Knick

Installation Guide

COMPA4400(X)-082

Communication Unit for PROFIBUS PA

Read before installation.
Keep for future use.

www.knick-international.com

1 Safety

Also read the user manuals for the basic unit (Protos II 4400, FRONT and BASE modules) and the corresponding measuring and communication modules. Observe the specifications and follow the safety instructions in the safety guide (included in the package contents of the Protos II 4400 basic unit) – for Ex versions, also observe the details in the documents listed in the package contents.

Intended Use

The module is a communication unit for PROFIBUS PA.

2 Product

Package Contents

- COMPA4400(X)-082 module
- Installation Guide
- Test Report 2.2 in accordance with EN 10204
- Sticker showing the terminal assignment

For Ex version COMPA4400X-082:

- Appendix to certificates (KEMA 03ATEX2530, IECEx DEK 11.0054)
- Control Drawing 201.003-170
- EU Declaration of Conformity

Note: Check all components for damage upon receipt. Do not use damaged parts.

Product Identification

Firmware Version

Module Compatibility	COMPA4400-082	COMPA4400X-082
Protos II 4400 as of FRONT firmware version 01.04.00	x	
Protos II 4400X as of FRONT firmware version 01.04.00		x

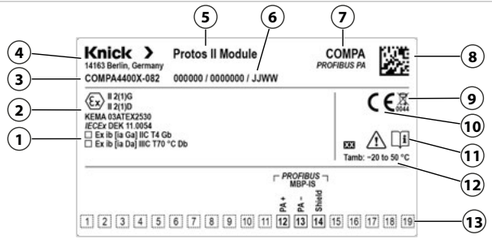
Information on the firmware history → *knick-international.com*

Querying the firmware version

01. Diagnostics ▸ Device Description
02. Use the ***right arrow key*** to select the appropriate module slot.

Nameplate with Terminal Assignment

Example Illustration for Version with Ex Approval



1	Selection fields for marking of the respective use by the customer	8	Data matrix code with item number and serial number
2	ATEX and IECEx mark	9	WEEE mark
3	Model designation	10	CE mark with identification number of the notified body
4	Manufacturer with postal address and designation of origin	11	Special conditions, reference to product documentation
5	Product family	12	Permitted ambient temperature
6	Item number/serial number/ production year and week	13	Terminal assignment
7	Industrial Ethernet protocol PROFIBUS PA		

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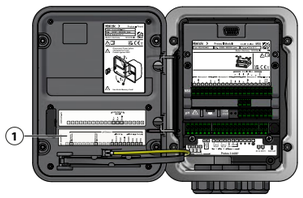
This document was published on December 11, 2025.
The latest documents are available for download on our website under the corresponding product description.

104840

TI-201.082-KNEN01

Terminal Plate Sticker

The terminal plate stickers for the concealed, lower-lying modules can be attached to the inner door.



1 Sticker showing the terminal assignment of the concealed modules (slot 1 and 2)

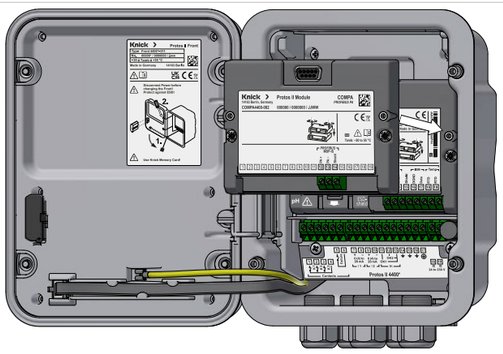
3 Installation

Inserting the Module

01. Switch off the power supply to the device.
02. Use a Phillips head screwdriver to unscrew the enclosure screws of the front unit and open the device.

⚠**WARNING! Voltages dangerous to touch.** When opening the device, there may be voltages dangerous to touch in the terminal compartment. Ensure that no voltages are present before you reach into the terminal compartment.

⚠**CAUTION! Electrostatic discharge (ESD).** The modules' signal inputs are sensitive to electrostatic discharge. Take measures to protect against ESD before inserting the module and connecting the inputs.



03. Connect the module to the slot (D-SUB plug), see figure.
04. Tighten the fastening screws of the module.

NOTICE! Possible damage to the cables. Strip the wires with a suitable tool. Max. stripping length 7 mm.

