

CIM 500 Ethernet module

Installation and operating instructions



CIM 500 Ethernet
Installation and operating instructions
Other languages
<http://net.grundfos.com/qr/i/98407037>

CIM 500 Ethernet module

English (GB)

Installation and operating instructions 4

Deutsch (DE)

Montage- und Betriebsanleitung 27

Dansk (DK)

Monterings- og driftsinstruktion 51

Español (ES)

Instrucciones de instalación y funcionamiento 74

Suomi (FI)

Asennus- ja käyttöohjeet 97

Français (FR)

Notice d'installation et de fonctionnement 120

Italiano (IT)

Istruzioni di installazione e funzionamento 143

Português (PT)

Instruções de instalação e funcionamento 166

Română (RO)

Instrucțiuni de instalare și utilizare 189

中文 (CN)

安装和使用说明书 212

日本語 (JP)

取扱説明書 233

한국어 (KO)

설치 및 작동 지침 256

Appendix A 279

Appendix B 298

Declaration of conformity 299

Declaration of conformity 300

Operating manual EAC 302

English (GB) Installation and operating instructions

Original installation and operating instructions

Table of contents

1.	General information	4
1.1	Hazard statements	4
1.2	Notes	4
2.	Applications	5
2.1	Abbreviations	5
2.2	CIM 500 Ethernet module	6
3.	Installation	7
3.1	Security	7
3.2	Connecting the Ethernet cable	8
3.3	Selection of Industrial Ethernet protocol	9
3.4	Setting the IP addresses	9
3.5	Connection to the webserver	10
4.	Status LEDs	11
5.	Data activity and link LEDs	12
6.	Fault finding	13
6.1	PROFINET IO	13
6.2	Modbus TCP or BACnet IP	15
6.3	EtherNet/IP	17
6.4	GRM IP	19
7.	Technical data	21
7.1	PROFINET technical specifications	22
7.2	Modbus TCP technical specifications	23
7.3	BACnet IP technical specifications	23
7.4	EtherNet/IP technical specifications	25
8.	Disposing of the product	26

1. General information



Read this document before you install the product. Installation and operation must comply with local regulations and accepted codes of good practice.

1.1 Hazard statements

The symbols and hazard statements below may appear in Grundfos installation and operating instructions, safety instructions and service instructions.



DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious personal injury.



WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious personal injury.



CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate personal injury.

The hazard statements are structured in the following way:



SIGNAL WORD

Description of the hazard

Consequence of ignoring the warning

- Action to avoid the hazard.

1.2 Notes

The symbols and notes below may appear in Grundfos installation and operating instructions, safety instructions and service instructions.



Observe these instructions for explosion-proof products.



A blue or grey circle with a white graphical symbol indicates that an action must be taken.



A red or grey circle with a diagonal bar, possibly with a black graphical symbol, indicates that an action must not be taken or must be stopped.



If these instructions are not observed, it may result in malfunction or damage to the equipment.



Tips and advice that make the work easier.

2. Applications

The CIM 500 Ethernet module enables data transmission between an Industrial Ethernet network and a Grundfos product.

The module supports various Industrial Ethernet protocols.

The module is fitted in the product to be communicated with in a CIU 90x to form a CIU 50x or in an E-box to form an E-box 500.

Retrofitting of the module is described in the installation and operating instructions of the Grundfos product.

Configuration is done via the built-in webserver, using a standard web browser on a PC.

You can download the specific functional profile for the product in question from Grundfos Product Center.

Related information

[3.3 Selection of Industrial Ethernet protocol](#)

2.1 Abbreviations

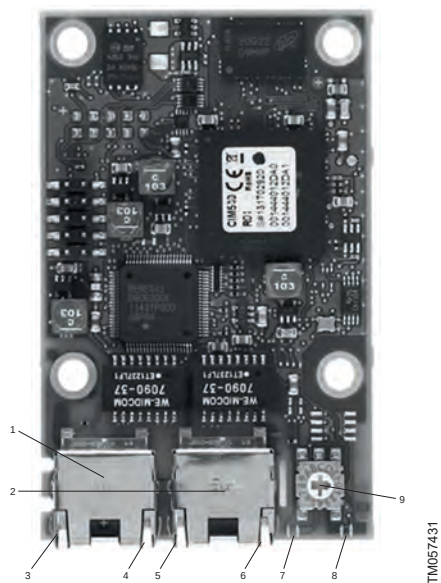
APDU	Application Protocol Data Unit.
ARP	Address Resolution Protocol. Translates IP addresses to MAC addresses.
CAT5	Ethernet cable type with four twisted-pair cables.
CAT5e	Enhanced CAT5 cable with better performance.
CAT6	Ethernet cable compatible with CAT5 and CAT5e, and with very high performance.
CIM	Communication Interface Module.
CIU	Communication Interface Unit.
DHCP	Dynamic Host Configuration Protocol. Used to configure network devices so that they can communicate via an IP network.
DNS	Domain Name System. Used to resolve host names to IP addresses.
E-box	Extension Box. Used as a communication interface between a Grundfos DDA dosing pump (small) and a fieldbus.
GENipro	Grundfos Electronics Network Intercommunication protocol. Proprietary Grundfos fieldbus protocol.
GiC	Grundfos iSOLUTIONS Cloud.
GND	Ground.
GRM	Grundfos Remote Management.

HTTP	Hyper Text Transfer Protocol. The protocol commonly used to navigate the World Wide Web.
IANA	Internet Assigned Numbers Authority.
IP	Internet Protocol.
LED	Light-emitting diode.
MAC	Media Access Control. Unique address for a piece of hardware.
MDI	Medium Dependent Interface.
Ping	Packet InterNet Groper. A software utility that tests connectivity between two TCP/IP hosts.
PLC	Programmable Logic Controller.
RJ45	Registered Jack #45, also called 8P8C modular connector type. Connects four twisted-pair cables. Most common Ethernet connector type.
SELV	Separated or Safety Extra-Low Voltage.
SELV-E	Separated or Safety Extra-Low Voltage with earth.
TCP	Transmission Control Protocol. Protocol for Internet communication and Industrial Ethernet communication.
UDP	User Datagram Protocol.
URL	Uniform Resource Locator. The IP address used to connect to a server.
VPN	Virtual Private Networks.

2.2 CIM 500 Ethernet module

Related information

[5. Data activity and link LEDs](#)



CIM 500 Ethernet module

Pos.	Designation	Description
1	ETH1	Industrial Ethernet RJ45 connector 1
2	ETH2	Industrial Ethernet RJ45 connector 2
3	DATA1	Data activity LED for RJ45 connector 1
4	LINK1	Link LED for RJ45 connector 1
5	DATA2	Data activity LED for RJ45 connector 2
6	LINK2	Link LED for RJ45 connector 2
7	LED1	Red and green status LED for the selected Ethernet protocol
8	LED2	Red and green LED for internal communication between CIM 500 and the Grundfos product
9	SW1	Rotary switch for selection of Industrial Ethernet protocol

3. Installation

WARNING

Electric shock

Death or serious personal injury

- Connect CIM 500 only to SELV or SELV-E circuits.



QR code for the CIU quick guide

QR89462331

3.1 Security

The connected Grundfos products must be behind a firewall or connected to a private network.

If a firewall or private network is not in place, the Grundfos product may be subject to a cyber-security risk and becomes vulnerable to an attack or compromise.

Follow the highly recommended configuration requirements below. If in doubt, consult an IT Infrastructure Specialist.

