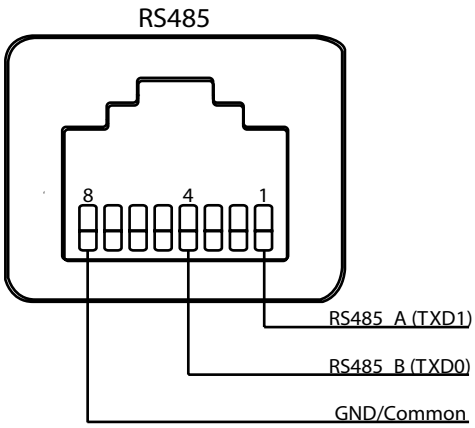
Modbus RTU Interface for CDP/ CDP-T/ CDF 40-50-70

Modbus RTU Interface



RS-485 interface with Modbus RTU protocol working as slave device. The device supports a slave ID from 1 to 255.

Settings
Baud rate: 115200 bps
Parity: None
Data bits: 8
Stop bit: 1
No flow control

Code	Functions
0x03	Read holding registers
0x06	Preset single register
0x10	Preset multiple registers

Note
The modbus protocol only responds on the active addresses mentioned in the protocol.
To avoid any time-out errors, please make sure to only query on the available addresses.

Software version
Support of slave ID and the following Modbus protocol is available with software version 1.45 or newer. If you are using software older than 1.45, please use Modbus instruction version 1.0 or update your CDP/CDF dehumidifier software to 1.45 or newer.
Software can be requested from Dantherm Support at support@dantherm.com.

Modbus Protocol

Address	Parameter	Min	Max	Default	Scaling	Access	Description
1002	Comp_ state	0	1	0		R	Compressor state: 1 = Compressor running
1003	Fan_state	0	1	0		R	Fan state: 1 = Fan running
1004	Sole_state	0	1	0		R	Solenoid state: 1 = Solenoid valve open
1005	ExFan_state	0	1	0		R	Exhaust fan state: 1 = Exhaust fan running
1006	Heat1_state	0	1	0		R	Heater 1 state: 1 = Heater turned on
1007	Heat2_state	0	1	0		R	Heater 2 state: 1 = Heater turned on
1008	Alarm1_ state	0	1	0		R	Alarm 1 output: 1 = Unit is running
1009	Alarm2_ state	0	1	0		R	Alarm 2 output: 1 = Unit has an alarm
1010	Evap_ temp1	-400	1000	0	/10	R	Temperature from evaporator 1 Scaling /10 means 1 decimal. Example: Readout of 500 is 50.0
1011	Evap_ temp2	-400	1000	0	/10	R	Temperature from evaporator 2 Scaling /10 means 1 decimal. Example: Readout of 500 is 50.0
1012	Cond_ temp1	-400	1000	0	/10	R	Temperature from condenser Scaling /10 means 1 decimal. Example: Readout of 500 is 50.0
1013	Aux_temp	-400	1000	0	/10	R	Temperature from auxiliary sensor Scaling /10 means 1 decimal. Example: Readout of 500 is 50.0
1014	Amb_temp	-400	1000	0	/10	R	Temperature of ambient air Scaling /10 means 1 decimal. Example: Readout of 500 is 50.0
1015	Amb_hum	0	1000	0	/10	R	Humidity of ambient air Scaling /10 means 1 decimal. Example: Readout of 500 is 50.0
1016	RH_set	40	95	40	/1	RW	Setpoint value of desired humidity.
1017	RH_Fan	40	95	40	/1	RW	Setpoint value of humidity for exhaust fan start.

Address	Parameter	Min	Max	Default	Scaling	Access	Description
1018	Temp_set	0	36	0	/1	RW	Setpoint value of desired temperature
1019	Fail_start	0	1	0		R	Failed to start: 1 = Failure to start
1020	SB_mode	0	1	0		R	Stand-by mode: 1 = Stand-by mode active
1021	DEH_mode	0	1	0		R	Dehumidification active 1 = Unit is dehumidifying
1022	Ice_mode	0	1	0		R	Deicing active 1 = Unit is deicing
1023	LP_mode	0	1	0		R	LP fail mode: 1 = Unit has a LP fail.
1024	Sens_mode	0	1	0		R	Sensor fail mode: 1 = Unit has a sensor failure.
1025	HP_mode	0	1	0		R	HP fail mode: 1 = Unit has a HP fail.
1030	Amb_mode	0	1	0		R	Ambient fail mode: 1 = Ambient fail mode active
1031	AmbT_ mode	0	1	0		R	Ambient temperature fail mode: 1 = Ambient temperature out of operating range.
1032	AmbRH_ mode	0	1	0		R	Ambient humidity fail mode: 1 = Ambient humidity out of operating range.
1033	SW Build number	0		0		R	SW build number
1034	SW Version (Major)	0	255	0		R	SW version major
1035	SW Version (Minor)	0	255	0		R	SW version minor
1036	HP Alarm Temp	0	99	60	/1	RW	HP fail occurs when condenser temperature is more then this value.

Dantherm A/S
Marienlystvej 65
7800 Skive
Denmark
support.dantherm.com

Address	Parameter	Min	Max	Default	Scaling	Access	Description
1037	Fan_function	0	1	0	/1	RW	FAN function in standby mode 1 = Standby fan function active
1038	Time_wait_ fan	60	7200	3600	/1	RW	Time to wait until FAN will be started in standby mode, if enabled (seconds)
1039	Time_run_ fan	15	600	60	/1	RW	Time to run FAN in standby mode if enabled (seconds)
1040	RH_Fen	0	1	0		RW	Exhaust Fan function: 1 = Exhaust fan function enabled
1041	Service_ena	0	1	0		RW	Service interval function: 1 = Service interval enabled
1042	Service_int	0	99	0	/1	RW	Service interval value in weeks
1043	Modbus slave ID	1	255	1	/1	RW	Set Modbus slave ID

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