



Similar to figure

## Data sheet

### Hydraulic data

|                                     |                        |
|-------------------------------------|------------------------|
| Maximum operating pressure $P_N$    | 10 bar                 |
| Head max $H_{\max}$                 | 8.5 m                  |
| Flow max $Q_{\max}$                 | 10.0 m <sup>3</sup> /h |
| Minimum suction head at 50 °C $m$   | 3 m                    |
| Minimum suction head at 95 °C $m$   | 10 m                   |
| Minimum suction head at 110 °C      | 16 m                   |
| Min. fluid temperature $T_{\min}$   | -10 °C                 |
| Max. fluid temperature $T_{\max}$   | 110 °C                 |
| Min. ambient temperature $T_{\min}$ | -10 °C                 |
| Max. ambient temperature $T_{\max}$ | 40 °C                  |

### Motor data

|                               |  |
|-------------------------------|--|
| Energy efficiency index (EEI) | 0.19   |
| Mains connection              | 1~230 V $\pm$ 10%, 50/60 Hz                          |
| Min current $I_{\min}$        | 0.11 A   |
| Max current $I_{\max}$        | 1.05 A   |
| Rated power $P_2$             | 133 W  |
| Min. speed $n_{\min}$         | 750 1/min  |
| Max. speed $n_{\max}$         | 3600 1/min   |
| Power consumption $P_{1\min}$ | 7 W  |
| Power consumption $P_{1\max}$ | 160 W  |
| Interference emission         | EN 61800-3;2004+A1;2012 /residential area (C1)       |
| Interference immunity         | EN 61800-3;2004+A1;2012 /industrial environment (C2) |
| Insulation class              | F  |
| Protection class              | IPX4D  |
| Threaded cable connection     | 5 x M16x1.5  |

### Installation dimensions

|   |        |
|---|--------|
| Pipe connection on the suction side $DNs$   | G 1½   |
| Pipe connection on the discharge side $DNd$ | G 1½   |
| Port-to-port length $LO$                    | 180 mm |

### Materials

|                     |                 |
|---------------------|-----------------|
| <b>Pump housing</b> | Grey cast iron  |
| <b>Impeller</b>     | PPS-GF40        |
| <b>Shaft</b>        | Stainless steel |
| <b>Bearing</b>      | Carbon-graphite |

## Equipment/function

### Function

|                                       |   |
|---------------------------------------|---|
| <b>Control mode</b>                   | $\Delta p$ -v for variable differential pressure                                  |
|                                       | $\Delta p$ -c for constant differential pressure                                  |
|                                       | Q limit for limiting the maximum volume flow                                      |
|                                       | Dynamic Adapt plus  |
|                                       | $\Delta T$ -const. for constant differential temperature control                  |
|                                       | T-const. for constant temperature control   |
|                                       | Constant Q for constant volume flow control                                       |
|                                       | Multi Flow Adaptation   |
|                                       | $\Delta T$ -const. for constant differential temperature control                  |
|                                       | User-defined PID control  |
|                                       | Constant speed (n-const.)   |
| <b>Special features of the series</b> | Heating/Cooling switching   |
|                                       | Night set back  |
|                                       | Heat quantity measurement   |
|                                       | Cooling quantity measurement  |
|                                       | Key locking function  |
|                                       | No-Flow Stop  |
|                                       | Reset function to factory setting   |
|                                       | Adjustable volume flow limiter  |
|                                       | Ability to save and restore configured pump settings (3 restoration points)       |
|                                       | Fault and warning messages shown in plain text with advice on resolving the issue |
| <b>Multi pump operation</b>           | Main/Standby  |
|                                       | Parallel operation  |
| <b>Measurement value logging</b>      | Heat and cooling capacity measurement   |

### Function

|                                       |  |
|---------------------------------------|--|
| <b>Display</b>                        | Setpoint   |
|                                       | Actual delivery head   |
|                                       | Actual volume flow   |
|                                       | Actual power consumption   |
|                                       | Energy consumption   |
|                                       | Temperature (version "-R7": current fluid temperature possible with Stratos MAXO temperature sensor) |
|                                       | Warning messages in plain text (display status: yellow)  |
|                                       | Error messages in plain text (display: red)  |
|                                       | Pump venting (display status: blue)  |
|                                       | Control mode   |
|                                       | Active influences (e.g. STOP)  |
| <b>Display (can also be selected)</b> | Speed  |
|                                       | Heating quantity   |
|                                       | Cooling quantity   |
|                                       | Operating hours  |
|                                       | Mains voltage  |
|                                       | Warning message  |
|                                       | Error message  |
| <b>Pump venting function</b>          | Yes  |

