Deutschmann
your ticket to all buses

Gateway & Protocol Converter

UNIGATE FALCON

FOCUS ON SKILL

scan me

EtherCAT®
EtherNet/IP™
CANopen®
ETHERNET TCP/IP
Modbus
PROFIBUS®
PROFINET®

- New processor generation
- New operating concept
- Available without housing
- Compact design
- Fast data exchange
- Designed & manufactured in Germany


Deutschmann Automation
Cam Controls | Fieldbus Gateways | Industrial Ethernet Products

INDUSTRIAL COMMUNICATION
BY DEUTSCHMANN AUTOMATION.

SIMPLE. EFFICIENT.

Located just outside Frankfurt, Deutschmann Automation specialises in making industrial data communication simple, reliable, and flexible. Under the brand name UNIGATE, we design and build smart network components, including Industrial Ethernet and Fieldbus Protocol Converters, Gateways, and Embedded Modules, helping you seamlessly link old and new systems in today's fast-changing Industry 4.0 and IoT environments.

Our customizable Protocol Converters and Gateways can be tailored to fit your needs, with options for pre-configuration, scripting, different housings, and even your branding. That way, you get exactly what your project demands - solid, secure connections that keep your operations running efficiently and ready for the future.

At Deutschmann Automation, we are committed to tailored customer support. We enable businesses worldwide to optimize processes and enhance operational efficiency.

Deutschmann Automation - Making Industrial Connectivity Easy.

