



Data sheet

Hydraulic data

| | |
|------------------------------------|--------|
| Minimum efficiency index (MEI) | ≥0.7 |
| Maximum operating pressure P_N | 16 bar |
| Min. fluid temperature T_{min} | -20 °C |
| Max. fluid temperature T_{max} | 140 °C |
| Min. ambient temperature T_{min} | 0 °C |
| Max. ambient temperature T_{max} | 50 °C |

Drive

| | |
|--------------------------------|-------------------|
| Mains connection | 3~400 V, 50/60 Hz |
| Number of poles | 4 |
| Motor efficiency class | IE5 |
| Power consumption $P_{1\ max}$ | 3300 W |
| Rated power P_2 | 3 kW |
| Max current I_{max} | 5.1 A |
| Emitted interference | EN 61800-3 |
| Interference resistance | EN 61800-3 |
| Insulation class | F |
| Protection class motor | IP55 |
| Motor protection | PTC integrated |

Materials

| | |
|--------------|------------------------------|
| Pump housing | Grey cast iron |
| Impeller | PPS-GF40 |
| Shaft | Stainless steel |
| Shaft seal | AQ1EGG |
| Lantern | 5.1301/EN-GJL-250 KTL-coated |

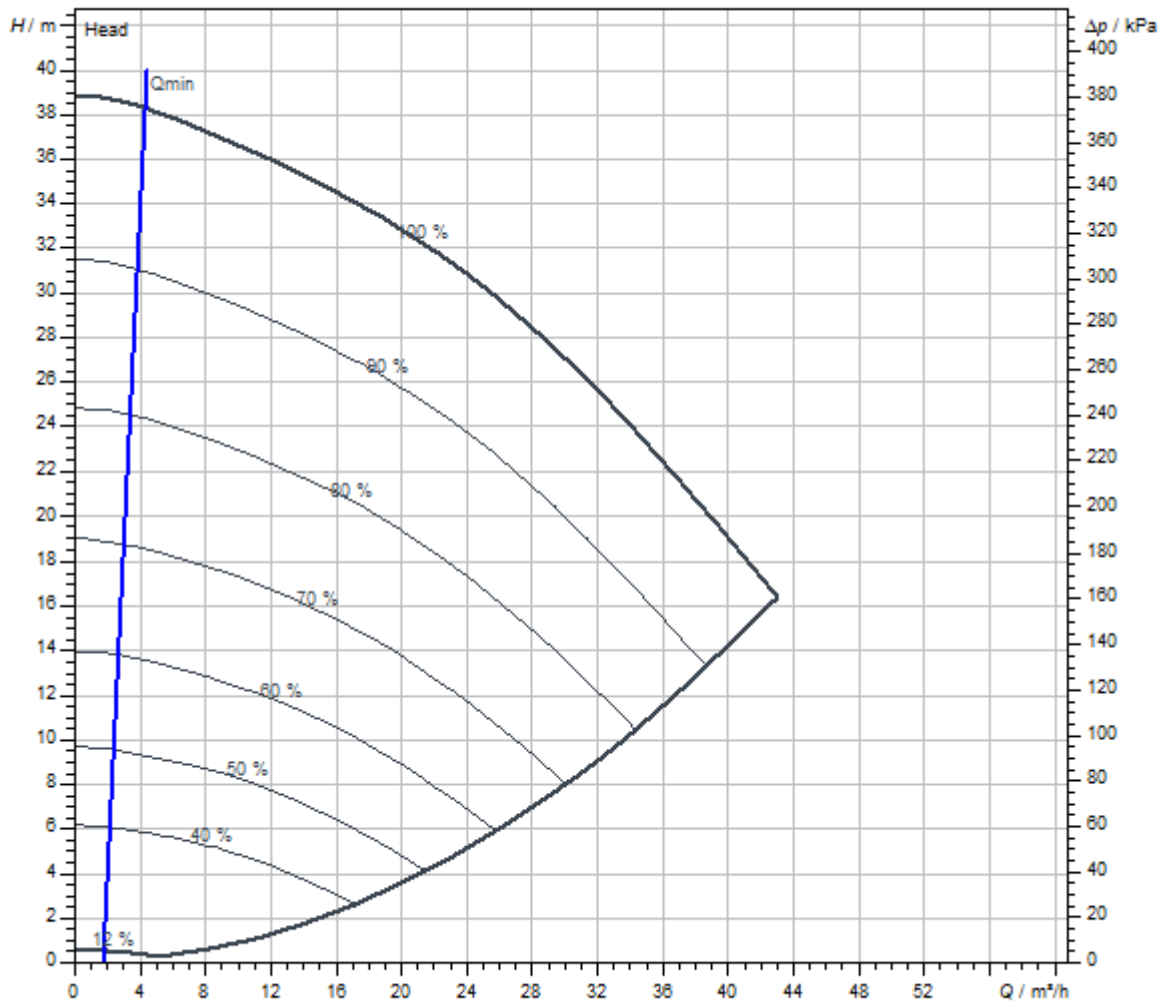
Approved liquids (other liquids upon request)

