

DATA POINT LIST

KTS Water Heater PRO S
Fig. 915 10 | 925 10



Physical interface	RS485
Protocol	ModBus RTU
Baud rate/databits/parity/stop bits	9600 / 8 / N / 1
Max. sampling rate	250 ms (4 per second)

Access via function codes (FC)

Coil	Read with FC01; write with FC05
Discrete input	Read with FC02
Input register	Read with FC04
Holding register	Read with FC03; write with FC06
Valid from controller software	V1.01

Registration Address	Register type	Data point	Area [Unit]	Default value	Access	Comment
Sensor measured values and set-point						
1100	Input register	S1 - HzVL temperature	[°C * 10]		Read	Actual value temperature sensor on heating flow before the PHE (plate heat exchanger)
1101	Input register	S2 - PWH temperature	[°C * 10]		Read	Actual value temperature sensor hot water at PWÜ outlet
1102	Input register	S3 - PWH-C / PWC Temperature	[°C * 10]		Read	Actual value temperature sensor circulation/ cold water on flow sensor
1103	Input register	S4 - buffer temperature bottom	[°C * 10]		Read	Actual value temperature sensor buffer tank bottom
1104	Input register	S5 - buffer temperature middle	[°C * 10]		Read	Actual value temperature sensor buffer tank bottom
1105	Input register	S6 - Overflow sensor Flush Point	0 - 1		Read	Overflow sensor status 1 - Overflow present 0 - No overflow
1106	Input register	S7 - HzRL temperature	[°C * 10]		Read	Actual value temperature sensor heating return for return flow stratification function
1107	Input register	S8 - PWH-C temperature circulation inlet	[°C * 10]		Read	Actual value temperature sensor return of the building circulation
1108	Input register	S9 - PWC temperature	[°C * 10]		Read	Actual value temperature sensor cold water
1109	Input register	V - PWH volume flow	[l/min * 10]		Read	Actual value volume flow drinking water

Registration Address	Register type	Data point	Area [Unit]	Default value	Access	Comment
Outputs:						
1200	Discrete input	R1 - No function	0 - 1		Read	No function
1201	Discrete input	R2 - Return flow stratification	0 - 1		Read	Actual value switching output R2 0 - Stratification bottom 1 - Stratification middle
1202	Discrete input	R3 - Flush valve	0 - 1		Read	Actual value switching output R3 0 - Valve closed 1 - Valve open
1203	Discrete input	R4 - Circulation pump	0 - 1		Read	Actual value switching output R4 0 - Pump off 1 - Pump on
1204	Discrete input	R5 - Re-loading	0 - 1		Read	Actual value switching output R5 0 - Requirement re-loading off 1 - Requirement re-loading active
1205	Discrete input	R6 - Error	0 - 1		Read	Actual value switching output R6 0 - No error 1 - Error present
1206	Input register	PWM - Control of the primary pump	0% - 100%		Read	Actual value control of the primary pump via PWM
Error messages						
1300	Coil	Collective fault	0 - 1		Read	1 -> write: - Acknowledge error 0 - No error on unit 1 - Error present
1301	Input register	Coded error messages...	0 - 65535		Read	Bit report 0 - Everything OK 1 - Date/Time 2 - Sensor error 3 - Valve open 4 - Valve closed 5 - Software update 6 - Hot water emergency mode 7 - Single controller 8 - Buffer >95°C 9 - Buffer temperature 10 - Reducing the flow temperature possible 11 - Flush barrier 12 - Overflow 13 - Modbus module 14 - Manual mode by Modbus active
1302	Input register	Coded error messages...	0 - 65535		Read	Bit report

