

Pump Control 48V DC supply and Ethernet control

Ethernet connection via Lantronix, XPort: get Device installer or use the http server on system to configure IP address, the serial set RS232, Baud 57600, Data 8, Parity None, Stop 1, Flow None

<http://www.lantronix.com/device-networking/utilities-tools/device-installer.html>

Default is to get an IP address from DHCP, then admin can set a fixed IP address if wanted.

Mac address for the 2 systems are: 00-20-4A-A3-DB-30 and 00-20-4A-A7-55-06

Commands on Telenet <IP> port 10001, after all commands <cr> and or <nl>

1? Type this menu

1flow= Request 0..2000 l/minute (compare with flow sensor)

1speed= Request 0..2000 l/minute (compare with motor speed sensor)

1power= Request 0..100 % power to pump

1back= Request 0..100 % power backflush

1fcount= Tacho pulses on filter motor for each filter change (44)

1filter Execute filter change

1read Read: flow1, flow2, speed1, speed2, power, filterChanges, systemVoltage, motorVoltage, SpeedMode=Value

1event= 0=off, 1=filterChange done, >1=period read <seconds interval>

1stop Stop both motor

1reset Stop both motor and reset filterchange count

32 filter changes are estimated, 15 m filter and 40 cm on first filter change.

There are 4 ways to operate the pump

1flow=200 Control try to keep constant flow 200 l/minute

1speed=200 Control try to keep constant motor speed 200 l/minute

1power=50 Control keep constant motor voltage 50%

1back=50 Turn backwards - get dirt out, hopefully not necessary (be careful we have not tested it yet, might lift the filter of the plate)

1flow is different from 1speed when filter gets clogged, motor voltage increase to keep flow or keep speed on pump. The 1power option keeps constant voltage to motor, no increase in voltage when filter gets clogged.

The filter-rotations-motor give 12 tacho increments per rotation, and to be shore all filter is changed, motor has to turn 44 increments.

1event=0 no data are send automatically. Use 1read to get status

1event=1 only when filter-change is complete, send same data as 1read

1event=2 or more, send data automatically every 2 seconds or more, same data as 1read

Filter rotation stops the pump if it is not stooped already

The firmware is updated via a programming plug on circuit board. A cable with USB connection and windows software is delivered with the system, in case of system update.

Connector subcon 8pol MCBH8M on electronics cylinder:

1=+48VDC

2=0V

3=Ethernet tx+ = RJ45 pin 1

4=Ethernet tx- = RJ45 pin 2

5=Ethernet rx+ = RJ45 pin 3

6=Ethernet rx- = RJ45 pin 6

7=no connect

8=no connect