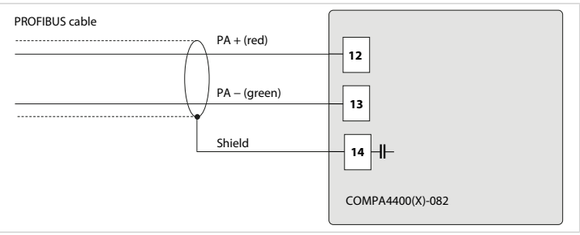
05. Connect the signal lines.
06. Verify that all connections are correctly wired.

NOTICE! Ingress of moisture. Cable glands must have a tight fit. If necessary, insert suitable blanking plugs or sealing inserts.

07. Close the device and tighten the enclosure screws in a crosswise pattern. Tightening torque 0.5 … 2 Nm.
08. Switch on the power supply.
09. Assign the process variables to AI blocks on the device.

PROFIBUS PA Connection

The electrical connection of the module to PROFIBUS PA is made in accordance with the PROFIBUS Installation Guidelines (www.profibus.com).



4 Menu Overview

For detailed information, see the user manual.

Parameter Setting

Menu	Description
PROFIBUS Address	Entry of the bus address (No bus communication allowed to be active yet.)
Sensors	Assignment of the measuring modules to TB1 … 6
Measured Values	Assignment of the process variables of a module to the analog input blocks AI1 … 12

Diagnostics

Submenu	Description
Module Diagnostics	Internal function test
Function Block Monitor	Displays the status of the function blocks.
Bus Monitor	Overview of parameters transmitted via the fieldbus

5 Integration with Project Planning Tools

The following files for integration with project planning tools are available for download on our website. → *knick-international.com*

GSD: General Station Description

Device master file for planning PLC systems

6 Messages/Troubleshooting (Excerpt)

Error	Possible Cause	Remedy
Audit trail: Remote login, calibration record, or logging does not work on the process control system.	The COMPA4400-082 module was not assigned to the corresponding channels in the system control.	Correct the parameter setting: Parameter Setting ▸ System Control ▸ Audit Trail: Assign the COMPA4400-082 module to the corresponding channels.
No connection via PROFIBUS	PROFIBUS cable connected incorrectly.	Check the connection. Connect the cable correctly.
	Terminating resistor is set incorrectly (by customer).	Check the termination, correct if required.
	Incorrect PROFIBUS address	Check the address, correct if required.

No.	Type	Error Message	Possible Cause	Remedy
B073/ B074	⊗	Current I1/I2 Load Error	Current output 1/2: The current loop is interrupted (cable breakage) or the load is too high.	Check the current loop. Deactivate or short-circuit unused current outputs.
F232	⊗	Ex/Non-Ex Modules	Ex and non-Ex modules are used.	Equip uniformly (either only Ex or only non-Ex).

7 Specifications (Excerpt)

Excerpt from the user manual. Detailed information → *knick-international.com*

PROFIBUS

PROFIBUS PA	Galvanic isolation up to 60 V COMPA4400X-082: Digital communication in Ex areas via current modulation (Ex ia IIC)
Physical interface	MBP-IS (in accordance with EN 61158-2), for use in a FISCO system
Transmission rate	31.25 kbit/s
Communication protocol	PROFIBUS DP-V1
Profile	PROFIBUS PA 4.0
Address range	1 … 126, factory setting 126, can be set on device
Supply voltage	FISCO 17.5 V 24 V
Current consumption	< 12 mA
Max. fault current (FDE)	< 15 mA

Compliance

(with installed module)

EMC	EN 61326-1, EN 61326-2-3, NAMUR NE 21
Emitted interference	Industrial applications[1] (EN 55011, Group 1, Class A)
Immunity to interference	Industrial applications
Lightning protection	EN 61000-4-5, installation class 2
RoHS compliance	EU Directive 2011/65/EU

1) This equipment is not designed for domestic use, and is unable to guarantee adequate protection of the radio reception in such environments.

Ambient Conditions

(with installed module)

Climatic class	3K5 in accordance with EN 60721-3-3
Location class	C1 in accordance with EN 60654-1
Ambient temperature, operation	Non-Ex: –20 … 55 °C (–4 … 131 °F) Ex: –20 … 50 °C (–4 … 122 °F)
Ambient temperature, transport/storage	–20 … 70 °C (–4 … 158 °F)
Relative humidity	5 … 95%