UNIGATE

FALCON

-focus on skill

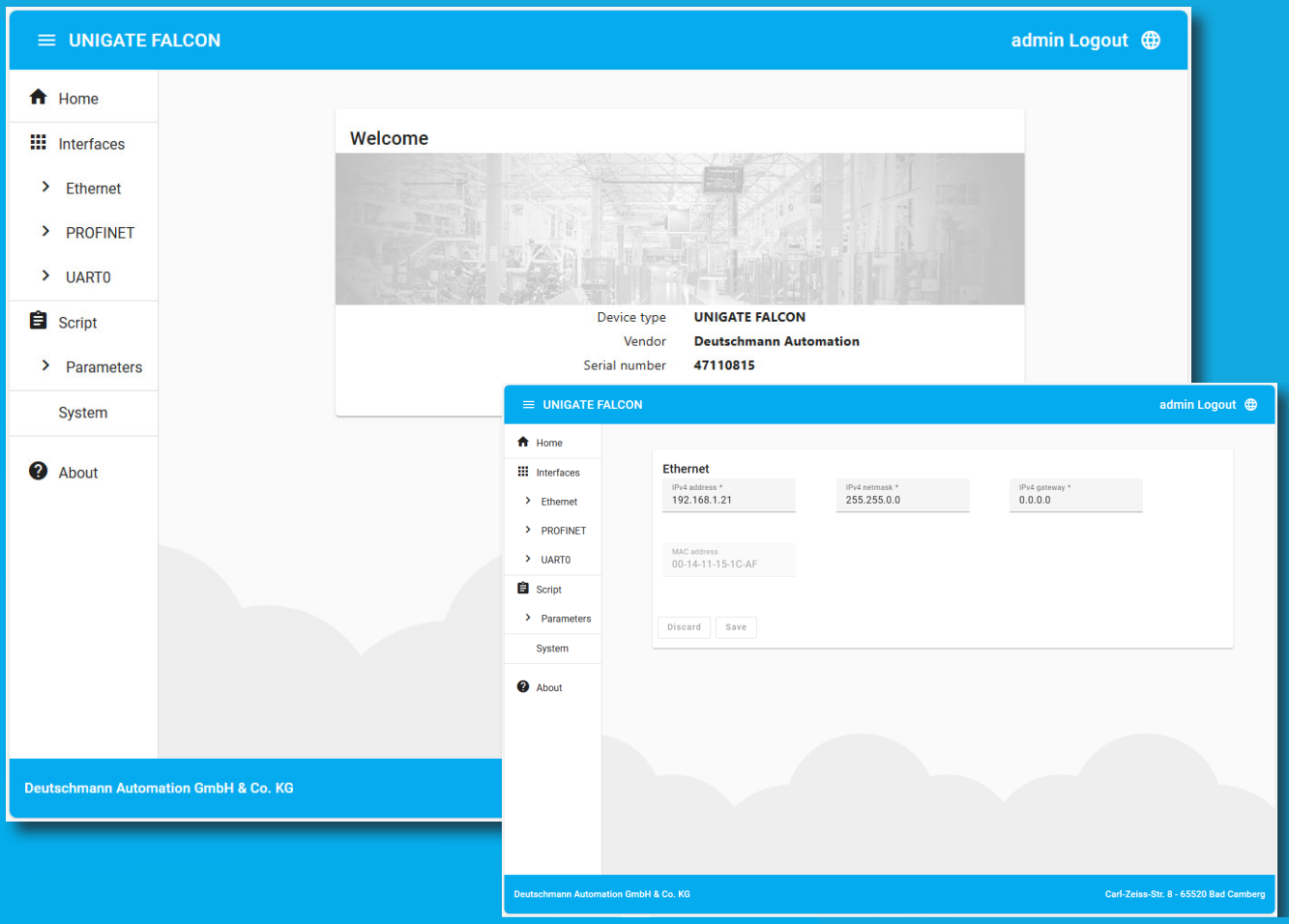
Contents

What sets us apart

Configuring or programming - Choose your own way

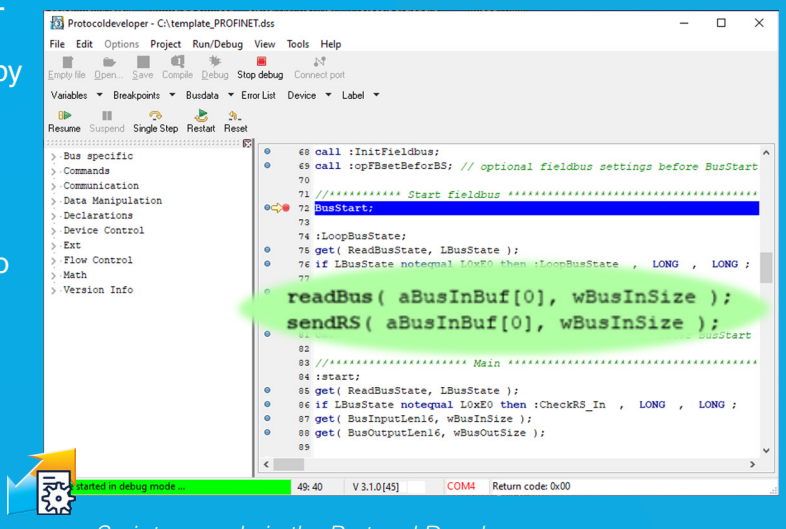
Configuration via web interface

The configuration of the UNIGATE® FALCON modules is done comfortably via web interface over the Ethernet interface.



Protocol Developer - Flexibility via Deutschmann Script language

More complex applications, which cannot be presented via a pure configuration can be programmed via the Deutschmann Script language.
Free programming is possible with the Protocol Developer IDE and the easy-to-learn Deutschmann Script language developed by Deutschmann Automation.
It allows the emulation of proprietary protocols as well as the implementation of standard protocols. Simple scripts can be processed in a few microseconds. Script debugging is done via USB interface, so no additional debugging hardware is required.



Script example in the Protocol Developer

UNIGATE FALCON

General overview

FUTURE PROOF GATEWAY

Compact housing - High data throughput - Fast data transfer

The new UNIGATE FALCON protocol converter/gateway series connects devices such as automation components with the desired Industrial Ethernet or fieldbus. In addition to the respective Industrial Ethernet or fieldbus interface, further interfaces are available, such as the serial interfaces RS232/RS422/RS485; Ethernet interface and a CAN interface (CANopen/CAN-FD/ CAN 2.0A/ CAN 2.0B).

