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Data point list - **KEMPER** - Master 2.0/2.1

Physical interface	Ethernet
Protocol	Modbus TCP/IP
Port	502
Default IP address	10.1.23.150
Unit ID Master	1
Unit ID Slave 1-62	2 - 63
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

Register address	Register type	Data point	Area [Unit]	Unit ID	Access	Comment
Data points Master						
200	Holding Register	Name Program1 Freetext1	0-65535 [2 ASCII]	1	Read Write	Freetext 1. 2 ASCII characters 16 characters in total possible
201	Holding Register	Name Program1 Freetext2	0-65535 [2 ASCII]	1	Read Write	Freetext 2. 2 ASCII characters 16 characters in total possible
202	Holding Register	Name Program1 Freetext3	0-65535 [2 ASCII]	1	Read Write	Freetext 3. 2 ASCII characters 16 characters in total possible
203	Holding Register	Name Program1 Freetext4	0-65535 [2 ASCII]	1	Read Write	Freetext 4. 2 ASCII characters 16 characters in total possible
204	Holding Register	Name Program1 Freetext5	0-65535 [2 ASCII]	1	Read Write	Freetext 5. 2 ASCII characters 16 characters in total possible
205	Holding Register	Name Program1 Freetext6	0-65535 [2 ASCII]	1	Read Write	Freetext 6. 2 ASCII characters 16 characters in total possible
206	Holding Register	Name Program1 Freetext7	0-65535 [2 ASCII]	1	Read Write	Freetext 7. 2 ASCII characters 16 characters in total possible
207	Holding Register	Name Program1 Freetext8	0-65535 [2 ASCII]	1	Read Write	Freetext 8. 2 ASCII characters 16 characters in total possible
210	Holding Register	Name Program2 Freetext1	0-65535 [2 ASCII]	1	Read Write	Freetext 1. 2 ASCII characters 16 characters in total possible
211	Holding Register	Name Program2 Freetext2	0-65535 [2 ASCII]	1	Read Write	Freetext 2. 2 ASCII characters 16 characters in total possible
212	Holding Register	Name Program2 Freetext3	0-65535 [2 ASCII]	1	Read Write	Freetext 3. 2 ASCII characters 16 characters in total possible
213	Holding Register	Name Program2 Freetext4	0-65535 [2 ASCII]	1	Read Write	Freetext 4. 2 ASCII characters 16 characters in total possible
214	Holding Register	Name Program2 Freetext5	0-65535 [2 ASCII]	1	Read Write	Freetext 5. 2 ASCII characters 16 characters in total possible
215	Holding Register	Name Program2 Freetext6	0-65535 [2 ASCII]	1	Read Write	Freetext 6. 2 ASCII characters 16 characters in total possible
216	Holding Register	Name Program2 Freetext7	0-65535 [2 ASCII]	1	Read Write	Freetext 7. 2 ASCII characters 16 characters in total possible
217	Holding Register	Name Program2 Freetext8	0-65535 [2 ASCII]	1	Read Write	Freetext 8. 2 ASCII characters 16 characters in total possible
220	Holding Register	Controller designation Freetext1	0-65535 [2 ASCII]	1	Read Write	Freetext 1. 2 ASCII characters 40 characters in total possible
221	Holding Register	Controller designation Freetext2	0-65535 [2 ASCII]	1	Read Write	Freetext 2. 2 ASCII characters 40 characters in total possible
222	Holding Register	Controller designation Freetext3	0-65535 [2 ASCII]	1	Read Write	Freetext 3. 2 ASCII characters 40 characters in total possible
223	Holding Register	Controller designation Freetext4	0-65535 [2 ASCII]	1	Read Write	Freetext 4. 2 ASCII characters 40 characters in total possible
224	Holding Register	Controller designation Freetext5	0-65535 [2 ASCII]	1	Read Write	Freetext 5. 2 ASCII characters 40 characters in total possible