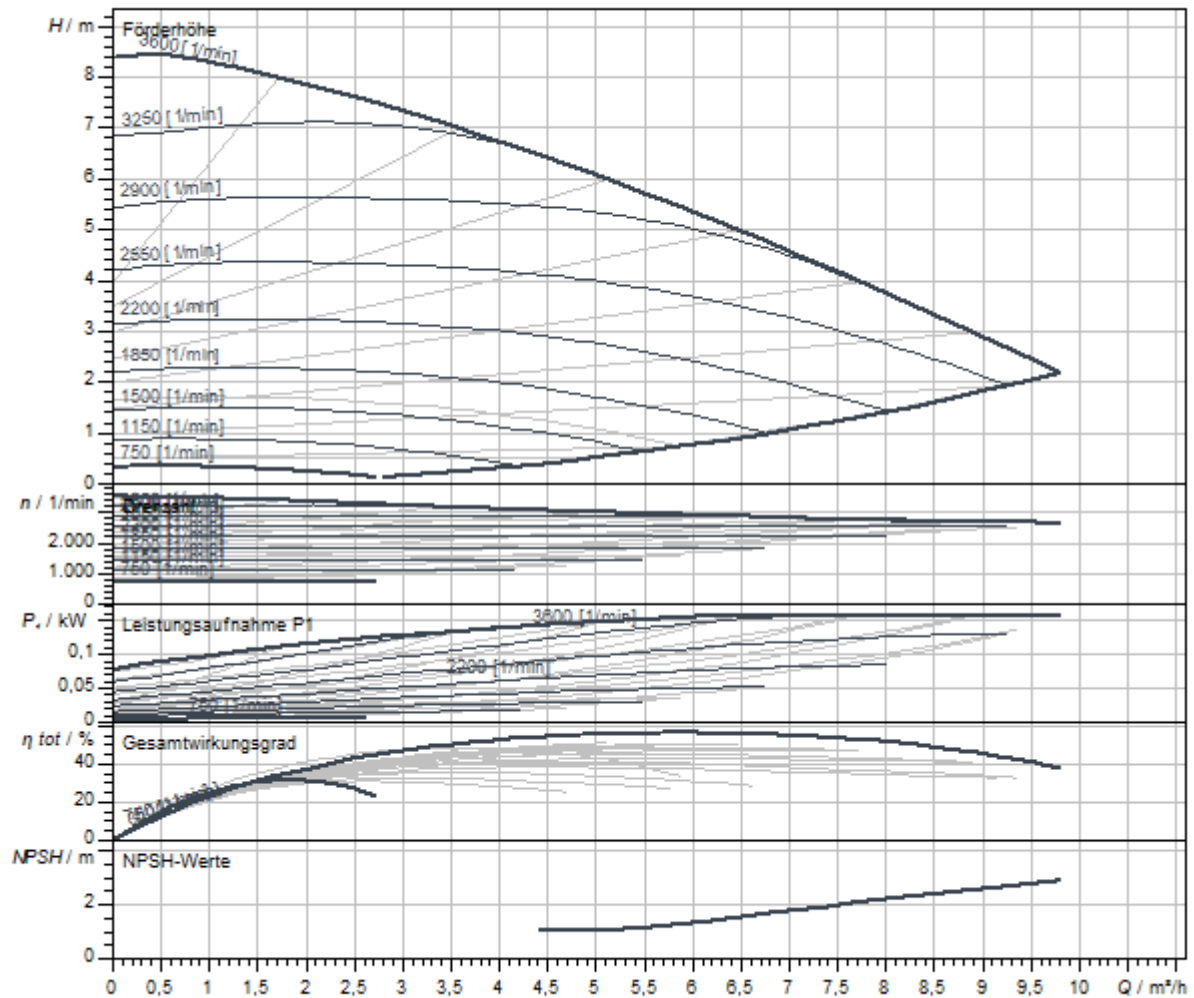
## Equipment

|                              |   |
|------------------------------|---|
| Approvals and labels         | CE  |
|                              | VDE   |
|                              | EAC   |
| Cold water insulation shell  | As accessories  |
| Display                      | Graphic colour display (4.3 inches)   |
| Display information          | Comfort Version: LCD display (large) for showing the head, flow volume, actual und cumulated current. |
| Pump control                 | Electronic-controlled pump (high efficiency pump)   |
| Quick electrical connection  | Wilo Connector  |
| Thermal insulation shell     | Yes   |
| Blocking-current proof motor | yes   |
| Particle filter              | yes   |
| Key lock                     | yes   |