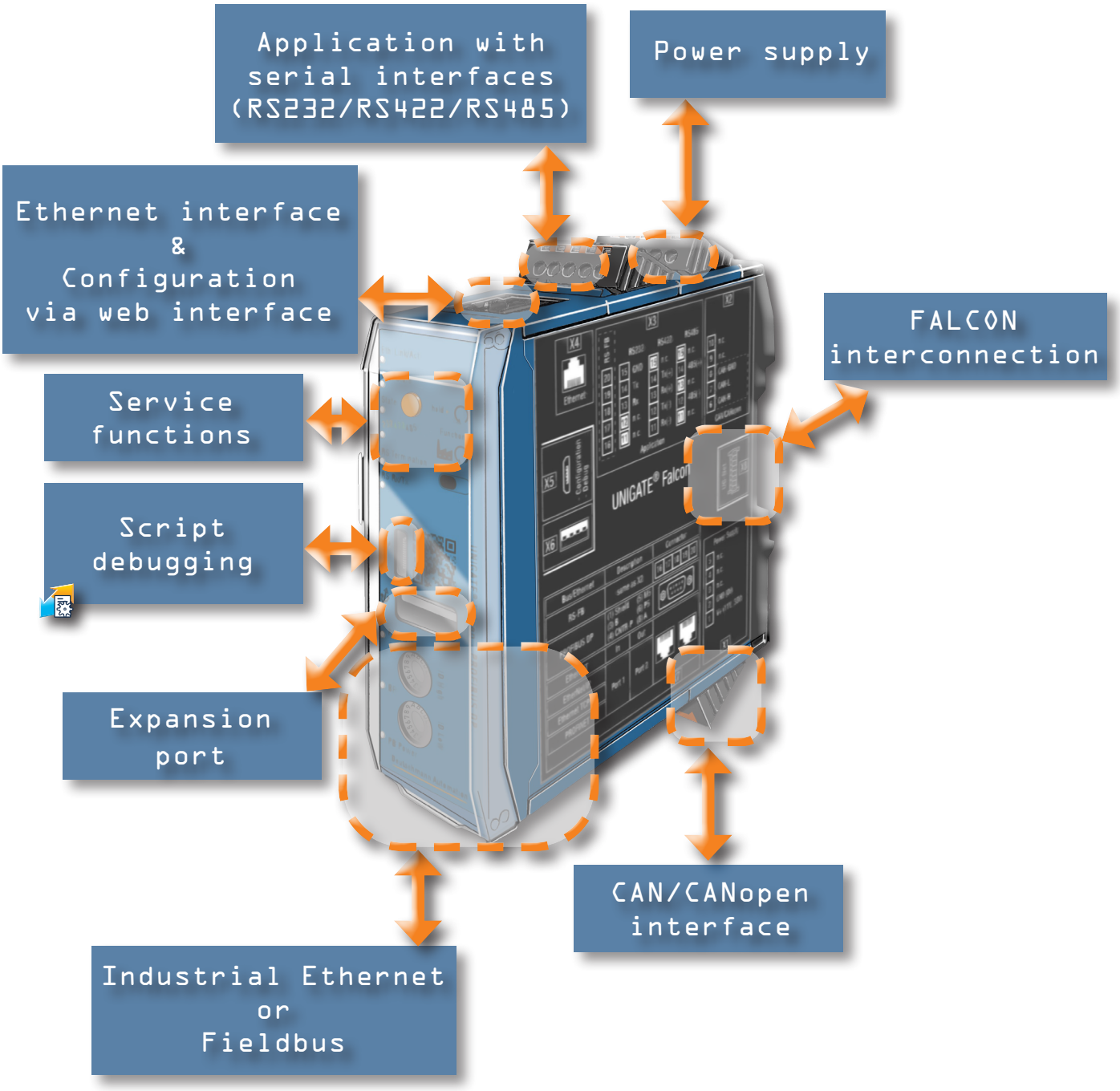
UNIGATE FALCON is available as an extremely compact DIN-rail device measuring 25 mm x 95 mm x 95 mm {W x H x D).

The device is configured using a web interface via Ethernet. As an alternative to device configuration, UNIGATE FALCON can also be freely programmed using Deutschmann Automation's proven script language (mix of Basic & Pascal) and the Protocol Developer software.The script can be debugged via the µUSB interface. The cycle time of the script could be accelerated by a factor of 50 to 80 by using the latest processor technology.

This means that the data can be routed through the UNIGATE faster overall and is therefore available for retrieval at the respective interfaces more quickly.

Another feature is the integrated service functions, which can be called up via a button. A hardware reset or factory reset, for example, can be carried out without additional equipment.

- RS232, RS485 and RS422 on board
- The RS485 mode enables multi-drop communication (e. g. data acquisition from multiple nodes)
- Software controlled line termination (via configuration or button control)
- Same structure on the serial side in all variants
- The Ethernet or fieldbus side corresponds to the standards or the standard market versions
- Adaptation of the terminal device firmware is not necessary
- Modern, compact DIN-rail module
  - Uniformdimension across the entire family
- Also available as embedded module
- Wide voltage range from 10 to 33 VDC
- Built-in isolation on the industrial Ethernet and Fieldbus interfaces
- Configuration of the module via web interface over the Ethernet interface
- Configuration of the module via web interface
- Support of various serial protocols
  - Modbus RTU Master/Slave
  - Modbus ASCII Master/Slave
  - 3964(R) protocol
  - Generic protocol (e.g. ASCII communication)
- Script programming
  - E.g. for emulating proprietary protocols
  - Free programming via the Deutschmann Script Language (mix of Basic & Pascal) Protocol Developer software
  - Fast script processing
  - Script debugging via µUSB interface


Application with serial interfaces (RS232/RS422/RS485)
Power supply
Ethernet interface & Configuration via web interface
FALCON interconnection
Service functions
Script debugging
Expansion port
CAN/CANopen interface
Industrial Ethernet or Fieldbus

