



TECHNICAL DATA - MODBUS COMMUNICATION FOR ELECTRIC FIRE PUMP CONTROLLER

To modify IP and SubNet Mask: Go to Config / Advanced / Factory Settings. Click on "Next page" until you reach the IP page. Change the necessary values and click on "Apply"

Generals Characteristics

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| Main Controls | 0 Power Good | | | | | | | | | | | | |
| BINARY | 1 First Service Done | | | | | | | | | | | | |
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| WORD 30001 | 3 Delay Coil | | | | | | | | | | | | |
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| | 2 Manual | | | | | | | | | | | | | | | | | | |
| WORD 30002 | 3 Automatic | | | | | | | | | | | | | | | | | | |
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| | 6 ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 Power Loss | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 Service Required | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 Undercurrent | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10 Overcurrent | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 11 Undervoltage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 12 Overvoltage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13 Phase Unbalanced | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 14 Ground Fault | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| WORD 30007 | 3 Low Discharge (Underpressure) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 Low Suction Pressure | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 Flow Start | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 Water Reservoir Low | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 Low Spare Temperature | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10 Water Reservoir Empty | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 11 High Water Level | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 12 Main Relief Valve Open | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13 ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 14 I/O Electric Board Communication Loss | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 15 ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| | 2 I/O Expansion 2 Communication Loss | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WORD 30008 | 3 I/O Expansion 3 Communication Loss | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 I/O Expansion 4 Communication Loss | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | 13 Alarm on Expansion Board 1 Input 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 14 Alarm on Expansion Board 2 Input 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 15 Alarm on Expansion Board 2 Input 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| BINARY | 1 Alarm on Expansion Board 2 Input 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 Alarm on Expansion Board 2 Input 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WORD 30009 | 3 Alarm on Expansion Board 2 Input 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 Alarm on Expansion Board 2 Input 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 Alarm on Expansion Board 2 Input 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 Alarm on Expansion Board 3 Input 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 Alarm on Expansion Board 3 Input 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 Alarm on Expansion Board 3 Input 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 Alarm on Expansion Board 3 Input 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10 Alarm on Expansion Board 3 Input 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 11 Alarm on Expansion Board 3 Input 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 12 Alarm on Expansion Board 3 Input 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13 Alarm on Expansion Board 3 Input 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 14 Alarm on Expansion Board 4 Input 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 15 Alarm on Expansion Board 4 Input 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Alarms Activation</td> <td>0 Alarm on Expansion Board 4 Input 3</td> </tr> <tr> <td>BINARY</td> <td>1 Alarm on Expansion Board 4 Input 4</td> </tr> <tr> <td></td> <td>2 Alarm on Expansion Board 4 Input 5</td> </tr> <tr> <td>WORD 30010</td> <td>3 Alarm on Expansion Board 4 Input 6</td> </tr> <tr> <td></td> <td>4 Alarm on Expansion Board 4 Input 7</td> </tr> <tr> <td></td> <td>5 Alarm on Expansion Board 4 Input 8</td> </tr> <tr> <td></td> <td>6 ND</td> </tr> <tr> <td></td> <td>7 Low Pump Room Temperature</td> </tr> <tr> <td></td> <td>8 High Motor Temperature</td> </tr> <tr> <td></td> <td>9 High Motor Vibration</td> </tr> <tr> <td></td> <td>10 Low Ambient Temperature (Internal Sensor)</td> </tr> <tr> <td></td> <td>11 High Ambient Temperature (Internal Sensor)</td> </tr> <tr> <td></td> <td>12 Control Voltage Not Healthy</td> </tr> <tr> <td></td> <td>13 Soft Starter Fault</td> </tr> <tr> <td></td> <td>14 Motor Trouble</td> </tr> <tr> <td></td> <td>15 Pump Room Alarm</td> </tr> </table> | Alarms Activation | 0 Alarm on Expansion Board 4 Input 3 | BINARY | 1 Alarm on Expansion Board 4 Input 4 | | 2 Alarm on Expansion Board 4 Input 5 | WORD 30010 | 3 Alarm on Expansion Board 4 Input 6 | | 4 Alarm on Expansion Board 4 Input 7 | | 5 Alarm on Expansion Board 4 Input 8 | | 6 ND | | 7 Low Pump Room Temperature | | 8 High Motor Temperature | | 9 High Motor Vibration | | 10 Low Ambient Temperature (Internal Sensor) | | 11 High Ambient Temperature (Internal Sensor) | | 12 Control Voltage Not Healthy | | 13 Soft Starter Fault | | 14 Motor Trouble | | 15 Pump Room Alarm | |
| Alarms Activation | 0 Alarm on Expansion Board 4 Input 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BINARY | 1 Alarm on Expansion Board 4 Input 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 Alarm on Expansion Board 4 Input 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WORD 30010 | 3 Alarm on Expansion Board 4 Input 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 Alarm on Expansion Board 4 Input 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 Alarm on Expansion Board 4 Input 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 Low Pump Room Temperature | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 High Motor Temperature | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 High Motor Vibration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10 Low Ambient Temperature (Internal Sensor) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 11 High Ambient Temperature (Internal Sensor) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 12 Control Voltage Not Healthy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13 Soft Starter Fault | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 14 Motor Trouble | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 15 Pump Room Alarm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | |
|-------------------|---------------------------------------|
| Alarms Activation | 0 Motor Run Warning |
| BINARY | 1 CANBUS Communication System Failure |
| | 2 FILE System Failure |
| WORD 30011 | 3 Flow Meter On |
| | 4 Pump on Demand Warning |
| | 5 Invalid Cut-In |
| | 6 Test Mode |
| | 7 ND |
| | 8 ND |
| | 9 ND |
| | 10 ND |
| | 11 ND |
| | 12 ND |
| | 13 ND |
| | 14 ND |
| | 15 ND |

