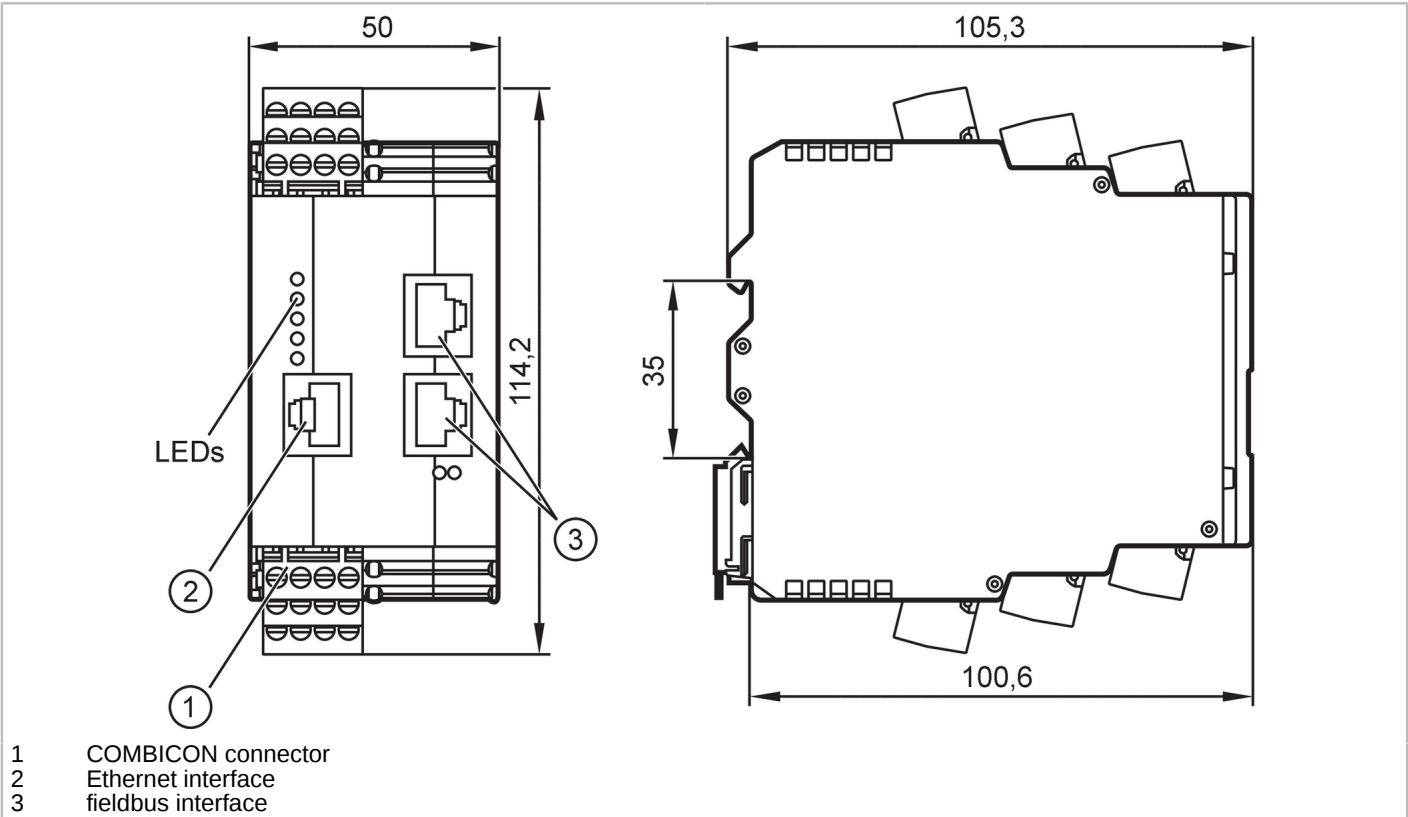




Diagnostic electronics for vibration sensors

DIAGNOSTIC ELECTRONICS



- 1 COMBICON connector
- 2 Ethernet interface
- 3 fieldbus interface



| Application                              |                                                                          |                                                                                                 |
|------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Design                                   | housing for DIN rail mounting, parameter setting via PC software, VES004 |                                                                                                 |
| Application                              | continuous vibration monitoring                                          |                                                                                                 |
| Electrical data                          |                                                                          |                                                                                                 |
| Operating voltage tolerance              | [%]                                                                      | 20                                                                                              |
| Operating voltage                        | [V]                                                                      | 24 DC; (when using the IEPE input: 24 V + 20%;<br>IEPE = Integrated Electronics Piezo Electric) |
| Current consumption                      | [mA]                                                                     | 200; (24 V)                                                                                     |
| Protection class                         |                                                                          | III                                                                                             |
| Inputs / outputs                         |                                                                          |                                                                                                 |
| Total number of inputs and outputs       | 8; (parameterisable)                                                     |                                                                                                 |
| Inputs                                   |                                                                          |                                                                                                 |
| Dynamic inputs                           |                                                                          |                                                                                                 |
| Number                                   | 4                                                                        |                                                                                                 |
| Connection                               | S1...S4                                                                  |                                                                                                 |
| Analogue input                           | function type                                                            | Current, dynamic                                                                                |
|                                          | input range                                                              | 0...10 mA / IEPE / 4...20 mA                                                                    |
|                                          | input frequency [Hz]                                                     | 0,1...12000                                                                                     |
|                                          | Resolution                                                               | 16 bit                                                                                          |
|                                          | sampling rate                                                            | 100 kSamples                                                                                    |
| Process value inputs, analogue / digital |                                                                          |                                                                                                 |
| Number                                   | 2                                                                        |                                                                                                 |



## Diagnostic electronics for vibration sensors

## DIAGNOSTIC ELECTRONICS

|                                            |                                           |                                                |
|--------------------------------------------|-------------------------------------------|------------------------------------------------|
| Connection                                 | IN1, IN2                                  |                                                |
| Digital input                              | function type                             | pulse                                          |
|                                            | Circuit                                   | HTL                                            |
