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| Totally Integrated Automation Portal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div>PorologPM6-PLC [CPU 1214C DC/DC/DC]</div> <div><div>PorologPM6-PLC</div><div><div>Project information</div><table><tr><td>Name</td><td>PorologPM6-PLC</td><td>Author</td><td>RYZNAR</td></tr><tr><td>Comment</td><td></td><td>Slot</td><td>1</td></tr><tr><td>Rack</td><td>0</td><td></td><td></td></tr></table><div><div>Catalog information</div><table><tr><td>Short designation</td><td>CPU 1214C DC/DC/DC</td><td>Description</td><td>Work memory 100 KB; 24VDC power supply with DI14 x 24VDC SINK/SOURCE, DQ10 x 24VDC and AI2 on board; 6 high-speed counters and 4 pulse outputs on board; signal board expands on-board I/O; up to 3 communication modules for serial communication; up to 8 signal modules for I/O expansion; 0.04 ms/1000 instructions; PROFINET interface for programming, HMI and PLC to PLC communication</td></tr><tr><td>Article number</td><td>6ES7 214-1AG40-0XB0</td><td>Firmware version</td><td>V4.2</td></tr></table><div><div>Connection resources\</div><table><tr><td></td><td>Station resources - Reserved - Maximum</td><td>Station resources - Reserved - Configured</td><td>Station resources - Dynamic - Configured</td><td>Module resources - PorologPM6-PLC [CPU 1214C DC/DC/DC] - Configured</td></tr><tr><td>Maximum number of resources:</td><td></td><td>62</td><td>6</td><td>68</td></tr><tr><td></td><td>Maximum</td><td>Configured</td><td>Configured</td><td>Configured</td></tr><tr><td>PG communication:</td><td>4</td><td>-</td><td>-</td><td>-</td></tr><tr><td>HMI communication:</td><td>12</td><td>1</td><td>0</td><td>1</td></tr><tr><td>S7 communication:</td><td>8</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Open user communication:</td><td>8</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Web communication:</td><td>30</td><td>-</td><td>-</td><td>-</td></tr><tr><td>Other communication:</td><td>-</td><td>-</td><td>0</td><td>0</td></tr><tr><td>Total resources used:</td><td></td><td>1</td><td>0</td><td>1</td></tr><tr><td>Available resources:</td><td></td><td>61</td><td>6</td><td>67</td></tr></table><div><div>Overview of addresses\Overview of addresses\Overview of addresses</div><table><tr><td>Inputs</td><td>True</td><td>Outputs</td><td>True</td></tr><tr><td>Address gaps</td><td>False</td><td>Slot</td><td>True</td></tr></table></div></div></div></div></div> | | | Name | PorologPM6-PLC | Author | RYZNAR | Comment | | Slot | 1 | Rack | 0 | | | Short designation | CPU 1214C DC/DC/DC | Description | Work memory 100 KB; 24VDC power supply with DI14 x 24VDC SINK/SOURCE, DQ10 x 24VDC and AI2 on board; 6 high-speed counters and 4 pulse outputs on board; signal board expands on-board I/O; up to 3 communication modules for serial communication; up to 8 signal modules for I/O expansion; 0.04 ms/1000 instructions; PROFINET interface for programming, HMI and PLC to PLC communication | Article number | 6ES7 214-1AG40-0XB0 | Firmware version | V4.2 | | Station resources - Reserved - Maximum | Station resources - Reserved - Configured | Station resources - Dynamic - Configured | Module resources - PorologPM6-PLC [CPU 1214C DC/DC/DC] - Configured | Maximum number of resources: | | 62 | 6 | 68 | | Maximum | Configured | Configured | Configured | PG communication: | 4 | - | - | - | HMI communication: | 12 | 1 | 0 | 1 | S7 communication: | 8 | 0 | 0 | 0 | Open user communication: | 8 | 0 | 0 | 0 | Web communication: | 30 | - | - | - | Other communication: | - | - | 0 | 0 | Total resources used: | | 1 | 0 | 1 | Available resources: | | 61 | 6 | 67 | Inputs | True | Outputs | True | Address gaps | False | Slot | True |
| Name | PorologPM6-PLC | Author | RYZNAR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comment | | Slot | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rack | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Short designation | CPU 1214C DC/DC/DC | Description | Work memory 100 KB; 24VDC power supply with DI14 x 24VDC SINK/SOURCE, DQ10 x 24VDC and AI2 on board; 6 high-speed counters and 4 pulse outputs on board; signal board expands on-board I/O; up to 3 communication modules for serial communication; up to 8 signal modules for I/O expansion; 0.04 ms/1000 instructions; PROFINET interface for programming, HMI and PLC to PLC communication | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Article number | 6ES7 214-1AG40-0XB0 | Firmware version | V4.