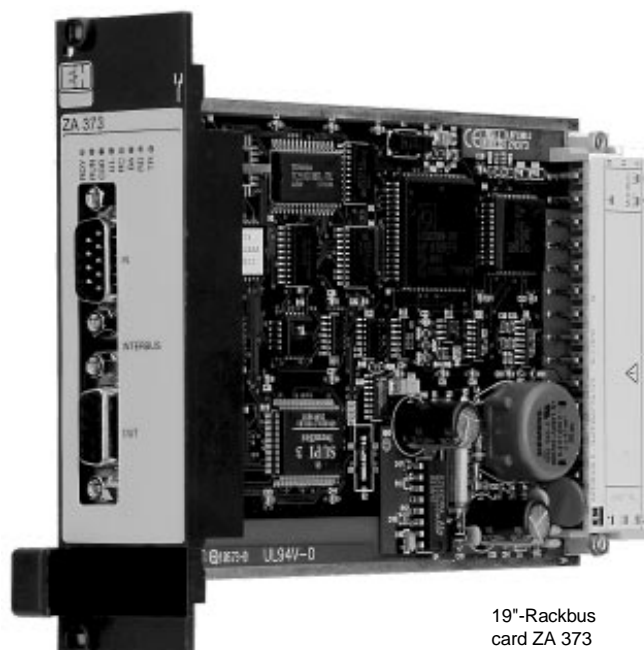


# Field Communication Gateway for *INTERBUS* (ZA 373 + ZA 672)

**Connects intelligent Rackbus devices to  
INTERBUS networks**



19"-Rackbus  
card ZA 373

## Application

The INTERBUS gateway (ZA 373 and ZA 672), connects intelligent measuring points to programmable logic controllers, personal computers and process control systems which are operating within INTERBUS networks. The ZA 373 behaves as a PCP device within the INTERBUS environment.

## Features and Benefits

- INTERBUS standard gateway corresponds to INTERBUS standard DIN 19 258
- Transmission of 320 measured values e.g. level, pressure, temperature, flow and analysis measurements
- Auto-scan buffer provides fast cyclic access to process data
- Process data channel allows acyclic access to transmitter operating parameters, e.g. for configuration
- Data format  
Values can be transmitted in various formats, e.g. Endress+Hauser, IEEE and Siemens MC5.

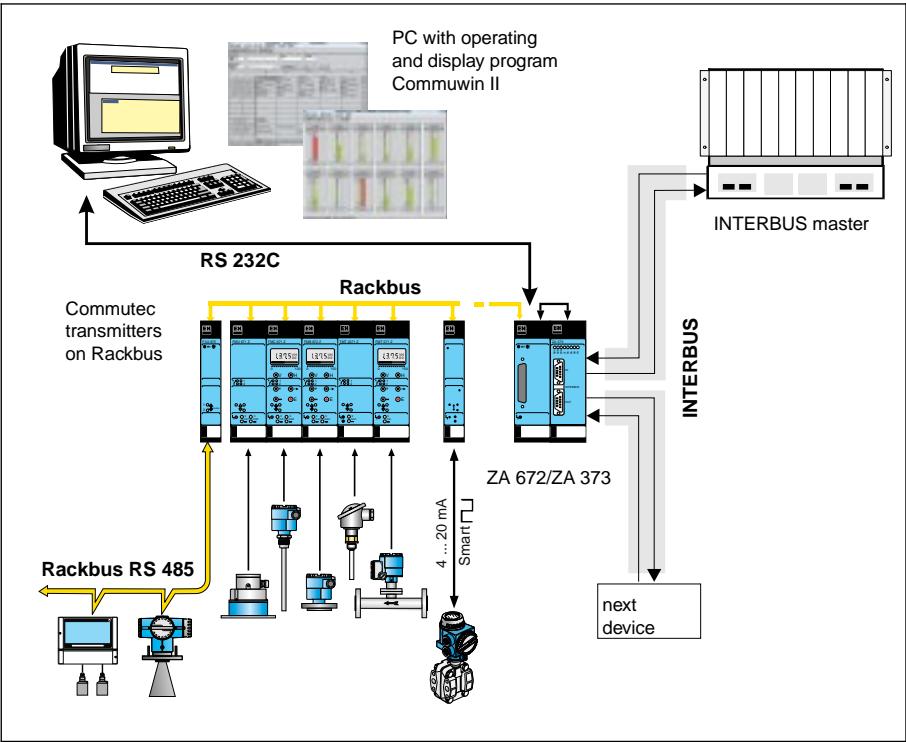
# Endress + Hauser

Nothing beats know-how



# Measuring System

Measuring system with the Commutec transmitters, INTERBUS gateway (ZA 373 + ZA 672), PC with operating program and INTERBUS master



## Commutec Transmitters

Commutec transmitters are intelligent 19"-rack modules which can be connected together on the Rackbus. They provide intrinsically safe power to the sensors and condition the signals returned. Transmitters are available for level, pressure, flow and temperature measurement as well as water analysis.

## Rackbus

Up to 320 measured values from max. 64 commutec transmitters can be transmitted over the Rackbus to the ZA 373 and INTERBUS master.

Each transmitter has a unique address, which allows it to be interrogated by the master or a personal computer.

## Module ZA 672

The ZA 672 is the interface between the Rackbus and the ZA 373. It scans the transmitter measured values cyclically according to a freely configurable scan list and stores them in an auto-scan buffer.

It is also equipped with an RS-232C interface, which allows the configuration of the transmitters via a PC with the operating program or Commuwin II.