UNIGATE FALCON ECO

Technical overview

UNIGATE FALCON ECO - PROFINET 2Port

illustration similar

- **PROFINET interface**
  - PROFINET device interface, conformance class B, real time communication (RT)
    Note: Can also be operated in IRT network
  - Max. 1024 bytes input- and 1024 bytes output data
  - Cyclical- and acyclical data exchange
  - 100 Mbit/s
  - FTP-Server and Web server
  - System redundance (S2) and media redundancy protocol (MRP)
  - PROFINET configuration via GSDML file
  - Isolated 2x RJ45 connection (integrated 2 port switch)

UNIGATE FALCON ECO - EtherCAT

Available V/2025

illustration similar

- **EtherCAT interface**
  - Supports CoE (CANopen over EtherCAT)
  - 100 Mbit/s full duplex
  - Isolated EtherCAT interface with 2x RJ45 connection (IN and OUT)
  - Up to 1024 bytes input and 1024 bytes output data
  - EtherCAT configuration via ESI file

UNIGATE FALCON ECO PROFIBUS-DP

Available II/2026

illustration similar

- **PROFIBUS interface**
  - Complete PROFIBUS-DP slave interface
  - Automatic baud rate detection (96 Kbit/s - 12 Mbit/s)
  - Supports DPV0 and DPV1
  - Isolated 9-pin D-sub connection
  - PROFIBUS address adjustable via rotary switch
  - Max. 244 bytes input and 244 output data, max. 488 bytes in total

Additional functions and interfaces

- **UART application interface**
  - RS232/RS422/RS485 on board
  - Transmission rate max. 6 MBaud
- **Ethernet interface**
  - Configuration via web interface
  - Isolated 1x RJ connection
- **Service menu - push button**
  - Functions via push-button
    - Re-Start
    - Factory reset
    - Termination serial interfaces
- **Debug interface** µ-USB
  - Debugging script

UNIGATE FALCON PRO

Technical overview

UNIGATE FALCON PRO - PROFINET 2Port

Available 2026

- **PROFINET interface**
  - PROFINET device interface, conformance class B, real time communication (RT)
    Note: Can also be operated in IRT network
  - Max. 1024 bytes input- and 1024 bytes output data
  - Cyclical- and acyclical data exchange
  - 100 Mbit/s
  - FTP-Server and Web server
  - System redundance (S2) and media redundancy protocol (MRP)
  - PROFINET configuration via GSDML file
  - Isolated 2x RJ45 connection (integrated 2 port switch)
- **Additional functions and interfaces**

UNIGATE FALCON PRO - EtherCAT

Available 2026

illustration similar

- **EtherCAT interface**
  - Supports CoE (CANopen over EtherCAT)
  - 100 Mbit/s full duplex
  - Isolated EtherCAT interface with 2x RJ45 connection (IN and OUT)
  - Up to 1024 bytes input and 1024 bytes output data
  - EtherCAT configuration via ESI file
- **Additional functions and interfaces**

UNIGATE FALCON PRO PROFIBUS-DP

Available 2026

illustration similar

- **PROFIBUS interface**
  - Complete PROFIBUS-DP slave interface
  - Automatic baud rate detection (96 Kbit/s - 12 Mbit/s)
  - Supports DPV0 and DPV1
  - Isolated 9-pin D-sub connection
  - PROFIBUS address adjustable via rotary switch
  - Max. 244 bytes input and 244 output data, max. 488 bytes in total
- **Additional functions and interfaces**

Additional functions and interfaces

- **UART application interface**
  - RS232/RS422/RS485 on board
  - Transmission rate max. 6 MBaud
- **Ethernet interface**
  - Configuration via web interface
  - Isolated 1x RJ connection
  - [1]TCP/IP socket interface
- **[1]CAN interface**
  - CANopen
  - CAN Layer 2 (CAN 2.0A/CAN 2.0B)
  - CAN-FD
- **Service menu - push button**
  - Functions via push-button
    - Re-Start
    - Factory reset
    - Termination serial interfaces
- **Debug interface**
  µ-USB
  - Debugging script