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Station resources - Reserved - Maximum | Station resources - Reserved - Configured | Station resources - Dynamic - Configured | Module resources - PorologPM6-PLC [CPU 1214C DC/DC/DC] - Configured | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum number of resources: | | 62 | 6 | 68 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Maximum | Configured | Configured | Configured | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PG communication: | 4 | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HMI communication: | 12 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S7 communication: | 8 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Open user communication: | 8 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Web communication: | 30 | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Other communication: | - | - | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total resources used: | | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Available resources: | | 61 | 6 | 67 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inputs | True | Outputs | True | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address gaps | False | Slot | True | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Totally Integrated Automation Portal | | | | | | | | | | |
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| Type | Addr. from | Addr. to | Module | PIP | Device name | Device number | Size | Master / IO system | Rack | Slot |
| I | 0 | 1 | DI 14/DQ 10_1 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 2 Bytes | - | 0 | 1 1 |
| O | 0 | 1 | DI 14/DQ 10_1 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 2 Bytes | - | 0 | 1 1 |
| I | 64 | 67 | AI 2_1 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 1 2 |
| I | 1000 | 1003 | HSC_1 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 1 16 |
| I | 1004 | 1007 | HSC_2 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 1 17 |
| I | 1008 | 1011 | HSC_3 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 1 18 |
| I | 1012 | 1015 | HSC_4 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 1 19 |
| I | 1016 | 1019 | HSC_5 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 1 20 |
| I | 1020 | 1023 | HSC_6 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 1 21 |
| O | 1000 | 1001 | Pulse_1 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 2 Bytes | - | 0 | 1 32 |
| O | 1002 | 1003 | Pulse_2 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 2 Bytes | - | 0 | 1 33 |
| O | 1004 | 1005 | Pulse_3 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 2 Bytes | - | 0 | 1 34 |
| O | 1006 | 1007 | Pulse_4 | Automatic update | Poro-logPM6- | - | 2 Bytes | - | 0 | 1 35 |
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| Totally Integrated Automation Portal | | | | | | | | | | |
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| Type | Addr. from | Addr. to | Module | PIP | Device name | Device number | Size | Master / IO system | Rack | Slot |
| | | | | | PLC [CPU 1214C DC/DC/DC] | | | | | |
| I | 96 | 103 | AI 4x13BIT/A Q 2x14BIT_1 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 8 Bytes | - | 0 | 2 |
| O | 96 | 99 | AI 4x13BIT/A Q 2x14BIT_1 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 2 |
| I | 112 | 119 | AI 4x13BIT/A Q 2x14BIT_2 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 8 Bytes | - | 0 | 3 |
| O | 112 | 115 | AI 4x13BIT/A Q 2x14BIT_2 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 3 |
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| Totally Integrated Automation Portal | | | | | |
| PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks / System blocks / Program resources | | | | | |
| IEC_Timer_0_DB [DB7] | | | | | |
| IEC_Timer_0_DB Properties | | | | | |
| General | | | | | |
| Name | IEC_Timer_0_DB | Number | 7 | Type | DB |
| Language | DB | Numbering | Automatic | | |
| Information | | | | | |
| Title | | Author | Simatic | Comment | |
| Family | IEC | Version | 1.0 | User-defined ID | IEC_TMR |
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| Name | | Data type | Start value | | Retain |
| ▼ Static | | | | | |
| PT | | Time | T#0ms | | False |
| ET | | Time | T#0ms | | False |
| IN | | Bool | false | | False |
| Q | | Bool | false | | False |
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PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks /
System blocks / Program resources