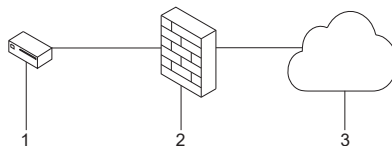
Related information

[3.5.1 Connection to the webserver using GRM IP / GiC](#)

3.1.1 CIM 500

CIM 500 is a traditional network-connected device and must be placed on a private network behind a firewall. It must not be connected directly to the Internet. Also, no TCP/IP ports must be forwarded to the product. If you need remote access to the device, you must use technologies such as Virtual Private Networks (VPNs) to ensure a secured connection. Consider contacting an IT Infrastructure Specialist to establish such a solution.

For CIM 500 in mode 4, GRM IP (Grundfos Remote Management), or in mode 5 (GiC), the firewall must accept connections initialised by the Grundfos product to the Internet only (outgoing connections).



TM074226

Secure connectivity for CIM 500

Pos.	Description
1	Grundfos device
2	Firewall
3	Internet

For CIM 500 in mode 5, GiC (Grundfos iSolution Cloud), the ports 443 and 8883 must be open for outbound traffic only and require access to DNS or port 53.

3.2 Connecting the Ethernet cable

Use RJ45 plugs and an Ethernet cable. Connect the cable screen to protective earth at both ends.



It is important to connect the cable screen to protective earth by means of the earth clamp or in the connector.

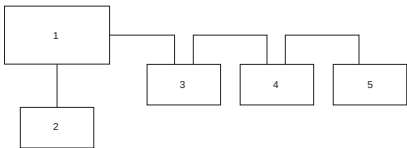


For GRM IP communication, ensure that the network is protected by a firewall.

Maximum cable length

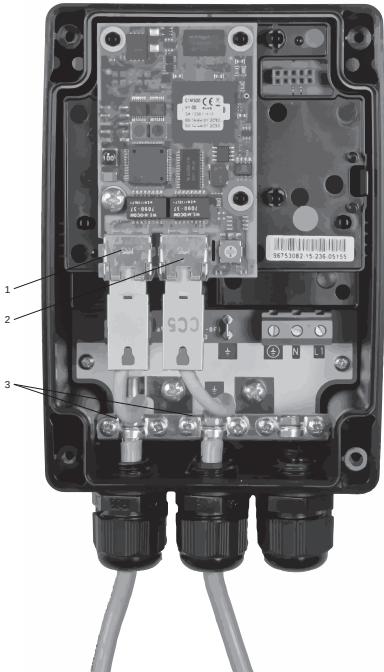
Speed [Mbit/s]	Cable type	Max. cable length [m (ft)]
100/10	CAT5, CAT5e, CAT6	100 (328)

CIM 500 is designed for flexible network installation. The built-in two-port switch makes it possible to daisy chain from product to product without the need of additional Ethernet switches. The last product in the chain is only connected to one of the Ethernet ports. Each Ethernet port has its own MAC address, and CIM 500 has a built-in switch which means that the cable can run another 100 metres whenever passing a CIM 500 module.



Example of Industrial Ethernet network

Pos.	Description
1	Ethernet switch
2	CIM 500
3	CIM 500
4	CIM 500
5	CIM 500



Example of the Ethernet connection

Pos.	Description
1	Industrial Ethernet RJ45 connector 1
2	Industrial Ethernet RJ45 connector 2
3	Earth clamp/GND

3.3 Selection of Industrial Ethernet protocol

The module has a rotary switch for selection of the Industrial Ethernet protocol. See the figure below.



Selecting the Industrial Ethernet protocol

Pos.	Description
0	PROFINET IO, default
1	Modbus TCP
2	BACnet IP
3	EtherNet/IP
4	GRM IP for Grundfos Remote Management. Requires a contract with Grundfos.
5	Grundfos iSOLUTIONS Cloud (GiC)
6...E	Reserved. LED1 is permanently red to indicate an invalid configuration.
F	Resetting to factory settings. Set the rotary switch to this position. LED1 starts flashing red and green for 20 seconds to indicate that factory reset is about to take place. After 20 seconds, LED1 stops flashing and factory reset is initiated. When both LED1 and LED2 switch off, the reset is completed. The rotary switch can be moved to another position.



If the position of the rotary switch is changed when the module is powered on, the module restarts and uses the protocol associated with the new position.

Related information

2. Applications

3.4 Setting the IP addresses

The module comes with a fixed webserver IP address. Via the webserver, this address can be changed to another fixed value, or a DHCP server can be selected.

Default IP settings used by the webserver	IP address: 192.168.1.100 Subnet mask: 255.255.255.0 Gateway: 192.168.1.1
Device name and IP settings for PROFINET IO	The device name is configured from the webserver or from the PROFINET IO configuration tool. The IP address is automatically assigned by the PLC. This assigned PROFINET IP address must be different from the webserver's IP address.
IP settings for Modbus TCP	It can be given a fixed value via the webserver, or it can use a DHCP server. This assigned Modbus TCP address must be different from the webserver's IP address.
IP settings for BACnet IP	It can be given a fixed value via the webserver, or it can use a DHCP server. Note that BACnet IP and the webserver share the same IP address.
IP settings for EtherNet/IP	It can be given a fixed value via the webserver, or it can use a DHCP server. This assigned EtherNet/IP address must be different from the webserver's IP address.
IP settings for GiC	GiC uses DHCP, and the connected router automatically assigns an IP address.

3.5 Connection to the webserver

The module can be configured by means of the built-in webserver. To establish a connection from a PC to CIM 500, proceed as follows:

1. Connect the PC and the module using an Ethernet cable. See the figure below.
2. Configure the Ethernet port of the PC to belong to the same subnetwork as CIM 500, for example 192.168.1.101, and the subnet mask to 255.255.255.0. See the section on network settings in the appendix.
3. Open a standard Internet browser and type 192.168.1.100 in the URL field.
4. Log in to the webserver:

User name	Default: admin
Password	Default: Grundfos



The first time you log in, you must set a unique password. Only a factory reset of CIM 500 can reset the password to Grundfos.



CIM 500 connected to PC via Ethernet cable

Related information

[A.1. Webserver configuration](#)

3.5.1 Connection to the webserver using GRM IP / GiC

To access the webserver via GRM IP / GiC, you need to connect your PC parallel to the router (RJ45 port 1) at CIM 500 RJ45 port 2. Look at the router webserver which address the router assigns to CIM 500. Then use this IP address for the webserver access.

See also the section on security in the appendix and the section on webserver configuration.



You can use both ETH1 and ETH2 to establish a connection to the webserver.



You can access the webserver while the selected Industrial Ethernet protocol is active.



When you select "GRM IP" or "GiC", the connected router automatically assigns an IP address to the module via DHCP.



CIM 500 connected to PC and cellular router

Related information

[A.1. Webserver configuration](#)

[3.1 Security](#)

4. Status LEDs

The module has two status LEDs:

- LED1: Red and green status LED for Ethernet communication, fieldbus LED.
- LED2: Red and green status LED for communication between the module and the Grundfos product, GENI LED.

LED1, PROFINET IO

Status	Description
Off	The module is switched off.
Flashing green	Wink function. LED1 flashes 10 times when activated from the PROFINET master.
Permanently green	The module is in cyclic data exchange mode.
Flashing red (3 Hz, duty cycle 50 %)	Wrong or missing PROFINET IO configuration. See the section about fault finding, PROFINET IO.
Pulsing red (0.3 Hz, duty cycle 10 %)	The device name and network settings are configured, but connection to master lost. See the section about fault finding, PROFINET IO.
Permanently red	The product is not supported. See the section about fault finding, PROFINET IO.
Permanently red and green	Error in firmware download. See the section about fault finding, PROFINET IO.
Flashing red and green	Resetting to factory settings. After 20 seconds, CIM 500 restarts.