## Connectivity

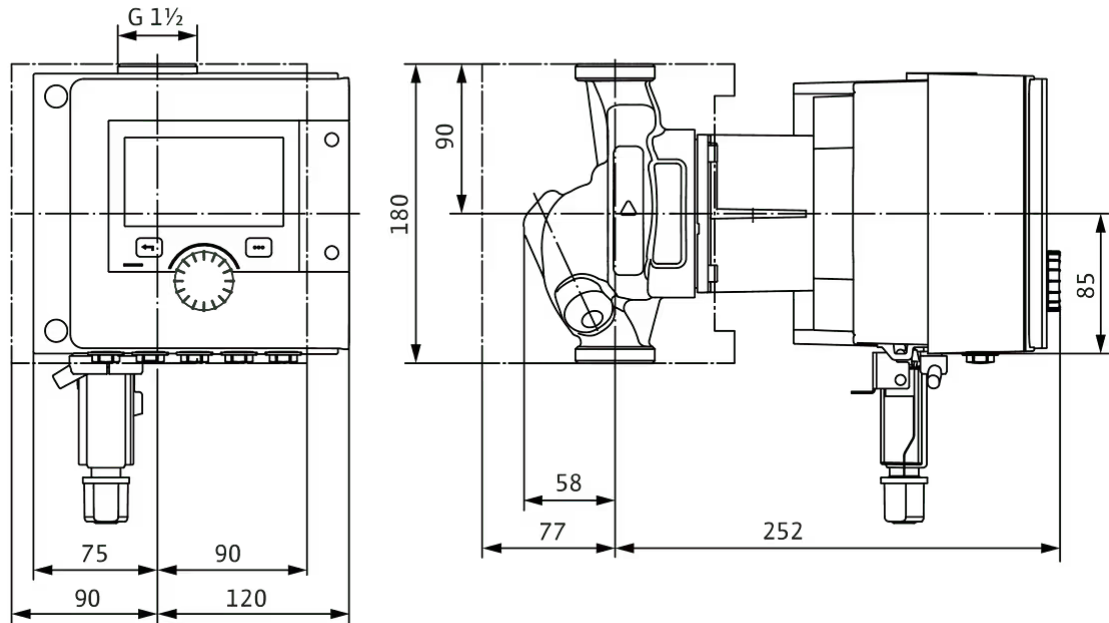
|  |   |
|--|---|
| Access via the Wilo-Assistant app            | Yes                                     |
| Analogue signal as standard                  | 0-10 V                                  |
|  | 2-10 V                                  |
|  | 4-20 mA                                 |
|  | 0-20 mA                                 |
|  | PT1000                                  |
| Bus communication via additional accessories | BACnet MS/TP                            |
|  | LON                                     |
|  | Modbus RTU                              |
|  | CANopen                                 |
|  | PLR                                     |
|  | BACnet IP                               |
|  | Modbus TCP                              |
| Connection for Wilo-Smart Cloud              | Via Wilo-Smart Gateway                  |
| Digital input                                | Ext. OFF                                |
|  | Ext. MIN                                |
|  | Ext. MAX                                |
|  | MANUAL (BMS-OFF)                        |
|  | Key lock                                |
|  | Switchover between heating/cooling mode |
| Digital output                               | SSM                                     |
|  | SBM                                     |
| wire data exchange and remote operation      | Bluetooth                               |

