Installation Guide

Gas Detection Unit (GDU)
GDA, GDC, GDHC, GDHF, GDH

Technician use only!

This unit must be installed by a suitably qualified technician who will install this unit in accordance with these instructions and the standards set down in their particular industry/country.

Suitably qualified operators of the unit should be aware of the regulations and standards set down by their industry/country for the operation of this unit.

These notes are only intended as a guide and the manufacturer bears no responsibility for the installation or operation of this unit.

Failure to install and operate the unit in accordance with these instructions and with industry guidelines may cause serious injury including death and the manufacturer will not be held responsible in this regard.

It is the installer’s responsibility to adequately ensure that the equipment is installed correctly and set up accordingly based on the environment and the application in which the products are being used.

Please observe that a Danfoss GDU works as a safety device securing a reaction to a detected high gas concentration. If a leakage occur, the GDU will provide alarm functions, but it will not solve or take care of the leakage root cause itself.

Annual Test

To comply with the requirements of EN378 and the F GAS regulation sensors must be tested annually. Danfoss GDU’s are provided with a test button that should be activated once a year for testing of the alarm reactions.

Additional the sensors must be tested for functionality by either Bump test or Calibration. Local regulations should always be followed.

After exposure to a substantial gas leak, sensor should be checked and replaced if necessary. Check local regulations on calibration or testing requirements.

Configurations and Wiring: All 3 types of Gas Detection Units (GDU)

Basic GDU
2 configurations

Premium GDU (Controller)
6 configurations

Heavy Duty GDU
1 configuration

Service tools

Service Tool
Handheld

Danfoss Pen
for Heavy Duty display communication

Controller solution

Option: Modbus
Option: UPS

Max. 96 sensors

Wire break monitoring unit

Sensor

Sensor 2

Display

UPS

Premium

Premium Flex

Premium Remote

Premium Duplex

Premium Uptime

Buzzer and light 3-color-alarm

Buzzer and light 3-color-alarm

5 meter remote sensor
### Danfoss Basic GDU

**Status LED:**
- **GREEN** is power on.
  - flashing if maintenance needed
- **YELLOW** is an indicator of Error.
  - when the sensor head is disconnected or not the expected type
  - AO is activated but nothing connected
  - flashing when sensor is in special mode (e.g. when changing parameters)
- **RED** on alarm, similar to the Buzzer & light alarm.

**Ackn. -/Test button:**
- **TEST** - The button must be pressed for 20 sec.
  - Alarm1 and Alarm2 is simulated, stop on release
- **ACKN.** - Pressed while Alarm2, the audible warning switches off and goes back on after 5 min. when the alarm situation is still active.

* JP4 open → AO 4-20 mA
* JP4 closed → AO 2-10 Volt

### Danfoss Premium GDU

**Status LED:**
- **GREEN** is power on.
  - flashing if maintenance needed
- **YELLOW** is an indicator of Error.
  - when the sensor head is disconnected or not the expected type
  - AO is activated but nothing connected
- **RED** on alarm, similar to the Buzzer & light alarm.

**Ackn. -/Test button:**
- **TEST** - The button must be pressed for 20 sec.
  - Alarm1 and Alarm2 is simulated, stop on release
- **ACKN.** - Pressed while Alarm2, the audible warning switches off and goes back on after 5 min. when the alarm situation is still active.

* JP2 open → AO 4-20 mA
* JP2 closed → AO 2-10 Volt
Danfoss Premium Uptime GDU

Danfoss Heavy Duty GDU (Atex, IEC approved)