| | |
|-------------------|-------|
| Alarms Activation | 0 ND |
| BINARY | 1 ND |
| | 2 ND |
| WORD 30012 | 3 ND |
| | 4 ND |
| | 5 ND |
| | 6 ND |
| | 7 ND |
| | 8 ND |
| | 9 ND |
| | 10 ND |
| | 11 ND |
| | 12 ND |
| | 13 ND |
| | 14 ND |
| | 15 ND |

| | |
|---------------------|-------------------------|
| WORD 30013 | Pressure Transducer PT1 |
| ANALOG VALUES (10X) | (chosen unit) |

| | |
|---------------------|-------------------------|
| WORD 30014 | Pressure Transducer PT2 |
| ANALOG VALUES (10X) | (chosen unit) |

| | |
|---------------------|-----------------|
| WORD 30015 | System Pressure |
| ANALOG VALUES (10X) | (chosen unit) |

| | |
|---------------------|------------------|
| WORD 30016 | Suction Pressure |
| ANALOG VALUES (10X) | (chosen unit) |

| | |
|---------------------|-------------|
| WORD 30017 | Water Level |
| ANALOG VALUES (10X) | (%) |

| | |
|---------------------|-------------------|
| WORD 30018 | Spare Temperature |
| ANALOG VALUES (10X) | (chosen unit) |

| | |
|---------------------|---------------|
| WORD 30019 | Flow |
| ANALOG VALUES (10X) | (chosen unit) |

| | |
|---------------------|-------------------------------|
| WORD 30020 | Temperature (Internal Sensor) |
| ANALOG VALUES (10X) | (chosen unit) |

| | |
|---------------------|------------------------|
| WORD 30021 | Normal Control Voltage |
| ANALOG VALUES (10X) | (V) |

| | |
|---------------------|------------------|
| WORD 30022 | Normal Frequency |
| ANALOG VALUES (10X) | (Hz) |

| | |
|---------------------|------------------|
| WORD 30023 | Line Voltage L12 |
| ANALOG VALUES (10X) | (V) |

| | |
|---------------------|------------------|
| WORD 30024 | Line Voltage L23 |
| ANALOG VALUES (10X) | (V) |

| | |
|---------------------|------------------|
| WORD 30025 | Line Voltage L31 |
| ANALOG VALUES (10X) | (V) |

| | |
|---------------------|------------------------|
| WORD 30026 | Sequential Start Timer |
| ANALOG VALUES (10X) | (seconds) |

| | |
|---------------------|---------------------------------------|
| WORD 30027 | Run Period Timer (Automatic Shutdown) |
| ANALOG VALUES (10X) | (seconds) |

| | |
|---------------------|-------------------------|
| WORD 30028 | Weekly Test Schedule |
| MIXED VALUES | Bit 15 |
| | Bit 14 |
| | Bit Value (11-12-13) |
| | Bit Value (6-7-8-9-10) |
| ANALOG VALUES (10X) | Bit Value (0-1-2-3-4-5) |

| | |
|---------------------|----------------------|
| WORD 30029 | Weekly Test Duration |
| ANALOG VALUES (10X) | (seconds) |

| | |
|---------------------|--------------------------|
| WORD 30030 | Manual Run Test Duration |
| ANALOG VALUES (10X) | (seconds) |

| | |
|---------------------|------------|
| WORD 30031 | Current L1 |
| ANALOG VALUES (10X) | (A) |

| | |
|---------------------|------------|
| WORD 30032 | Current L2 |
| ANALOG VALUES (10X) | (A) |

| | |
|---------------------|------------|
| WORD 30033 | Current L3 |
| ANALOG VALUES (10X) | (A) |

| | |
|---------------------|----------------------|
| WORD 30034 | Ground Fault Current |
| ANALOG VALUES (10X) | (A) |

| | |
|---------------------|---------------|
| WORD 30035 | Cut-In |
| ANALOG VALUES (10X) | (chosen unit) |

| | |
|---------------------|---------------|
| WORD 30036 | Cut-Out |
| ANALOG VALUES (10X) | (chosen unit) |

| | |
|---------------|-----------------------------------|
| WORD 30037 | Elapsed Time Meter (Last Service) |
| ANALOG VALUES | (minutes) |

| | |
|---------------------|------------------------------------|
| WORD 30038 | Elapsed Time Meter (First Service) |
| ANALOG VALUES (10X) | (minutes) |

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| WORD 30039 | |
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| WORD 30040 | |
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| Optional: | |
|-----------|--|

| WRITE REGISTERS | |
|-----------------|--------------------------------|
| BINARY | 0 MODBUS Remote Manual Start |
| WORD 40001 | 1 MODBUS Automatic Start |
| | 2 MODBUS Manual Run Test Start |