



Data sheet

Hydraulic data

Minimum efficiency index (MEI)	≥0.4
Maximum operating pressure P_N	16 bar
Min. fluid temperature T_{min}	-20 °C
Max. fluid temperature T_{max}	120 °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
Rated power P_2	3 kW
Rated current I_N	4.9 A
Rated speed n	2880 1/min
Max. speed n_{max}	2880 1/min
Power consumption $P_{1 max}$	3100 W
Emitted interference	EN 61800-3
Interference resistance	EN 61800-3
Insulation class	F
Protection class motor	IP55
Threaded cable connection	1 x M25x1.5

Materials

Pump housing	Grey cast iron
Impeller	PPE/PS-GF30
Shaft	Stainless steel
Shaft seal	AQ1EGG
Lantern	5.1301/EN-GJL-250 KTL-coated

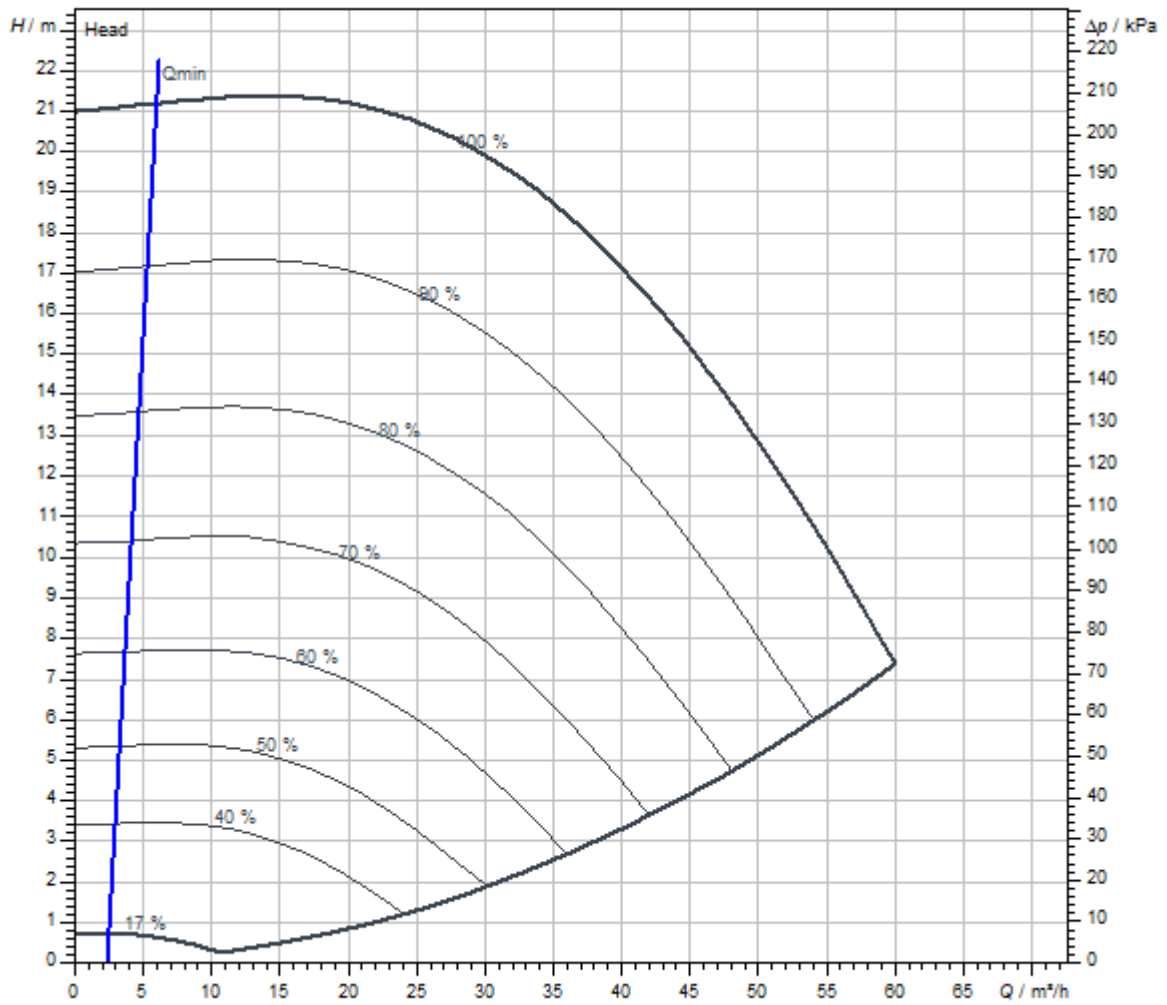
Approved liquids (other liquids upon request)