Sensor PX2

Location of Sensors

<table>
<thead>
<tr>
<th>Gas type</th>
<th>Relative density (Air = 1)</th>
<th>Recommended sensor location</th>
</tr>
</thead>
<tbody>
<tr>
<td>R717 Ammonia</td>
<td>&lt;1</td>
<td>Ceiling</td>
</tr>
<tr>
<td>R744 CO₂</td>
<td>&gt;1</td>
<td>Floor</td>
</tr>
<tr>
<td>R134a</td>
<td>&gt;1</td>
<td>Floor</td>
</tr>
<tr>
<td>R123</td>
<td>&gt;1</td>
<td>Floor</td>
</tr>
<tr>
<td>R404A</td>
<td>&gt;1</td>
<td>Floor</td>
</tr>
<tr>
<td>R507</td>
<td>&gt;1</td>
<td>Floor</td>
</tr>
<tr>
<td>R290 Propane</td>
<td>&gt;1</td>
<td>Floor</td>
</tr>
</tbody>
</table>
Gas Detection Controller: Fieldbus wiring - max 96 sensors in total i.e. up to 96 GDU (Basic, Premium and/or Heavy Duty)

Check of loop completion. Example: 5 x Basic in return loop

1. Check of loop resistance: See section: Controller unit multiple GDU commissioning 2. NOTE: Remember to disconnect the wire from the board during measuring.
2. Check of power polarity: See section: Controller unit multiple GDU commissioning 3.
3. Check of BUS polarity: See section: Controller unit multiple GDU commissioning 3.

Individual Addresses for the GDU’s are given at commissioning, see Controller Unit multiple GDU’s commissioning, according to a predetermined "BUS address plan"
**Attachment of suspension ears (Basic and Premium)**

**Cable Gland opening**

Hole punching for Cable gland:
1. Select the location for the safest cable entry.
2. Use a sharp screwdriver and a small hammer.
3. Place the screwdriver and hammer with precision while moving the screwdriver within a small area until the plastic is penetrated.

Continue precision punching with small movements until the round piece can be pulled out by your fingers.

Remove potential burrs and secure flat surfaces. Install the Cable gland according to the enclosed guide.

**Ambient conditions - Sensor dependency (Any GDU with below sensor type must not be installed outside given Temp. and rel. Humidity Range)**

<table>
<thead>
<tr>
<th>Gas Type</th>
<th>Type</th>
<th>Measuring Range</th>
<th>Temp. Range C°</th>
<th>Temp. Range F°</th>
<th>rel. Hum range</th>
</tr>
</thead>
<tbody>
<tr>
<td>NH3 0-100ppm</td>
<td>EC</td>
<td>0-100 ppm</td>
<td>-30°C to +50°C</td>
<td>-22°F to 122°F</td>
<td>15-90% r.H.</td>
</tr>
<tr>
<td>NH3 0-300ppm</td>
<td>EC</td>
<td>0-300 ppm</td>
<td>-30°C to +50°C</td>
<td>-22°F to 122°F</td>
<td>15-90% r.H.</td>
</tr>
<tr>
<td>NH3 0-1000ppm</td>
<td>EC</td>
<td>0-1000 ppm</td>
<td>-30°C to +50°C</td>
<td>-22°F to 122°F</td>
<td>15-90% r.H.</td>
</tr>
<tr>
<td>NH3 0-5000ppm</td>
<td>EC</td>
<td>0-5000 ppm</td>
<td>-30°C to +50°C</td>
<td>-22°F to 122°F</td>
<td>15-90% r.H.</td>
</tr>
<tr>
<td>NH3 0-10000ppm</td>
<td>SC</td>
<td>0-10000 ppm</td>
<td>-10°C to +50°C</td>
<td>14°F to 122°F</td>
<td>15-90% r.H.</td>
</tr>
<tr>
<td>NH3 0-100% LEL, 0-140000ppm</td>
<td>P</td>
<td>0-100% LEL (0-140000 ppm)</td>
<td>-25°C to +60°C</td>
<td>-13°F to 140°F</td>
<td>15-90% r.H.</td>
</tr>
<tr>
<td>CO2 0-2%VOL (20000ppm)</td>
<td>IR</td>
<td>0.04% - 2% VOL</td>
<td>-35°C to +40°C</td>
<td>-31°F to 104°F</td>
<td>0-85% r.H.</td>
</tr>
<tr>
<td>CO2 0-5%VOL (50000ppm)</td>
<td>IR</td>
<td>0-5% VOL</td>
<td>-35°C to +40°C</td>
<td>-31°F to 104°F</td>
<td>0-85% r.H.</td>
</tr>
<tr>
<td>Refrigerants like R134a 0-2000ppm</td>
<td>SC</td>
<td>0-2000 ppm</td>
<td>-10°C to +50°C</td>
<td>14°F to 122°F</td>
<td>15-90% r.H.</td>
</tr>
<tr>
<td>HC R290 / Propane 0-5000ppm</td>
<td>P</td>
<td>0-5000 ppm (0-30% LEL)</td>
<td>-30°C to +60°C</td>
<td>-22°F to 140°F</td>
<td>15-90% r.H.</td>
</tr>
</tbody>
</table>

