

4. Jak sterować pompą Stratos MAXO za pośrednictwem protokołu Modbus:

- a) Załączanie/Wyłączanie
- b) Zmiana trybu pracy
- c) Zmiana wartości zadanej
- d) Blokowanie pompy

Poniżej zmienne Modbus dla pompy Stratos Maxo (analogicznie dla pomp Stratos)

a) Załączanie/Wyłączanie - adres *Pump Command in #40*

6.2.7.3.40 Pump Command in

property	value
address	40
scope	pump system
function	input value
data type	WORD
Module versions	CIF-Module Modbus RTU (1.00...99.99)

bit	Name	description	support
0	Pump on	This is the base signal. This signal represents the normal "ON" command. This signal is effective, if no override functions are active.	GLANDLESS, GLANDED_SINGLE, GLANDED_MULTI, STRATOS_MAXO
1	Override min	This is the base signal. This signal overrides the pump (system) command with "MIN" command.	GLANDLESS, GLANDED_SINGLE, GLANDED_MULTI, STRATOS_MAXO
2	Override max	This is the base signal. This signal overrides the pump (system) command with "MAX" command.	GLANDLESS, GLANDED_SINGLE, GLANDED_MULTI, STRATOS_MAXO
3	TRUE	This is the base signal. This signal represents a static '1' bit, typically for compatibility purpose. For write acces, this bit shall always be '1'.	PLC_INT
4	Override off	This is the base signal. This signal overrides the pump (system) command with "OFF" command.	GLANDLESS, GLANDED_SINGLE, GLANDED_MULTI, STRATOS_MAXO
5	Override on	This is the base signal. This signal overrides the pump (system) command with "ON" command.	GLANDLESS, GLANDED_SINGLE, GLANDED_MULTI, PLC_INT
6	FALSE	This is the base signal. This signal represents a static '0' bit, typically for compatibility purpose. For write acces, this bit shall always be '0'.	PLC_INT
7	FALSE	This is the base signal. This signal represents a static '0' bit, typically for compatibility purpose. For write acces, this bit shall always be '0'.	PLC_INT
8	Auto Night Mode	This is the base signal. This signal represents the automatic setback mode . This mode forces the device to run at lower settings than the normal duty point.	GLANDLESS, STRATOS_MAXO

This is the base signal. This register controls the pump. It can be switched on or off. furthermore, the on/off command can be overridden with min or max values.

Poniżej przesyłam również priorytetyzację komend:

6.1.1 Command priority

Beside the normal on/off control of the pump there are several methods to override this. The following list shows the priority of those commands. Lower numbers have higher priority

1. Override off
2. Override max
3. Override min
4. Override on

b) Zmiana Trybu pracy - adres *Control Function #42*

6.2.7.3.42 Control Function

property	value
address	42
scope	pump system
function	input value
data type	WORD
Module versions	CIF-Module Modbus RTU (1.00...99.99)

▼ click left for details on enumeration

value	Name	description	support
1	Gen_Spd	This control mode operates the device with constant speed.	Stratos MAXO; Stratos; IL_E...; MVIE...;
2	CONST_FREQ	reserved	-
3	Gen_PhDConst	This control mode operates the device with constant differential pressure.	Stratos MAXO; Stratos; IL_E...;
4	Gen_PhDVar	This control mode operates the device with a differential pressure which varies with the flow.	Stratos MAXO; Stratos; IL_E...;
5	CONST_PRESSURE	This control mode operates the device with constant discharge pressure.	MVIE...;
6	TEMP_VARIABLE	This control mode operates the device with a differential pressure which varies with the fluid temperature.	CIF-/IF-Module internal; Stratos;
6	CONST_POWER	reserved	-
7	CONST_HEAD	reserved	-
8	CONST_FLOW	reserved	-
9	Gen_T	This control mode operates the device with constant temperature for generic application.	Stratos MAXO;
10	Gen_TDiff	This control mode operates the device with constant differential temperature for generic application.	Stratos MAXO;
11	CONST_LEV	reserved	-
15	INVALID	Invalid value	CIF-/IF-Module internal;
16	HeatRadiator_PhD	This control mode operates the device with a differential pressure which varies with the flow for heating radiator applications.	Stratos MAXO;
17	HeatRadiator_DA	This control mode operates the device with automatic setpoint adjustment (dynamic adapt) for heating radiator applications.	Stratos MAXO;
18	HeatRadiator_T	This control mode operates the device with constant temperature for heating radiator application.	Stratos MAXO;

c) Zmiana wartości zadanej - adres **duty point #1**

6.2.7.3.1 duty point (rel.)

