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 straightforward 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.

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**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

<table>
<thead>
<tr>
<th>General CIU 150 data</th>
<th>Data points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supply voltage</strong></td>
<td><strong>CIM/CIU 150 Profibus</strong></td>
</tr>
<tr>
<td>24-240 VAC/VDC, -10% / +15%</td>
<td>s = available with sensor</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>s* = available with sensor or TPE 2000</td>
</tr>
<tr>
<td>0 - 60 Hz</td>
<td>1 differential or absolute, depends on sensor</td>
</tr>
<tr>
<td><strong>Power consumption</strong></td>
<td>Not standard for Control MPC</td>
</tr>
<tr>
<td>Max. 11 W</td>
<td>Not supported for all pump variants</td>
</tr>
<tr>
<td><strong>Cable size</strong></td>
<td></td>
</tr>
<tr>
<td>IEC: 0.2 - 4 mm², UL: 24-12 AWG</td>
<td></td>
</tr>
<tr>
<td><strong>Enclosure class</strong></td>
<td></td>
</tr>
<tr>
<td>IP 54, according to IEC 60529</td>
<td></td>
</tr>
<tr>
<td><strong>Cable entry</strong></td>
<td></td>
</tr>
<tr>
<td>6 x M16 Ø4 - Ø10</td>
<td></td>
</tr>
<tr>
<td><strong>Operating temperatures</strong></td>
<td><strong>E-Pumps</strong></td>
</tr>
<tr>
<td>-20 °C to +45 °C (-4 °F to +113 °F)</td>
<td>Total on time</td>
</tr>
<tr>
<td><strong>Storage temperatures</strong></td>
<td>s</td>
</tr>
<tr>
<td>-20°C to +60°C (-4°F to +140°F)</td>
<td>s</td>
</tr>
<tr>
<td><strong>Dimensions (H/W/D)</strong></td>
<td><strong>Total torque (N/A on 1-phased motors)</strong></td>
</tr>
<tr>
<td>182 x 108 x 82 mm</td>
<td>s</td>
</tr>
</tbody>
</table>

**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

**Profibus Communication**

<table>
<thead>
<tr>
<th>Operating Mode</th>
<th>Setpoint</th>
<th>Control Mode</th>
<th>Relay Control</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**The E-pump 11-22 kW with CIM 150 built in**
- E-pump 11-22 kW
- Hydro/Control MPC

**Data points**
- **Power/energy Consumption**
- **Pressure (head)**
- **Flow**
- **Relative Performance**
- **Speed and Frequency**
- **Digital Input/Output**
- **Motor Current**
- **DC Link Voltage**
- **Motor Voltage**
- **Remote Flow** s
- **Inlet Pressure** s
- **Remote Pressure** 1
- **Level** s
- **Motor Temperature** s
- **Remote Temperature** s
- **Pump Liquid Temperature** s
- **Bearing Temperatures** s
- **Auxiliary Sensor Input** s
- **Operation Time (Run Time)** s
- **Total on time** s
- **Torque (N/A on 1-phased motors)** s
- **Number Of Starts** s
- **Ambient Temperature** s
- **Inlet and Outlet Temperatures** s
- **Temperature Difference** s
- **Outlet Pressure** s
- **Feed Tank level** s
- **Phase Voltages**
- **Line Voltages/Currents/Frequency**
- **Start/Run Capacitor**
- **Voltages Angle + Cos phi**
- **Insulation resistance** s
- **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** s
- **Alarm information** s
- **Operation Time (Run Time)** s
- **Speed** s

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