* Please observe lowest (highest) temperatur allowed for the specific GDU
ENGLISH

General GDU Mounting / Electrical wiring

- All GDU's are for wall mounting
- Supporting ears are installed like shown in fig. 9
- Cable entry is recommended on box side. See fig. 10
- Sensor position downwards
- Observe possible constructors instruction
- Leave the red protection cap (seal) on the sensor head until commissioning

When choosing the mounting site please pay attention to the following:
- The mounting height depends on the relative density of the gas type to be monitored, see fig. 6.
- Choose mounting location of the sensor according to the local regulations
- Consider ventilation conditions. Do not mount the sensor close to airflow (air passage, ducts etc.)
- Mount the sensor at a location with minimum vibration and minimum temperature variation (avoid direct sunlight)
- Avoid locations where water, oil etc. may influence proper operation and where mechanical damage might be possible
- Provide adequate space around the sensor for maintenance and calibration work.

Wiring

The technical requirements and regulations for wiring, electrical security, as well as project specific and environmental conditions etc. must be observed when mounting.

We recommend the following cable types¹
- Power supply for controller 230V at least NYM-J 3 x 1.5 mm²
- Alarm message 230 V (also possible together with power supply) NYM-J X x 1.5 mm²
- Signal message, bus connection to Controller Unit, warning devices 24 V J-Y(ISO) 2x2 x 0.8
- Possibly connected external analog transmitters J-Y(ISO) 2x2 x 0.8
- Cable for Heavy Duty: 7 - 12 mm diameter round cable

¹ The recommendation does not consider local conditions such as fire protection etc.

The alarm signals are available as potential-free change-over contacts. If required the voltage supply is available at the power terminals.

The exact position of the terminals for the sensors and alarm relays is shown in the connection diagrams (see figures 3 and 4).

Basic GDU

The Basic GDU is designed for the connection of 1 sensor via local bus. The GDU provides the power supply of the sensor and makes the measured data available for digital communication. Communication with the Controller Unit takes place via the RS 485 fieldbus interface with Controller Unit protocol. Other communication protocols for direct connection to superordinate BMS are available as well as Analog Output 4-20 mA.

The sensor is connected to the local bus via a plug connection enabling simple sensor exchange instead of an on-site calibration. The internal X-Change routine recognizes the exchanging process and the exchanged sensor and starts the measurement mode automatically.

For convenient commissioning, the GDU is pre-configured and parameterized with factory-set defaults. As an alternative, the on-site calibration via the Controller Unit Service Tool can be performed with the integrated, userfriendly calibration routine.

Digital outputs

<table>
<thead>
<tr>
<th>Action</th>
<th>Reaction</th>
<th>Reaction</th>
<th>Reaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas signal &lt; alarm threshold 1</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>Gas signal &lt; alarm threshold 2</td>
<td>ON</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>Gas signal &lt; alarm threshold 3</td>
<td>ON</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>Gas signal &lt; alarm threshold 4</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>Gas signal &lt; (alarm threshold 1 - hysteresis) but not acknowledged</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>Gas signal &lt; (alarm threshold 2 - hysteresis) but =&gt; alarm threshold 1</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>No alarm, no fault</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>No fault, but maintenance due</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>Communication error</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
</tr>
</tbody>
</table>

Note 1: Status OFF = Relay is configured “Alarm ON = Relay” or the Premium Multi-Sensor-Controller is free from tension.