property	value
address	1
scope	pump system
function	input value
data type	INT
unit	%
scale	0.5
range low	-32768
range high	32766
error value	32767
Module versions	CIF-Module Modbus RTU (1.00...99.99)

This is the base signal. It contains the relative duty point of the device. The valid range is not necessarily 0...100 %. a duty point of 0 % is not necessarily linked to the OFF state of the device.

Support reference: CIF-/IF-Module mapped; Stratos; IL_E, ...; MVIE, ...;

d) Blokowanie wyświetlacza pompy – pompa (panel sterowniczy) po aktywowaniu sterowania za pomocą Modbus powinien być zablokowany domyślnie, jeżeli tak nie jest można to zrobić za pomocą adresu **Bus Command Timer #300** nadając wartość **1**

6.2.7.3.300 Bus Command Timer

property	value
address	300
scope	pump system
function	input value / active value
data type	BYTE
range low	1
range high	10
Module versions	CIF-Module Modbus RTU (1.00...99.99)

▼ click left for details on enumeration

value	Name	description	support
1	OFF	The functionality Bus Command timer is deactivated. The local operation is blocked permanently.	CIF-/IF-Module internal;
2	SET	This value starts a lockout time for the local pump operation. The lockout time may be adjustable.	CIF-/IF-Module internal;
3	ACTIVE	This value indicates that the lockout time is active.	CIF-/IF-Module internal;
4	RESET	This value indicates that the lockout time which was started with the signal "Bus Command Timer SET" has elapsed. Local operation of the device is possible, the write to the device over the communication interface is blocked.	CIF-/IF-Module internal;
5	MANUAL	This value indicates that the local as well as the remote operation is possible. The commands are accepted according "last write wins".	CIF-/IF-Module internal;
6	SET_PRESET	This value starts a lockout time for the local pump operation. After the lockout time has elapsed, PRESET values are used for operation. The lockout time may be adjustable.	CIF-/IF-Module internal;
7	ACTIVE_PRESET	This value indicates that the lockout time which was started with the signal "Bus Command Timer SET_PRESET" is currently active. After the lockout time has elapsed, PRESET values are used for operation.	CIF-/IF-Module internal;
8	RESET_PRESET	This value indicates that the lockout time which was started with the signal "Bus Command Timer SET" has elapsed. Local operation of the device is possible, the write to the device over the communication link is blocked. When this signal becomes active, PRESET values are set once for operation.	CIF-/IF-Module internal;
9	MANUAL_PRESET	This value indicates that the local as well as the remote operation is possible. The commands are accepted according "last write wins". When this signal becomes active, PRESET values are loaded once.	CIF-/IF-Module internal;
10	INVALID	Invalid value	CIF-/IF-Module internal;

This is the base signal. When using an IF-Module the local menu may be disabled by factory setting. The local menu can be enabled permanently by writing the value MANUAL. To use the local menu only when the BAS system fails, repeat writing the value SET at least before the optional Bus Command Timer timeout time (default or fixed value 300 s). The activation is stored and survives a power on reset. When the mechanism is no longer needed, write OFF to reset to factory setting. If the BAS fails, then the menu can be entered to adjust the settings. E54 may be displayed at the pump. If it is desired to load fallback values when the bus failure event occurs, then use SET_PRESET instead of SET to trigger the bus command timer. This functionality is available with Modbus and BACnet in IF-modules starting with firmware SW > 2.00. For CIF-modules, there is no restriction.

Support reference: CIF-/IF-Module internal;