

Communication interface for Profibus

– 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 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, LON, GSM and other systems.

CIM 150 add-on module

The CIM 150 is an add-on communication module installed internally in 11-22 kW Grundfos E-pumps.

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 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*
- > Motor Protector MP 204
- > Boosters: Hydro Multi-E and Hydro MPC*

* additional add-on GENIbus module required

Advantages at a glance

- > Supports a wide range of Grundfos products
- > Supports standard intelligent pump profile from Profibus 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 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

Profibus Communication

Protocol	Profibus DP
Implementation Class	DP-V0
Transmission speeds	9600 bps to 12 Mbps
Slave address	1 – 126, set via rotary switches

Data points

CIM/CIU 150 Profibus	MAGNA / UPE	E-Pumps 0.25-7.5 kW	CUE/E-Pumps 11-22 kW	Multi-E	Hydro MPC/ Control MPC	CR Monitor	MP 204
s = available with sensor 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							
Control							
Operating Mode	•	•	•	•	•	•	•
Setpoint	•	•	•	•	•	•	•
Control Mode	•	•	•	•	•	•	•
Relay Control		•	•				•
Status							
Operating Mode Status	•	•	•	•	•	•	•
Control Mode Status	•	•	•	•	•	•	•
Feedback	•	•	•	•	•	•	•
Alarm and warning information	•	•	•	•	•	•	•
Bearing Service information			•				•
Measured Data							
Power/Energy Consumption	•	•	•	•	•	•	•
Pressure (Head) ¹	•	s*	s*	•	• ²	•	•
Flow	•	s*	s*	•	• ²	•	•
Relative Performance	•	•	•	•	•	•	•
Speed and Frequency	•	•	•	•	•	•	•
Digital Input/Output		•	•	•	•	•	•
Motor Current		•	•			•	•
DC Link Voltage		•	•				
Motor Voltage		•	•			•	•
Remote Flow			s				
Inlet Pressure ¹			s		s	s	
Remote Pressure ¹			s		s		
Level		s	s		s		
Motor Temperature			•			• ³	s
Remote Temperature			s	s	s		
Pump Liquid Temperature	•		s			s	
Bearing Temperatures			s				
Auxiliary Sensor Input		s	s			s	
Operation Time (Run Time)	•	•	•	•	•	•	•
Total on time	•	•	•	•	•	•	•
Torque (N/A on 1-phased motors)		•	•				
Number Of Starts		•	•			•	
Ambient Temperature					s		
Inlet and Outlet Temperatures					s		
Temperature Difference					s		
Outlet Pressure ¹					• ²	s	
Feed Tank Level					s		
Phase Voltages							•
Line Voltages/Currents/Frequency							•
Start/Run Capacitor							•
Voltages Angles + Cos phi							•
Insulation resistance							•
Starts/h and auto restarts/24h							•
Calculated/Measured Efficiency							•
Available/required NPSH							•
Cavitation Margin							•
Subpump Data (for each sub pump in the system)							
Status information				•	•		
Alarm information				•	•		
Operation Time (Run Time)				•	•		
Speed				•	•		

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

Profibus DP