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	340 mm
Pipe connection on the suction side DN_s	DN 50
Pipe connection on the discharge side DN_d	DN 50

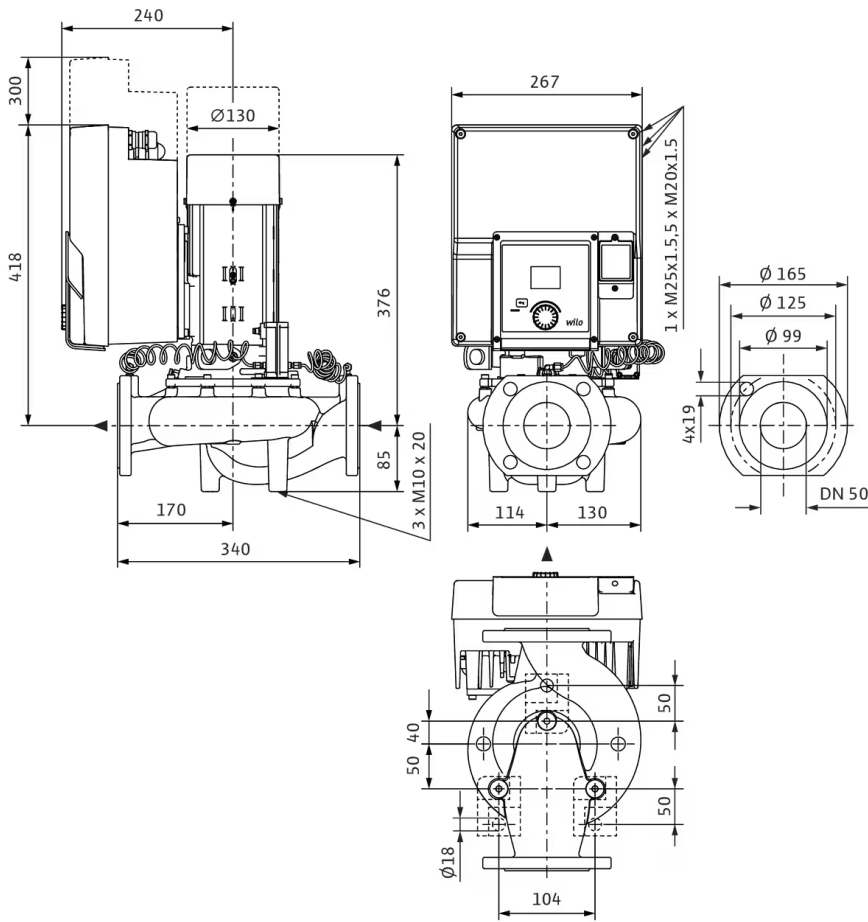
Pump curves



Fluid media	Water 100 %
Fluid temperature <i>T</i>	20.00 °C
speed at duty point <i>n hydr. @ OP</i>	2,880 1/min