LED1, Modbus TCP and BACnet IP

Status	Description
Off	No Modbus or BACnet communication, or the module is switched off.
Flashing green	Modbus or BACnet communication active.
Permanently red	Module configuration fault. See the section about fault finding, Modbus TCP or BACnet IP.
Permanently red and green	Error in firmware download. See the section about fault finding, Modbus TCP or BACnet IP.
Flashing red and green	Resetting to factory settings. After 20 seconds, CIM 500 restarts.

LED1, EtherNet/IP

Status	Description
Off	Ethernet Link is not active.
Permanently green	Ethernet Link is active, connection is established.
Flashing green	Ethernet Link is active, no connection is established.
Permanently red	Ethernet Link is active, IP address conflict is detected.
Flashing red	Ethernet Link is active, any connection is timed out.

LED1, GRM IP / GiC

Status	Description
Off	No GRM IP / GiC communication or the module is switched off.
Flashing green	Startup period (120 seconds).
Permanently green	Communication with the cloud server is established.
Flashing green (0.3 Hz)	Data is transmitted to the cloud server.
Flashing red	GRM IP / GiC communication lost, no communication to the server or product driver is not loaded from GRM/GiC.
Flashing red and green	Resetting to factory settings. After 20 seconds, CIM 500 resets then restarts.

LED2, all fieldbuses

Status	Description
Off	The module is switched off.
Flashing red	No internal communication between CIM 500 and the Grundfos product.
Permanently red	The module does not support the Grundfos product connected.
Permanently green	Internal communication between the module and the Grundfos product is OK.
Permanently red and green	Memory fault.



During startup, there is a delay of up to five seconds before the status of LED1 and LED2 is updated.

Related information

[6.1 PROFINET IO](#)

[6.2 Modbus TCP or BACnet IP](#)

5. Data activity and link LEDs

The module has two connectivity LEDs related to each RJ45 connector.

DATA1 and DATA2

These yellow LEDs indicate data traffic for the RJ45 connector in question.

Status	Description
Off	No data communication on RJ45 connector
Flashing	Data communication on RJ45 connector
On	Heavy network traffic

LINK1 and LINK2

These green LEDs show whether the Ethernet cable is properly connected to the RJ45 connector in question.

Status	Description
Off	No Ethernet Link on RJ45 connector
On	Ethernet Link on RJ45 connector is OK

Related information

[2.2 CIM 500 Ethernet module](#)

6. Fault finding

6.1 PROFINET IO

You can detect faults in a module by observing the status of the two status LEDs.

The prerequisite is that CIM 500 is fitted in a Grundfos product or CIM 500 fitted in a CIU 500.



Ensure that SW1 is in position "0" to select PROFINET.

Related information

[4. Status LEDs](#)

6.1.1 Both LEDs remain off

Both LEDs remain off when the power supply is connected.

Cause	Remedy
The module is fitted incorrectly in the Grundfos product.	Check that the module is fitted and connected correctly.
The module is defective.	Replace the module.
CIU 500 is defective.	Replace CIU 500.

6.1.2 LED1 is off

Cause	Remedy
SW1 is not set correctly.	Set the switch to "0".

6.1.3 LED2 is flashing red

Cause	Remedy
No internal communication between the module and the Grundfos product.	Check that the module is fitted correctly in the Grundfos product.
No internal communication between CIU 500 and the Grundfos product.	- Check the cable connection between the Grundfos product and CIU 500. - Check that the individual conductors are connected correctly, for example, not reversed. - Check the power supply to the Grundfos product.

6.1.4 LED2 is permanently red

Cause	Remedy
The module does not support the connected Grundfos product.	Contact the nearest Grundfos company.

6.1.5 LED1 is permanently red

Cause	Remedy
The module does not support the connected Grundfos product.	Contact the nearest Grundfos company.
SW1 is in illegal position.	Set the switch to "0".

6.1.6 LED1 is flashing red, 3 Hz

Cause	Remedy
Fault in the PROFINET IO configuration of the module.	- Restart CIM 500. Use the RESTART button on the webserver, or power cycle the product. See the section about PROFINET IO configuration. - Check that the PROFINET IO IP address configuration is correct. Check the device name in CIM 500 and PROFINET IO master. - Check that the right GSDML file is used.

Related information[A.1. Webserver configuration](#)**6.1.7 LED1 is pulsing red, 0.3 Hz**

Cause	Remedy
The connection to the master is lost.	• Check the cables. • Check that the master is running.

6.1.8 LED1 is permanently red and green at the same time

Cause	Remedy
Error in firmware download.	• Use the webserver to download the firmware again.

Related information[A.1. Webserver configuration](#)**6.1.9 LED2 is permanently red and green at the same time**

Cause	Remedy
Memory fault.	• Replace the module.

6.2 Modbus TCP or BACnet IP

You can detect faults in a module by observing the status of the two status LEDs.

The prerequisite is that CIM 500 is fitted in a Grundfos product or in a CIU 500.



Ensure that SW1 is in position "1" if Modbus should be selected or in position "2" if BACnet should be selected.

Related information

[4. Status LEDs](#)

6.2.1 Both LEDs remain off

Both LEDs remain off when the power supply is connected.

Cause	Remedy
The module is fitted incorrectly in the Grundfos product.	Check that the module is fitted and connected correctly.
The module is defective.	Replace the module.
CIU 500 is defective.	Replace CIU 500.

6.2.2 LED2 is flashing red

Cause	Remedy
No internal communication between the module and the Grundfos product.	Check that the module is fitted correctly in the Grundfos product.
No internal communication between CIU 500 and the Grundfos product.	- Check the cable connection between the Grundfos product and CIU 500. - Check that the individual conductors are connected correctly, for example, not reversed. - Check the power supply to the Grundfos product.

6.2.3 LED2 is permanently red

Cause	Remedy
The module does not support the connected Grundfos product.	Contact the nearest Grundfos company.

6.2.4 LED1 is permanently red

Cause	Remedy
Fault in the Modbus configuration of the module.	- Check that SW1 is set to "1". - Check that the Modbus IP address configuration is correct.
Fault in the BACnet configuration of the module.	- Check that SW1 is set to "2". - Check that the BACnet IP address and UDP port number configuration is correct.

Related information

[A.1. Webserver configuration](#)

6.2.5 LED1 is permanently red and green at the same time

Cause	Remedy
Error in firmware download.	Use the webserver to download the firmware again.

Related information

[A.1. Webserver configuration](#)

6.2.6 LED2 is permanently red and green at the same time

Cause	Remedy
Memory fault.	• Replace the module.

6.3 EtherNet/IP

You can detect faults in a module by observing the status of the two status LEDs.

The prerequisite is that CIM 500 is fitted in a Grundfos product or in a CIU 500.



Ensure that SW1 is in position "3".

6.3.1 Both LEDs remain off

Both LEDs remain off when the power supply is connected.

Cause	Remedy
The module is fitted incorrectly in the Grundfos product.	Check that the module is fitted and connected correctly.
The module is defective.	Replace the module.
CIU 500 is defective.	Replace CIU 500.

6.3.2 LED1 is off

Cause	Remedy
SW1 is not set correctly.	Set the switch to "3".