|                                            | frequency [Hz]                            | 0,1...100000                                   |
| Analogue input                             | function type                             | Current                                        |
|                                            | input range [mA]                          | 4...20                                         |
|                                            | Resolution                                | 12 bit                                         |
| Outputs                                    |                                           |                                                |
| Max. load                                  | [Ω]                                       | 500                                            |
| Short-circuit protection                   | yes                                       |                                                |
| Type of short-circuit protection           | pulsed                                    |                                                |
| Overload protection                        | yes                                       |                                                |
| Multi-function outputs, analogue / digital |                                           |                                                |
| Number                                     | 1                                         |                                                |
| Connection                                 | OU1                                       |                                                |
| Digital output                             | Electrical design                         | PNP                                            |
|                                            | Output function                           | normally open / normally closed (configurable) |
| Analogue output                            | function type                             | Current                                        |
|                                            | output range [mA]                         | 4...20                                         |
| Digital outputs                            |                                           |                                                |
| Number                                     | 1                                         |                                                |
| Connection                                 | OU2                                       |                                                |
| Digital output                             | Electrical design                         | PNP                                            |
|                                            | Output function                           | normally open / normally closed (configurable) |
| Interfaces                                 |                                           |                                                |
| Communication interface                    | Ethernet                                  |                                                |
| Number of Ethernet interfaces              | 1                                         |                                                |
| Protocol                                   | Modbus TCP                                |                                                |
| Note on interfaces                         | CC-C (Conformance Class C) (IRT switch)   |                                                |
|                                            | Netload Class III                         |                                                |
|                                            | SNMP (Simple Network Management Protocol) |                                                |
|                                            | MRP (Media Redundancy Protocol)           |                                                |
|                                            | supported network topologies: line        |                                                |
|                                            | ring                                      |                                                |
|                                            |                                           |                                                |
| Ethernet                                   |                                           |                                                |
| Transmission standard                      | 10Base-T; 100Base-TX                      |                                                |
| Transmission rate                          | 10/100 MBit/s                             |                                                |
| Connector type                             | RJ45                                      |                                                |
| Protocol                                   | TCP/IP                                    |                                                |
| Factory settings                           | IP address: 192.168.0.1                   |                                                |
| Modbus                                     |                                           |                                                |
| Transmission standard                      | 100Base-TX                                |                                                |
| Transmission rate                          | 100 MBit/s                                |                                                |