Dimensions and dimensions drawings

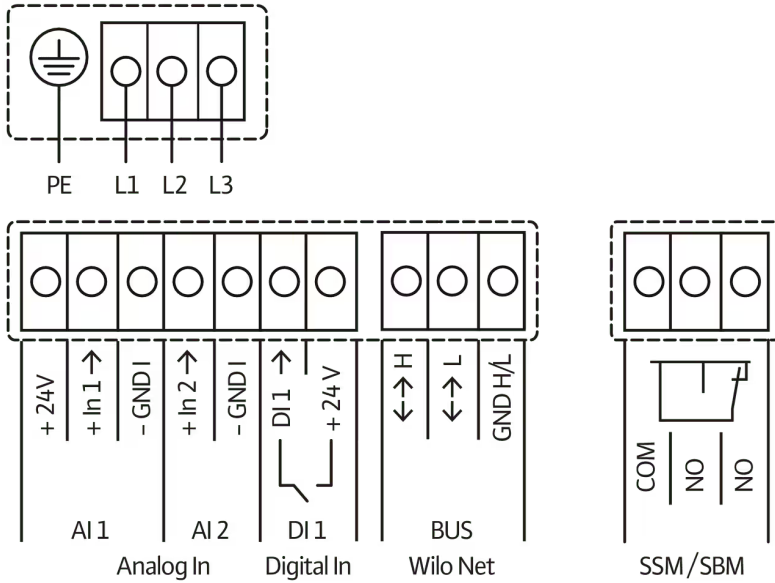
Yonos GIGA2.0-I 50/1-20/3,0



Wiring diagram

3~ 380 V...440 V, 50/60 Hz

3~380V...440V, 50/60 Hz



Ordering information

Product data

Brand	Wilo
Product description	Yonos GIGA2.0-I 50/1-20/3,0
Article number	2204992
EAN number	4062679106632
Colour	Green/black/grey
Minimum order quantity	1
Date of sales availability	2022-05-01

Dimension, weight

Length with packaging	800 mm
Length <i>L</i>	503 mm
Height with packaging	525 mm
Height <i>H</i>	410 mm
Width with packaging	600 mm
Width <i>W</i>	268 mm
Gross weight, approx. <i>m</i>	50 kg
Net weight, approx. <i>m</i>	31.4 kg

Packaging

Packaging type	Cardboard box
Packaging property	Transport packaging
Pieces per pallet	1
Number per layer	1

Tender text

In-line pump with high energy efficiency with EC motor of energy efficiency class IE5 in accordance with IEC 60034-30-2, hydraulics with minimum efficiency index $MEI \geq 0.4$ and electronic power adjustment in glanded pump design. The pump is configured as a single-stage low-pressure centrifugal pump with flange connection and mechanical seal. The **Yonos GIGA2.0-I** has been predominantly designed for pumping heating water (acc. to VDI 2035), cold 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 lantern/motor flange with cathoretic coating as standard
- > Mechanical seal for pumping water up to $T_{max.} = +120\text{ °C}$. 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:

- > Variable differential pressure (**dp-v**)
- > Constant differential pressure (**dp-c**)
- > Constant speed (**n-const.**)
- > User-defined **PID** control

Functions:

- > **Operating modes of twin-head pump:**
 - Main/standby operation**, efficiency-optimised **parallel operation** for dp-c and dp-v
- > Integrated **full motor protection**

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

- > Control mode currently set
- > Current setpoint
- > Current actual value
- > Current volume flow (only if a differential pressure sensor is connected)
- > Current power consumption

Version:

- > **1 analogue input:** 0 ... 10 V, 2 ... 10 V, 0 ... 20 mA, 4 ... 20 mA only for sensor value from differential pressure sensor
- > **1 analogue input:** 0 ... 10 V, 2 ... 10 V, 0 ... 20 mA, 4 ... 20 mA only for external setpoint sensor
- > **1 digital input** (Ext. OFF)
- > **2 Signal relays** for **run signals and fault messages**
- > **Slot for Wilo-CIF modules** with interfaces for building automation (BA) (optional accessories: CIF modules Ethernet, Modbus RTU, BACnet MS/TP, LON, PLR, CAN)
- > **Wilo Net** as Wilo system bus for communication during twin-head pump operation
- > **Automatic emergency operation** with definable pump speed for exceptional circumstances, e.g. bus communication or sensor value malfunction
- > **Rotatable, graphic colour display** (2 inches) with one button manual operation level
- > Integrated **dual pump management** (twin-head pumps are prewired) when using 2 single pumps as twin-head pump unit (connection via Wilo Net)
- > **Cable break detection** when using an analogue signal (in connection with 2 ... 10 V or 4 ... 20 mA)
- > Standard **condensate drainage holes** in the motor housing (closed upon delivery)
- > **Air vent valve** on the lantern

Scope of delivery:

- > Pump
- > 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
- > For connection to building automation:
 - > CIF module PLR
 - > CIF module LON
 - > CIF module BACnet MS/TP
 - > Modbus RTU CIF module
 - > 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

Operating Data

Min. fluid temperature T_{\min}	-20 °C
Max. fluid temperature T_{\max}	120 °C
Min. ambient temperature T_{\min}	0 °C
Max. ambient temperature T_{\max}	50 °C
Maximum operating pressure P_N	16 bar
Minimum efficiency index (MEI)	≥ 0.4

Motor data

Motor efficiency class	IE5
Emitted interference	EN 61800-3
Interference resistance	EN 61800-3
Mains connection	3~400 V, 50/60 Hz
Rated power P_2	3000 W
Max. speed n_{\max}	2880 1/min
Rated current I_N	4.9 A
Insulation class	F
Protection class motor	IP55
Motor protection	PTC integrated


Materials

Pump housing	Grey cast iron
Impeller	PPE/PS-GF30
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	340 mm

Ordering information

Brand	Wilo
Product description	Yonos GIGA2.0-I 50/1-20/3,0
Net weight, approx. m	31.4 kg
Article number	2204992 

Installation type

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

CCe-HVAC system

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

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

DDG impulse selector

DDG impulse selector	2533770
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BMS base module

BMS base module	2533800
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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
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Communication module ModBus

Communication module Modbus RTU	2533869
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Communication module Profibus

Communication module Profibus DP	2533866
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Communication module CC

CC communication module	2533850
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Communication module GSM

GSM module	2533861
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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
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Connection cable control modules/signalling modules

Control modules connecting cable	2533790
Signalling modules connecting cable	2533890

DDG transducer

DDG transducer	501771990
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DDG power supply unit

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

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
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

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

BMS base module

BMS base module	2533800
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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
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Communication module ModBus

Communication module Modbus RTU	2533869
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Communication module Profibus

Communication module Profibus DP	2533866
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Communication module CC

CC communication module	2533850
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Communication module GSM

GSM module	2533861
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Pump signalling module

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

Signal converter 0-10 V / 0-20 mA	2534992
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Temperature module

Temperature module for systems with 1-3 pumps	2534991
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Temperature module for systems with 4-6 pumps	2533771
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Connection cable control modules/signalling modules

Control modules connecting cable	2533790
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Signalling modules connecting cable	2533890
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Continuous, infinitely variable control, differential pressure-sensitive SCe-HVAC system

SCe-HVAC system

SCe-HVAC system 1x10A-WM	2545254
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SCe-HVAC system 2x10A-WM	2545255
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SCe-HVAC system 3x10A-WM	2545256
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SCe-HVAC system 4x10A-WM	2545257
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Antenna GSM/GPRS

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

DDG impulse selector	2533770
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Communication module LON (SC)

Communication module LON (SC)	2538243
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SC communication module BACnet

SC-communication module BACnet MS/TP (slave)	2538242
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Communication module GSM (SC)

Communication module GSM (SC)	2542216
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Pump signalling module

Signalling module pump 1-2	2533812
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Signalling module pump 3-6	2533836
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SC-HVAC signal board