## Pump curves



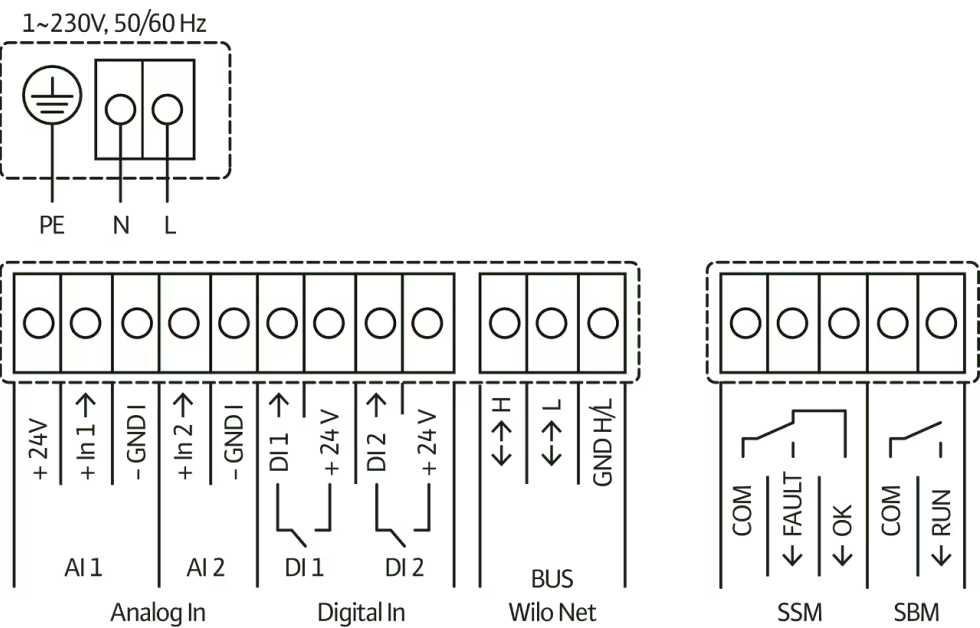
Dimensions and dimensions drawings

Stratos MAXO 25/0,5-8 PN 10



Wiring diagram


Standard: 1~ 230 V, 50/60 Hz, Option: 3~ 230 V, 50/60 Hz



SSM: Collective fault signal (NC contact in accordance with VDI 3814, load capacity 1 A, 250 V ~)

## Ordering information

### Product data

|                               |  |
|-------------------------------|--|
| Brand                         | Wilo   |
| Product description           | Stratos MAXO 25/0,5-8 PN 10  |
| Article number                | <b>2186185</b>  |
| EAN number                    | 4048482781617  |
| Colour                        | Green/black/silver   |
| Minimum order quantity        | 1  |
| Date of sales availability    | 2018-11-01   |
| Previous model article number | 2095494  |
| Previous model designation    | Stratos 25/1-8 PN 10   |

### Packaging

|                    |                     |
|--------------------|---------------------|
| Packaging type     | Cardboard box       |
| Packaging property | Transport packaging |
| Pieces per pallet  | 32                  |
| Number per layer   | 8                   |

### Dimension, weight

|                                |        |
|--------------------------------|--------|
| Length with packaging          | 400 mm |
| Length <i>L</i>                | 335 mm |
| Height with packaging          | 263 mm |
| Height <i>H</i>                | 180 mm |
| Width with packaging           | 300 mm |
| Width <i>W</i>                 | 210 mm |
| Gross weight, approx. <i>m</i> | 8.3 kg |
| Net weight, approx. <i>m</i>   | 7.2 kg |

## Tender text

Premium smart-pump Wilo-Stratos MAXO

High-efficiency inline glandless pump with EC motor and electronic power adjustment. Can be used for cold water, heating water and water/glycol mixtures. Energy efficiency index (EEI) between  $\leq 0.17$  and  $\leq 0.19$  depending on pump type.

### Control modes:

- > Permanent, automatic performance adaptation to system requirements without setpoint specification **Wilo Dynamic Adapt plus** (factory setting). Up to 20% energy savings compared to dp-v control mode.
- > Constant temperature (**T-const.**)
- > Constant differential temperature (**dT-const.**)
- > Needs-based volume flow optimisation of the feeder pump through connectivity and communication between multiple pumps (**Multi-Flow Adaptation**).
- > Constant volume flow (**Q-const.**)
- > Differential pressure control (dp-c) to a remote point in the pipe network (**index circuit evaluator**)
- > Constant differential pressure (**dp-c**)
- > Variable differential pressure (**dp-v**) with the option to set the nominal duty point
- > Constant speed (**n-const.**)
- > User-defined **PID** control

### Functions:

- > Heat quantity measurement
- > Cooling quantity measurement
- > Pump automatically deactivates when no flow is detected (**No-Flow Stop**)
- > Switchover between heating and cooling mode (automatic, external or manual)
- > Adjustable volume flow limiter using the Q-Limit function (**Q<sub>min.</sub>** and **Q<sub>max.</sub>**)
- > Operating modes of twin-head pumps: Efficiency-optimised **parallel operation** for dp-c and dp-v, main and standby operation
- > Ability to save and restore configured pump settings (**3 restoration points**)
- > **Fault and warning messages** shown in plain text with advice on resolving the issue
- > **Pump venting function** for automatic venting of the rotor chamber
- > Automatic **setback operation**
- > Automatic **deblocking function** and integrated **full motor protection**
- > **Dry-running detection**

