PV system monitoring for Fronius IG Plus series

Components and configuration options
Configuration options for monitoring the PV system

• Monitoring using **Signal Card** 1
• Monitoring using **Personal Display** 2

• **Monitoring with Fronius IG DatCom**
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• **Additional components**
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  - RiCo Display with Public Display Box 10
  - **Sensors with Sensor Card** 11

• **Combination of components**
  - Public Display + Sensor Box 12
  - Public Display + Sensor Box + FRONIUS SolarWeb + Fronius IG.**message** 13

• **String Control** (ideal for Fronius IG central inverters)
  - String Control + Basis DatCom 14
Fronius IG Signal Card

System with alarms in the event of malfunction, no PC / 1 inverter

- 1 Signal Card for each inverter
- Several inverters to one signal
- No datalogger or other DatCom components required.
Fronius IG Personal Display

System with remote monitoring (up to 300 m), no PC / several inverters

- 1 Personal Display Card and antenna required for each Fronius IG Plus
- Displays data from up to 15 inverters
- No datalogger or other DatCom components required.
A DatCom system comprises:

- just one Datalogger Card/Box

  and up to

- 100 Fronius IG Plus with COM Cards
- 10 Sensoren Cards/Boxes
- 10 Public Display Cards/Boxes
- 200 String Controls

The following products extend the functionality of your Fronius IG Plus, and are not DatCom components:

- Fronius IG Signal Card
- Fronius IG Personal Display
Fronius IG DatCom / Datalogger Easy Card

System monitoring with a PC / 1 inverter

Basic configuration with modem, as recommended by Fronius

PC / laptop
Fronius IG.access

Fronius IG Plus no. 1
Datalogger easy Card

or

telephone line
RS 232 (up to 20m)

modem
RS 232

Fronius IG. access

POWERING YOUR FUTURE

COM Card
Fronius IG DatCom / Datalogger Profi Card

System monitoring with a PC / several inverters

Basic configuration with modem, as recommended by Fronius

PC / laptop
Fronius IG.access

RS 232 (up to 20m)

or

modem

telephone line

RS 232

Datalogger profi Card

RS 485 RS 485

Fronius IG Plus no. 1

Fronius IG Plus no. 2

Fronius IG Plus no. n

Can be extended to up to 100 inverters

Max. length of all RS 485 cables is 1000m

[Diagram showing connections and configurations]
Fronius IG DatCom / Datalogger Profi Box

System monitoring with a PC / several inverters

Basic configuration with modem, as recommended by Fronius

- PC / laptop
- Fronius IG.access
- Datalogger profi Box
- RS 232 (up to 20m)
- or
- modem
- telephone line
- RS 232
- RS 485
- Fronius IG Plus no. 1
- Fronius IG Plus no. 2
- Fronius IG Plus no. n
- COM Card
- RS 485
- CDM Card
- Max. length of all RS 485 cables is 1000m

Can be extended to up to 100 inverters
Fronius IG DatCom - details

**DETAIL**

Fronius IG Plus 1
DatCom area

- Insolation sensor
- RS 232
- RS 485
- Free slot for additional card.

**DETAIL**

Fronius IG Plus 2
DatCom area

- Temperature sensor
- RS 232
- RS 485

**DETAIL**

Sensor Box

- Termination plug

Termination plug: The first and last free RJ 45 socket in the system must have a termination plug installed (included with datalogger).
Fronius IG DatCom / Public Display

System monitoring with a PC / several inverters / Public Display

Basic configuration with modem, as recommended by Fronius

PC / laptop
Fronius IG.access

Datalogger profi Box

RS 485

or

modem

telephone line
RS 232

Fronius IG Plus no. 1

RS 485

Fronius IG Plus no. 2

RS 485

Fronius IG Plus no. n

Max. length of all RS 485 cables is 1000m

Can be extended to up to 100 inverters

Public Display

RS 485

Program your future

POWERING YOUR FUTURE
Fronius IG DatCom / Rico Display

System monitoring with a PC / several inverters / Rico Display

PC / laptop
Fronius IG.access

USB (up to 3m)

or

modem

RS 232

RS 485

Max. length of all RS 485 cables is 1000m

Fronius IG Plus no. 1

COM Card

RS 485

Fronius IG Plus no. 2

COM Card

RS 485

Fronius IG Plus no. n

COM Card

Can be extended to up to 100 inverters

Datalogger profi Box

RS 232 (up to 3m)

telephone line

RS 232 (up to 15m)