6.3.3 LED2 is flashing red

Cause	Remedy
No internal communication between the module and the Grundfos product.	Check that the module is fitted correctly in the Grundfos product.
No internal communication between CIU 500 and the Grundfos product.	- Check the cable connection between the Grundfos product and CIU 500. - Check that the individual conductors are connected correctly, for example, not reversed. - Check the power supply to the Grundfos product.

6.3.4 LED2 is permanently red

Cause	Remedy
The module does not support the connected Grundfos product.	Contact the nearest Grundfos company.

6.3.5 LED1 is flashing red

Cause	Remedy
Connection time-out.	Verify the connection and communication between PLC and CIM 500.

6.3.6 LED1 is permanently red

Cause	Remedy
IP address conflict.	Check the IP address configuration.
SW1 is in illegal position.	Check that SW1 is set to "3".

6.3.7 LED1 is permanently red and green at the same time

Cause	Remedy
Error in firmware download.	Use the webserver to download the firmware again.

Related information[A.1. Webserver configuration](#)**6.3.8 LED2 is permanently red and green at the same time**

Cause	Remedy
Memory fault.	• Replace the module.

6.4 GRM IP / GiC

You can detect faults in a module by observing the status of the two status LEDs.

The prerequisite is that CIM 500 is fitted in a Grundfos product or in a CIU 500. This requires a contract with Grundfos.



Ensure that SW1 is in position "4" to select GRM IP or position "5" to select GiC.

6.4.1 Both LEDs remain off

Both LEDs remain off when the power supply is connected.

Cause	Remedy
The module is fitted incorrectly in the Grundfos product.	Check that the module is fitted and connected correctly.
The module is defective.	Replace the module.
CIU 500 is defective.	Replace CIU 500.

6.4.2 LED1 is off

Cause	Remedy
SW1 is not set correctly.	Set the switch to "4" for GRM IP and to "5" for GiC.

6.4.3 LED2 is flashing red

Cause	Remedy
No internal communication between the module and the Grundfos product.	Check that the module is fitted correctly in the Grundfos product.
No internal communication between CIU 500 and the Grundfos product.	- Check the cable connection between the Grundfos product and CIU 500. - Check that the individual conductors are connected correctly, for example, not reversed. - Check the power supply to the Grundfos product.

6.4.4 LED1 is flashing green

Cause	Remedy
120 seconds startup phase.	-

6.4.5 LED1 is permanently red

Cause	Remedy
SW1 is in an illegal position.	Set the switch to "4" or "5".

6.4.6 LED2 is permanently red

Cause	Remedy
The module does not support the connected Grundfos product.	Contact the nearest Grundfos company.

6.4.7 LED1 is flashing red

Cause	Remedy
The GRM IP / GiC communication is lost or there is no communication to the server.	- Check the Ethernet cable in the router. - Check the router settings. - Check the router related to the SIM card.

Cause	Remedy
	• Check that the contract with Grundfos is valid and there is access to the GRM/GiC data.

6.4.8 Cannot access CIU 500 on the GRM/GiC interface

Cause	Remedy
No connection to the GRM server.	• Check that you use the lowest MAC address (lowest number) of the two ports of CIM 500. See the sticker on the module. • It requires a contract with Grundfos and granted access to GRM or GiC. • Check the commissioning status on the System page of the CIM 500 webserver.

7. Technical data

General	
Application layer	DHCP, HTTP, HTTPS, Ping
Transport layer	TCP, UDP
Internet layer	Internet protocol V4 (IPv4)
Link layer	ARP, Media Access Control, Ethernet
Ethernet cable	Screened, twisted-pair cables, CAT5, CAT5e or CAT6. Auto-crossover detection (auto MDI-X).
Transmission speed	10 Mbit/s, 100 Mbit/s (auto-detected)
Industrial Ethernet protocols	• PROFINET IO • Modbus TCP • BACnet IP • EtherNet/IP • GRM IP* • GiC*
Supply voltage	5 VDC $\pm$ 5 %, $I_{\max}$ 350 mA
Min./max. storage temperature	-25 to +70 °C -13 to +158 °F

* Requires a contract with Grundfos.

7.1 PROFINET technical specifications

Functionality PROFINET RT	• PROFINET device according to Conformance Class B • Media Redundancy Protocol (MRP) Client • System redundancy S2 • Multicast provider and subscriber
Minimum cycle time PROFINET RT	250 µs
Number of IO connections per controller	2 for cyclic data 1 for parameter set
Maximum number of IO data	1024 bytes
GSDML version	V2.34
Dynamic IO configuration	Supported
Diagnostics	Supported
Maximum number of data modules	85
Watchdog	Communication watchdog with fixed 2 seconds time-out. It can be enabled via the control module in the device profile.
Certificate	Conformance July 2019

7.2 Modbus TCP technical specifications

Number of IO socket connections	8
Maximum number of IO data	255 bytes per telegram
Function codes supported	03 Read holding registers 04 Read input registers 06 Write single registers 16 Write multiple registers
Diagnostics	No
DHCP	Supported
Watchdog	Communication watchdog with fixed 5 seconds time-out. It can be enabled via the watchdog register in the device profile.
Certificate	No

To optimise data security when using Modbus TCP via a cellular router, Grundfos strongly recommends that the cellular data connection is based on a private APN with static IP and with no access to public Internet.

7.3 BACnet IP technical specifications

Number of IO socket connections	1
Communication	User Datagram Protocol, UDP
Maximum number of IO data	1500 bytes
Objects supported	• Analog input • Analog output • Analog value • Binary input • Binary output • Multistate input • Multistate output • Device
DHCP	Supported
Foreign device	Supported

Data sharing services	• ReadProperty • ReadPropertyMultiple • WriteProperty • WritePropertyMultiple • SubscribeCOV • ConfirmedCOVNotification • UnconfirmedCOVNotification
Device management services	• Who-is / I-am • Who-has / I-have • DeviceCommunicationControl
Watchdog	Network watchdog timer. Time-out is configurable via the CIM 500 web page.
Certificate	BTL listing

7.4 EtherNet/IP technical specifications

Minimum requested packet interval	15 ms
I/O data	505 bytes output. 509 bytes input. Maximum 255 bytes I/O data per assembly.
Number of IO connections	10 Default. Configurable depending on available socket resources.
Number of encapsulation sessions	10 Default. Configurable depending on available socket resources.
Number of explicit messaging connections	2 explicit messaging connections per encapsulation session. 20 explicit messaging connections in total. Configurable.
User-specific objects	Object 100. Depending on the connected product. • Grundfos pump • Grundfos booster • Grundfos dosing.
Maximum number of connections	2 explicit messaging connections x 10 encapsulation sessions. Additional 10 I/O connections. Total: 30 connections.
Standard objects	• Identity object (class 0x01). • Message Router object (class 0x02). • Assembly object (class 0x04). Assembly: up to 32. • Connection Manager object (class 0x06). • Device Level Ring (DLR) object (0x47). • Quality of Service (QoS) object (0x48). • TCP/IP Interface object (0xF5). • Ethernet Link object (0xF6).
DHCP	Supported
Functional scope	• Adapter. • Support of 2 Ethernet Link objects for implementing ring and daisy chain topologies. • Device Level Ring (DLR) protocol (announce-based ring node). • Quality of Service (QoS). • IPv4 Address Conflict Detection (ACD).
Watchdog	Communication watchdog with fixed 5 seconds time-out. It can be enabled via the CIM 500 web page.
Certificate	Plugfest December 2018, Conformance July 2019.

8. Disposing of the product

This product or parts of it must be disposed of in an environmentally sound way.

1. Use the public or private waste collection service.
2. If this is not possible, contact the nearest Grundfos company or service workshop.



