

Communication interface for **LON** – easy integration in building automation

The CIM/CIU 100 and CIU 110 is a standard interface for data transmission between a LON network and a Grundfos pump or controller. It makes data exchange possible between Grundfos pumping systems and a building management system.

The communication interface is fully compliant with the standard LONmark functional profile 8120 “Pump Controller”, ensuring interoperability with other LON devices.

The communication interfaces have been certified as conforming to LonMark Application Layer interoperability guidelines 3.4.

The interface module can be installed as an internal add-on or as a wall-mounted unit where internal connection is not supported. The wall-mounted unit is equipped with a 24-240 VAC/VDC power supply.

In addition to LON, interface modules are also available for GENIbus, BACnet, Modbus, Profibus, GSM and other systems.

CIM 100 add-on module

The CIM 100 is an add-on communication module installed internally in 11-22 kW Grundfos E-Pumps. CIM 110 add-on module is used for Hydro Multi-B.

CIU 100 / CIU 110 wall-mounted/DIN-rail unit

The CIU 100 and CIU 110 with internal power supply are for Grundfos products that do not support the add-on module (CIU 110 is used for Hydro MPC/ Control MPC).

Supported products

- > MAGNA/UPE Circulators*
- > Dry-running E-pumps: CRE/CRNE/CRIE, MTRE, CME, TPE Series 1000/2000, NBE/NKE
- > CUE Motor drive for pumps
- > Multi Pump Controller: Control MPC*
- > Boosters: Hydro Multi-E and Hydro MPC* and Hydro Multi-B

* additional add-on GENIbus module required



Advantages at a glance

- > Supports a wide range of Grundfos products
- > Uses 8120 – Pump Controller functional profile from LONmark
- > Modular design – prepared for future needs
- > 24-240 VAC/VDC power supply in CIU
- > Self-documentation strings for fast installation

Using CIM/CIU with Grundfos products

General CIU 100 / CIU 110 data

Supply voltage	24-240 VAC/VDC, -10% / + 15%
Frequency	0 - 60 Hz
Power consumption	Max. 11 W
Cable size	IEC: 0.2 - 4 mm ² , UL: 24-12 AWG
Enclosure class	IP 54, according to IEC 60529
Cable entry	6 x M16 Ø4 - Ø10
Operating temperatures	-20 °C to +45 °C (-4 °F to +113 °F)
Storage temperatures	-20°C to +60°C (-4°F to +140°F)
Dimensions (H/W/D)	182 x 108 x 82 mm

GENIbus Communication

Protocol	GENIbus
Recommended cable type	Screened, double twisted-pair
Maximum cable length	1200 m/ 4000 ft

LON Communication

Transceiver	FTT-10
Protocol	LONtalk
Transmission speeds	78 kbits/s

Data points

CIM/CIU 100 + CIU 110 LON						
s = available with sensor s* = available with sensor or TPE 2000 ¹ differential or absolute, depends on sensor ² Not standard for Control MPC G = only for MGE model G	MAGNA / UPE	E-Pumps 0.25-7.5 kW	CUE / E-Pumps 11-22 kW	Multi-E	Hydro MPC/ Control MPC	Hydro Multi-B
Control						
Operating Mode	•	•	•	•	•	•
Setpoint	•	•	•	•	•	•
Control Mode	•	•	•	•	•	•
Status						
Operating Mode Status	•	•	•	•	•	•
Control Mode Status	•	•	•	•	•	•
Feedback (Capacity)	•	•	•	•	•	•
Alarm and warning information	•	•	•	•	•	•
Measured Data						
Power/Energy Consumption	•	•	•	•	•	•
Operation Time (Run Time)	•	•	•	•	•	•
Pressure (Head) ¹	•	s*	s*	•	s ²	•
Flow	•	s*	s*	•	s ²	•
Level		G+s	s		s	s
Inlet Pressure ¹		G+s	s		s	s
Speed	•	•	•			
Pump Liquid Temperature	•	s	s			
Remote flow		G+s	s			
Remote pressure ¹		G+s	s		s	
Remote Temperature		G+s	s			
Auxiliary Sensor input		G+s	s			
Total on time		G	•			
Outlet Pressure ¹					s ²	•
Temperature Difference					s	
Inlet and Outlet Temperatures					s	
Ambient Temperature					s	
Subpump Data (for each sub pump in the system)						
Status information					•	•
Alarm information					•	•
Run Time					•	•
Speed					•	•

Note: E-Pumps = CRE/CRNE/CME, MTRE, CHIE, TPE Series 1000/2000, NBE/NKE

LON Network