[1]**Activation for PRO via chargeable activation code.**

UNIGATE FALCON SERIES - technical data

Protocols *configurable*	Modbus RTU Master/Slave, Modbus ASCII Master/Slave, 3964(R); SSI Generic (e.g. ASCII communication)	
more protocols via Script	Customized protocols can be created via Script	
Max. stations	31 (with RS485/422)	
Baud rates	UART up to 6 MBaud	
Physical standards	RS232/422/485; Ethernet; CAN (CANopen/CAN-FD/CAN 2.0A/CAN 2.0B)	
Modbus commands	0x01 Read Coils, 0x02 Read Discrete Inputs, 0x03 Read Holding Registers, 0x04 Read Input Registers, 0x05 Write Single Coil, Write Single Register, 0x0F Write Multiple Coils, 0x10 Write Multiple Registers, Customized commands can be created.	
Technical Details DINrail		Standard
Weight	approx. 105 g	
Dimensions (W x H x D)	25 mm x 95 mm x 95 mm	
Protection class	IP20	Protection against foreign bodies & water to IEC 529 (DIN 40050)
Housing material	Polyamide	
Installation position	Any	
Location	Switch cabinet	
Mounting	DIN rail	EN 50022
Certifications		
CE	2014/30/EU	EN61000-6-2 Immunity EN55011 class A Emission
RoHS		RoHS II Directive 2011/65/EU
REACH	downstream user	
Electrical Characteristics		
External power supply	10..33 V DC	
Hardware Characteristics		
Short-circuit protection	Yes	
Galvanic isolation on subnetwork	Yes	

UNIGATE FALCON SERIES - technical data

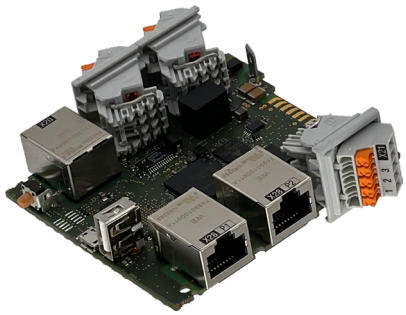
Environmental Characteristics		
Operating temperature	-25°C (non condensing) up to +70°C	
Storage temperature	-40°C ... +100°C	
Relative humidity	0% - 95% non condensing	
Immunity and emission for industrial environment		
Electrostatic discharge	+/- 4 kV	EN 61000-4-2
Electro magnetic RF fields	10 V/m 80 MHz - 1 GHz 3 V/m 1,4 GHz - 2,0 GHz 1 V/m 2,0 GHz - 2,7 GHz	EN 61000-4-3
Fast Transients	+/- 1 kV	EN 61000-4-4
Surge protection	+/- 1 kV	EN 61000-4-5
RF conducted interference	10 V/rms	EN 61000-4-6
Emission (at 10 m)	40 dB 30 MHz - 230 MHz 47 db 30 MHz - 1 GHz	CISPR 16-2-3

UNIGATE FALCON Embedded

UNIGATE FALCON without housing

WITHOUT HOUSING

High data throughput - Fast data transfer



The new UNIGATE FALCON Protocol Converter/Gateway series is also available as an embedded version measuring 25 mm x 95 mm x 95 mm (L x W x H). Mounting via 4 mounting holes Ø 3,0 mm. The range of functions is identical to the DIN rail device.

UNIGATE Falcon is based on ARM Cortex-M processor technology, which ensures significantly higher data throughput compared to the previous generation. The transfer rates of the serial interface are about ten times faster in RS485/422 mode.

