Communication interface for **Profibus DP** – for automation

The CIM/CIU 150 is a standard interface for data transmission between a Profibus DP network and a Grundfos pump or controller. It makes data exchange possible between Grundfos pumping systems and a PLC or SCADA system.

No custom programming is needed to integrate the CIM/CIU 150 in a Profibus network. System integration is very straight-forward with standard GSD files and support for the standard profile "intelligent pumps" from PROFIBUS & PROFINET International.

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 Profibus DP, interface modules are also available for GENIbus, BACnet, Modbus RTU, LON, GSM/GPRS (wireless), PROFINET IO, Modbus TCP and Grundfos Remote Management.

CIM 150 add-on module
The CIM 150 is an add-on communication module installed internally in 11-22 kW Grundfos E-pumps, MGE model H, Dedicated Controls, MAGNA3, Control MPC or Hydro MPC

CIU 150 wall-mounted/DIN-rail unit
The CIU 150 with internal power supply is for Grundfos products that do not support the add-on module.

Supported products
> MAGNA* / UPE FZ / MAGNA3
> DDA dosing, wastewater-AUTO$_{ADAPT}$
> 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
> Motor Protector MP 204
> Boosters: Hydro Multi-E and Hydro MPC
> Dedicated Controls for sewage pumps (sep. data sheet)

Advantages at a glance

> Supports a wide range of Grundfos products
> Supports standard intelligent pump profile from PROFIBUS & PROFINET International
> Modular design – prepared for future needs
> 24-240 VAC/VDC power supply in CIU
> Easy installation and commissioning

Using CIM/CIU with Grundfos products

General CIU 150 data

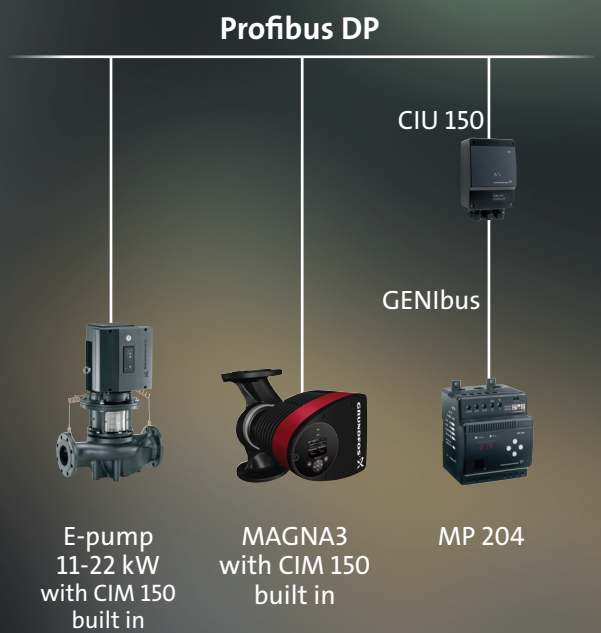
Supply voltage	24-240 Volt AC/DC, -10%/+ 15%
Frequency	0 - 60 Hz
Power consumption	Max. 11 W
Cable size	IEC: 0.2-4 mm2, UL: 24-12 AWG
Enclosure class	IP 54, according to IEC 60529
Cable entry	6 x M16 Ø4 - Ø10
Operating temperatures	-20° C to +45° C (-4° F to +113° F)
Storage temperatures	-20° C to +60° C (-4° F to +140° F)
Dimensions (H/W/D)	182 x 108 x 82 mm

GENIbus Communication

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

Profibus Communication

Protocol	Profibus DP
Implementation class	DP-V0
Transmission speeds	9600 bps to 12 Mbit/s
Slaveaddress	1-126, set via rotary switches



Data points

CIM/CIU 150 Profibus

s = if sensor installed
s* = available with sensor or TPE 2000
[1] differential or absolute, depends on sensor
[2] Not standard for Control MPC
[3] Not supported for all pump variants
H= only MGE model H
G= only MGE model G

	MAGNA / UPE	MAGNA3	E-Pumps 0.25-7.5 kW	CUE / E-Pumps 11-22 kW	Multi-E	Hydro MPC/ Control MPC	MP 204
Control							
Operating Mode	•	•	•	•	•	•	•
Setpoint	•	•	•	•	•	•	
Control Mode	•	•	•	•	H	•	
Relay Control			•	•			
Status							
Operating Mode Status	•	•	•	•	•	•	•
Control Mode Status	•	•	•	•	•	•	
Feedback	•	•	•	•	•	•	
Alarm and warning information	•	•	•	•	•	•	•
Bearing Service information			H	•			
Measured Data							
Power/Energy Consumption	•	•	•	•	•	•	•
Pressure (Head) [1]	•	•	s*	s*	•	•[2]	
Flow	•	•	s*	s*	H+s	•[2]	
Relative Performance	•	•	•	•	•	•	
Speed and Frequency	•	•	•	•			
Digital Input/Output		•	•	•	•	•	
Motor Current		•	•	•			•
DC Link Voltage		•	•	•			
Motor Voltage			•	•			•
Remote Flow		s	G+s	s	H+s		
Inlet Pressure [1]			G+s	s	H+s	s	
Remote Pressure [1]		s	G+s	s	H+s	s	
Level			s	s	H+s	s	
Motor Temperature			G	•			s
Remote Temperature		s	s	s	H+s	s	
Pump Liquid Temperature	•	•	G+s	s			
Bearing Temperatures			H+s	s			
Auxilary Sensor Input			s	s	H+s		
Operation Time (Run Time)	•	•	•	•	•	•	•
Total on time	•	•	•	•			•
Torque (N/A on 1-phased motors)			•	•			
Number Of Starts		•	•	•			
Ambient Temperature			H+s		H+s	s	
Inlet and Outlet Temperatures						s	
Heat energy meter		•	H				
Outlet Pressure [1]			H+s		H+s	•[2]	
Feed Tank Level			H+s		H+s	s	
Phase Voltages							•
Line Voltages/Currents/Frequency							•
Start/Run Capacitor							•
Voltages Angles + Cos phi							•
Insulation resistance							•
Starts/h and auto restarts/24h							•
Subpump Data (for each sub pump in the system)							
Status information					•	•	
Alarm information					•	•	
Operation Time (Run Time)					•	•	
Speed					H	•	
Line current/ power consumption					H	•	
Motor temperature					H	•	
Number of starts					H	•	
Control pump: force to stop/auto						•	

Note: E-Pumps = CRE/CRNE/CME, MTRE, CHIE, TPE Series 1000/2000, NBE/NKE
Note: For DDA dosing pumps please view to DDA related datasheet
Note: For ww-AUTOADAPT and Dedicated Controls view to related datasheets
Note: TPED twin pumps in range 3,0 -22 kW needs always 2 CIU modules

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