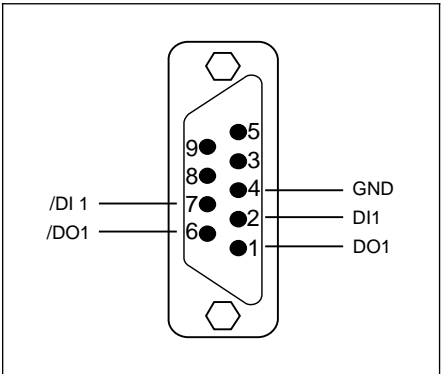
## Module ZA 373

The ZA 373 is the interface between the ZA 672 and the INTERBUS master. It automatically scans the measured values in the ZA 672 auto-scan buffer and stores them in an I/O buffer which can be accessed as an object by the INTERBUS master. Individual parameters can also be read or written.

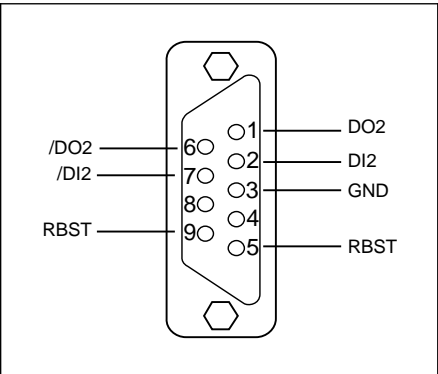
# Electrical Connection

## INTERBUS network

The two front panel connectors are used.



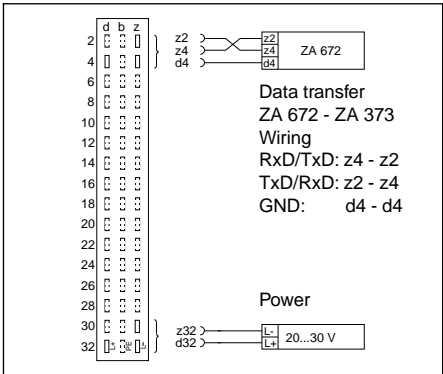
INTERBUS IN  
9-pin Sub-D connector



INTERBUS OUT  
9-pin Sub-D connector

## ZA 672

The multipoint connector at the rear of the gateway is used.



ZA 373 male connector

# Technical data

## Application

|                        |  |
|------------------------|--|
| General information    | Gateway for connecting Rackbus devices (including intrinsically safe ones) to INTERBUS networks, corresponds to DIN 19 258 |
| Instrument designation | INTERBUS gateway (comprising ZA 373 and ZA 672 modules)  |

## Function and system design

|                    |   |
|--------------------|---|
| Measuring system   | Depending upon the number of measured values transmitted per measuring point, the measuring system comprises up to 64 Commutec transmitters on the Rackbus, an INTERBUS gateway (ZA 672 and ZA 373) as well as a personal computer or PLC |
| Bus cable INTERBUS | Phoenix Contact   |

## Input/Output

|                        |  |
|------------------------|--|
| Process data channel   | 5 data words for read/write jobs   |
| Parameter data channel | Up to 320 measured values with status data from the ZA 672 auto-scan buffer and setting of the data format |
| Signal on alarm        | Depending on error, setting of an error bit in the input status word of the ZA 373 telegram ERR LED lights |

## Operating conditions

### Environment

|                               |  |
|-------------------------------|--|
| Ambient temperature           | 0 °C...+60 °C  |
| Limiting temperature range    | 0 °C...+70 °C  |
| Storage temperature           | -20 °C...+80 °C  |
| Ingress protection            | to DIN 40 050 front panel IP 20, plug-in card IP 00  |
| Electromagnetic compatibility | Interference emission to EN 50 081-2<br>Interference immunity to EN 50 082-2 and industrial standard NAMUR with 10 V/m for assembly rack guide rail with ground clip |

## Mechanical construction

|                          |  |
|--------------------------|--|
| Design                   | 19" Racksyst plug-in card, Type II, Europa card  |
| Front panel              | Black plastic with blue field inlay, with grip and tagging field                                       |
| Connector at rear        | Male multipoint connector to DIN 41 612 Part 3, Type F (25 pin)<br>Plug-in point installation kit 25/2 |
| Connector at front panel | 2x 9-pin Sub-D connectors with INTERBUS protocol   |
| Dimensions               | 7 HP, 3 HU   |
| Weight                   | approx. 0.3 kg   |

User interface

|                         |  |
|-------------------------|--|
| Display                 | LED display: operation and communication readiness of gateway as well as status display  |
| Communication interface | Input side:<br>TTL fixed potential with Modbus protocol<br>Data transmission rate: 9,600 Bit/s<br>Output side:<br>incoming INTERBUS interface potential-free<br>outgoing INTERBUS interface<br>potential-carrying.<br>Data transmission rate: 500 kBit/s |

Power

|                     |           |
|---------------------|-----------|
| Supply voltage      | 18...30 V |
| Current consumption | 2.7 W     |

Certificates and approvals

|         |  |
|---------|--|
| CE mark | By attaching the CE Mark, the manufacturer confirms that the instrument fulfils all legal requirements of the relevant EU directives |
|---------|--|

Supplementary documentation

|        |   |
|--------|---|
| Device | Operating manual BA 054F,<br>Gateway ZA 672<br>Technical Information TI 113/00/en,<br>Commute operating program |
|--------|---|

External standards and guidelines

|          |            |
|----------|------------|
| INTERBUS | DIN 19 258 |
|----------|------------|

Product Structure

|                                    |                      |
|------------------------------------|----------------------|
| INTERBUS gateway (ZA 373 + ZA 672) | Part No. 017428-0000 |
|------------------------------------|----------------------|

Supplementary Documentation

- ☐ INTERBUS gateway  
Operating Instructions BA 178F/00/en
- ☐ Gateway ZA 672  
Operating Instructions BA 054F/00/en
- ☐ Gateway ZA 672  
Technical Information TI 148F/00/en

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