| | |
|--|--------------------------------------|
| Heating water (as per VDI 2035) | yes |
| Heat carrier oil | Special version at additional charge |
| Cooling and cold water circulation systems | yes |
| Water-glycol mixtures (at 20 – 40 vol. % glycol and fluid temperature ≤ 40 °C) | yes |

Installation dimensions

| | |
|--|--------|
| Port-to-port length L_0 | 280 mm |
| Pipe connection on the suction side DN_s | DN 50 |
| Pipe connection on the discharge side DN_d | DN 50 |

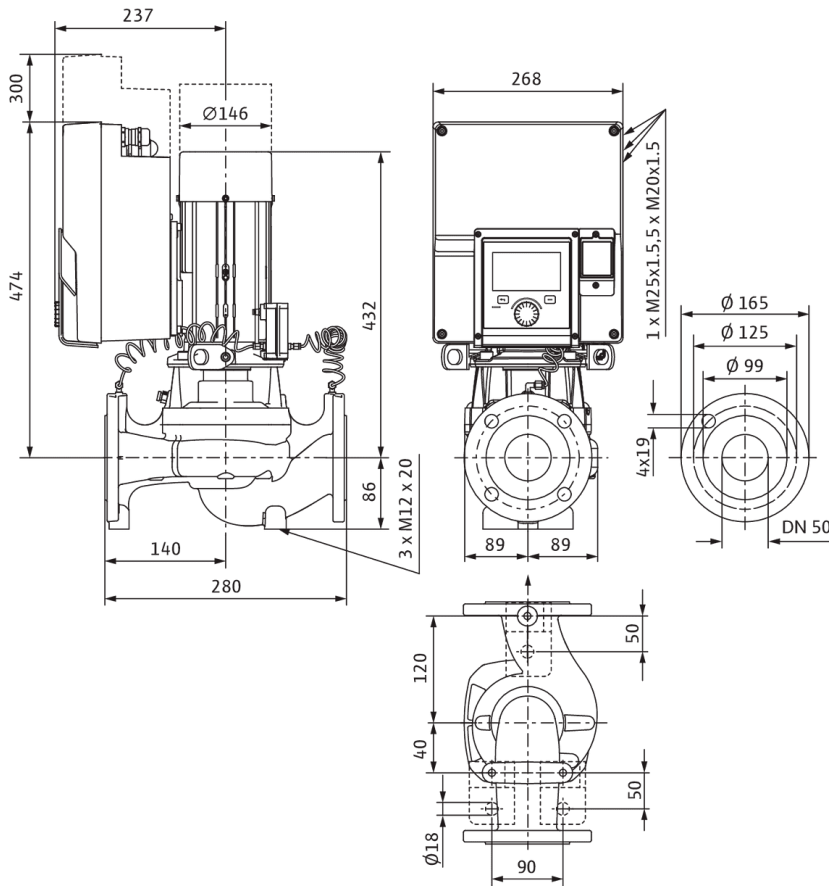
Pump curves



| | |
|---|-------------|
| Fluid media | Water 100 % |
| Fluid temperature <i>T</i> | 20.00 °C |
| speed at duty point <i>n hydr. @ OP</i> | 4,501 1/min |