Registration Address	Register type	Data point	Area [Unit]	Default value	Access	Comment
Settings						
1400	Holding register	Set-point PWH temperature	[°C * 10]		Read Write	Set-point PWH temperature
1401	Holding register	Date Day	1 - 31		Read Write	Unit system time - day
1402	Holding register	Date Month	1 - 12		Read Write	Unit system time - month
1403	Holding register	Date Year	0 - 99		Read Write	Unit system time - year
1404	Holding register	Time Hour	0 - 23		Read Write	Unit system time - hour
1405	Holding register	Time Minute	0 - 59		Read Write	Unit system time - minute
1406	Holding register	Time Seconds	0 - 59		Read Write	Unit system time - second
1407	Holding register	Language	0 - 1		Read Write	Setting the display language 0 - German 1 - English
1408	Holding register	Operating mode	0 - 1		Read Write	Unit mode 0 - Off 1 - Automatic
1409	Input register	device type	0 - 0		Read	Unit type 0 - Water Heater S
1417	Input register	Firmware version	[V * 100]		Read	Firmware version
1418	Input register	Hardware version	[V * 200]		Read	Hardware version
Meter						
1500	Input register	Number of operating cycles R1 - Low	0 - 65535		Read	
1501	Input register	Number of operating cycles R1 - High	0 - 65535		Read	
1502	Input register	Operating hours R1 - Low	0 - 65535		Read	
1503	Input register	Operating hours R1 - High	0 - 65535		Read	
1504	Input register	Number of operating cycles R2 - Low	0 - 65535		Read	
1505	Input register	Number of operating cycles R2 - High	0 - 65535		Read	
1506	Input register	Operating hours R2 - Low	0 - 65535		Read	
1507	Input register	Operating hours R2 - High	0 - 65535		Read	
1508	Input register	Number of operating cycles R3 - Low	0 - 65535		Read	
1509	Input register	Number of operating cycles R3 - High	0 - 65535		Read	
1510	Input register	Operating hours R3 - Low	0 - 65535		Read	
1511	Input register	Operating hours R3 - High	0 - 65535		Read	
1512	Input register	Number of operating cycles R4 - Low	0 - 65535		Read	
1513	Input register	Number of operating cycles R4 - High	0 - 65535		Read	
1514	Input register	Operating hours R4 - Low	0 - 65535		Read	
1515	Input register	Operating hours R4 - High	0 - 65535		Read	
1516	Input register	Number of operating cycles R5 - Low	0 - 65535		Read	
1517	Input register	Number of operating cycles R5 - High	0 - 65535		Read	
1518	Input register	Operating hours R5 - Low	0 - 65535		Read	
1519	Input register	Operating hours R5 - High	0 - 65535		Read	
1520	Input register	Number of operating cycles R6 - Low	0 - 65535		Read	

Registration Address	Register type	Data point	Area [Unit]	Default value	Access	Comment
Meter						
1521	Input register	Number of operating cycles R6 - High	0 - 65535		Read	
1522	Input register	Operating hours R6 - Low	0 - 65535		Read	
1523	Input register	Operating hours R6 - High	0 - 65535		Read	
1524	Input register	Operating hours primary pump - Low	0 - 65535		Read	
1525	Input register	Operating hours primary pump - High	0 - 65535		Read	
Thermal disinfection						
1600	Holding register	Set-point disinfection temperature	70 - 90 [°C * 10]	75	Read Write	Set-point temperature of thermal disinfection
1601	Holding register	Runtime	60 - 1440 minutes	120	Read Write	
1602	Holding register	Duration	30 - 1080 minutes	60	Read Write	
1603	Coil	Start/stop disinfection	0 - 1		Read Write	1 -> write: - Disinfection is started 0 -> write: - Disinfection is stopped
1604	Input register	Thermal disinfection status	0 - 7		Read	0 - Deactivated 1 - Idling 2 - Preparation 3 - Heating up 4 - Disinfected 5 - Result 6 - Lag 7 - Completed
Test values and manual mode						
1707	Input register	V1 - Volume flow sensor small	[l/min * 10]		Read	Actual value of the small volume flow sensor
1800	Holding register	Manual mode of the primary pump	0 - 100 [%] or 65535	65535	Read Write	65535 - Auto
1802	Holding register	Manual mode of the circulation pump	0 - 1 or 65535	65535	Read Write	65535 - Auto 0 - Off 1 - On
1803	Holding register	Manual mode of re-loading	0 - 1 or 65535	65535	Read Write	65535 - Auto 0 - Off 1 - On
1804	Holding register	Manual mode of return stratification	0 - 1 or 65535	65535	Read Write	65535 - Auto 0 - Bottom 1 - Middle
1805	Holding register	Manual mode of the fault relay	0 - 1 or 65535	65535	Read Write	65535 - Auto 0 - Off 1 - On
1806	Holding register	Manual mode of the flush valve	0 - 1 or 65535	65535	Read Write	65535 - Auto 0 - Off 1 - On