

# BiSS-Gateway

## 24 V BiSS Safety > PROFINET/PROFIsafe R1

In the 24 V BiSS Safety > PROFINET / PROFIsafe variant, the BiSS provides the data received by BiSS Safety from up to two encoders via PROFINET and PROFIsafe to a PROFINET IO controller.

Art.-Nr.: 4260629980138



### SUPPLY

<b>Nominal voltage</b>	24V DC
<b>Voltage range</b>	19,2V bis 28,8V DC
<b>Max. input power</b> (excl power of encoder)	<4W (0,166A @ 24V DC)
<b>Max. input power</b> (incl power of encoder)	<12W (0,5A @ 24V DC)
<b>Overvoltage protection</b>	Yes
<b>Reverse polarity protection</b>	Yes
<b>Encoder current consumption</b>	max. 1A

### INTERFACES

<b>Power supply</b>	terminal connection, wire size 0,2 – 1,31mm <sup>2</sup> (AWG16-26)
<b>PROFINET IO Controller</b>	1x RJ-45
<b>PROFINET Periphery</b>	1x RJ-45 (Daisy Chain)
<b>BiSS Safety-Encoder 1</b>	D-Sub, 9-pole, coded
<b>BiSS Safety-Encoder 2</b>	D-Sub, 9-pole, coded

### MECHANICAL DATA

<b>Dimensions</b>	165,5mm x 110mm x 50mm
<b>Weight</b>	Approx. 0,5kg
<b>Mounting type</b>	35mm top hat rail

### BISS SAFETY

<b>Protocol type</b>	BiSS C
<b>Transmission profile</b> (BiSS Safety)	RXH
<b>Transmission rate</b>	10Mbit/s
<b>Update rate</b>	1kSample/s
<b>Asynchron Control Data Communication</b>	Configuration of encoder communication

### PROFINET

<b>Type</b>	PROFINET IO Device
<b>Transmission rate</b>	100Mbit/s
<b>Update rate</b>	1kHz (RT, adjustable)
<b>PROFINET IO Version</b>	2.32 / 2.34
<b>Supported services</b>	SNMP, LLDP
<b>Supported MIBs</b>	MIB2
<b>Realtime Class</b>	RT_CLASS_1
<b>Netload Class</b>	II
<b>Conformance Class</b>	B

### PROFISAFE

<b>Device Function</b>	PROFIsafe F-Device
<b>PROFIsafe Version</b>	2.6.1

## AMBIENT CONDITIONS

<b>Vibration resistance</b> acc. to EN 60068-2-6	2Hz – 9Hz & 9Hz – 200Hz: 1,5mm by constant acceleration
<b>Shock resistance</b> acc. to EN 60068-2-27	50m/s <sup>2</sup> , 6ms
<b>Ambient temperature operation</b>	0°C – 60°C
<b>Ambient temperature storage/transport</b>	-40°C – 60°C
<b>Relative humidity</b>	5% – 85% without condensation
<b>Altitude</b>	<3000m above sea level
<b>Protection degree</b> acc. to EN 60529	IP20
<b>Protection class</b> acc. to EN60529	Safety class III

## CONFORMITY EMC GUIDELINE 2014/30/EU

<b>Discharge, static electricity</b> acc. to EN 61000-4-2	Contact discharge: 4kV Air discharge: 8kV
<b>Electromagnetic field</b> acc. to EN 61000-4-3	80MHz – 1GHz, 10V/m  1,4GHz – 1,6GHz & 1,8GHz – 2,2GHz, 5,1GHz – 5,8GHz & 2,4GHz – 2,5GHz 3V/m 80%AM (1kHz)
<b>Fast transients (Burst)</b> acc. to EN 61000-4-4	Signal input: ±1kV, 5/50ns Repeat frequency: 5kHz  DC power input: ±2kV, 5/50ns Repeat frequency: 5kHz

<b>Conducted emitted interference</b> acc. to EN 61000-4-6	150kHz – 80MHz 10V/m 80%AM (1kHz)
<b>Emitted interference case</b> acc. to CISPR 16-1-1 CISPR 16-1-4 CISPR 16-2-3	30MHz – 40dB (µV/m) 230MHz Quasispitzenwert in 10m  230MHz – 47dB (µV/m) 1000MHz quasi peak value in 10m
<b>Emitted interference low voltage connection</b> acc. to CISPR 16-1-1 CISPR 16-1-2 CISPR 16-2-1	0,15MHz – 79dB (µV/m) 0,5MHz quasi peak value  66dB(µV/m) mean value  0,5MHz – 73dB (µV/m) 30MHz quasi peak value  60dB(µV/m) mean value
<b>EN 55032</b> telecommunication connection	0,15MHz – 74dB (µV/m) 0,5MHz quasi peak value  74dB – 64dB (µV/m) mean value  0,5MHz – 74dB (µV/m) 30MHz quasi peak value  64dB (µV/m) mean value

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