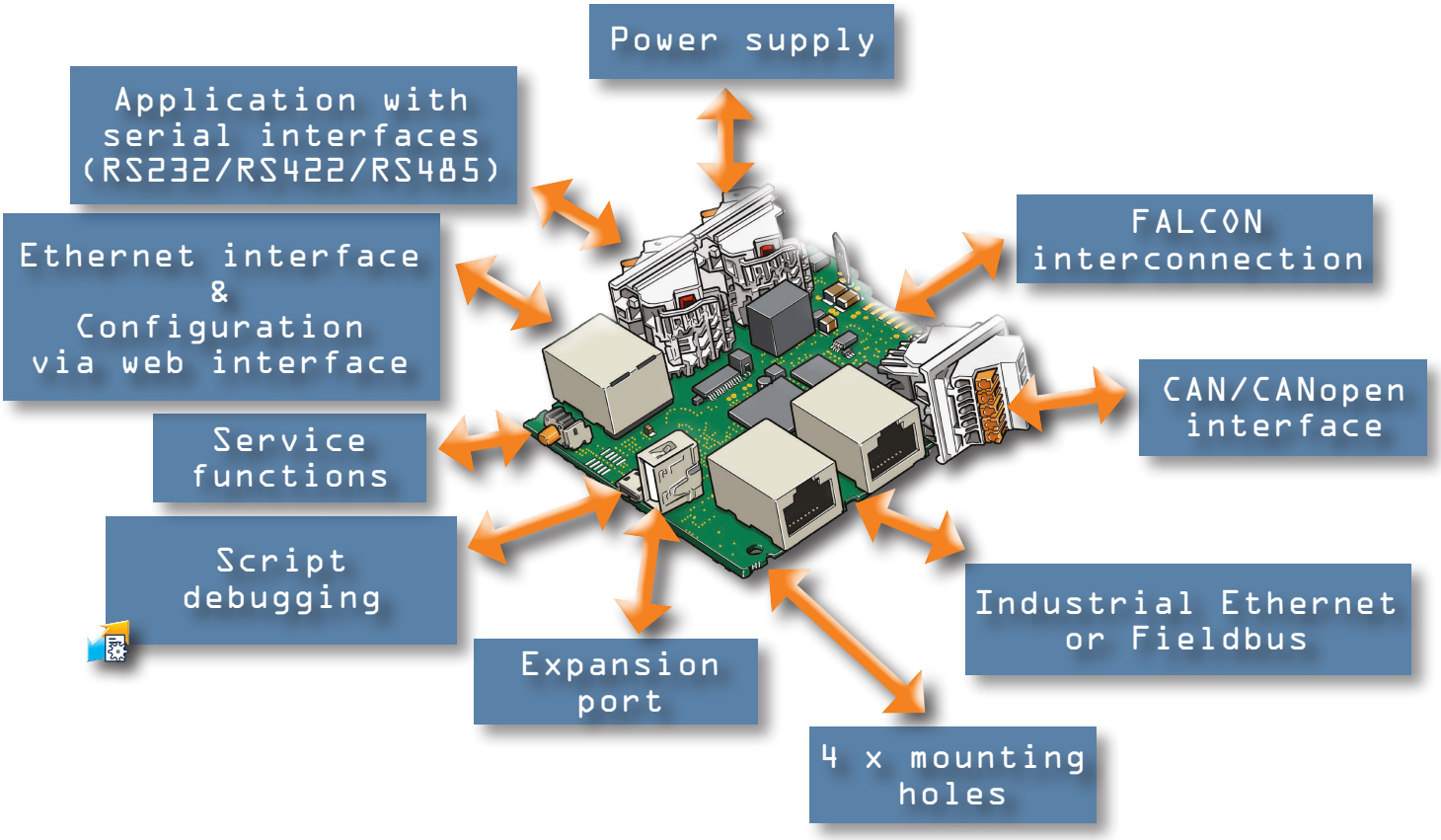
The device is configured using a web interface via Ethernet. As an alternative to device configuration, UNIGATE FALCON can also be freely programmed using Deutschmann Automation's proven script language (mix of Basic & Pascal) and the Protocol Developer software.The script can be debugged via the µUSB interface. The cycle time of the script could be accelerated by a factor of 50 to 80 by using the latest processor technology.
This means that the data can be routed through the UNIGATE faster overall and is therefore available for retrieval at the respect ive interfaces more quickly.

Another feature is the integrated service functions, which can be called up via a button. A hardware reset or factory reset, for example, can be carried out without additional equipment.

- RS232, RS485 and RS422 on board
- The RS485 mode enables multi-drop communication (e. g. data acquisition from multiple nodes)
- Software controlled line termination (via configuration or button control)
- Same structure on the serial side in all variants
- The Ethernet or fieldbus side corresponds to the standards or the standard market versions
- Adaptation of the terminal device firmware is not necessary
- Modern, compact DIN-rail module
  - Uniformdimension across the entire family
- Also available as embedded module
- Wide voltage range from 10 to 33 VDC
- Built-in isolation on the industrial Ethernet and Fieldbus interfaces
- Configuration of the module via web interface over the Ethernet interface
- Configuration of the module via web interface
- Support of various serial protocols
  - Modbus RTU Master/Slave
  - Modbus ASCII Master/Slave
  - 3964(R) protocol
  - Generic protocol (e.g. ASCII communication)
- Script programming
  - E.g. for emulating proprietary protocols
  - Free programming via the Deutschmann Script Language (mix of Basic & Pascal) Protocol Developer software
  - Fast script processing
  - Script debugging via µUSB interface

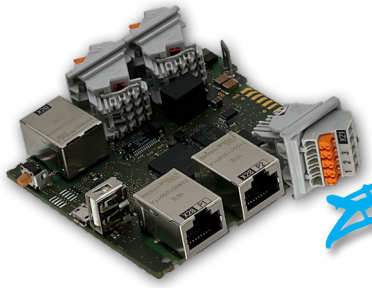
UNIGATE FALCON Embedded - SETUP

Structure



Application Example

- Task
  - Any Industrial Ethernet or fieldbus interface for your own device
  - Integrated solution
  - Without re-designing your own electronics
  - No use of an external Protocol Converter or Gateway



- Solution
  - Finished module without housing
  - Mounting via 4 mounting holes ⌀ 3.0 mm
  - No re-design of your own electronics
  - Functional scope identical to DIN rail module