T124 [DB9]

| T124 Properties | | | | | |
|-----------------|------|-----------|-----------|-----------------|---------|
| General | | | | | |
| Name | T124 | Number | 9 | Type | DB |
| Language | DB | Numbering | Automatic | | |
| Information | | | | | |
| Title | | Author | Simatic | Comment | |
| Family | IEC | Version | 1.0 | User-defined ID | IEC_TMR |

| Name | Data type | Start value | Retain |
|----------|-----------|-------------|--------|
| ▼ Static | | | |
| PT | Time | T#0ms | False |
| ET | Time | T#0ms | False |
| IN | Bool | false | False |
| Q | Bool | false | False |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks /
System blocks / Program resources

T134 [DB10]

| T134 Properties | | | | | |
|-----------------|------|-----------|-----------|-----------------|---------|
| General | | | | | |
| Name | T134 | Number | 10 | Type | DB |
| Language | DB | Numbering | Automatic | | |
| Information | | | | | |
| Title | | Author | Simatic | Comment | |
| Family | IEC | Version | 1.0 | User-defined ID | IEC_TMR |

| Name | | Data type | Start value | Retain |
|----------|--|-----------|-------------|--------|
| ▼ Static | | | | |
| PT | | Time | T#0ms | False |
| ET | | Time | T#0ms | False |
| IN | | Bool | false | False |
| Q | | Bool | false | False |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks /
System blocks / Program resources

T136 [DB11]

| T136 Properties | | | | | |
|-----------------|------|-----------|-----------|-----------------|---------|
| General | | | | | |
| Name | T136 | Number | 11 | Type | DB |
| Language | DB | Numbering | Automatic | | |
| Information | | | | | |
| Title | | Author | Simatic | Comment | |
| Family | IEC | Version | 1.0 | User-defined ID | IEC_TMR |

| Name | | Data type | Start value | Retain |
|----------|--|-----------|-------------|--------|
| ▼ Static | | | | |
| PT | | Time | T#0ms | False |
| ET | | Time | T#0ms | False |
| IN | | Bool | false | False |
| Q | | Bool | false | False |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks /
System blocks / Program resources

T135 [DB12]

T135 Properties

General

| | | | | | |
|----------|------|-----------|-----------|------|----|
| Name | T135 | Number | 12 | Type | DB |
| Language | DB | Numbering | Automatic | | |

Information

| | | | | | |
|--------|-----|---------|---------|-----------------|---------|
| Title | | Author | Simatic | Comment | |
| Family | IEC | Version | 1.0 | User-defined ID | IEC_TMR |

| Name | Data type | Start value | Retain |
|----------|-----------|-------------|--------|
| ▼ Static | | | |
| PT | Time | T#0ms | False |
| ET | Time | T#0ms | False |
| IN | Bool | false | False |
| Q | Bool | false | False |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks /
System blocks / Program resources

T138 [DB13]

T138 Properties

General

| | | | | | |
|----------|------|-----------|-----------|------|----|
| Name | T138 | Number | 13 | Type | DB |
| Language | DB | Numbering | Automatic | | |

Information

| | | | | | |
|--------|-----|---------|---------|-----------------|---------|
| Title | | Author | Simatic | Comment | |
| Family | IEC | Version | 1.0 | User-defined ID | IEC_TMR |

| Name | Data type | Start value | Retain |
|----------|-----------|-------------|--------|
| ▼ Static | | | |
| PT | Time | T#0ms | False |
| ET | Time | T#0ms | False |
| IN | Bool | false | False |
| Q | Bool | false | False |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks /
System blocks / Program resources