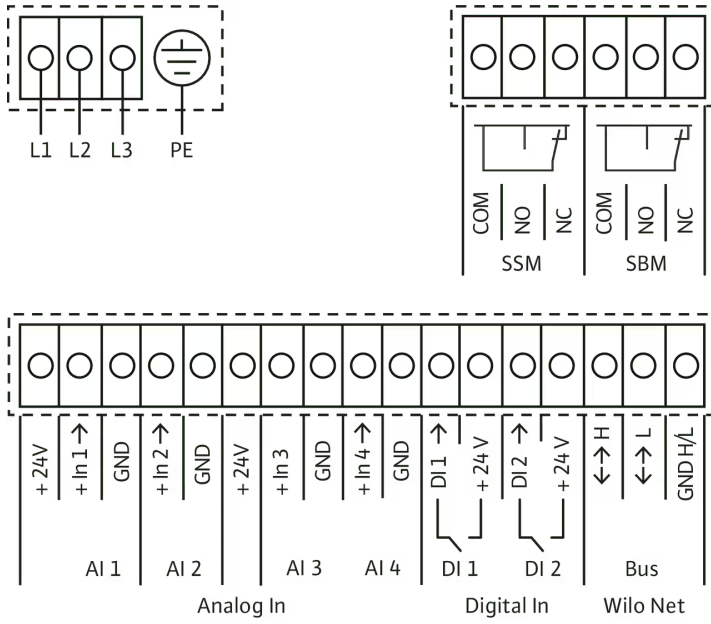
Dimensions and dimensions drawings

Stratos GIGA2.0-I 50/1-37/3,0



Wiring diagram

Wilo-Stratos GIGA2.0



Bezeichnung

Tender text

High-efficiency in-line pump with EC motor of energy efficiency class IE5 in accordance with IEC 60034-30-2, hydraulics with minimum efficiency index $MEI \geq 0.7$ and electronic power adjustment with a glanded pump design. The pump is configured as a single-stage low-pressure centrifugal pump with flange connection and mechanical seal. The **Stratos GIGA2.0-I** has been predominantly designed for pumping heating water (acc. to VDI 2035), chilled water and water-glycol mixtures without abrasive substances in heating, air-conditioning and cooling systems.

Design:

- Single-stage low-pressure centrifugal pump with one-piece shaft in monobloc design
- Spiral housing in in-line design (suction and discharge ports with the same flanges in a line)
- PN 16 flange – in accordance with EN 1092-2
- Pressure measuring connections (R 1/8) for mounted differential pressure sensor (version ...-R1 without differential pressure sensor)
- Pump housing and motor flange with cathaphoretic coating as standard
- Mechanical seal for pumping water up to $T_{max.} = +140\text{ °C}$. A glycol admixture of 20 % to +40 % by volume is permitted up to $T \leq +40\text{ °C}$. An alternative mechanical seal must be provided in water-glycol mixtures with glycol proportions > 40 % up to max. 50 % by volume and a fluid temperature of > +40 °C up to max. +120 °C or fluids other than water. When using water-glycol mixtures, the use of an S1 variant with a corresponding mechanical seal is generally recommended.
- Connection voltages:
 - 3~440 V $\pm 10\%$ 50/60 Hz; 3~400 V $\pm 10\%$ 50/60 Hz; 3~380 V -5% +10% 50/60 Hz
 - Version M-: 1~220 V – 240 V ($\pm 10\%$), 50/60 Hz
- Compliance with electromagnetic compatibility without additional measures
 - Interference emission for residential environment according to EN 61800-3:2018
 - Interference immunity for industrial environments according to EN 61800-3:2018

Control modes:

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

Functions:

- Selection of the field of application in the **setting assistant**
- **Heat quantity measurement**
- **Cooling quantity measurement**
- Adjustable volume flow limiter using the Q-Limit function (**Q_{min.}** and **Q_{max.}**)
- **Operating modes of twin-head pump: Main/standby operation**, efficiency-optimised **parallel operation** for dp-c and dp-v
- Pump automatically deactivates when no flow is detected (**No-Flow Stop**)
- **Switchover** between **heating and cooling mode** (automatic, external or manual)
- Ability to save and restore configured pump settings (**3 restoration points**)
- Display of **current duty point in the hydraulic duty chart**
- **Correction of viscous fluids** via adjustment of viscosity and density
- **Fault and warning messages** shown in plain text with advice on resolving the issue
- Integrated **full motor protection**

Display in the "Home screen" of the graphic display:

- Control mode currently set
- Current setpoint
- Current volume flow (only if a differential pressure sensor is connected)
- Current fluid temperature (only if temperature sensor is connected)
- Current power consumption
- Cumulative electric consumption

Version:

- > **4** configurable **analogue inputs**: 0 – 10 V, 2–10 V, 0 – 20 mA, 4 – 20 mA and commercially available PT1000 (only on two analogue inputs); +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 **run signals and fault messages**
- > **Slot for Wilo-CIF modules** with interfaces for building automation (BA) (optional accessories: CIF modules Modbus RTU, BACnet MS/TP, LON, PLR, CAN)
- > **Wilo Net** as a Wilo system bus for communication between Wilo products, e.g. Multi-Flow Adaptation; dual-pump operation
- > **Automatic emergency operation** with definable pump speed for exceptional circumstances, e.g. bus communication or sensor value malfunction
- > **Rotatable, graphic colour display** (4.3 inches) with one button manual operation level
- > **Bluetooth interface** via Wilo-Smart Connect module BT
- > Use the Wilo-Assistant app to read and set operating data and –among other things– set up a commissioning protocol through the Bluetooth interface
- > Integrated **dual-pump management** (twin-head pumps are prewired) when using 2 single pumps as two-pump unit (connection via Wilo Net)
- > **Cable break detection** when using an analogue signal (in connection with 2 – 10 V or 4 – 20 mA)
- > **Time stamp** for error/warnings and historical operating data
- > Continuous **operating data memory**
- > Standard **condensate drainage holes** in the motor housing (closed upon delivery)
- > **Air vent valve** on the lantern

Scope of delivery:

- > Pump
- > Wilo-Smart Connect module BT
- > Threaded cable glands with sealing inserts
- > Installation and operating instructions and declaration of conformity

Accessories must be ordered separately:

3 mounting brackets with fixation material for installation on a base

- > Blind flanges for twin-head pump housing
- > Installation aid for mechanical seal (incl. mounting bolts)
- > For connection to building automation:
 - > CIF module PLR
 - > CIF module LON
 - > CIF module BACnet MS/TP
 - > CIF module Modbus RTU
 - > CIF module CANopen
 - > CIF module Ethernet Multi-protocol (Modbus TCP, BACnet/IP)
 - > Connection M12 RJ45 CIF Ethernet
- > Differential pressure sensor DPS 2 ... 10 V
- > Differential pressure sensor DPS 4 ... 20 mA
- > Temperature sensor PT1000 AA
- > Sensor sleeves for the installation of temperature sensors in the pipe

Operating Data

| | |
|-------------------------------------|------------|
| Min. fluid temperature T_{\min} | -20 °C |
| Max. fluid temperature T_{\max} | 140 °C |
| Min. ambient temperature T_{\min} | 0 °C |
| Max. ambient temperature T_{\max} | 50 °C |
| Maximum operating pressure PN | 16 bar |
| Minimum efficiency index (MEI) | ≥ 0.7 |

Drive

| | |
|-------------------------------|-------------------|
| Mains connection | 3~400 V, 50/60 Hz |
| Motor efficiency class | IE5 |
| Power consumption $P_{1\max}$ | 3300 W |
| Rated power P_2 | 3 kW |
| Max current I_{\max} | 5.1 A |
| Max. speed n_{\max} | 4500 1/min |
| Emitted interference | EN 61800-3 |
| Interference resistance | EN 61800-3 |
| Insulation class | F |
| Protection class motor | IP55 |
| Motor protection | PTC integrated |


