



# **Data sheet**

# Hydraulic data

Maximum operating pressure PN	10 bar
Head max H <sub>max</sub>	10.4 m
Flow max Q <sub>max</sub>	15.9 m³/h
Minimum suction head at 50 °C <i>m</i>	3 m
Minimum suction head at 95 °C <i>m</i>	10 m
Minimum suction head at 110 °C	16 m
Min. fluid temperature $T_{\min}$	-10 °C
Max. fluid temperature $T_{\text{max}}$	90 °C
Min. ambient temperature $T_{\min}$	-10 °C
Max. ambient temperature $T_{\rm max}$	40 °C

### Motor data

Energy efficiency index (EEI)	≤0.18
Mains connection	1~230 V ±10%, 50/60 Hz
Min current $I_{\min}$	0.11 A
Max current $I_{max}$	1.09 A
Rated power P <sub>2</sub>	206 W
Min. speed $n_{\min}$	750 1/min
Max. speed $n_{\text{max}}$	4000 1/min
Power consumption $P_{1 \text{ min}}$	7 W
Power consumption $P_{1 \text{ max}}$	250 W
Emitted interference	EN 61800-3;2004+A1;2012 /residential area (C1)
Interference resistance	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 <i>DNs</i>	DN 32
Pipe connection on the discharge side <i>DNd</i>	DN 32
Port-to-port length <i>L0</i>	220 mm



# Materials

Pump housing	Grey cast iron
Impeller	PPS-GF40
Shaft	1.4122, DLC-coated
Bearing	Carbon, antimony-impregnated



# **Equipment/function**

# **Function**

runction	
	$\Delta p$ -v for variable differential pressure
	Δp-c for constant differential pressure
	Q limit for limiting the maximum volume flow
	Dynamic Adapt plus
	ΔT-const. for constant differential temperature control
Control mode	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.)
	Heating/Cooling switching
	Night set back
	Heat quantity measurement
	Cooling quantity measurement
Connection!	Key locking function
Special features of	No-Flow Stop
the series	Reset function to factory setting
	Adjustable volume flow limiter
	Ability to save and restore configured pump settings (3 restoration points)
	Fault message and warning message in plain text including suggested remedy
Multi pump	Main/Standby
operation	Parallel operation
Measurement value logging	Heat and cooling capacity measurement
	Setpoint
	Actual delivery head
Display	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)

# **Function**

Display (can also be selected)	Speed
	Heating quantity
	Cooling quantity
	Operating hours
	Mains voltage
	Warning message
	Error message
Pump venting function	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
Quick electrical connection	Wilo Connector
Thermal insulation shell	Yes
Blocking- current proof motor	yes
Particle filter	yes
Key lock	yes

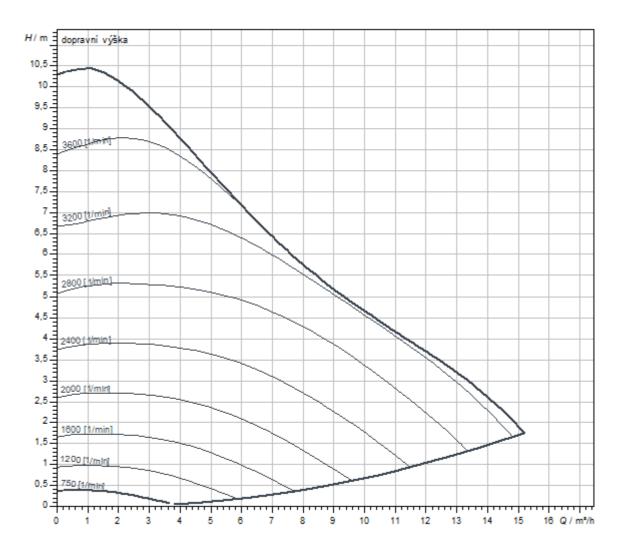


# Connectivity

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**

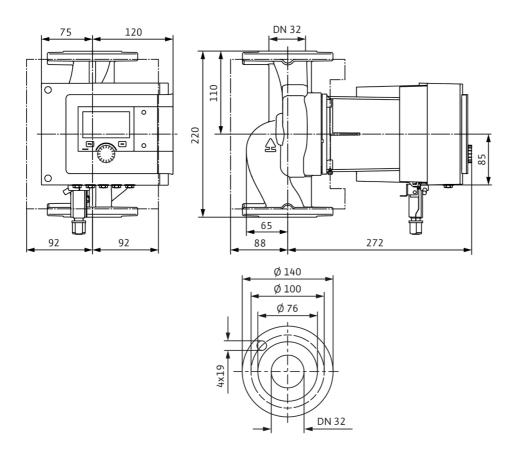


Fluid media	Water 100 %
Fluid temperature <i>T</i>	20,00 °C
speed at duty point <i>n hydr.</i> @ <i>OP</i>	3.137 1/min