UNIGATE FALCON ECO Embedded

UNIGATE FALCON without housing

UNIGATE FALCON ECO EM1 - PROFINET

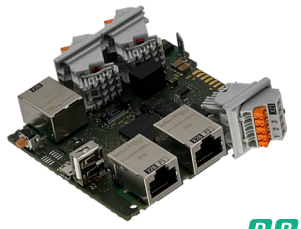


illustration similar

- **PROFINET interface**
  - PROFINET device interface, conformance class B, real time communication (RT)

    Note: Can also be operated in IRT network
  - Max. 1024 bytes input- and 1024 bytes output data
  - Cyclical- and acyclical data exchange
  - 100 Mbit/s
  - FTP-Server and Web server
  - System redundance (S2) and media redundancy protocol (MRP)
  - PROFINET configuration via GSDML file
  - Isolated 2x RJ45 connection (integrated 2 port switch)

UNIGATE FALCON ECO EM1- EtherCAT

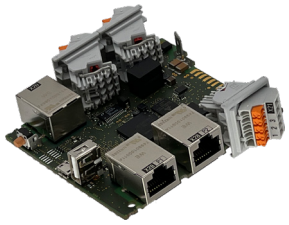


illustration similar

- **EtherCAT interface**
  - Supports CoE (CANopen over EtherCAT)
  - 100 Mbit/s full duplex
  - Isolated EtherCAT interface with 2x RJ45 connection (IN and OUT)
  - Generic XML file (with configuration)
  - Up to 1024 bytes input and 1024 bytes output data

UNIGATE FALCON ECO EM1 - PROFIBUS-DP

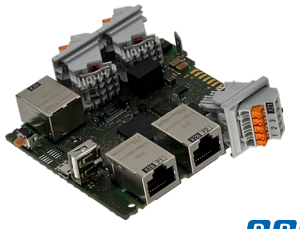


illustration similar

- **PROFIBUS interface**
  - Complete PROFIBUS-DP slave interface
  - Automatic baud rate detection (96 Kbit/s - 12 Mbit/s)
  - Supports DPV0 and DPV1
  - Isolated 9-pin D-sub connection
  - PROFIBUS address adjustable via rotary switch
  - Max. 244 bytes input and 244 output data, max. 488 bytes in total

Additional functions and interfaces

- **UART application interface**
  - RS232/RS422/RS485 on board
  - Transmission rate max. 6 MBaud
- **Ethernet interface**
  - Configuration via web interface
  - Isolated 1x RJ connection
- **Service menu - push button**
  - Functions via push-button
    - Re-Start
    - Factory reset
    - Termination serial interfaces
- **Debug interface** µ-USB
  - Debugging script

UNIGATE FALCON PRO Embedded

UNIGATE FALCON without housing

UNIGATE FALCON PRO EM1- PROFINET

Available 2026

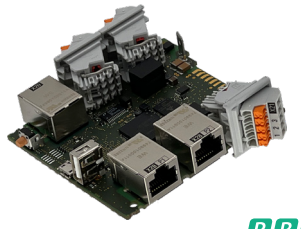


illustration similar

- **PROFINET interface**
  - PROFINET device interface, conformance class B, real time communication (RT)
    Note: Can also be operated in IRT network
  - Max. 1024 bytes input- and 1024 bytes output data
  - Cyclical- and acyclical data exchange
  - 100 Mbit/s
  - FTP-Server and Web server
  - System redundance (S2) and media redundancy protocol (MRP)
  - PROFINET configuration via GSDML file
  - Isolated 2x RJ45 connection (integrated 2 port switch)
- **Additional functions and interfaces**

UNIGATE FALCON PRO EM1- EtherCAT

Available 2026

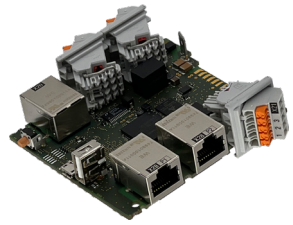


illustration similar

- **EtherCAT interface**
  - Supports CoE (CANopen over EtherCAT)
  - 100 Mbit/s full duplex
  - Isolated EtherCAT interface with 2x RJ45 connection (IN and OUT)
  - Generic XML file (with configuration)
  - Up to 1024 bytes input and 1024 bytes output data
- **Additional functions and interfaces**

UNIGATE FALCON PRO EM1 - PROFIBUS-DP

Available 2026

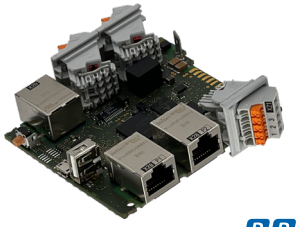


illustration similar

- **PROFIBUS interface**
  - Complete PROFIBUS-DP slave interface
  - Automatic baud rate detection (96 Kbit/s - 12 Mbit/s)
  - Supports DPV0 and DPV1
  - Isolated 9-pin D-sub connection
  - PROFIBUS address adjustable via rotary switch
  - Max. 244 bytes input and 244 output data, max. 488 bytes in total
- **Additional functions and interfaces**