The crossed-out wheellie bin symbol on a product means that it must be disposed of separately from household waste. When a product marked with this symbol reaches its end of life, take it to a collection point designated by the local waste disposal authorities.

The separate collection and recycling of such products will help protect the environment and human health.

See also end-of-life information at www.grundfos.com/product-recycling.

Appendix A

A.1. Webserver configuration

The built-in webserver offers easy monitoring of the CIM 500 module and makes it possible to configure the selected Industrial Ethernet protocol. Using the webserver, you can also update the firmware of the CIM 500 module and store or restore settings, among other functions.

To connect a PC to CIM 500, proceed as follows:

1. Connect the PC and the module using an Ethernet cable.
2. Configure the Ethernet port of the PC to the same subnetwork as CIM 500, for example 192.168.1.101.
3. Open a standard Internet browser and type 192.168.1.100 in the URL field.

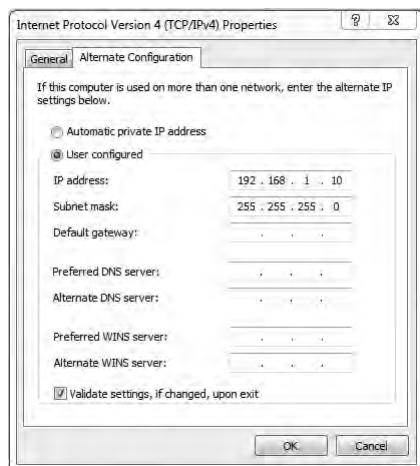
Related information

[A.1.1. How to configure an IP address on your PC using Windows 7](#)

[A.1.2. How to configure an IP address on your PC using Windows 10](#)

A.1.1. How to configure an IP address on your PC using Windows 7

1. Open "Control Panel".
2. Select "Network and Sharing Center".
3. Click [Change adapter settings].
4. Right-click and select "Properties" for the Ethernet adapter. Typically "Local Area Connection".
5. Select properties for "Internet Protocol Version 4 (TCP/IPv4)".
6. Select the "Alternate Configuration" tab and enter the user-configured IP address and the subnet mask you would like to assign to your PC. See the figure below.



Example from Windows 7

A.1.2. How to configure an IP address on your PC using Windows 10

1. Search for "Ethernet" in Windows.
2. Select "Change Ethernet setting".

3. Select "Change adapter options".
4. Right-click "Ethernet" and select "Properties".
5. Select properties for "Internet Protocol Version 4 (TCP/IPv4)".
6. Select the "Alternate Configuration" tab and enter the user-configured IP address and subnet mask you would like to assign to your PC.

A.1.3. Login

For administration of username and password, see the section about user management in the appendix.



If you experience problems with logging in to the webserver after a firmware update, perform a factory reset.

TM074522

Login

Object	Description
Username	Enter username. Default: admin.
Password	Enter password. Default: Grundfos. After the first log in, you are forced to change the password. The password must contain: • at least 8 and maximum 20 characters • at least one lower case letter • at least one upper case letter • at least one numeric or special character. When logging in, you have four attempts before a back-off algorithm starts an exponentially increasing time delay between each attempt. Power cycling CIM 500 resets the back-off algorithm.

Related information

[*A.1.13. User Management*](#)

A.1.4. System information

The screenshot displays the Grundfos CIM 500 Industrial Ethernet - GIC web interface. The top header features the Grundfos logo and the product name. The main content area is divided into two sections: 'Information' and 'Version Information'.

Information Section:

- System:** Includes fields for System, Version, and Licence.
- Configuration:** Includes links for Network Settings, User Management, and Firmware Update / Restart.
- Logout:** A button to log out of the system.
- Service Info:** A link to service information.
- Contact:** A link to contact information.

Version Information Section:

Application version:	CIM 500 Ethernet V07.00.12
PROFINET IO version:	V01.40.00
Modbus TCP version:	V02.09.01
BACnet IP version:	V03.06.00
GRM IP version:	V02.08.09
Ethernet/IP version:	V01.02.33
GIC version:	V00.00.01
CommonGENI version:	CG V08.35.00
GENIpro version:	GENIpro V08.04.00
TLS version:	TLS 1.2
BACnet IP Stack version:	V02.51.00
SDAI version:	V1.84.00.13242
SWITCH IP Core version:	V1.50.00.13786

TM077959

System information

A.1.5. PROFINET IO configuration

This web page is used to configure all the parameters relevant to the PROFINET IO protocol standard.

The screenshot shows the Grundfos Real Time Ethernet Protocol Configuration - PROFINET IO web interface. The interface has a dark header with the Grundfos logo. On the left is a navigation menu with sections: Information (System, Version, Licence), Configuration (Real Time Ethernet Protocol, Network Settings, User Management, Firmware Update / Restart), Logout, Service Info, and Contact. The main content area is titled 'Real Time Ethernet Protocol Configuration - PROFINET IO' and contains the following sections:

- Protocol Settings**: Fields for Device Name, IP Address (0.0.0.0), Subnet Mask (0.0.0.0), and Gateway (0.0.0.0).
- Note**: IP Address, Subnet Mask and Gateway address are read only and assigned by PLC.
- Product Simulation**: A dropdown menu for 'Grundfos product simulation' set to 'No Simulation' and a 'Submit' button.
- Restart**: A 'RESTART' button with the instruction 'Press the button to Restart the system:'.

Real Time Ethernet Protocol Configuration - PROFINET IO

Object	Description
Device Name	Enter the device name according to the PROFINET rules: • It consists of one or more labels separated by a dot. • The total length is 1 to 240 characters. • The length of a label is 1 to 63 characters. • Labels only consist of lower case characters, digits and "-". • The first and the last character of a label must not be "-".
IP Address	This field is read-only. The IP address is assigned from the PLC. PROFINET IO is not allowed to share the IP address with a CIM 500 webserver.
Subnet Mask	This field is read-only. The subnet mask is assigned from the PLC.
Gateway	This field is read-only. The gateway address is assigned from the PLC.
Grundfos product simulation	The module can be put in product simulation mode to generate realistic simulated values of all the PROFINET IO input data. It is thus possible to connect a PROFINET IO master to a module fitted in a CIU or an E-box without installing this device in a real industrial process system. In an office environment, it can then be verified that communication works, and data is received and handled correctly by the PROFINET IO master application program (for example PLC program) before installing the device. To enable product simulation, select a product type from the dropdown list. To terminate product simulation, select "No Simulation".
Restart	Press the restart button if LED1 flashes red, which indicates a wrong or missing PROFINET IO configuration.

A.1.6. Modbus TCP configuration

This web page is used to configure all the parameters relevant to the Modbus TCP protocol standard.



Information

System

Version

Licence

Configuration

Real Time Ethernet Protocol

Network Settings

GENipso TCP Protocol

User Management

Firmware Update / Restart

Logout

Service Info

Contact

Real Time Ethernet Protocol Configuration - Modbus TCP

Protocol Settings

TCP Port Number:

502

IP Address:

0.0.0.0

Subnet Mask:

0.0.0.0

Gateway:

0.0.0.0 x

Use DHCP:

☐

Submit

ATTENTION!

To optimize data security if using Modbus TCP via a cellular router Grundfos strongly recommends that the cellular data connection is based on a private APN with static IP and no access to public internet.