# **Dimensions and dimensions drawings**

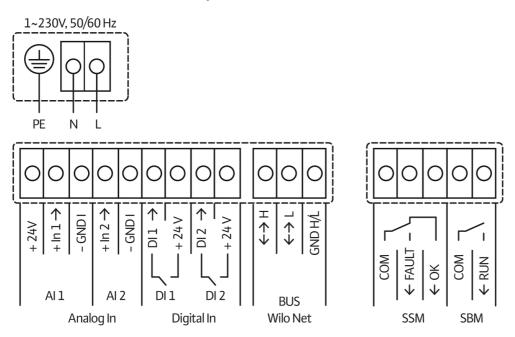
# Stratos MAXO 32/0,5-10 PN6/10-R7





# 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 ~)



#### **Tender text**

Premium smart-pump Wilo-Stratos MAXO-R7 (R7 = without internal temperature sensor)

High efficiency in-line glandless pump with EC motor and electronic power adjustment. Can be used for chilled 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 adjustment according 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 (available with accessory Wilo fluid temperature sensor or analogue temperature sensors e.g. 2x PT1000)
- > Cooling quantity measurement (available with accessory Wilo fluid temperature sensor or analogue temperature sensors e.g. 2x PT1000)
- > Pump automatically deactivates when no flow is detected (No-Flow Stop)
- > Switchover between heating and cooling mode (automatic, external or manual) (automatic, available with the accessory Wilo fluid temperature sensor)
- > Adjustable volume flow limiter using the Q-Limit function ( $Q_{min.}$  and  $Q_{max.}$ )
- Dual-pump operations: 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 night setback (available with the accessory Wilo fluid temperature sensor)
- > Automatic deblocking function and integrated full motor protection
- > Dry-running detection

#### Display:

- > Control mode
- > Setpoint
- > Volume flow
- > Temperature (available with accessory Wilo fluid temperature sensor)
- > 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 run signals 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**; dual-pump operation and Wilo-Smart Gateway
- > 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 **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)
- > 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

#### **Operating Data**

Min. fluid temperature $T_{\min}$	-10 °C
Max. fluid temperature $T_{\rm max}$	90 °C
Min. ambient temperature $\mathcal{T}_{\min}$	-10 °C
Max. ambient temperature $T_{\rm max}$	40 °C
Maximum operating pressure PN	10 bar
Minimum suction head at 50 °C <i>m</i>	3 m
Minimum suction head at 95 °C <i>m</i>	10 m
Minimum suction head at 110 °C	16 m

#### Scope of delivery

- > Pump
- > Optimised Wilo-Connector the same for all sizes
- > 2x threaded cable gland M16 x 1.5
- > 2x gaskets for threaded connection
- > Thermal insulation shell
- > Installation and operating instructions

#### **Optional accessories:**

- > ClimaForm 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
- > Wilo fluid temperature sensor (can be retrofitted for recording and displaying the fluid temperature, heat and cooling quantity and using the temperaturecontrolled control modes T-const., dT-const.)



# **Motor data**

Energy efficiency index (EEI)	≤0.18
Emitted interference	EN 61800-3;2004+A1;2012 /residential area (C1)
Interference resistance	EN 61800-3;2004+A1;2012 /industrial environment (C2)
Mains connection	1~230 V, 50/60 Hz
Power consumption $P_{1 \text{ max}}$	250 W
Min. speed $n_{\min}$	750 1/min
Max. speed $n_{\text{max}}$	4000 1/min
Protection class motor	IPX4D
Threaded cable connection	5 x M16x1.5

# Materials

Pump housing	Grey cast iron
Impeller	PPS-GF40
Shaft	1.4122, DLC-coated
Bearing	Carbon, antimony-impregnated