### Display:

- > Control mode
- > Setpoint
- > Volume flow
- > Temperature
- > Power consumption
- > Electric consumption
- > Active influences (e.g. STOP, No-Flow Stop)

### Version:

- > **2 configurable analogue inputs:** 0–10 V, 2–10 V, 0–20 mA, 4–20 mA and commercially available PT1000; +24 V DC power supply
- > **2 configurable digital inputs** (Ext. OFF, Ext. Min, Ext. Max, heating/cooling, manual override (uncoupled from building automation), operation lock (key lock and remote operation configuration protection))
- > **2 configurable signal relays for operational and fault messages**
- > **Slot for Wilo-CIF modules** with interfaces for building automation BA (optional accessories: CIF modules Modbus RTU, Modbus TCP, BACnet MS/TP, BACnet IP, LON, PLR, CANopen)
- > Wilo Net as a Wilo system bus for communication between Wilo products, e.g. **Multi-Flow Adaptation**; double pump operation and Wilo-Smart Gateway
- > **Integrated temperature sensor**
- > Automatic **emergency operation** with definable pump speed for exceptional circumstances, e.g. bus communication or sensor value malfunction
- > **Graphic colour display** (4.3 inches) with one-button manual operation
- > Use the Wilo-Assistant app to read and set operating data and –among other things– set up a commissioning protocol through the Bluetooth interface (no further accessories required)
- > Integrated **double pump management** (double pumps are prewired) when using 2 single pumps as double pump unit (connection via Wilo Net)
- > Cable break detection when using an analogue signal (in connection with 2–10 V or 4–20 mA)
- > Outdoor installation with weather protection possible in accordance with the installation and operating instructions
- > Pre-set date and time
- > Thermal insulation shell for heating applications
- > 5-year warranty



**Scope of delivery**

- > Pump
- > Optimised Wilo-Connector the same for all sizes
- > 2x threaded cable connection M16 x 1.5
- > Washers for flange screws M12 and M16 (for nominal connection diameters DN 32 to DN 65)
- > 2x gaskets for threaded connection
- > Thermal insulation shell
- > Concise Installation and operating instructions

**Optional accessories:**

- > KlimaForm cold insulation to avoid the formation of condensate
- > CIF module: Modbus TCP, Modbus RTU, BACnet IP, BACnet MS/TP, LON, PLR, CANopen
- > PT 1000 (B) pipe contact sensor (for domestic hot water)
- > PT 1000 (AA) sensor for installation in immersion well
- > Differential pressure sensor
- > Smart Gateway

**Operating Data**

|                                     |        |
|-------------------------------------|--------|
| Min. fluid temperature $T_{\min}$   | -10 °C |
| Max. fluid temperature $T_{\max}$   | 110 °C |
| Min. ambient temperature $T_{\min}$ | -10 °C |
| Max. ambient temperature $T_{\max}$ | 40 °C  |
| Maximum operating pressure $PN$     | 10 bar |
| Minimum suction head at 50 °C $m$   | 3 m    |
| Minimum suction head at 95 °C $m$   | 10 m   |
| Minimum suction head at 110 °C      | 16 m   |

**Motor data**

|                               |  |
|-------------------------------|--|
| Energy efficiency index (EEI) | 0.19   |
| Interference emission         | EN 61800-3;2004+A1;2012 /residential area (C1)       |
| Interference immunity         | EN 61800-3;2004+A1;2012 /industrial environment (C2) |
| Mains connection              | 1~230 V, 50/60 Hz                                    |
| Power consumption $P_{1\max}$ | 160 W  |
| Min. speed $n_{\min}$         | 750 1/min  |
| Max. speed $n_{\max}$         | 3600 1/min   |
| Protection class motor        | IPX4D  |
| Threaded cable connection     | 5 x M16x1.5  |


**Materials**

|              |                 |
|--------------|-----------------|
| Pump housing | Grey cast iron  |
| Impeller     | PPS-GF40        |
| Shaft        | Stainless steel |
| Bearing      | Carbon-graphite |

**Installation dimensions**

|  |        |
|--|--------|
| Pipe connection on the suction side $DN_s$   | G 1½   |
| Pipe connection on the discharge side $DN_d$ | G 1½   |
| Port-to-port length $L_0$                    | 180 mm |

**Ordering information**

|                         |  |
|-------------------------|--|
| Brand                   | Wilo   |
| Product description     | Stratos MAXO 25/0,5-8 PN 10  |
| Net weight, approx. $m$ | 7.2 kg   |
| Article number          | <b>2186185</b>  |