



Model number

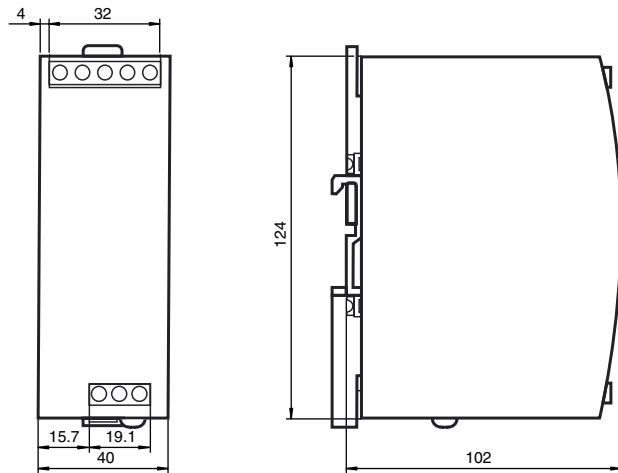
VAN-24DC-K28

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

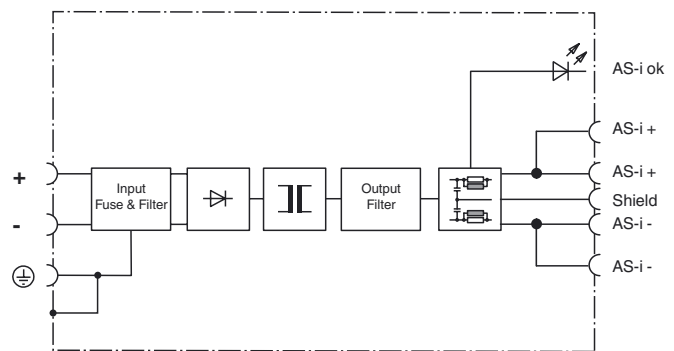
Features

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

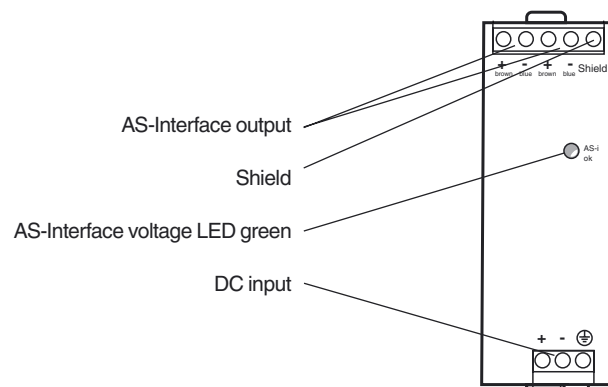
Dimensions



Electrical connection



Indicating / Operating means



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

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Technical data

General specifications

UL File Number E223176

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)
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
Current 4 A
Voltage 30.55 V_{DC} ±3 % fixed
Residual ripple < 50 mV_{SS} (500 kHz bandwidth, 50 Ω measurement, with resistive load)
Overvoltage protected max. 36 V

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 mm²
Rigid cable: 0.5 ... 6 mm²
Stripping length 7 mm
Mass approx. 500 g
Mounting DIN mounting rail

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
Electrical 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

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.

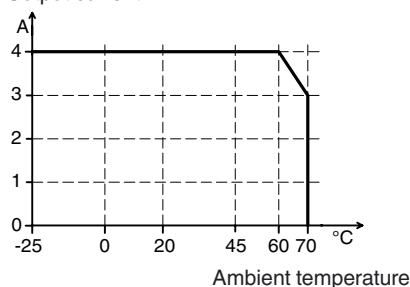
The PELV output circuit is electronically protected against overload and continuous short circuit.

Fuse:

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.

Derating

Output current



Accessories

AS-Interface Power Calculator

AS-Interface Power supply and network checking utility