



# 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



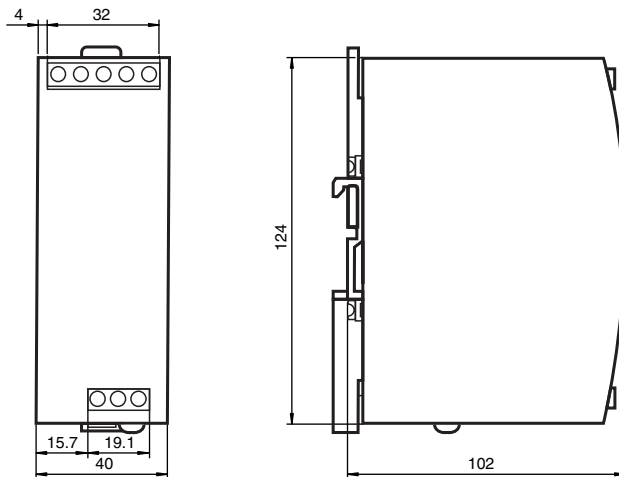
## Function

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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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

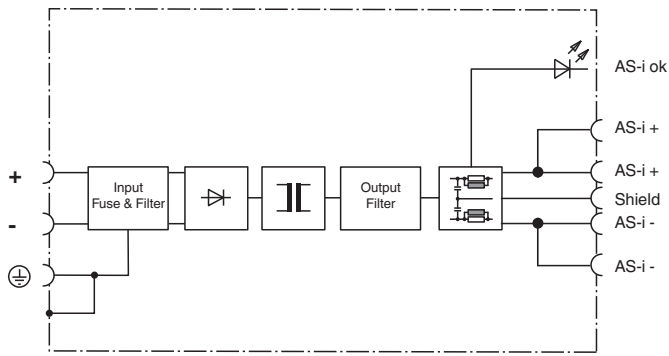
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

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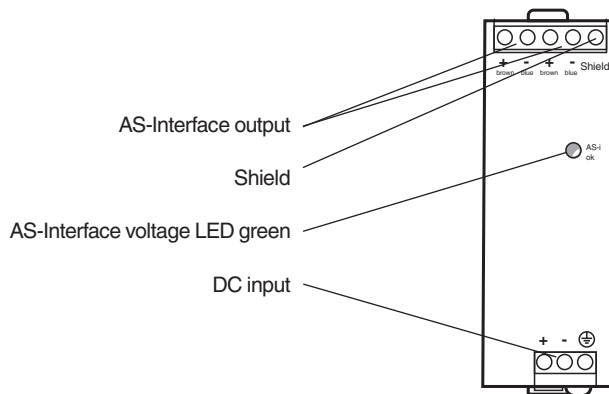
## Technical Data

Rated operating voltage	$U_e$	24 V <sub>DC</sub> 18 ... 32,4 V <sub>DC</sub> (continuous operation) 14 ... 18 V <sub>DC</sub> (max. 60 s or with derating) max. 36 V <sub>DC</sub> (max. continuous input voltage with no damage to the DC/DC converter)
Rated operating current	$I_e$	5.6 A at 24 V <sub>DC</sub>
Efficiency		typ. 90.5 % (24 V <sub>DC</sub> , 4 A)
<b>Output</b>		
Short-circuit protection/overload		> 5 A < 9 A
Current limit		> 4.4 A
Voltage		30.55 V <sub>DC</sub> ±3 % fixed
Current		4 A
Residual ripple		< 50 mV <sub>SS</sub> (500 kHz bandwidth, 50 Ω measurement, with resistive load)
Voltage limitation		max. 36 V
<b>Compliance with standards and directives</b>		
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
<b>Ambient conditions</b>		
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
<b>Mechanical specifications</b>		
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 <sup>2</sup> Rigid cable: 0.5 ... 6 mm <sup>2</sup> Stripping length 7 mm
Mass		approx. 500 g
Mounting		DIN mounting rail

Connection



Assembly

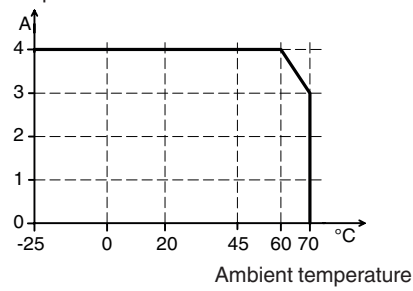


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**Characteristic Curve**

**Derating**

Output current



**Accessories**

	<p><b>AS-Interface Power Calculator</b></p>	<p>AS-Interface Power supply and network checking utility</p>
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fa-info@sg.pepperl-fuchs.com