Note 2: Alarm thresholds can have the same value, therefore the relays and/or Buzzer and LED can be triggered simultaneously.

Premium GDU (Controller)

The Premium GDU is designed for the connection of max. two sensors via local bus. The controller monitors the measured values and activates the alarm relays if the set alarm thresholds for pre-alarm and main alert are exceeded. In addition, the values are provided for direct connection to the monitoring system (Controller Unit) via an RS-485 interface. Other communication protocols for direct connection to superordinate BMS are available as well as Analog Output 4-20 mA.

The SIL 2 compliant self-monitoring function in the Premium GDU and in the connected sensor activates the error message in case of an internal error as well as in case of an error in the local bus communication.

The sensor is connected to the local bus via a plug connection enabling simple sensor exchange instead of an on-site calibration. The internal X-Change routine recognizes the exchanging process and the exchanged sensor and starts the measurement mode automatically.

For convenient commissioning, the GDU is pre-configured and parameterized with factory-set defaults. As an alternative, the on-site calibration via the Controller Unit Service Tool can be performed with the integrated, userfriendly calibration routine.

Digital outputs with three relays

<table>
<thead>
<tr>
<th>Action</th>
<th>Reaction</th>
<th>Reaction</th>
<th>Reaction</th>
<th>Reaction</th>
<th>Reaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas signal &lt; alarm threshold 1</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>Gas signal &lt; alarm threshold 2</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>Gas signal &lt; alarm threshold 3</td>
<td>ON</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>Gas signal &lt; alarm threshold 4</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>Gas signal &lt; (alarm threshold 1 - hysteresis) but not acknowledged</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>No alarm, no fault</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>Communication error</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
</tr>
</tbody>
</table>

Note 1: Status OFF = Relay is configured “Alarm ON = Relay” or the Premium Multi-Sensor-Controller is free from tension.

Note 2: Alarm thresholds can have the same value, therefore the relays and/or the horn and flashlight can be triggered together.

Relay Mode

Definition of the relay operation mode. The terms energized / de-energized come from the terms energized / de-energized to trip principle (open-circuit / closed circuit principle) used for safety circuits. The terms refer to the activation of the relay coil, not to the relay contacts (as they are executed as a changeover contact and available in both principles).

The LEDs attached to the modules show the two states in analogy (LED off -> relay de-energized)
Heavy Duty GDU (Atex, IEC approved)
The Heavy Duty GDU is designed for the connection of 1 sensor via local bus.

The GDU provides the power supply of the sensor and makes the measured data available for digital communication. Communication with the Controller Unit takes place via the RS 485 fieldbus interface with Controller Unit protocol. Other communication protocols for direct connection to superordinate BMS are available as well as Analog Output 4-20 mA.

The sensor is connected to the local bus via a plug connection enabling simple sensor exchange instead of an on-site calibration. The internal X-Change routine recognizes the exchanging process and the exchanged sensor and starts the measurement mode automatically.

The internal X-change routine examines the sensor for actual type of gas and actual measuring range. If data does not match the existing configuration, the build in status LED indicates an error. If everything is OK the LED will light up green.

For convenient commissioning, the GDU is pre-configured and parameterized with factory-set defaults.

As an alternative, the on-site calibration via the Controller Unit Service Tool can be performed with the integrated, userfriendly calibration routine.

Installation Work
Assembly work must only be carried out under gas-free conditions. The housing must neither be drilled nor be drilled through.

The orientation of the GDU should always be horizontal, with the sensor head pointing downwards.

The mounting is done without opening the housing by using the two holes (D = 8 mm) of the fastening strap with suitable screws.