IEC_Timer_0_DB_1 [DB18]

| IEC_Timer_0_DB_1 Properties | | | | | |
|-----------------------------|------------------|-----------|-----------|-----------------|---------|
| General | | | | | |
| Name | IEC_Timer_0_DB_1 | Number | 18 | Type | DB |
| Language | DB | Numbering | Automatic | | |
| Information | | | | | |
| Title | | Author | Simatic | Comment | |
| Family | IEC | Version | 1.0 | User-defined ID | IEC_TMR |

| Name | | Data type | Start value | Retain |
|----------|--|-----------|-------------|--------|
| ▼ Static | | | | |
| PT | | Time | T#0ms | False |
| ET | | Time | T#0ms | False |
| IN | | Bool | false | False |
| Q | | Bool | false | False |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks /
System blocks / Program resources

PID_Compact_4 [FB1130]

PID_Compact_4 Properties

General

| | | | | | |
|-----------------|---------------|------------------|-----------|-------------|----|
| Name | PID_Compact_4 | Number | 1130 | Type | FB |
| Language | SCL | Numbering | Automatic | | |

Information

| | | | | | |
|---------------|--|----------------|---------|----------------------------|----------|
| Title | Compact PID_Controller with self-tuning | Author | SIMATIC | Comment | |
| Family | COMPPID | Version | 2.3 | User-defined ID | PID_Cmpt |

| Name | Data type | Default value | Retain |
|-----------------------------|-----------|----------------|------------|
| ▼ Input | | | |
| Setpoint | Real | 0.0 | Non-retain |
| Input | Real | 0.0 | Non-retain |
| Input_PER | Int | 0 | Non-retain |
| Disturbance | Real | 0.0 | Non-retain |
| ManualEnable | Bool | false | Non-retain |
| ManualValue | Real | 0.0 | Non-retain |
| ErrorAck | Bool | false | Non-retain |
| Reset | Bool | false | Non-retain |
| ModeActivate | Bool | false | Non-retain |
| ▼ Output | | | |
| ScaledInput | Real | 0.0 | Non-retain |
| Output | Real | 0.0 | Non-retain |
| Output_PER | Int | 0 | Non-retain |
| Output_PWM | Bool | false | Non-retain |
| SetpointLimit_H | Bool | false | Non-retain |
| SetpointLimit_L | Bool | false | Non-retain |
| InputWarning_H | Bool | false | Non-retain |
| InputWarning_L | Bool | false | Non-retain |
| State | Int | 0 | Non-retain |
| Error | Bool | false | Non-retain |
| ErrorBits | DWord | 16#0 | Retain |
| ▼ InOut | | | |
| Mode | Int | 4 | Retain |
| ▼ Static | | | |
| InternalDiagnostic | DWord | 0 | Non-retain |
| InternalVersion | DWord | DW#16#02030003 | Non-retain |
| InternalRTVersion | DWord | 0 | Non-retain |
| IntegralResetMode | Int | 4 | Non-retain |
| OverwriteInitialOutputValue | Real | 0.0 | Non-retain |
| RunModeByStartup | Bool | true | Non-retain |
| LoadBackUp | Bool | false | Non-retain |
| SetSubstituteOutput | Bool | true | Non-retain |
| PhysicalUnit | Int | 0 | Non-retain |
| PhysicalQuantity | Int | 0 | Non-retain |
| ActivateRecoverMode | Bool | true | Non-retain |
| Warning | DWord | 16#0 | Retain |

