REGISTER LIJST MODBUS:

LET OP: Register adres waarde kan gelijk of 1 hoger zijn
- Keuze stopbit = 1 : Modbus register adres altijd 1 hoger
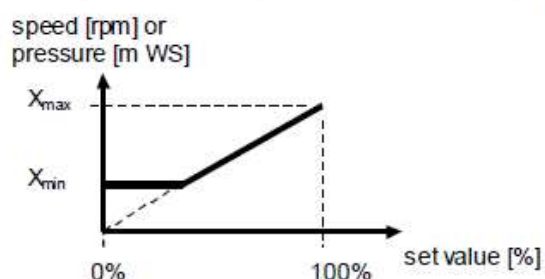- Keuze stopbit = 2 : Modbus register adres gelijk aan waarde tabellen

Holding registers voor sturen:

Holding register address	Description	Stratos, TOP-E	MHIE, MVIE, MVISE	IP-E, IL-E
1	Set Value	yes	yes	yes
40	Pump Command	yes	see Table 6.2	see Table 6.2
42	Operation Mode	yes	see Table 6.3	see Table 6.3
44	Tmin for Δp-T	yes	no [1]	no [1]
45	Tmax for Δp-T	yes	no [1]	no [1]
46	pmin for Δp-T	yes	no [1]	no [1]
47	pmax for Δp-T	yes	no [1]	no [1]
300 [2]	Bus Command Timer	yes	yes	yes

Register 1: Set value = Setpunt sturen in stappen van 0 t/m 200

Holding register address:	1
Value range:	0 to 200
Unit:	0.5 %

The set value sets the wanted Speed or Pressure (depending on Operation mode, see section 5.1.3) in percent. The value for 100 % is given by the max values for speed of pressure (chapter 5.2.12, 5.2.14 and 5.2.16). Everything below the minimum value (speed or pressure, X_{min}) of the pump is ignored, and the pump runs at minimum value (see Figure 5.1). It is not possible to turn the pump off with this parameter.

Register 40: Pump Command voor vrijgave

Bit number	Bit = 1	Bit = 0	Note
0	Pump on	Pump off	Bit number 1 and 2 has priority
1	Min Speed[1]	Normal operation	Bit number 2 has priority
2	Max Speed	Normal operation	
3	Reserved	Not allowed	Must always be '1'

Register 42: Operation Mode voor sturen regelmodus

Value	Operation mode	Stratos, TOP-E	MHIE, MVIE, MVISE	IP-E, IL-E
0	Unknown	no	no	no
1	Fixed speed	yes	yes	yes
2	Reserved	no	no	no
3	Δp-c regulation	yes	yes (p-c)	yes
4	Δp-v regulation	yes	no	yes
5	Reserved	no	no	no
6	Δp-T regulation	yes	no	no
140	PID control	no	yes	yes

LET OP bij droogloperpompen IP-E, IL-E, Stratos-GIGA:
- Bij keuze "fixed speed/toerenstand" & "PID-modus" vervallen navolgende input registers:
    o Flow/debiet [m3/hr]
    o Actual differential pressure/drukverschil meting [mWS]

LET OP bij droogloperpompen IL-E van 11kW – 22kW motorvermogen:
- Navolgende input register vervalt:
    o Flow/debiet [m3/hr]
    o Mains current/stroomopname [A]

Input registers voor uitlezen parameters:

Input register address	Description	Stratos, TOP-E	MHIE, MVIE, MVISE	IP-E, IL-E
1	Actual Differential Pressure	yes	yes (p-c)	yes
2	Flow Rate	yes	no, always 9999	yes
3	Power Consumption	yes	yes	yes
4	Power Rating	yes	yes	yes
5	Operation Hours	yes	yes	yes
6	Mains Current	yes	yes	yes
7	Speed	yes	yes	yes
8	Medium Temperature	yes	no	no
10	Current Operation Mode	see Table 6.3	see Table 6.3	see Table 6.3
16	Pump Module	see Table 6.5	see Table 6.5	see Table 6.5
17	Pump Type	yes	yes	yes
18	Max Speed	yes	yes	yes
19	Min Speed	yes	yes	yes
20	Max Pressure Δp-c	yes	yes	yes
21	Min Pressure Δp-c	yes	yes	yes
22	Max Pressure Δp-v	yes	Max Press. p-c	yes
23	Min Pressure Δp-v	yes	Min Press. p-c	yes
24	Max Flow Rate	yes	yes	yes
25	Min Flow Rate	no	yes	yes
26	Supported Errors	see Table 6.8	see Table 6.8	see Table 6.8
27	Supported Service Messages	see Table 6.6	see Table 6.6	see Table 6.6
28	Max Power Rating	yes	yes	yes
35	Service Message	see Table 6.6	see Table 6.6	see Table 6.6
36	Error Type	see Table 6.7	see Table 6.7	see Table 6.7
37	Error Message	see Table 6.8	see Table 6.8	see Table 6.8
38	Pump Status	see Table 6.9	see Table 6.9	see Table 6.9
39	State Diagnostics	see Table 6.10	see Table 6.10	see Table 6.10

Eenheden antwoorden van Input registers:

Input register address	Description	Unit
1	Actual Differential Pressure	0.1 m WS[1]
2	Flow Rate	0.1 m³/h
3	Power Consumption	1 kWh
4	Power Rating	1 W
5	Operation Hours	10 h
6	Mains Current	0.1 A
7	Speed	1 rpm
8	Medium Temperature	0.1 K
10	Current Operation Mode	See Table 5.3.
16	Pump Module	See Table 5.6.
17	Pump Type	-
18	Max Speed	1 rpm
19	Min Speed	1 rpm
20	Max Pressure Δp-c	0.1 m WS[1]
21	Min Pressure Δp-c	0.1 m WS[1]
22	Max Pressure Δp-v	0.1 m WS[1]
23	Min Pressure Δp-v	0.1 m WS[1]
24	Max Flow Rate	0.1 m³/h
25	Min Flow Rate	0.1 m³/h
26	Supported Errors	See Table 5.9.
27	Supported Service Messages	See Table 5.7.
28	Max Power Rating	1 W
35	Service Message	See Table 5.7.
36	Error Type	See Table 5.8.
37	Error Message	See Table 5.9.
38	Pump Status	See Table 5.10.
39	State Diagnostics	See Table 5.11.
400[2]	Effective Set Value	0.5%
402[2]	Effective Pump Command	See Table 5.2
404[2]	Operation Status	none
500..501[2]	Heartbeat Count	none
700[2]	Application Version	none
740[2]	Pump Type Extended	-
940[2]	Current Warning/Error	-

1 m WS ≈ 9.8 kPa = 0.098 bar

Advies register voor uitlezen storingsmelding:
- Register 404 Operation status: indien waarde register ≥ 16 is er een storing actief

Advies register voor uitlezen bedrijfmelding:
- Register 39 State Diagnostics: indien waarde register ≥ 1024 is de pomp in bedrijf.