The Heavy duty GDU must only be opened under gas-free and voltage-free conditions.

The enclosed cable gland has to be checked for admissibility for the requested requirements before installation in position “Entry 3”. If the Heavy duty GDU is supplied without cable gland, a special cable gland approved for Ex protection class EX d and for the requirements of the application has to be mounted there.

When inserting the cables you have to strictly follow the instructions enclosed to the cable glands.

No insulating sealing material must be poured into the NPT ¼ “threads of the cable gland and blanking plugs because the potential equalization between housing and cable gland / blind plugs is via the thread.

The cable gland must be tightened firmly with a suitable tool. Only when doing so you can ensure the required tightness.

After completion of work, the GDU must be closed again. The cover has to be completely screwed in and secured with the locking screw against inadvertent loosening.

General Notes
- The terminals of the Heavy duty GDU are located behind the display.
- Only a professional should perform the wiring and the connection of the electrical installation according to the wiring diagram in compliance with the relevant regulations and only when de-energized!
- When connecting cables and conductors, please observe minimum length of 3 m according to EN 60079-14.
- Connect the housing to the equipotential bonding via the external ground terminal.
- All terminals are Ex e type with spring contact and push actuation. The permissible conductor cross section is 0.2 to 2.5 mm² for single wires and multi-wire cables.
- Use cables with a braided shield for compliance with the interference immunity. The shield must be connected to the inside connection of the housing with a maximum length of about 35 mm.
- For the recommended cable types, cross sections and lengths please refer to the table below.
- To comply with the requirements of servicing or operating the device without opening it (EN 60079-29-1 4.2.5) it is possible to calibrate or operate the device remotely via the central bus. For this it is necessary to lead the central bus out to the safe area via a cable.

<table>
<thead>
<tr>
<th>Cross-section (mm²)</th>
<th>Max. length for 24V DC³ (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>With P. freon sensor heads</td>
<td></td>
</tr>
<tr>
<td>Operating voltage with 4-20 mA signal</td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td>250</td>
</tr>
<tr>
<td>1.0</td>
<td>500</td>
</tr>
<tr>
<td>Operating voltage with central bus³</td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td>300</td>
</tr>
<tr>
<td>1.0</td>
<td>700</td>
</tr>
<tr>
<td>With SC, EC sensor heads</td>
<td></td>
</tr>
<tr>
<td>Operating voltage with 4-20 mA signal</td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td>400</td>
</tr>
<tr>
<td>1.0</td>
<td>800</td>
</tr>
<tr>
<td>Operating voltage with central bus³</td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td>600</td>
</tr>
<tr>
<td>1.0</td>
<td>900</td>
</tr>
</tbody>
</table>

¹ The max. cable lengths and our recommendation don’t consider any local conditions, like fire protection, national regulations etc.
² For the central bus we recommend using the cable JE-LiYCY 2x2x0.8 BD or 4 x2x0.8 BD.
Commissioning

For sensors that can be poisoned by e.g. silicones like all semiconductor and catalytic bead sensors, it is imperative to remove the protective (seal) cap supplied only after all silicones are dry, and then energize the device. For fast and comfortable commissioning we recommend proceeding as follows. For digital devices with self-monitoring all internal errors are visible via the LED. All other error sources often have their origins in the field, because it is here where most of the causes for problems in the field bus communication appear.

Optical Check
- Right cable type used.
- Correct mounting height according to definition in Mounting.
- Led status

Comparing sensor gas type with GDU default settings
Each sensor ordered is specific and must match the GDU default settings. The GDU software automatically reads the specification of the connected sensor and compares with the GDU settings.

If other gas sensor types are connected, you have to adjust them with the configuration tool, because otherwise the device will respond with an error message.

This feature increases the user and operating security.

New sensors are always delivered factory-calibrated by Danfoss. This is documented by the calibration label indicating date and calibration gas. A repeated calibration is not necessary during commissioning if the device is still in its original packaging (air-tight protection by the red protective cap) and the calibration doesn’t date back more than 12 months.