| Totally Integrated Automation Portal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------|---------------|------------|--|------|-----------|---------------|--------|-----------------|-------|------|--------|----------|------|-----|------------|-----------------|------|-----|------------|-------------------|------|------|------------|------------------|------|-----|------------|--------|--------------------|--|------------|-----------|---------------|--|------------|------------------|---------------------------|--|------------|-------------|----------------------|--|------------|---------|---------------------|--|------------|--------|--------------------|--|--------|
| <table><tr><th>Name</th><th>Data type</th><th>Default value</th><th>Retain</th></tr><tr><td>WarningInternal</td><td>DWord</td><td>16#0</td><td>Retain</td></tr><tr><td>Progress</td><td>Real</td><td>0.0</td><td>Non-retain</td></tr><tr><td>CurrentSetpoint</td><td>Real</td><td>0.0</td><td>Non-retain</td></tr><tr><td>CancelTuningLevel</td><td>Real</td><td>10.0</td><td>Non-retain</td></tr><tr><td>SubstituteOutput</td><td>Real</td><td>0.0</td><td>Non-retain</td></tr><tr><td>Config</td><td>PID_CompactCon-fig</td><td></td><td>Non-retain</td></tr><tr><td>CycleTime</td><td>PID_CycleTime</td><td></td><td>Non-retain</td></tr><tr><td>CtrlParamsBackUp</td><td>PID_CompactCon-trolParams</td><td></td><td>Non-retain</td></tr><tr><td>PIDSelfTune</td><td>PID_CompactSelf-Tune</td><td></td><td>Non-retain</td></tr><tr><td>PIDCtrl</td><td>PID_CompactCon-trol</td><td></td><td>Non-retain</td></tr><tr><td>Retain</td><td>PID_CompactRe-tain</td><td></td><td>Retain</td></tr></table> | | | | | Name | Data type | Default value | Retain | WarningInternal | DWord | 16#0 | Retain | Progress | Real | 0.0 | Non-retain | CurrentSetpoint | Real | 0.0 | Non-retain | CancelTuningLevel | Real | 10.0 | Non-retain | SubstituteOutput | Real | 0.0 | Non-retain | Config | PID_CompactCon-fig | | Non-retain | CycleTime | PID_CycleTime | | Non-retain | CtrlParamsBackUp | PID_CompactCon-trolParams | | Non-retain | PIDSelfTune | PID_CompactSelf-Tune | | Non-retain | PIDCtrl | PID_CompactCon-trol | | Non-retain | Retain | PID_CompactRe-tain | | Retain |
| Name | Data type | Default value | Retain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WarningInternal | DWord | 16#0 | Retain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Progress | Real | 0.0 | Non-retain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CurrentSetpoint | Real | 0.0 | Non-retain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CancelTuningLevel | Real | 10.0 | Non-retain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SubstituteOutput | Real | 0.0 | Non-retain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Config | PID_CompactCon-fig | | Non-retain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CycleTime | PID_CycleTime | | Non-retain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CtrlParamsBackUp | PID_CompactCon-trolParams | | Non-retain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PIDSelfTune | PID_CompactSelf-Tune | | Non-retain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PIDCtrl | PID_CompactCon-trol | | Non-retain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retain | PID_CompactRe-tain | | Retain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks / 099_LGF /
9 Measurement operations

LGF_AverageAndDeviation [FC10006] [LGF_AverageAndDeviation V 3.0.0]

LGF_AverageAndDeviation Properties

General

| | | | | | |
|----------|-------------------------|-----------|-----------|------|----|
| Name | LGF_AverageAndDeviation | Number | 10006 | Type | FC |
| Language | SCL | Numbering | Automatic | | |

Information

| | | | | | |
|--------|-------------------------|---------|--------------------------|-----------------|--|
| Title | LGF_AverageAndDeviation | Author | Siemens_Digital_Industry | Comment | This function calculates the arithmetic average and the standard deviation of a array of numbers |
| Family | LGF | Version | | User-defined ID | LGF_AverageAndDeviation |