Materials

| | |
|--------------|------------------------------|
| Pump housing | Grey cast iron |
| Impeller | PPS-GF40 |
| Shaft | Stainless steel |
| Shaft seal | AQ1EGG |
| Lantern | 5.1301/EN-GJL-250 KTL-coated |

Installation dimensions

| | |
|--|--------|
| Pipe connection on the suction side DN_s | DN 50 |
| Pipe connection on the discharge side DN_d | DN 50 |
| Port-to-port length L_0 | 280 mm |

Ordering information

| | |
|-------------------------|---|
| Brand | Wilo |
| Product description | Stratos GIGA2.0-I 50/1-37/3,0 |
| Net weight, approx. m | 39 kg |
| Article number | 2204737  |

Installation type

Continuous, infinitely variable control, differential pressure-sensitive CCe-HVAC system

CCe-HVAC system

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|-------------------------|---------|
| CCe-HVAC system 1 x 1.5 | 2536670 |
| CCe-HVAC system 2 x 1.5 | 2536671 |
| CCe-HVAC system 3 x 1.5 | 2536672 |
| CCe-HVAC system 4 x 1.5 | 2536673 |
| CCe-HVAC system 5 x 1.5 | 2536674 |
| CCe-HVAC system 6 x 1.5 | 2536675 |

Antenna GSM/GPRS

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| D-network dual-band antenna with 3 m cable | 2533862 |
| D-network tri-band antenna 10 m cable | 2533863 |
| D-network tri-band antenna 15 m cable | 2533864 |

Outdoor temperature sensor Pt 100

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|-----------------------------------|---------|
| Outdoor temperature sensor Pt 100 | 2533772 |
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DDG impulse selector

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| DDG impulse selector | 2533770 |
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BMS base module

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| BMS base module | 2533800 |
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CC communication module BACnet

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| CC-communication module BACnet IP (slave) | 2537051 |
| CC-communication module BACnet MS/TP (slave) | 2537050 |

Communication module LON

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| Communication module LON | 2533868 |
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Communication module ModBus

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| Communication module Modbus RTU | 2533869 |
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Communication module Profibus

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| Communication module Profibus DP | 2533866 |
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Communication module CC

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| CC communication module | 2533850 |
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Communication module GSM

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| GSM module | 2533861 |
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Pump signalling module

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|----------------------------|---------|
| Signalling module pump 1-2 | 2533812 |
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| Signalling module pump 3-6 | 2533836 |
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Signal converter retrofit kit

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|-----------------------------------|---------|
| Signal converter 0-10 V / 0-20 mA | 2534992 |
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Connection cable control modules/signalling modules

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|----------------------------------|---------|
| Control modules connecting cable | 2533790 |
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| Signalling modules connecting cable | 2533890 |
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DDG transducer

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| DDG transducer | 501771990 |
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DDG power supply unit

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| DDG power supply unit | 501865293 |
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Extension kit differential pressure sensor for Y-piece application

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| Extension for DDG-kit | 2166098 |
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Continuous, infinitely variable control, temperature-dependent CCe-HVAC system

CCe-HVAC system

| | |
|-------------------------|---------|
| CCe-HVAC system 1 x 1.5 | 2536670 |
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|-------------------------|---------|
| CCe-HVAC system 2 x 1.5 | 2536671 |
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|-------------------------|---------|
| CCe-HVAC system 3 x 1.5 | 2536672 |
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|-------------------------|---------|
| CCe-HVAC system 4 x 1.5 | 2536673 |
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| | |
|-------------------------|---------|
| CCe-HVAC system 5 x 1.5 | 2536674 |
|-------------------------|---------|

| | |
|-------------------------|---------|
| CCe-HVAC system 6 x 1.5 | 2536675 |
|-------------------------|---------|

Antenna GSM/GPRS

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|--|---------|
| D-network dual-band antenna with 3 m cable | 2533862 |
|--|---------|

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|---------------------------------------|---------|
| D-network tri-band antenna 10 m cable | 2533863 |
|---------------------------------------|---------|

| | |
|---------------------------------------|---------|
| D-network tri-band antenna 15 m cable | 2533864 |
|---------------------------------------|---------|