## Diagnostic electronics for vibration sensors

## DIAGNOSTIC ELECTRONICS

|                        |  |                             |                                                                     |
|------------------------|--|-----------------------------|---------------------------------------------------------------------|
| Factory settings       |  | IP address: 0.0.0.0         |                                                                     |
|                        |  | subnet mask: 0.0.0.0        |                                                                     |
|                        |  | gateway IP address: 0.0.0.0 |                                                                     |
|                        |  | MAC address: see type label |                                                                     |
| Operating conditions   |  |                             |                                                                     |
| Ambient temperature    |  | [°C]                        | 0...60                                                              |
| Storage temperature    |  | [°C]                        | 0...60                                                              |
| Protection             |  |                             | IP 20                                                               |
| Tests / approvals      |  |                             |                                                                     |
| EMC                    |  | EN IEC 61000-6-2            |                                                                     |
|                        |  | EN IEC 61000-6-4            |                                                                     |
| UL approval            |  | Ta                          | 60 °C                                                               |
|                        |  | Enclosure type              | open type                                                           |
|                        |  | voltage supply              | Limited Voltage/Current                                             |
|                        |  | UL approval no.             | L001                                                                |
|                        |  | File number UL              | E251902                                                             |
| Mechanical data        |  |                             |                                                                     |
| Weight                 |  | [g]                         | 401.7                                                               |
| Type of mounting       |  |                             | mounting on DIN rail; (TH35 (EN 60715))                             |
| Dimensions             |  | [mm]                        | 114.2 x 50 x 105.3                                                  |
| Materials              |  |                             | Housing: PA                                                         |
| Data memories          |  |                             |                                                                     |
| History memory         |  |                             | yes                                                                 |
| Data memory buffered   |  |                             | yes                                                                 |
| Data memory type       |  |                             | ring memory; FIFO                                                   |
| Real-time clock        |  |                             | yes                                                                 |
| Memory location        |  |                             | internal                                                            |
| Memory interval        |  |                             | min. 1 min                                                          |
| Memory size            |  |                             | 881664 data records                                                 |
| Accessories            |  |                             |                                                                     |
| Accessories (optional) |  |                             | cross-over Ethernet patch cable for the direct connection to the PC |
| Remarks                |  |                             |                                                                     |
| Pack quantity          |  |                             | 1 pcs.                                                              |



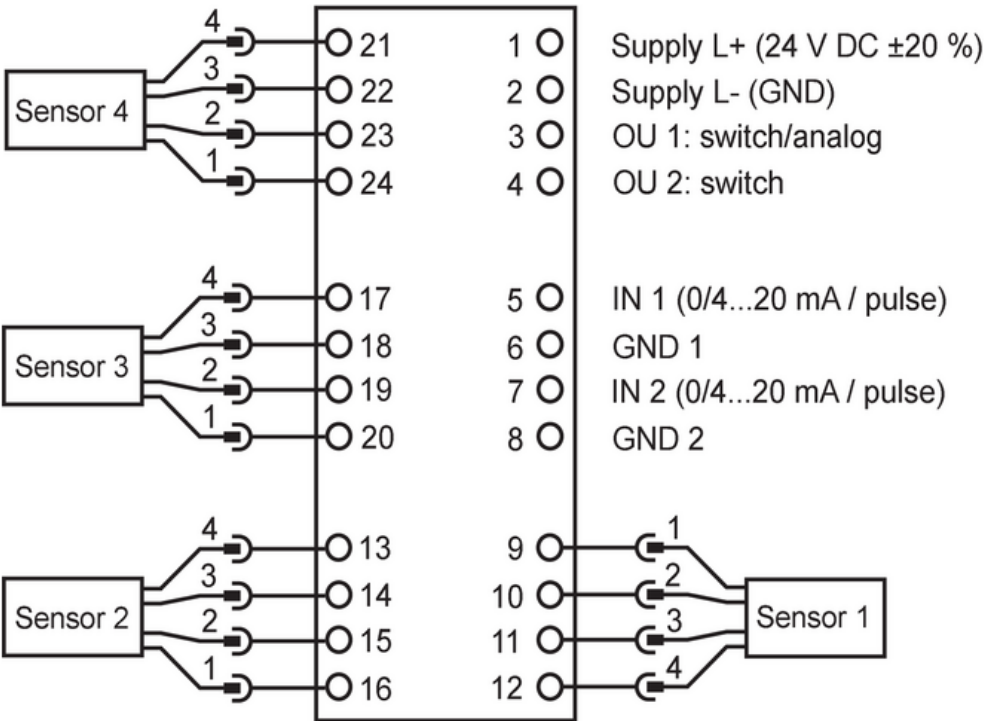
Diagnostic electronics for vibration sensors

DIAGNOSTIC ELECTRONICS

Electrical connection

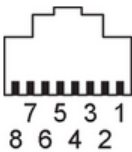
COMBICON: ; Maximum cable length: 250 m

Connection



Electrical connection - Ethernet

Connector: RJ45; Contacts: 4



|   |       |
|---|-------|
| 1 | TxD + |
| 2 | TxD - |
| 3 | RxD + |
| 4 | n.c.  |
| 5 | n.c.  |
| 6 | RxD - |
| 7 | n.c.  |
| 8 | n.c.  |