| Name | Data type | Default value |
|-------------------------------|-------------------|---------------|
| ▼ Input | | |
| variableArray | Array[*] of LReal | |
| ▼ Output | | |
| arithmeticAverage | LReal | |
| standardDeviation | LReal | |
| InOut | | |
| ▼ Temp | | |
| tempLowerBound | Int | |
| tempUpperBound | Int | |
| tempNumberOfElements | Int | |
| tempSizeCounter | Int | |
| tempArithmeticAverage | LReal | |
| tempStandardDeviation | LReal | |
| ▼ Constant | | |
| NUMBER_OF_ELEMENTS_CORRECTION | Int | 1 |
| DIMENSION_ONE | UDInt | 1 |
| ZERO | LReal | 0.0 |
| ▼ Return | | |
| LGF_AverageAndDeviation | Void | |

```
0001 REGION Block info header
0002    //
=====
0003    // SIEMENS AG / (c)Copyright 2017
0004    //-----
--
0005    // Title: LGF_AverageAndDeviation
0006    // Comment/Function: This function calculates the arithmetic average and the
0007    // standard deviation of a array of numbers
0008    // Library/Family: LGF(Library General Functions)
0009    // Author: Siemens Digital Industry Support
0010    // Tested with: S7-PLCSIM Advanced V2.0 SP1
0011    // Engineering: TIA Portal V15 Update 2
```

| | | |
|--------------------------------------|---|--|
| Totally Integrated Automation Portal | | |
| 0012 | // Restrictions: ENO disabled - no error handling, ENO forced to true | |
| 0013 | // Requirements: PLC (S7-1200 / S7-1500) | |
| 0014 | //----- | |
| | --- | |
| 0015 | // Change log table: | |
| 0016 | // Version Date Expert in charge Changes applied | |
| 0017 | //----- ----- ----- ----- | |
| | --- | |
| 0018 | // 01.00.00 19.08.2015 Siemens Industry Online Support | |
| 0019 | // First released version | |
| 0020 | // 01.00.01 16.11.2015 Siemens Industry Online Support | |
| 0021 | // Bug fix at WRONG_TYPE: #error := true | |
| 0022 | // 01.00.02 02.01.2017 Siemens Industry Online Support | |
| 0023 | // Upgrade: TIA Portal V14 Update 1 | |
| 0024 | // 01.00.03 17.08.2018 Siemens Industry Online Support | |
| 0025 | // Upgrade: TIA V15 Update 2 | |
| 0026 | // 01.00.04 23.11.2018 Siemens Industry Online Support | |
| 0027 | // Upgrade: TIA V15.1 | |
| 0028 | // 02.00.00 25.01.2019 Siemens Industry Online Support | |
| 0029 | // Data type changed from Variant to Array[*] of LReal | |
| 0030 | // 02.00.01 31.10.2019 Siemens Industry Presales Support | |
| 0031 | // Regions, comments and constants are added | |
| 0032 | // 03.00.00 23.04.2020 Siemens Industry Support | |
| 0033 | // Set version to V3.0.0, harmonize the version of the whole library | |
| 0034 | // | |
| | ===== | |
| 0035 | END_REGION | |
| 0036 | | |
| 0037 | REGION Checking number of lower and upper bound | |
| 0038 | #tempLowerBound := DINT_TO_INT(LOWER_BOUND(ARR := #variableArray, DIM := #DIMENSION_ONE)); | |
| 0039 | #tempUpperBound := DINT_TO_INT(UPPER_BOUND(ARR := #variableArray, DIM := #DIMENSION_ONE)); | |
| 0040 | | |
| 0041 | //Upper - Lower bound gives the number of elements. +1 should be added for correct calculation. | |
| 0042 | #tempNumberOfElements := #tempUpperBound - #tempLowerBound + #NUMBER_OF_ELEMENTS_CORRECTION; | |
| 0043 | END_REGION | |
| 0044 | | |
| 0045 | REGION Calculation of the arithmetic average | |
| 0046 | #tempArithmeticAverage := #ZERO; | |
| 0047 | FOR #tempSizeCounter := #tempLowerBound TO #tempUpperBound DO | |
| 0048 | #tempArithmeticAverage += #variableArray[#tempSizeCounter]; | |
| 0049 | END_FOR; | |
| 0050 | | |
| 0051 | #tempArithmeticAverage /= DINT_TO_REAL(#tempNumberOfElements); | |
| 0052 | END_REGION | |
| 0053 | | |
| 0054 | REGION Calculation of the standard deviation | |
| 0055 | #tempStandardDeviation := #ZERO; | |
| 0056 | FOR #tempSizeCounter := #tempLowerBound TO #tempUpperBound DO | |
| 0057 | #tempStandardDeviation += SQR((#variableArray[#tempSizeCounter] - #tempArithmeticAverage)); | |
| 0058 | END_FOR; | |
| 0059 | | |
| | | |