TM074523

Real Time Ethernet Protocol Configuration - Modbus TCP

Object	Description
TCP Port Number	The default value is 502, the official IANA-assigned Modbus TCP port number. The number 502 is always active implicitly. If you select another value in the webserver configuration field, both the new value and value 502 will be active.
IP Address	Configuration of the static IP address if a DHCP server is not used. Modbus TCP is not allowed to share the IP address with the CIM 500 webserver.
Subnet Mask	Configuration of the subnet mask if a DHCP server is not used.
Gateway	Configuration of the gateway address if a DHCP server is not used.
Use DHCP	The module can be configured to automatically obtain its Modbus TCP network settings from a DHCP server if available on the network. Default: DHCP disabled. "Use DHCP" is unchecked.

A.1.7. BACnet IP configuration

This web page is used to configure some of the parameters relevant to the BACnet IP protocol standard.

Apart from these settings, BACnet IP will use the IP address, subnet mask, default gateway and DHCP setting configured in the Network Settings menu.

GRUNDFOS

Information

- System
- Version
- Licence

Configuration

- Real Time Ethernet Protocol
- Network Settings
- User Management
- Firmware Update / Restart

Logout

Service Info

- Contact

Real Time Ethernet Protocol Configuration - BACnet IP

Protocol Settings

UDP Port Number:

Device Instance:

Device Name:

Device Location:

Max APDU:

Network Watchdog Timer: Range [2; 1440] min, 0=Disable.

Custom device instance enable: ☐

Foreign Device settings

Foreign Device: ☐

IP Address:

UDP Port :

Re Register Time:

TM074518

Real Time Ethernet Protocol Configuration - BACnet IP

Object	Description
UDP Port Number	Enter the UDP Port Number. The default number is 47808, the IANA-assigned standard UDP port number for BACnet IP.
Device Instance	Enter the Device Instance number. The default number is 227000. The Device Instance must be unique in the BACnet network. For Grundfos, the first three digits of the number is 227 and is fixed. The last three digits can be changed.
Device Name	You can name the device. The device name must be unique in the BACnet network. Optional.
Device Location	You can name the device location for local identification. Optional.
Max APDU	Enter the maximum Application Protocol Data Unit between 50 and 1476. The default value is 1476 bytes.
Network Watchdog Timer	If enabled and BACnet communication stops, the watchdog timer restarts the internal network module if it times out. You can configure the time-out from 2 minutes to 1440 minutes in steps of 1 minute. A value of 1 is illegal and a value of 0 disables the watchdog.

Object	Description
Custom device instance enable	If ticked, CIM 500 is configured to use a BACnet custom device instance number.
Foreign Device	If ticked, CIM 500 is configured as a foreign device.
IP Address	Enter the foreign IP address.
UDP Port	Enter the foreign UDP port number. The default number is 47808.
Re-Register Time	Enter the time period in seconds during which the foreign device must re-register on the BACnet network.
Network Watchdog Timer	If enabled and BACnet communication stops, the watchdog timer restarts the internal network module if it times out. You can configure the time-out from 2 minutes to 1440 minutes in steps of 1 minute. A value of 1 is illegal and a value of 0 disables the watchdog.

A.1.8. EtherNet/IP configuration

This web page is used to configure all the parameters relevant to the EtherNet/IP protocol standard.

The screenshot shows the Grundfos Real Time Ethernet Protocol Configuration - EtherNet/IP web interface. The interface has a dark header with the Grundfos logo. On the left is a sidebar menu with sections: Information (System, Version, Licence), Configuration (Real Time Ethernet Protocol, Network Settings, User Management, Firmware Update / Restart), Logout, Service Info, and Contact. The main content area is titled 'Real Time Ethernet Protocol Configuration - EtherNet/IP' and contains two sections: 'Protocol Settings' and 'Product Simulation'. In 'Protocol Settings', there are input fields for IP Address, Subnet Mask, and Gateway, all set to 0.0.0.0. There are checkboxes for 'Use DHCP' and 'Comm. Watchdog' (with a 5s timeout). In 'Product Simulation', there is a dropdown menu for 'Grundfos product simulation' set to 'No Simulation' and a 'Submit' button.

Real Time Ethernet Protocol Configuration - EtherNet/IP	
Protocol Settings	
IP Address:	0.0.0.0
Subnet Mask:	0.0.0.0
Gateway:	0.0.0.0
Use DHCP:	☐
Comm. Watchdog:	☐ 5s timeout.
Product Simulation	
Grundfos product simulation:	No Simulation ▼
Submit	

Real Time Ethernet Protocol Configuration - EtherNet/IP

TM074519

Object	Description
IP Address	Configuration of the static IP address if a DHCP server is not used. EtherNet/IP is not allowed to share the IP address with the CIM 500 webserver.
Subnet Mask	Configuration of the subnet mask if a DHCP server is not used.
Gateway	Configuration of the gateway address if a DHCP server is not used.
Use DHCP	The CIM 500 module can be configured to automatically obtain its EtherNet/IP network settings from a DHCP server, if available on the network. Default: No use of DHCP.
Communication Watchdog	For enabling a 5 seconds communication watchdog timer. Only active for pump or booster products. Unchecked: Watchdog is disabled (default). Checked: Watchdog is enabled, time-out is 5 seconds. Watchdog action: The pump or the booster is set to local mode.
Grundfos product simulation	The module can be put in product simulation mode to generate realistic simulated values of all the EtherNet/IP input data. It is thus possible to connect an EtherNet/IP master to a module fitted in a CIU or an E-box without installing this device in a real industrial process system. In an office environment, it can then be verified that communication works, and data is received and handled correctly by the EtherNet/IP master application program (for example PLC program) before installing the device. To enable product simulation, select a product type from the dropdown list. To terminate product simulation, select "No Simulation".

A.1.9. GRM IP configuration

By default, the GRM server URL and DHCP are activated on the GRM webserver.



You need a contract with Grundfos and an external router with Internet connection to gain access to the GRM server.

GRUNDFOS

Real Time Ethernet Protocol Configuration - GRM IP

Please do not change the below settings unless instructed by Grundfos certified personnel.

Changing the settings might result in nonoperational system.

GRMIP Port Number:

URL:

Check to Update the Settings: ☐

Default setting of GRM server address

Press DEFAULT button to revert to the defaults factory settings for the above in case of connection errors

ATTENTION!

The CIM 500 using GRM IP must be connected behind a firewall. If you experience trouble establishing connect open port 443 in your firewall.

TM074521

Real Time Ethernet Protocol Configuration - GRM IP

Object	Description
GRMIP Port Number	A change is only needed in case Grundfos requires it.
URL	The default URL link to the GRM Server is active but hidden. A change is only needed in case Grundfos requires it.
Check to Update the Settings	This setting enables editing of the URL. Checked: Editing of the URL is possible (not recommended). Unchecked: No editing of the URL is possible (default).
Default setting of GRM server address	Set the URL link to GRM server to default value. Only needed if a manual URL was typed in and should be changed back.

A.1.10. GiC configuration

By default, the GiC provisioning server URL and DHCP are activated.

GRUNDFOS 

Grundfos CIM 500 Industrial Ethernet - GiC

Information

- System
- Version
- License

Configuration

- Network Settings
- User Management
- Firmware Update / Restart

Service Info

- Logout
- Service Info
- Contact

System Information

Grundfos Product

Connected product: 1.Grundfos iSolutions Monitor (GIM)

Real Time Ethernet Protocol

Protocol Switch Position: 5
Active protocol: GiC
Communication status: Successful Connected

Network Settings

MAC Address: 00:14:44:03:F3:F4
IP Address: 192.168.1.6
Subnet Mask: 255.255.255.0
Gateway: 192.168.1.254
DHCP active: Yes
DNS Server: 8.8.8.8

TM077956

System information

Object	Description
IP Address	Configuration of the static IP address if a DHCP server is not used. EtherNet/IP is not allowed to share the IP address with the CIM 500 webserver.
Subnet Mask	Configuration of the subnet mask if a DHCP server is not used.
Gateway	Configuration of the gateway address if a DHCP server is not used.
Use DHCP	The CIM 500 module can be configured to automatically obtain its EtherNet/IP network settings from a DHCP server, if available on the network. Default: No use of DHCP.
MAC Address	MAC address of the interface.
DNS Server	The module can be configured to use a specific domain name server, if available on the network.

A.1.11. Network settings

This web page is used to configure the network settings of the webserver and of the GENIpro TCP protocol. The network settings here are also used for BACnet IP. Additional configuration of BACnet IP is done in the Real Time Ethernet Protocol menu. See the section about EtherNet/IP configuration in the appendix.

TM077955

Network settings

Object	Description
IP Address	Configuration of the static IP address if a DHCP server is not used. Default: 192.168.1.100.
Subnet Mask	Configuration of the subnet mask if a DHCP server is not used. Default: 255.255.255.0.
Gateway	Configuration of the gateway address if a DHCP server is not used. Default: 192.168.1.1.
DNS Server	The module can be configured to use a specific domain name server, if available on the network. Default: 0.0.0.0.
Use DHCP	The module can be configured to automatically obtain the IP address from a DHCP server, if available on the network. Default: Do not use DHCP.

Related information

[A.1.8. EtherNet/IP configuration](#)

A.1.12. GENIpro TCP port settings

This web page is only present when the Modbus TCP protocol has been selected, SW1 is in position 1. The module can connect to a Grundfos PC Tool and communicate with the product via the GENIpro TCP protocol.

GENIpro TCP port settings

Object	Description
Enable GENIpro TCP	For enabling or disabling the GENIpro TCP protocol. Default: Disabled.
TCP Port Number	The TCP port number of the module and that of the PC Tool must be identical. Default: 49152, IANA public port.

TM07 45:20

A.1.13. User Management

A login is required for any change of the CIM 500 settings, and this web page is used to configure the username and password. See the section about login in the appendix.



It is only possible to configure one user.

The screenshot shows the Grundfos CIM 500 Industrial Ethernet - GIC web interface. The top header features the Grundfos logo and the text "Grundfos CIM 500 Industrial Ethernet - GIC". The left sidebar contains a menu with "Information" (System, Version, Licence) and "Configuration" (Network Settings, User Management, Firmware Update & Restart, Logout, Service Info, Contact). The main content area is titled "User Management" and contains a form with the following fields: "Type" (set to "Administration"), "Username" (set to "admin"), "New password", and "Confirm password". A "Submit" button is located below the form. Below the form, there are three sections of requirements:

- Administration:**
 - * User has all access rights.
- User name requirements:**
 - * Minimum 1 character and maximum 20 characters.
 - * Can only contain alphanumerics.
- Password requirements:**
 - * Minimum 8 characters and maximum 20 characters.
 - * Minimum 1 lower case alphabetic character.
 - * Minimum 1 upper case alphabetic character.
 - * Minimum 1 numeric or special character.

On the right side of the screenshot, the text "TM077958" is visible.

User management

Related information

[A.1.3. Login](#)

A.1.14. Update

You can update the firmware by means of the built-in webserver. The binary file is supplied by Grundfos. To make installation and configuration easier, you can upload the configuration to a PC for backup or distribution to multiple modules.



If you experience problems with logging in to the webserver after a firmware update, perform a factory reset.

The screenshot shows the Grundfos CIM 500 Industrial Ethernet - GiC web interface. The left sidebar contains a menu with sections: Information (System, Version, Licence), Configuration (Network Settings, User Management, Firmware Update / Restart), Logout, Service Info, and Contact. The main content area is titled 'Update' and includes a 'Firmware' section with a description, a 'Choose File' button, and an 'Update' button. Below this is a 'Restart' section with a description and a 'Restart module' button. The Grundfos logo is in the top left, and the product name is in the top right.

TM077950

Update

Object	Description
Firmware	Path to binary firmware image that can be used for updating the module.
Update	Click [Update] to start the update. The procedure takes approximately one minute.
File	Path to the configuration file.
Download to module	Click here to transfer the configuration file to the module.
Upload from device	Click here to upload the configuration of the module to a file on your PC.
Restart module	By pressing this button, the CIM 500 module does a power-up reset.

A.1.15. Service info

This page gives an overview of the communication status.

The screenshot shows the Grundfos CIM 500 Industrial Ethernet - GIC web interface. The top header features the Grundfos logo and the product name. The left sidebar contains a menu with 'Information' (System, Version, License), 'Configuration' (Network Settings, User Management, Firmware Update / Restart), 'Logout', 'Service info', and 'Contact'. The main content area is titled 'Service Info' and includes the following sections:

- Factory Reset Status**: Last Factory Reset Status: **Success**
- GENI TTL Connection Status**: This is the connection between the CIM 500 module and the product.

GENibus TX Count:	0
GENibus RX Count:	0
GENibus CRC Error Count:	0
GENibus Data Error Count:	0
GIC software reset count:	1
- CIM 500 switch settings**:

0	PROFINET IO
1	Modbus TCP
2	BACnet IP
3	EtherNet/IP
4	GRM IP (Grundfos Remote Management)
5	GIC (Grundfos iSolution Cloud)
B-E	Illegal
F	Factory reset (after 20s red/green flashing of LED1)

TM077957

Service info

Appendix B

B.1. China RoHS, table C

产品中有害物质的名称及含量

部件名称	有害物质					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr6+)	多溴联苯 (PBB)	多溴联苯醚 (PBDE)
印刷电路板	X	O	O	O	O	O
紧固件	X	O	O	O	O	O
本表格依据 SJ/T 11364 的规定编制 O: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。 X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 该规定的限量要求。  该产品环保使用期限为 10 年，标识如左图所示。 此环保期限只适用于产品在安装与使用说明书中所规定的条件下工作						

Declaration of conformity

UK declaration of conformity

We, Grundfos, declare under our sole responsibility that the products to which the declaration below relates, are in conformity with UK regulations, standards and specifications to which conformity is declared, as listed below:

Valid for Grundfos product:

CIM 500

- **Electrical Equipment (Safety) Regulations 2016**
Standard used:
- BS EN 61010-1:2010
- **Electromagnetic Compatibility Regulations 2016**
Standard used:
- BS EN 61000-6-2:2005; BS EN 61000-6-4:2007
+ A1:2011
- **The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2019**
Standard used:
- BS EN IEC 63000:2018

This UK declaration of conformity is only valid when accompanying Grundfos instructions (publication number 98407037).

Bjerringbro, 31st December 2020



Dorte Jepsen
Senior Manager
Grundfos Holding A/S
Poul Due Jensens Vej 7
8850 Bjerringbro, Denmark

Manufacturer and person empowered to sign the UK
declaration of conformity.

10000340635

Declaration of conformity

GB: EU declaration of conformity

We, Grundfos, declare under our sole responsibility that the product CIM 500, to which the declaration below relates, is in conformity with the Council Directives listed below on the approximation of the laws of the EU member states.

DK: EU-overensstemmelseserklæring

Vi, Grundfos, erklærer under ansvar at produktet CIM 500 som erklæringen nedenfor omhandler, er i overensstemmelse med Rådets direktiver der er nævnt nedenfor, om indbyrdes tilnærmelse til EU-medlemsstaternes lovgivning.

FI: EU-vaatimustenmukaisuusvakuutus

Grundfos vakuuttaa omalla vastuullaan, että tuote CIM 500, jota tämä vakuutus koskee, on EU:n jäsenvaltioiden lainsäädännön lähentämiseen tähtäävien Euroopan neuvoston direktiivien vaatimusten mukainen seuraavasti.

IT: Dichiarazione di conformità UE

Grundfos dichiara sotto la sua esclusiva responsabilità che il prodotto CIM 500, al quale si riferisce questa dichiarazione, è conforme alle seguenti direttive del Consiglio riguardanti il riavvicinamento delle legislazioni degli Stati membri UE.

RO: Declarația de conformitate UE

Noi Grundfos declarăm pe propria răspundere că produsul CIM 500, la care se referă această declarație, este în conformitate cu Directivele de Consiliu specificate mai jos privind armonizarea legilor statelor membre UE.

CN: 欧盟符合性声明

我们，格兰富，在我们的全权责任下声明，产品 CIM 500 系列，其制造和性能完全符合以下所列欧盟委员会指令。

KO: EU 적합성 선언

Grundfos는 아래의 선언과 관련된 CIM 500 제품이 EU 회원국 법률에 기반하여 아래의 이사회 지침을 준수함을 단독 책임 하에 선언합니다.

DE: EU-Konformitätserklärung

Wir, Grundfos, erklären in alleiniger Verantwortung, dass das Produkt CIM 500, auf das sich diese Erklärung bezieht, mit den folgenden Richtlinien des Rates zur Angleichung der Rechtsvorschriften der EU-Mitgliedsstaaten übereinstimmt.

ES: Declaración de conformidad de la UE

Grundfos declara, bajo su exclusiva responsabilidad, que el producto CIM 500 al que hace referencia la siguiente declaración cumple lo establecido por las siguientes Directivas del Consejo sobre la aproximación de las legislaciones de los Estados miembros de la UE.

FR: Déclaration de conformité UE

Nous, Grundfos, déclarons sous notre seule responsabilité, que le produit CIM 500, auquel se réfère cette déclaration, est conforme aux Directives du Conseil concernant le rapprochement des législations des États membres UE relatives aux normes énoncées ci-dessous.

PT: Declaração de conformidade UE

A Grundfos declara sob sua única responsabilidade que o produto CIM 500, ao qual diz respeito a declaração abaixo, está em conformidade com as Directivas do Conselho sobre a aproximação das legislações dos Estados Membros da UE.

RU: Декларация о соответствии нормам ЕС

Мы, компания Grundfos, со всей ответственностью заявляем, что изделие CIM 500, к которому относится нижеприведённая декларация, соответствует нижеприведённым Директивам Совета Евросоюза о тождественности законов стран-членов ЕС.

JP: EU 適合宣言

Grundfos は、その責任の下に、CIM 500 製品が EU 加盟諸国の法規に関連する、以下の評議会指令に適合していることを宣言します。

- **Low Voltage Directive (2014/35/EU).**
Standard used:
 - EN 61010-1:2010
- **EMC Directive (2014/30/EU).**
Standard used:
 - EN 61000-6-2:2005; EN 61000-6-4:2007/A1:2011
- **RoHS Directive (2011/65/EU and 2015/863/EU)**
Standard used:
 - EN IEC 63000:2018

This EU declaration of conformity is only valid when published as part of the Grundfos installation and operating instructions (publication number 98407037).

Bjerringbro, 31st December 2020



Dorte Jepsen

Senior Manager

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Manufacturer and person empowered to sign the EU
declaration of conformity.

Operating manual EAC

RUS

CIM 500

Руководство по эксплуатации

Руководство по эксплуатации на данное изделие является составным и включает в себя несколько частей:

Часть 1: настоящее «Руководство по эксплуатации».

Часть 2: электронная часть «Паспорт. Руководство по монтажу и эксплуатации» размещенная на сайте компании Грундфос. Перейдите по ссылке, указанной в конце документа.

Часть 3: информация о сроке изготовления, размещенная на фирменной табличке изделия.

Сведения о подтверждении соответствия:

Модули передачи данных CIM 500 прошли процедуру подтверждения на соответствие требованиям Технических регламентов Таможенного союза: ТР ТС 004/2011 «О безопасности низковольтного оборудования»; ТР ТС 020/2011 «Электромагнитная совместимость технических средств».



KAZ

CIM 500

Пайдалану бойынша нұсқаулық

Атаулы өнімге арналған пайдалану бойынша нұсқаулық құрамалы болып келеді және келесі бөлімдерден тұрады:

1 бөлім: атаулы «Пайдалану бойынша нұсқаулық»

2 бөлім: Грундфос компаниясының сайтында орналасқан электронды бөлім «Төлқұжат, Құрастыру және пайдалану бойынша нұсқаулық». Құжат соңында көрсетілген сілтеме арқылы өтіңіз.

3 бөлім: өнімнің фирмалық тақтасында орналасқан шығарылған уақыты жөніндегі мәлімет Сәйкестік мәлімдемесі туралы ақпарат:

CIM 500 деректерді беру модульдері Кеден одағының техникалық регламенттерінің талаптарына сәйкестігін растау рәсімінен өтті: «Төмен вольтты жабдықтардың қауіпсіздігі туралы» (ТР ТС 004/2011), «Техникалық заттардың электрлі магниттік сәйкестілігі» (ТР ТС 020/2011).

KG

CIM 500

Пайдалануу боюнча колдонмо

Аталган жабдууну пайдалануу боюнча колдонмо курамдык жана өзүнө бир нече бөлүкчөнү камтыйт:

1-Бөлүк: «Пайдалануу боюнча колдонмо»

2-Бөлүк: «Паспорт. Пайдалануу жана монтаж боюнча колдонмо» электрондук бөлүгү Грундфос компаниянын сайтында жайгашкан. Документтин аягында көрсөтүлгөн шилтемеге кайрылыңыз.

3-Бөлүк: жабдуунун фирмалык тактасында жайгашкан даярдоо мөөнөтү тууралуу маалымат.

Шайкештиги баалоо боюнча маалымат алуу үчүн:

Берилмелер модулдар CIM 500 бажы биримдигинин техникалык регламенттерге ылайык текшерилсе: ТР ТБ 004/2011 «Төмөн вольттук жабдуунун коопсуздугу жөнүндө»; ТР ТБ 020/2011 «Техникалык каражаттардын электромагниттик шайкештиги».

ARM

CIM 500

Շահագործման ձեռնարկ

Տվյալ սարքավորման շահագործման ձեռնարկը բաղկացած է մի քանի մասերից.

Մաս 1. սույն «Շահագործման ձեռնարկ»:

Մաս 2. էլեկտրոնային մաս. այն է՝ «Անձնագիր: Մոնիտորինգ և

շահագործման ձեռնարկ» տեղադրված «Գրունդֆոս». Անցեք փաստաթղթի վերջում նշված հղումով.

Մաս 3. տեղեկություն արտադրման ամսաթվի վերաբերյալ՝ նշված սարքավորման պիտակի վրա:

Համապատասխանության մասին հայտարարության տեղեկություններ՝

CIM 500 տվյալների փոխանցման մոդուլները անցան հաստատման կարգը՝ Մաքսային միության տեխնիկական կանոնակարգի պահանջներին համապատասխան. TR TS 004/2011 « voltage» լարման սարքավորումների անվտանգության մասին »; TR TS 020/2011 «Տեխնիկական միջոցների էլեկտրամագնիսական համատեղելիություն»:



<http://net.grundfos.com/qr/i/99800478>

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