# **Installation dimensions**

Pipe connection on the suction side <i>DNs</i>	DN 32	
Pipe connection on the discharge side <i>DNd</i>	DN 32	
Port-to-port length <i>L0</i>	220 mm	

# **Ordering information**

Article number	2217946	
Net weight, approx. <i>m</i>	11.1 kg	
Product description	Stratos MAXO 32/0,5-10 PN6/10-R7	
Brand	Wilo	

# **Mechanical accessories**

### **Cold insulation**

### ClimaForm Stratos MAXO

ClimaForm Stratos MAXO 32/0,5-8/10/12	2201731	EUR 205

# Pipe installation

### Counter flange kit

DN 32, PN 6 counter flange kit	2105576	EUR 54
DN 32, PN 10 counter flange kit	2105577	EUR 71



# **Electrical accessories**

# Pump control/accessories

Antenna GSM/GPRS		
D-network dual-band antenna with 3 m cable	2533862	EUR 100
D-network tri-band antenna 10 m cable	2533863	EUR 385
D-network tri-band antenna 15 m cable	2533864	EUR 511
SMA/FME adapter	2545548	EUR 47
BMS base module		
BMS base module	2533800	EUR 832
CC communication module BACnet		
CC-communication module BACnet MS/TP (slave)	2537050	EUR 1,474
CC-communication module BACnet IP (slave)	2537051	EUR 1,630
Communication module CC		
CC communication module	2533850	EUR 329
Communication module GSM		
GSM module	2533861	EUR 1,390
Communication module GSM (SC)		
Communication module GSM (SC)	2542216	EUR 498
Communication module LON		
Communication module LON	2533868	EUR 2,519
Communication module LON (SC)		
Communication module LON (SC)	2538243	EUR 793
Communication module ModBus		
Communication module Modbus RTU	2533869	EUR 604
Communication module Profibus		
Communication module Profibus DP	2533866	EUR 1,474
Connection cable control modules/signalling modules		
Control modules connecting cable	2533790	EUR 211
Signalling modules connecting cable	2533890	EUR 211

6/14/2024 - cz/en



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communication module BACnet communication module BACnet MS/TP (slave)		
communication module BACnet communication module BACnet MS/TP (slave)	2533836 EU	UR 459
ommunication module BACnet MS/TP (slave)		UR 459
net IP SC communication module	2538242 EU	EUR 72
	2553366 on	reques
HVAC signal board		
IVAC signal board	2119646 on	reques
nal converter retrofit kit		
al converter 0-10 V / 0-20 mA	2534992 EU	UR 263
nperature module		
perature module for systems with 4-6 pumps	2533771 EUI	JR 1,182
pperature module for systems with 1-3 pumps	2534991 EU	JR 1,461
mp control/Smart control system		
-HVAC system		
HVAC system 1x10A-M-WM	2542281 on	reques
HVAC system 2x10A-M-WM	2542282 on	reques
HVAC system 3x10A-M-WM	2542283 on	reques
mp control/interface module		
Modules		
Module BACnet MS/TP	2190367 EU	

# Stratos MAXO 32/0,5-10 PN6/10-R7



CIF-Module Modbus RTU	2190368	EUR 217
CIF-Module CANopen	2190369	EUR 217
CIF-Module LON	2190370	EUR 217
CIF-Module PLR	2190371	EUR 217
CIF-Module Ethernet	2211408	EUR 539
Smart Gateway		
Wilo-Smart Gateway	2197100	EUR 821
Differential pressure detection		
DDG (4-20mA)		
Wilo-DDG 10 Signal Trans.(4-20mA)2G VP.	2136454	EUR 363
Wilo-DDG 20 Signal Trans.(4-20mA)2G VP.	2136456	EUR 363
Wilo-DDG 40 Signal Trans.(4-20mA)2G VP.	2136458	EUR 363
Wilo-DDG 60 Signal Trans.(4-20mA)2G VP.	2136460	EUR 363
Wilo-DDG 100 Signal Trans.(4-20mA)	2211740	EUR 363
DDG power supply unit		
DDG power supply unit	501865293	EUR 382
DDG transducer		
DDG transducer	501771990	EUR 1,775
Plug		
Angle plug		

Mains angle plug – Stratos MAXO	2212505	on request
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