

# Network technology

## ISbus fieldbus technology Linking device bus-Carrier

for Zone 2

9419/04F-LD1-01E1 Art. No. 250240



- Time- and cost-saving installation on DIN rails or mounting plates
- High availability thanks to redundant auxiliary power supply with signalling contact and separate signalling contact for segment errors
- Special slot for FG-200 linking device or Softing pnGate PA and for DCM series 9415 for online transmission of physical layer diagnostics

MY R. STAHL 9419C



Modbus TCP



9419 series bus-Carriers allow 9412 series fieldbus power supplies for FF H1 segments to be installed quickly and securely. Variants are available for four or eight segments with simplex supply and for four segments with redundant supply.

Softing „FG-200 HSE/FF Modbus“ linking devices and pnGate PA can be integrated into this version, and can link up to eight H1 segments to the Modbus TCP protocol or PROFINET.

### Technical Data

#### Explosion Protection

Application range (zones)	2
IECEX gas certificate	IECEX BVS 09.0042X
IECEX gas explosion protection	Ex nA nC IIC T4 Gc
ATEX gas certificate	BVS 09 ATEX E 100 X
ATEX gas explosion protection	Ⓔ II 3 G Ex nA nC IIC T4 Gc
Certificates	ATEX (BVS), IECEX (BVS)

#### Electrical Data

Version	Linking device bus-Carrier
Connection electrical data	To Ethernet networks (Modbus TCP)
Trunk supply	Simplex
Number of segments	4
Number of slots	4 FPS + 1 LD + 1 DCM
Error detection Power Fail (pri / red)	Contact "PF" (35 V/100 mA) closed in go-state
Error detection Diagnostic	Contact "Dia" (35 V/100 mA) closed in go-state

#### Auxiliary Power

Nominal voltage	24 V DC
Auxiliary power voltage range	19 ... 32 V DC
Voltage range residual ripple	≤ 3,6 Vss
Current consumption	Depending on support equipment
Redundant supply	Yes, diode-decoupled
Polarity reversal protection	Yes
Power dissipation	Depending on the carrier equipment

#### Device Specific Data

Auxiliary power operating condition LED	"pri" LED, green "red" LED, green
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#### Device Specific Data

DIP switch diagnostics	Diagnostics activated Diagnostics deactivated
DIP switch redundancy	Redundant auxiliary power monitoring activated Redundant auxiliary power monitoring deactivated

#### Ambient Conditions

Ambient temperature	-20 °C ... +60 °C
Ambient temperature	-4 °F ... +140 °F
Storage temperature	-40 °C ... +80 °C
Storage temperature	-40 °F ... +176 °F
Maximum relative humidity	95% (without condensation)
Max. operating altitude	< 2000 m
Max. operating altitude, ft	< 6562 ft
Electromagnetic compatibility	Tested to the following standards and regulations: EN 61326 (IEC/EN 61000-4-1 to 61000-4-6 and 61000-4-11), NAMUR NE21
Note	For further information, see the 9412 type operating instructions

#### Mechanical Data

Connection type auxiliary power	2-pole (+, -) on bus-Carrier (pri/red)
Connection type error message contacts	2-pole (+, -) on bus-Carrier (PF/Dia)
Connection type Trunk	3-pole (+, -, shield) on bus-Carrier 3-pole (+, -, shield) on 9412 series fieldbus power supply
Connection type Host / red. Host	Via RJ45 connector on the linking device
Connection type Linking device	By snapping into place in the slot
Connection type diagnostics	26-pole ribbon cable on 9415 series diagnostics communication module
Connection type cable shields	Shield terminal on bus-Carrier Shield bus for clamping bracket with strain relief
Cable shields note	For the fieldbus carrier, the clamping brackets must be ordered separately.
Connection earthing	Via earth connection terminal
Rigid single-wire connection	Trunk 0.2 to 2.5 mm <sup>2</sup> Host 0.2 to 2.5 mm <sup>2</sup> Auxiliary power 0.2 to 2.5 mm <sup>2</sup> Fault message contact 0.2 to 2.5 mm <sup>2</sup> Earthing 0.2 to 2.5 mm <sup>2</sup>
Flexible single-wire connection	Trunk 0.2 to 2.5 mm <sup>2</sup> Host 0.2 to 2.5 mm <sup>2</sup> Auxiliary power 0.2 to 2.5 mm <sup>2</sup> Fault message contact 0.2 to 2.5 mm <sup>2</sup> Earthing 0.2 to 2.5 mm <sup>2</sup>
Flexible single-wire connection with sleeve	Trunk 0.25 to 2.5 mm <sup>2</sup> Host 0.25 to 2.5 mm <sup>2</sup> Auxiliary power 0.25 to 2.5 mm <sup>2</sup> Fault message contact 0.25 to 2.5 mm <sup>2</sup> Earthing 0.25 to 2.5 mm <sup>2</sup>
Two-core connection, flexible	Trunk 0.2 to 1.5 mm <sup>2</sup> Host 0.2 to 1.5 mm <sup>2</sup> Auxiliary power 0.2 to 1.5 mm <sup>2</sup> Fault message contact 0.2 to 1.5 mm <sup>2</sup> Earthing 0.2 to 1.5 mm <sup>2</sup>

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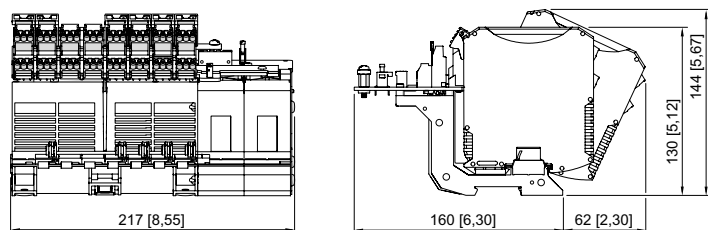
### Mechanical Data

Two-core connection, rigid	Trunk 0.2 to 1 mm <sup>2</sup> Host 0.2 to 1 mm <sup>2</sup> Auxiliary power 0.2 to 1 mm <sup>2</sup> Fault message contact 0.2 to 1 mm <sup>2</sup> Earthing 0.2 to 1 mm <sup>2</sup>
Two-core connection, flexible with sleeve	Trunk 0.25 to 1 mm <sup>2</sup> Host 0.25 to 1 mm <sup>2</sup> Auxiliary power 0.25 to 1 mm <sup>2</sup> Fault message contact 0.25 to 1 mm <sup>2</sup> Earthing 0.25 to 1 mm <sup>2</sup>
Degree of protection (IP) (IEC 60529)	IP00 IP20 terminals
Module enclosure	PA 6.6
Fire resistance (UL 94)	V0
Pollutant class	Corresponds to G3
Width	252 mm
Width, inches	9.92 in
Length	160 mm
Length in inches	6.3 in
Depth of cut-out	217 mm
Mounting depth in inches	8.55 in
Weight	712 g
Weight	1.57 lb

### Mounting / Installation

Mounting type	on NS 35/15 DIN rail (DIN EN 60715) On mounting plate (4 x M5 screw)
Tightening torque	2.6 N · m
Mounting orientation note	For further information, see the 9412 type operating instructions
Mounting orientation	Horizontal Vertical

### Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



9419/04F-LD1-01E1

### Accessories

#### Diagnosics communication module 9415

Art. No.



Transmission of diagnostic data for up to eight segments via FF H1

207903

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### Fieldbus power supply

Art. No.



Fieldbus supply, diagnostics and adjustable warning level

200588

### Spring clamp clip

Art. No.



Spring clamp clip KLBÜ C01

113509

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