
- Input voltage 24 V DC
- LED operating display
- 90.5 % efficiency level

AS-Interface power supply, data decoupling, 4 A, 24 V DC input voltage



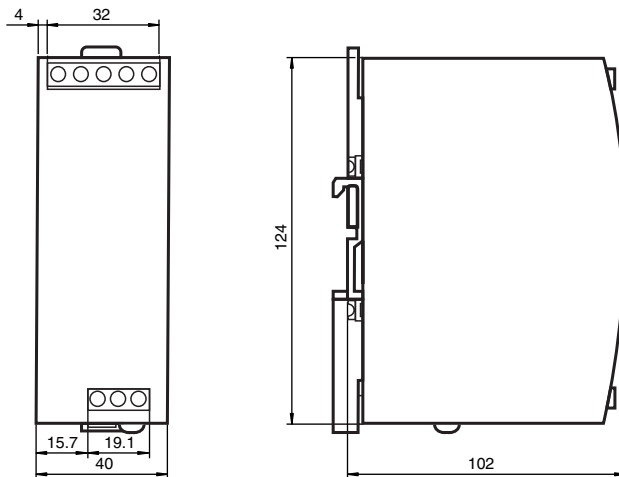
Function

The VAN-24DC-K28 DC/DC transducer was designed for field bus applications, which transmit both energy and data via a two-wire cable (AS-Interface design). It powers a fully loaded AS-Interface system with a maximum output current of 30.55 V and 4 A. In this case, the DC/DC transducer provides the energy, decouples data of the power source and balances the two output cables (AS-Interface + and AS-Interface -) in relation to ground (screen connection). The precise and transformer coupling permits the use of unshielded load lines. The PELV output circuit is electronically protected against overload and continuous short circuit.

Fusing:

The DC/DC transducer is electronically protected against continuous short circuit. In case of a defect, the internal fuse disconnects the DC/DC transducer from the power supply.

Dimensions



Technical Data

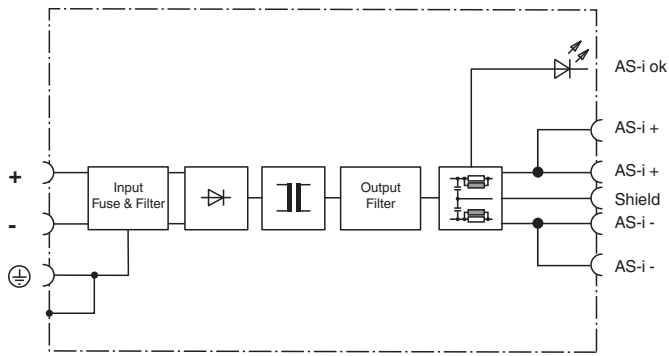
General specifications	
UL File Number	E223176
MTBF	100 a
Indicators/operating means	
LED AS-i ok	LED green: ON: AS-Interface voltage OK OFF: overload or no supply voltage
Electrical specifications	
Fusing	T10A HBC (not accessible)

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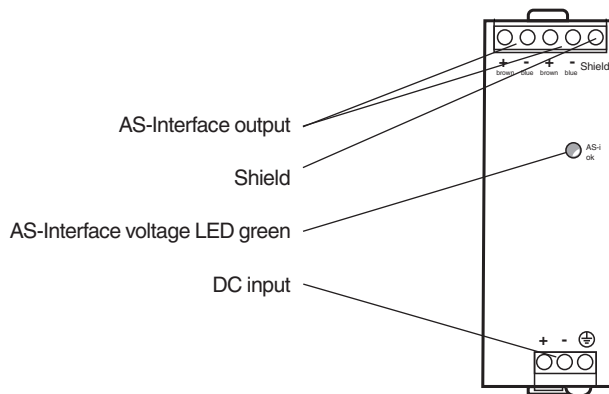
Technical Data

Rated operating voltage	U_e	24 V _{DC} 18 ... 32,4 V _{DC} (continuous operation) 14 ... 18 V _{DC} (max. 60 s or with derating) max. 36 V _{DC} (max. continuous input voltage with no damage to the DC/DC converter)
Rated operating current	I_e	5.6 A at 24 V _{DC}
Efficiency		typ. 90.5 % (24 V _{DC} , 4 A)
Output		
Short-circuit protection/overload		> 5 A < 9 A
Current limit		> 4.4 A
Voltage		30.55 V _{DC} ±3 % fixed
Current		4 A
Residual ripple		< 50 mV _{SS} (500 kHz bandwidth, 50 Ω measurement, with resistive load)
Voltage limitation		max. 36 V
Compliance with standards and directives		
Directive conformity		
EMC Directive 2004/108/EC		EN 55022:2006, EN 55011:2009 Class B EN 61000-6-3:2001, EN 61204-3:2001
Standard conformity		
Noise immunity		EN 61000-6-2:2005
Emitted interference		EN 61000-6-3:2007 EN 61000-3-2:2010 EN 61000-3-3:2009
Galvanic isolation		IEC 60364-4-41:2005 (PELV) IEC 60950:1999 (SELV)
Degree of protection		IEC 60529:2001
Pollution degree		EN 60950-1:2006
Shock and impact resistance		EN 60068-2-27:1995
Vibration resistance		EN 60068-2-6:2008
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F) note derating
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Shock and impact resistance		30g/6 ms 20g/11 ms
Vibration resistance		Sine 2 - 17.8 Hz: ± 1.6 mm Sine 17.8 ... 500 Hz : 2 g
Pollution degree		2
Mechanical specifications		
Degree of protection		IP20
Protection class		1 (IEC 60536); Protective conductor connection necessary
Connection		Connection terminals, max. conductor cross-section Flexible cable: 0.5 ... 4 mm ² Rigid cable: 0.5 ... 6 mm ² Stripping length 7 mm
Mass		approx. 500 g
Mounting		DIN mounting rail

Connection



Assembly

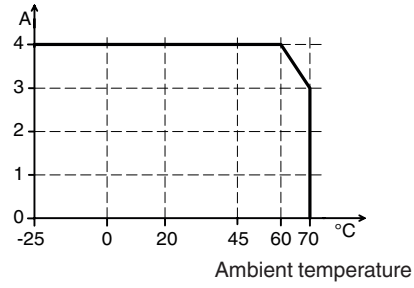


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Characteristic Curve

Derating

Output current



Accessories

	AS-Interface Power Calculator	AS-Interface Power supply and network checking utility
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