SC-HVAC signal board	2119646
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DDG transducer

DDG transducer	501771990
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DDG power supply unit

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

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

SCe-HVAC system

SCe-HVAC system 1x10A-WM	2545254
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SCe-HVAC system 2x10A-WM	2545255
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SCe-HVAC system 3x10A-WM	2545256
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SCe-HVAC system 4x10A-WM	2545257
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Antenna GSM/GPRS

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

Mechanical accessories

Pipe installation, adapter fitting

Intermediate flange connecting piece F

Intermediate flange pieces F 3, DN 50x20mm, PN 10/16	110623190
Intermediate flange pieces F 5, DN 50x35mm, PN 10/16	110623396
Intermediate flange pieces F 4, DN 50x30mm, PN 10/16	110681395
Intermediate flange pieces F 40, DN 50x160mm, PN 10/16	2101156
Intermediate flange pieces F 2, DN 50x10mm, PN 10/16	110791494

Wall fixation/installation on a base

Mounting bracket kit

Mounting bracket F 3-12 SET	2040967
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Electrical accessories

Pump control/accessories

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
SMA/FME adapter	2545548

BMS base module

BMS base module	2533800
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CC communication module BACnet

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

Communication module CC

CC communication module	2533850
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Communication module GSM

GSM module	2533861
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Communication module GSM (SC)

Communication module GSM (SC)	2542216
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Communication module LON

Communication module LON	2533868
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Communication module LON (SC)

Communication module LON (SC)	2538243
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Communication module ModBus

Communication module Modbus RTU	2533869
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Communication module Profibus

Communication module Profibus DP	2533866
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Connection cable control modules/signalling modules

Control modules connecting cable	2533790
Signalling modules connecting cable	2533890

DDG impulse selector

DDG impulse selector	2533770
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Immersion sleeve

Immersion sleeve G ½, 45mm	2193423
Immersion sleeve G ½, 100mm	2193424

Pump signalling module

Signalling module pump 1-2	2533812
Signalling module pump 3-6	2533836

SC communication module BACnet

SC-communication module BACnet MS/TP (slave)	2538242
BACnet IP SC communication module	2553366

SC-HVAC signal board

SC-HVAC signal board	2119646
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Signal converter retrofit kit

Signal converter 0-10 V / 0-20 mA	2534992
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Temperature module

Temperature module for systems with 4-6 pumps	2533771
Temperature module for systems with 1-3 pumps	2534991

Pump control/Comfort control system

CCe-HVAC system

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

Pump control/Smart control 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

Pump control/interface module

CIF-Modules

CIF-Module BACnet MS/TP	2190367
CIF-Module Modbus RTU	2190368
CIF-Module CANopen	2190369
CIF-Module LON	2190370
CIF-Module PLR	2190371
CIF-Module Ethernet	2211408

Differential pressure detection

DDG power supply unit

DDG power supply unit	501865293
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DDG transducer

DDG transducer	501771990
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Extension kit differential pressure sensor for Y-piece application

Extension for DDG-kit	2166098
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Services

With Wilo as your partner, you can not only be sure of choosing high-quality product solutions, but also of benefiting from a comprehensive, worry-free package of well thought-out services. We collaborate to develop a service concept tailored to your individual needs; with our expertise and personal consultancy, we make sure that the operation of your systems is as energy-efficient, reliable and economical as possible. All the while our competent Wilo service technicians are ready to assist you with fast, reliable and on-time support.

Recommended services

Supervision Glanded pumps	2219321
Commissioning Glanded pumps	2219391
Maintenance BASIC Glanded pumps	2219531
Maintenance COMFORT Glanded pumps	2219493
Maintenance PREMIUM Glanded pumps	2219546

More suitable services

Extended Warranty Glanded pumps	2219590
Installation Glanded pumps	2219356
System Optimisation Glanded pumps	2219251
Energy Solutions Glanded pumps	2219240
Repair Glanded pumps	2219610