225	Holding Register	Controller designation Freetext6	0-65535 [2 ASCII]	1	Read Write	Freetext 6. 2 ASCII characters 40 characters in total possible
226	Holding Register	Controller designation Freetext7	0-65535 [2 ASCII]	1	Read Write	Freetext 7. 2 ASCII characters 40 characters in total possible
227	Holding Register	Controller designation Freetext8	0-65535 [2 ASCII]	1	Read Write	Freetext 8. 2 ASCII characters 40 characters in total possible
228	Holding Register	Controller designation Freetext9	0-65535 [2 ASCII]	1	Read Write	Freetext 9. 2 ASCII characters 40 characters in total possible
229	Holding Register	Controller designation Freetext10	0-65535 [2 ASCII]	1	Read Write	Freetext 10. 2 ASCII characters 40 characters in total possible
230	Holding Register	Controller designation Freetext11	0-65535 [2 ASCII]	1	Read Write	Freetext 11. 2 ASCII characters 40 characters in total possible
231	Holding Register	Controller designation Freetext12	0-65535 [2 ASCII]	1	Read Write	Freetext 12. 2 ASCII characters 40 characters in total possible

Register address	Register type	Data point	Area [Unit]	Unit ID	Access	Comment
232	Holding Register	Controller designation Freetext13	0-65535 [2 ASCII]	1	Read Write	Freetext 13. 2 ASCII characters 40 characters in total possible
233	Holding Register	Controller designation Freetext14	0-65535 [2 ASCII]	1	Read Write	Freetext 14. 2 ASCII characters 40 characters in total possible
234	Holding Register	Controller designation Freetext15	0-65535 [2 ASCII]	1	Read Write	Freetext 15. 2 ASCII characters 40 characters in total possible
235	Holding Register	Controller designation Freetext16	0-65535 [2 ASCII]	1	Read Write	Freetext 16. 2 ASCII characters 40 characters in total possible
236	Holding Register	Controller designation Freetext17	0-65535 [2 ASCII]	1	Read Write	Freetext 17. 2 ASCII characters 40 characters in total possible
237	Holding Register	Controller designation Freetext18	0-65535 [2 ASCII]	1	Read Write	Freetext 18. 2 ASCII characters 40 characters in total possible
238	Holding Register	Controller designation Freetext19	0-65535 [2 ASCII]	1	Read Write	Freetext 19. 2 ASCII characters 40 characters in total possible
239	Holding Register	Controller designation Freetext20	0-65535 [2 ASCII]	1	Read Write	Freetext 20. 2 ASCII characters 40 characters in total possible
250	Holding Register	System restart	0 1	1	Read Write	Read always '0' System restart on '1'
251	Holding Register	Alarm buzzer enabled	0 1	1	Read Write	0-no 1-yes
252	Holding Register	Mode	0-2	1	Read Write	0-System locked 1-Program 1 2-Program 2
253	Holding Register	Program switch enabled	0 1	1	Read Write	0-no 1-yes
254	Holding Register	Time Hour	0-23	1	Read Write	Hour
255	Holding Register	Time Minute	0-59	1	Read Write	Minute
256	Holding Register	Time Seconds	0-59	1	Read Write	Seconds
257	Holding Register	Date Day	1-31	1	Read Write	Day
258	Holding Register	Date Month	1-12	1	Read Write	Month
259	Holding Register	Date Year	0-99	1	Read Write	Year
260	Holding Register	Create file on SD card	0-99	1	Read Write	0-Ready/complete 1-Create log 2-Create flushing log 3-Create current datalog 4-Save configuration Note: The web server is not available while files are being created on the SD card.