Public Display Card

Rico Display

Current performance

Energy return

CO2 saving

Watt

kWh

kg

Basic configuration with modem, as recommended by Fronius
Fronius IG DatCom / Rico Display

System monitoring with a PC / several inverters / Rico Display

Basic configuration with modem, as recommended by Fronius

PC / laptop
Fronius IG.access

Datalogger profi Box

RS 485
COM Card

Fronius IG Plus no. 1

RS 485
COM Card

Fronius IG Plus no. 2

Can be extended to up to 100 inverters

RS 485
COM Card

Fronius IG Plus no. n

Max. length of all RS 485 cables is 1000m

USB (up to 3m)

or

modem

telephone line

RS 232

Public Display Box

Rico Display

Current performance
Energy return
CO2 saving

Watt
kWh
kg

RS 232 (up to 15m)
Fronius IG DatCom / Sensor Card

System monitoring with a PC / several inverters / using sensors

Basic configuration with modem, as recommended by Fronius

PC / laptop
Fronius IG.access

Datalogger profi Box

USB (up to 3m)

or

modem

telephone line

RS 232

Fronius IG Plus no. 1

Fronius IG Plus no. 2

Fronius IG Plus no. n

RS 485

Max. length of all RS 485 cables is 1000m

Can be extended to up to 100 inverters

Sensors

max 30m

max 20m

Sensor Card (up to 6 sensors)
Fronius IG DatCom / Public Display / Sensor Box

System monitoring with a PC / several inverters / using sensors / Public Display

Basic configuration with modem, as recommended by Fronius

- PC / laptop
  Fronius IG.access

- USB (up to 3m)

- or
  modem
  telephone line
  RS 232

- Fronius IG Plus no. 1
  COM Card
  RS 485

- Fronius IG Plus no. 2
  COM Card
  RS 485

- Fronius IG Plus no. n
  CDM Card
  RS 485

Max. length of all RS 485 cables is 1000m

Can be extended to up to 100 inverters

- Public Display
  Solar System
  POWER
  25810 W

- Sensors
  max 5m
  max 20m
  max 30m

- Sensor Box
  (up to 6 sensors)
  RS 485
Fronius IG DatCom / Classic

System monitoring with a PC and internet

Basic configuration with modem, as recommended by Fronius

PC / laptop
Fronius IG.access +
Fronius IG.message

RS 232 (up to 20m)

modem

RS 485

Max. length of all RS 485 cables is 1000m

Can be extended
to up to 100
inverters

Internet server
FRONIUS SolarWeb

Sensors

Public Display

Sensor Box
(up to 6 sensors)

Internet

E-mail
SMS
fax

Service messages

FAX

Datalogger profi Card

RS 485

COM Card

COM Card

COM Card

Fronius IG Plus no. 1

Fronius IG Plus no. 2

Fronius IG Plus no. n

MAX. length of all RS 485 cables is 1000m

Can be extended
to up to 100
inverters

Internet server
FRONIUS SolarWeb

Public Display

Sensor Box
(up to 6 sensors)

FAX

Datalogger profi Card

RS 485

COM Card

COM Card

COM Card

Fronius IG Plus no. 1

Fronius IG Plus no. 2

Fronius IG Plus no. n

MAX. length of all RS 485 cables is 1000m

Can be extended
to up to 100
inverters

Internet server
FRONIUS SolarWeb

Public Display

Sensor Box
(up to 6 sensors)

FAX

Datalogger profi Card

RS 485

COM Card

COM Card

COM Card

Fronius IG Plus no. 1

Fronius IG Plus no. 2

Fronius IG Plus no. n

MAX. length of all RS 485 cables is 1000m

Can be extended
to up to 100
inverters

Internet server
FRONIUS SolarWeb

Public Display

Sensor Box
(up to 6 sensors)

FAX

Datalogger profi Card

RS 485

COM Card

COM Card

COM Card

Fronius IG Plus no. 1

Fronius IG Plus no. 2

Fronius IG Plus no. n

MAX. length of all RS 485 cables is 1000m

Can be extended
to up to 100
inverters

Internet server
FRONIUS SolarWeb

Public Display

Sensor Box
(up to 6 sensors)
Fronius IG DatCom / String Control

System with Fronius IG central inverter and String Control (optional)