Outdoor temperature sensor Pt 100

| | |
|-----------------------------------|---------|
| Outdoor temperature sensor Pt 100 | 2533772 |
|-----------------------------------|---------|

BMS base module

| | |
|---|---------|
| BMS base module | 2533800 |
| CC communication module BACnet | |
| CC-communication module BACnet IP (slave) | 2537051 |
| CC-communication module BACnet MS/TP (slave) | 2537050 |
| Communication module LON | |
| Communication module LON | 2533868 |
| Communication module ModBus | |
| Communication module Modbus RTU | 2533869 |
| Communication module Profibus | |
| Communication module Profibus DP | 2533866 |
| Communication module CC | |
| CC communication module | 2533850 |
| Communication module GSM | |
| GSM module | 2533861 |
| Pump signalling module | |
| Signalling module pump 1-2 | 2533812 |
| Signalling module pump 3-6 | 2533836 |
| Signal converter retrofit kit | |
| Signal converter 0-10 V / 0-20 mA | 2534992 |
| Temperature module | |
| Temperature module for systems with 1-3 pumps | 2534991 |
| Temperature module for systems with 4-6 pumps | 2533771 |
| Connection cable control modules/signalling modules | |
| Control modules connecting cable | 2533790 |
| Signalling modules connecting cable | 2533890 |
| Continuous, infinitely variable control, differential pressure-sensitive SCe-HVAC system | |
| SCe-HVAC system | |
| SCe-HVAC system 1x10A-WM | 2545254 |
| SCe-HVAC system 2x10A-WM | 2545255 |
| SCe-HVAC system 3x10A-WM | 2545256 |

| | |
|---|-----------|
| SCe-HVAC system 4x10A-WM | 2545257 |
| Antenna GSM/GPRS | |
| D-network dual-band antenna with 3 m cable | 2533862 |
| D-network tri-band antenna 10 m cable | 2533863 |
| D-network tri-band antenna 15 m cable | 2533864 |
| Outdoor temperature sensor Pt 100 | |
| Outdoor temperature sensor Pt 100 | 2533772 |
| DDG impulse selector | |
| DDG impulse selector | 2533770 |
| Communication module LON (SC) | |
| Communication module LON (SC) | 2538243 |
| SC communication module BACnet | |
| SC-communication module BACnet MS/TP (slave) | 2538242 |
| Communication module GSM (SC) | |
| Communication module GSM (SC) | 2542216 |
| Pump signalling module | |
| Signalling module pump 1-2 | 2533812 |
| Signalling module pump 3-6 | 2533836 |
| SC-HVAC signal board | |
| SC-HVAC signal board | 2119646 |
| DDG transducer | |
| DDG transducer | 501771990 |
| DDG power supply unit | |
| DDG power supply unit | 501865293 |
| Extension kit differential pressure sensor for Y-piece application | |
| Extension for DDG-kit | 2166098 |
| Continuous, infinitely variable control, temperature-dependent SCe-HVAC system | |
| SCe-HVAC system | |
| SCe-HVAC system 1x10A-WM | 2545254 |
| SCe-HVAC system 2x10A-WM | 2545255 |

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| SCe-HVAC system 3x10A-WM | 2545256 |
| SCe-HVAC system 4x10A-WM | 2545257 |
| Antenna GSM/GPRS | |
| D-network dual-band antenna with 3 m cable | 2533862 |
| D-network tri-band antenna 10 m cable | 2533863 |
| D-network tri-band antenna 15 m cable | 2533864 |
| Outdoor temperature sensor Pt 100 | |
| Outdoor temperature sensor Pt 100 | 2533772 |
| Communication module LON (SC) | |
| Communication module LON (SC) | 2538243 |
| SC communication module BACnet | |
| SC-communication module BACnet MS/TP (slave) | 2538242 |
| Communication module GSM (SC) | |
| Communication module GSM (SC) | 2542216 |
| Pump signalling module | |
| Signalling module pump 1-2 | 2533812 |
| Signalling module pump 3-6 | 2533836 |
| SC-HVAC signal board | |
| SC-HVAC signal board | 2119646 |