Data points Master + Slaves - static values						
400	Input Register	Valve type	0-3	1-63	Read	0-No valve 1-Spring reset 2-Servo drive 3-Solenoid valve (HS2)
401	Input Register	Flow sensor	0-13	1-63	Read	0-No sensor 6-Control Plus type a (Fig1384G) 7-Control Plus type b (Fig1384G) 8-Control Plus type c (Fig1384G) 9-Control Plus type d (Fig1384G) 10-Control Plus type e (Fig1384G) 11-Control Plus type f (Fig1384G) 12-Control Plus type g (Fig1384G) 13-HS2 sensor
402	Input Register	Temperature sensor	0-2	1-63	Read	0- No sensor 1- PT1000 2- HS2
403	Input Register	Valve type	0-5	1-63	Read	0-Disabled 1-A 2-B 3-C 4-Measurement only 5-Backup
404	Input Register	Relevant B valve	0-62	1-63	Read	B valve belonging to A valve
405	Input Register	Serial number high	0-65535	1-63	Read	Device serial number upper 16-bit
406	Input Register	Serial number low	0-65535	1-63	Read	Device serial number lower 16-bit
407	Input Register	Temperature monitoring	0-2	1-63	Read	0-Disabled 1-Hot water 2-Cold water
408	Input Register	Temperature frost protection limit	0-999	1-63	Read	Temperature in °C (*10), i.e. one decimal point e.g. 195 = 19,5°C
409	Input Register	Minimum temperature set point	0-999	1-63	Read	Temperature in °C (*10), i.e. one decimal point e.g. 195 = 19,5°C
410	Input Register	Maximum temperature set point	0-999	1-63	Read	Temperature in °C (*10), i.e. one decimal point e.g. 195 = 19,5°C
411	Input Register	Temperature set point Thermal disinfection	0-999	1-63	Read	Temperature in °C (*10), i.e. one decimal point e.g. 195 = 19,5°C
420	Holding Register	Name Device Freetext1	0-65535 [2 ASCII]	1-63	Read Write	Freetext 1. 2 ASCII characters 16 characters in total possible
421	Holding Register	Name Device Freetext2	0-65535 [2 ASCII]	1-63	Read Write	Freetext 2. 2 ASCII characters 16 characters in total possible
422	Holding Register	Name Device Freetext3	0-65535 [2 ASCII]	1-63	Read Write	Freetext 3. 2 ASCII characters 16 characters in total possible
423	Holding Register	Name Device Freetext4	0-65535 [2 ASCII]	1-63	Read Write	Freetext 4. 2 ASCII characters 16 characters in total possible
424	Holding Register	Name Device Freetext5	0-65535 [2 ASCII]	1-63	Read Write	Freetext 5. 2 ASCII characters 16 characters in total possible
425	Holding Register	Name Device Freetext6	0-65535 [2 ASCII]	1-63	Read Write	Freetext 6. 2 ASCII characters 16 characters in total possible

Register address	Register type	Data point	Area [Unit]	Unit ID	Access	Comment
426	Holding Register	Name Device Freetext7	0-65535 [2 ASCII]	1-63	Read Write	Freetext 7. 2 ASCII characters 16 characters in total possible
427	Holding Register	Name Device Freetext8	0-65535 [2 ASCII]	1-63	Read Write	Freetext 8. 2 ASCII characters 16 characters in total possible
Data points Master + Slaves - dynamic values						
600	Input Register	Current temperature ●	0-999	1-63	Read	Temperature in °C (*10), i.e. one decimal point e.g. 195 = 19,5°C
601	Input Register	Current flow ●	0-65335	1-63	Read	Litres/min with one decimal point Decimal point e.g. 97 = 9.7 l/min
602	Input Register	Current volume ●	0-65535	1-63	Read	Litres with one decimal point Decimal point e.g. 545 = 54.5 litres
603	Input Register	Runtime	0-65535	1-63	Read	Valve runtime (seconds)
604	Input Register	Operating cycle counter high	0-65535	1-63	Read	Upper 16bit
605	Input Register	Operating cycle counter low	0-65535	1-63	Read	Lower 16bit
606	Holding Register	Manual mode	0 1 2 5 6	1-63	Read Write	0 - Automatic operation 1- Manual operation Open 2 - Manual operation Close 5 - Open B valve with A valve (adheres to sequence and waiting times) 6 - Close B valve with A valve
607	Holding Register	Manual operation runtime	0-65535	1-63	Read Write	Manual operation duration (65535=continuous) (seconds) Note: This value only exists once on the system and is therefore adopted irrespective of the device address (Unit ID).