Additional functions and interfaces

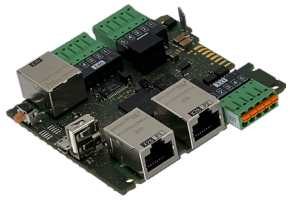
- **UART application interface**
  - RS232/RS422/RS485 on board
  - Transmission rate max. 6 MBaud
- **Ethernet interface**
  - Configuration via web interface
  - Isolated 1x RJ connection
  - [1]TCP/IP socket interface
- **[1]CAN interface**
  - CANopen
  - CAN Layer 2 (CAN 2.0A/CAN 2.0B)
  - CAN-FD
- **Service menu - push button**
  - Functions via push-button
    - Re-Start
    - Factory reset
    - Termination serial interfaces
- **Debug interface**
  - µ-USB
  - Debugging script

[1]PRO: Activation via chargeable activation code

UNIGATE FALCON Embedded

Technical Overview

UNIGATE FALCON EM2 - Push-In spring connection



on request

- UNIGATE FALCON ECO EM2 - PROFINET
- UNIGATE FALCON PRO EM2 - PROFINET*
- UNIGATE FALCON ECO EM2 - EtherCAT
- UNIGATE FALCON PRO EM2 - EtherCAT*
- UNIGATE FALCON ECO EM2 - PROFIBUS
- UNIGATE FALCON PRO EM2 - PROFIBUS*

UNIGATE FALCON EM3

on request

- UNIGATE FALCON ECO EM3 - PROFINET
- UNIGATE FALCON PRO EM3 - PROFINET*
- UNIGATE FALCON ECO EM3 - EtherCAT
- UNIGATE FALCON PRO EM3 - EtherCAT*
- UNIGATE FALCON ECO EM3 - PROFIBUS
- UNIGATE FALCON PRO EM3 - PROFIBUS*

*UNIGATE FALCON PRO will be available 2026

UNIGATE FALCON Embedded - technical data

Protocols *configurable*	Modbus RTU Master/Slave, Modbus ASCII Master/Slave, 3964(R); SSI Generic (e.g. ASCII communication)	
more protocols via Script	Customized protocols can be created via Script	
Max. stations	31 (with RS485/422)	
Baud rates	UART up to 6 MBaud	
Physical standards	RS232/422/485; Ethernet; CAN (CANopen/CAN-FD/CAN 2.0A/CAN 2.0B)	
Modbus commands	0x01 Read Coils, 0x02 Read Discrete Inputs, 0x03 Read Holding Registers, 0x04 Read Input Registers, 0x05 Write Single Coil, Write Single Register, 0x0F Write Multiple Coils, 0x10 Write Multiple Registers, Customized commands can be created.	
Technical Details Embedded		Information
Weight	approx. 47 g up to 68 g	Depending on version
Dimensions (W x H x D)	95 mm x 25 mm x 84 mm	Depending on version
Housing material	without housing	
Installation position	Any	
Location	Any	
Mounting	Via 4 mounting holes Ø 3,0mm	EN 50022
Certifications		
CE	2014/30/EU	EN61000-6-2 Immunity EN55011 class A Emission
RoHS		RoHS II Directive 2011/65/EU
REACH	downstream user	
Electrical Characteristics		
External power supply	10..33 V DC	
Hardware Characteristics		
Short-circuit protection	Yes	
Galvanic isolation on subnetwork	Yes	
Environmental Characteristics		
Operating temperature	-25°C (non condensing) up to +70°C	
Storage temperature	-40°C ... +100°C	
Relative humidity	0% - 95% non condensing	
Immunity and emission for industrial environment		
Electrostatic discharge	+/- 4 kV	EN 61000-4-2
Electro magnetic RF fields	10 V/m 80 MHz - 1 GHz 3 V/m 1,4 GHz - 2,0 GHz 1 V/m 2,0 GHz - 2,7 GHz	EN 61000-4-3
Fast Transients	+/- 1 kV	EN 61000-4-4
Surge protection	+/- 1 kV	EN 61000-4-5
RF conducted interference	10 V/rms	EN 61000-4-6
Emission (at 10 m)	40 dB 30 MHz - 230 MHz 47 db 30 MHz - 1 GHz	CISPR 16-2-3

Deutschmann
your ticket to all buses

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Technik wiki: wiki.deutschmann.de

Deutschmann Automation