Functional test (for initial operation and maintenance)
The functional test should be carried out during each service, but at least once a year.

Functional test is done by pressing the test button for more than 20 sec and observing all connected outputs (Buzzer, LED, Relay connected devices) working properly. After deactivation all outputs must automatically return to its initial position.

Zero-point test with fresh outdoor air
Zero-point test with fresh outdoor air. (If prescribed by local regulations) A potential zero offset can be read out by use of the Service tool.

Trip test with reference gas (If prescribed by local regulations)
The sensor is gassed with reference gas (for this you need a gas bottle with the composition of the reference gas). A gas sensor can be recognized by the green LED on the sensor housing. After the reference gas is flushed out, the sensor will automatically return to its initial position.

Correct mounting height of the sensors
Correct connection at each GDU according to fig. 8
Termination with 560 ohm at the beginning and at the end of each segment.
Pay special attention so that the polarities of BUS_A and BUS_B are not reversed!

2. Check Short-circuit / Interruption / Cable Length of the Field Bus (see fig. 8.1)
This procedure has to be executed for each single segment. The field bus cable must be laid at the connector terminal block of the GDU for this testing. The plug, however, is not yet plugged into the GDU.

Disconnect the field bus leads from the Controller Unit central control. Connect ohmmeter to the loose leads and measure the total loop resistance. See fig. 8.1 The total loop resistance is calculated as follows:
- \( R(\text{total}) = R(\text{cable}) + 560 \text{ Ohm} \) (terminating resistance)
- \( R(\text{cable}) = 72 \text{ Ohm} / \text{ km} \) (loop resistance) (cable type JY(St)Y 2x2x0.8LG)

\[
\begin{array}{|c|c|c|}
\hline
R(\text{ total}) \ (\text{ ohm}) & \text{Cause} & \text{Troubleshooting} \\
\hline
< 560 & \text{Short-circuit} & \text{Look for short-circuit in the field bus cable.} \\
\hline
\text{infinite} & \text{Open-circuit} & \text{Look for interruption in the field bus cable.} \\
\hline
> 560 < 640 & \text{Cable is o.k.} & \text{...} \\
\hline
\end{array}
\]

The allowed cable length can be calculated in a sufficiently exact way according to the following formula.

Total cable length (km) = \( \frac{R(\text{total}) - 560 \text{ Ohm}}{72 \text{ Ohm}} \)

If the field bus cable is OK, reconnect it to the central unit.

3. Check Voltage and Bus Polarity of the Field Bus (see fig. 8.2 and 8.3)
- Bus connector to be plugged into each GDU.
- Switch operating voltage on at the Controller Unit central unit.
- The green LED at the GDU lights up weakly when operating voltage is applied (voltage indicator).
- Check operating voltage and bus polarity at each GDU according to fig. 7.1 and 7.2. \( U_{\text{in}} = 16 \text{ V DC} \)
- Bus polarity:
- Measure tension BUS_A against 0 V DC and BUS_B against 0 V DC. \( U_{\text{BUS}_A} = \text{ca. 0.5 V} \geq U_{\text{BUS}_B} \)
- \( U_{\text{BUS}_B} = 2 - 4 \text{ V DC} \) (depending on the number of GDU and on the cable length)

4. Addressing of the GDU

After having checked the field bus successfully, you have to assign a basic communication address to each GDU via the display on the unit, the service tool or the PC tool. With this basic address, the data of the Sensor Cartridge assigned to input 1 are sent via the field bus to the gas controller. Any further sensor connected / registered on the GDU automatically gets the next address.

Choose the menu Address and enter the predetermined Address according to the Bus Address Plan. If this connection is OK, you can read the current GDU address in the menu “Address” either at the display on the unit or by plugging in the service tool or the PC tool.

The detailed description of the addressing can be taken from the user manual of the Controller unit or the Controller unit service tool.

Further documentation: