



COMMUNICATION INTERFACES

COMPLETE CONTROL FOR PUMPS AND PUMP SYSTEMS

THE CIM/CIU CONCEPT

For complete control of pump systems, the Grundfos fieldbus concept is the right solution. The innovative Communication Interface Module (CIM) and the Communication Interface Unit (CIU) enable data communication via open and interoperable networks such as Profibus DP, Modbus RTU, LONWorks, BACnet MS/TP®, PROFINET IO, Modbus TCP, GSM/GPRS (wireless), BACnet IP, or Grundfos Remote Management.

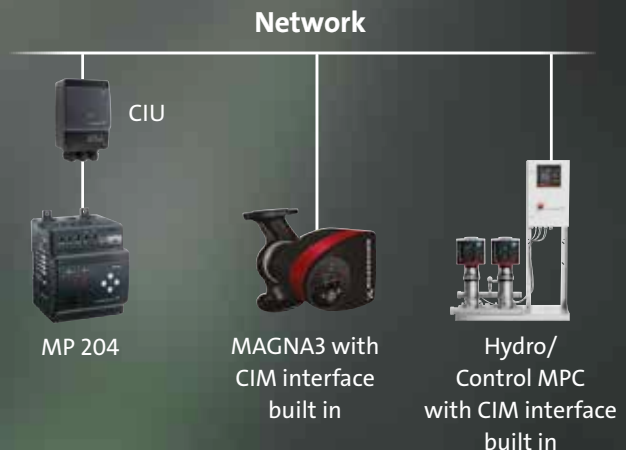
The series of Grundfos CIM/CIU communication interfaces offer ease of installation and commissioning, user-friendliness and great value for money in the long term. All modules are based on standard functional profiles for an easy integration into the network and easy understanding of data points.

When to use CIM and CIU

CIM modules are add-on modules that allow communication with E-pumps and Multi-E with MGE model H / I / J, Dedicated Controls, MAGNA3, CU 352 Hydro MPC and the CU 323 Hydro Multi-B.

The CIU communication interface unit is for products with a GENibus interface such as CUE frequency drives, E-pumps with MGE model F/ G and MP204 motor protection. CIU units have an integrated 24 to 240 V power supply and are prepared for wall-mounting or DIN-rail mounting.

For GSM/ GPRS interfaces a variant with additional IO Board is available (CIU 251) to collect data from analog or digital entries.



WHY GRUNDFOS CIM/CIU MODULES MAKE GOOD SENSE

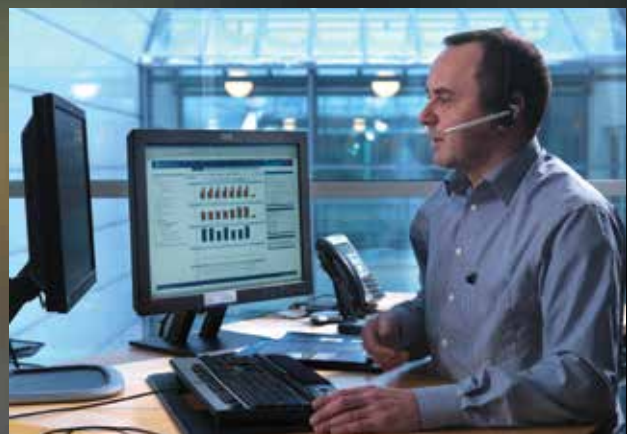
Open and interoperable data bus networks are becoming increasingly important for supervisory systems monitoring pump systems, and Grundfos is committed to open protocols. You gain an optimal, flexible and therefore cost-effective integration of data communication and field devices such as pumps or pump systems into management systems.

Taking complete control of your pump system in this way offers many advantages. The time spent on reporting, data collection, and so on is minimised – as are service visits. When you always know how your pumps are doing, maintenance visits can be scheduled for maximum efficiency – and emergencies reduced to the barest minimum.

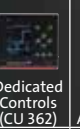














CIM/CIU COMMUNICATION INTERFACE PRODUCTS

Supports a wide range of Grundfos products, for detailed information see the table on next page:

- > CIM 050 for GENibus
- > CIM 060 for radio communication to Grundfos GO Remote
- > CIM 100/110 and CIU 100 for LONWorks networks
- > CIM/CIU 150 / CIU 152 and E-box 150 for Profibus DP
- > CIM/CIU 200 / CIU 202 and E-box 200 for Modbus RTU / COMLI
- > CIM/CIU 250 /CIU 251 / CIU 252 for GSM/GPRS networks
- > CIM 270 / CIU 270-273 for GRM
- > CIM/CIU 300 for BACnet MS/TP networks
- > CIM/CIU 500 for PROFINET IO /Modbus TCP/BACnet IP/ GRM IP
- > CIU 501 for Modbus TCP / GRM IP



CIM/CIU INTERFACE PRODUCTS MAPPED TO PROTOCOLS

														
GENIbus	 2x CIM 050	 CIM 050	built in	built in 1)	built in 1)	built in	 CIM 050	built in	built in 1)	built in	 CIM 050	 CIM 050 + CIU 902	 CIM 050	built in
LON	 2x CIM 100	 CIM 100	 2x CIU 100	 CIM 110	 CIM 100 3)	 CIU 100	 CIM 110	 CIU 100	 CIM 110 3)				 CIM 110	
Profibus DP	 2x CIM 150	 CIM 150	 2x CIU 150	 CIM 150	 CIM 150	 CIU 150	 CIM 150	 CIU 150	 CIM 150	 CIU 150	 CIM 150	 CIU 152		 CIU 150 / E-Box 150
PROFINET IO	 2x CIM 500	 CIM 500	 2x CIU 500	 CIM 500	 CIM 500	 CIU 500	 CIM 500	 CIU 500	 CIM 500	 CIU 500	 CIM 500	 CIM500 + CIU 902		 CIU 500 / E-Box 500
Modbus TCP	 2x CIM 500	 CIM 500	 2x CIU 500	 CIM 500	 CIM 500	 CIU 500	 CIM 500	 CIU 500	 CIM 500	 CIU 500	 CIM 500	 CIM500 + CIU 902	 CIM 500	 CIU 500 / E-Box 500
Modbus RTU	 2x CIM 200	 CIM 200	 2x CIU 200	 CIM 200	 CIM 200	 CIU 200	 CIM 200	 CIU 500	 CIM 200	 CIU 200	 CIM 200	 CIU 202	 CIM 200	 CIU 200 / E-box 200
GSM/GPRS/SMS (e.g. for SCADA)	 2x CIM 250	 CIM 250	 2x CIU 250	 CIM 250	 CIM 250	 CIU 250	 CIM 250	 CIU 250	 CIM 250	 CIU 250	 CIM 250	 CIU 252	 CIM 250	
BACnet MS/TP	 2x CIM 300	 CIM 300	 2x CIU 300	 CIM 300	 CIM 300	 CIU 300	 CIM 300	 CIU 300	 CIM 300				 CIM 300	
BACnet IP	 2x CIM 500	 CIM 500	 2x CIU 500	 CIM 500	 CIM 500	 CIU 500	 CIM 500	 CIU 500	 CIM 500				 CIM 500	
GRM (Grundfos Remote Management) 5)	 2x CIM 270 or (2x CIM 050 + CIU 270) or 2x CIM 500	 CIM 270 or CIM 500	 2x CIU 270 or 2x CIU 500	 2x CIM 270 or (2x CIM 050 + CIU 270) or 2x CIM 500	 CIM 270 or CIM 500	 CIU 270 or CIU 500	 CIM 270 or CIM 500	 CIU 270 or CIU 500	 CIM 270 or CIM 500	 CIU 270 or CIU 500	 CIM 270 or CIM 500	 CIU 272	 CIM 270 or CIM 500	 CIU 270 or CIU 500
Radio to Grundfos GO Remote	built in	built in		built in	built in				built in		 CIM 060	 CIM 060		

CIU 251 (with additional IO board) can be used as alternative in all application cases of CIU 250

CIU 501 (with additional IO board) can be used as alternative for CIU 500 for Modbus TCP and GRM IP to have more IOs available

1) Large E-pumps 11-22 kW require CIM 050 GENIbus interface

2) A second CIM module can optionally be mounted in pump no. 2 for redundancy

3) Multi-E with 11-22 kW require a CIU100 LON interface

4) MAGNA3-D will change to "booster profile" April 2017, by then only one CIM in master pump is allowed for Modbus, Profibus, PROFINET, BACNET, BACnet IP

5) For CIM/CIU 500 wireless communication requires an external 3G / 4G Router; Robustel Router can be ordered via Grundfos.

Available accessories:

- RJ45 plugs, Ethernet
- Antenna roof for CIM/CIU 250 / 270
- Antenna desk for CIM/CIU 250 / 270
- CIM 250 battery
- 3 m GENIbus cable DDA to CIU
- Robustel R3000-L3H, 3G router
- Robustel R3000-L4L, 4G router
- DIN 12 Vdc PSU for Robustel modem
- Antenna 4G Modem kit for Robustel Router