610	Coil	Acknowledge error	0 1	1-63	Read Write	Group error Acknowledge error
611	Discrete Input	Real-time clock error	0 1	1-63	Read	0-No error 1-Error has occurred
612	Discrete Input	Runtime temperature timer exceeded ●	0 1	1-63	Read	0-No error 1-Error has occurred
613	Discrete Input	Backflow pending ●	0 1	1-63	Read	0-No error 1-Error has occurred
614	Discrete Input	Backflow was pending (noted)	0 1	1-63	Read	0-No error 1-Error has occurred
615	Discrete Input	Operating cycles >20000x (VAV) >50000(HS2)	0 1	1-63	Read	0-No error 1-Error has occurred Quarter turn stop valve servo drive, spring reset HS2
616	Discrete Input	Communication BusA	0 1	1-63	Read	0-No error 1-Error has occurred
617	Discrete Input	Communication BusB	0 1	1-63	Read	0-No error 1-Error has occurred
618	Discrete Input	Too many bus subscribers BUS A	0 1	1-63	Read	0-No error 1-Error has occurred
619	Discrete Input	Too many bus subscribers BUS B	0 1	1-63	Read	0-No error 1-Error has occurred
620	Discrete Input	Communication error, BUS ●	0 1	1-63	Read	0-No error 1-Error has occurred
621	Discrete Input	PT1000 value too low	0 1	1-63	Read	0-No error 1-Error has occurred
622	Discrete Input	PT1000 value too high	0 1	1-63	Read	0-No error 1-Error has occurred
623	Discrete Input	Leak pending	0 1	1-63	Read	0-No error 1-Error has occurred
624	Discrete Input	Leak was pending (noted)	0 1	1-63	Read	0-No error 1-Error has occurred
625	Discrete Input	Flow despite closed valve ●	0 1	1-63	Read	0-No error 1-Error has occurred
626	Discrete Input	No flow despite open valve ●	0 1	1-63	Read	0-No error 1-Error has occurred
650	Discrete Input	Open valve manually ●	0 1	1-63	Read	0-no 1-yes
651	Discrete Input	Close valve manually ●	0 1	1-63	Read	0-no 1-yes
652	Discrete Input	Temperature flushing enabled	0 1	1-63	Read	0-no 1-yes
653	Discrete Input	Volume flushing enabled	0 1	1-63	Read	0-no 1-yes
654	Discrete Input	Time flushing enabled	0 1	1-63	Read	0-no 1-yes
655	Discrete Input	Can Bus enabled	0 1	1-63	Read	0-no 1-yes
656	Discrete Input	Communication slave error	0 1	1-63	Read	0-no 1-yes
657	Discrete Input	Alarm relay On/Off ●	0 1	1-63	Read	0-no 1-yes
658	Discrete Input	Open valve	0 1	1-63	Read	0-no 1-yes
659	Discrete Input	Previous valve state	0 1	1-63	Read	0-no 1-yes
660	Discrete Input	Open valve dep. on temp.	0 1	1-63	Read	0-no 1-yes
661	Discrete Input	Last flushing cycle was routine	0 1	1-63	Read	0-no 1-yes
662	Discrete Input	Valve is in operation	0 1	1-63	Read	0-no 1-yes
663	Discrete Input	Below temperature frost protection limit	0 1	1-63	Read	0-no 1- yes (cold water monitoring function)
664	Discrete Input	Below minimum temperature set point	0 1	1-63	Read	0-no 1- yes (hot water monitoring function)
665	Discrete Input	Maximum temperature set point exceeded	0 1	1-63	Read	0-no 1- yes (hot and cold water monitoring function)
667	Discrete Input	Temperature set point in permitted range	0 1	1-63	Read	0-no 1- yes (hot and cold water monitoring function)
668	Discrete Input	Thermal disinfection temperature exceeded	0 1	1-63	Read	0-no 1- yes (hot water monitoring function)
1420	Input Register	Main Software Version	0-99	1	Read	Main Revision of Software Version
1421	Input Register	Minor Software Version	0-99	1	Read	Minor Revision of Software Version
1422	Input Register	Software Revision Number	0-99	1	Read	Third digit of version code
1423	Input Register	Software Date Day	0-31	1	Read	Day of software date
1424	Input Register	Software Date Month	1-12	1	Read	Month of software date
1425	Input Register	Software Date	0-99	1	Read	Year of software date
1426	Input Register	Main Web Server Version	0-99	1	Read	Main version of web server
1427	Input Register	Minor Web Server Version	0-99	1	Read	Minor version of web server