| | | |
|--|--|--|
| Totally Integrated Automation Portal | | |
| <pre>0060 #tempStandardDeviation := SQRT(#tempStandardDeviation / DINT_TO_REAL(#temp- NumberOfElements)); 0061 END_REGION 0062 0063 REGION Writting to outputs 0064 #arithmeticAverage := #tempArithmeticAverage; 0065 #standardDeviation := #tempStandardDeviation; 0066 0067 // ENO mechanism is not used - forced to true 0068 ENO := TRUE; 0069 END_REGION 0070</pre> | | |
| | | |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks / 099_LGF / 9 Measurement operations

LGF_FloatingAverage [FB10031] [LGF_FloatingAverage V 3.0.0]

LGF_FloatingAverage Properties

General

| | | | | | |
|-----------------|---------------------|------------------|-----------|-------------|----|
| Name | LGF_FloatingAverage | Number | 10031 | Type | FB |
| Language | SCL | Numbering | Automatic | | |

Information

| | | | | | |
|---------------|---------------------|----------------|--------------------------|------------------------|--|
| Title | LGF_FloatingAverage | Author | Siemens_Digital_Industry | Comment | This function block calculates the floating arithmetic average of incoming REAL values each cycle or each trigger impulse. |
| Family | LGF | Version | | User-defined ID | LGF_FloatingAverage |

| Name | Data type | Default value | Retain |
|--------------------------|---|---------------|------------|
| ▼ Input | | | |
| cyclicExecution | Bool | false | Non-retain |
| trigger | Bool | false | Non-retain |
| value | LReal | 0.0 | Non-retain |
| windowSize | Int | 100 | Non-retain |
| reset | Bool | false | Non-retain |
| ▼ Output | | | |
| average | LReal | 0.0 | Non-retain |
| windowSizeReached | Bool | false | Non-retain |
| error | Bool | false | Non-retain |
| status | Word | 16#0 | Non-retain |
| InOut | | | |
| ▼ Static | | | |
| statValues | Array[#ZERO_INT..#MAX_WINDOW_SIZE] of LReal | | Non-retain |
| statValuesSum | LReal | 0.0 | Non-retain |
| statArithmeticAverage | LReal | 0.0 | Non-retain |
| statWindowSizeOld | Int | 0 | Non-retain |
| statCounter | Int | 0 | Non-retain |
| statwindowSizeReached | Bool | false | Non-retain |
| statTriggerOld | Bool | false | Non-retain |
| ▼ Temp | | | |
| tempValue | LReal | | |
| tempIndex | Int | | |
| tempTriggerEdge | Bool | | |
| ▼ Constant | | | |
| ZERO_INT | Int | 0 | |
| ZERO_LREAL | LReal | 0.0 | |
| MAX_WINDOW_SIZE | Int | 100 | |
| INCREMENT | Int | 1 | |
| STATUS_FINISHED_NO_ERROR | Word | 16#0000 | |

| Totally Integrated Automation Portal | | | | |
|---|--|-----------|---------------|--------|
| Name | | Data type | Default value | Retain |
| ERR_WRONG_WINDOW_SIZE | | Word | 16#8200 | |
| <pre>0001 REGION Block info header 0002 // ===== = 0003 // SIEMENS AG / (c)Copyright 2019 0004 //----- ----- 0005 // Title: LGF_FloatingAverage 0006 // Comment/Function: This function block calculates the floating arithmetic average 0007 // of incoming REAL values each cycle or each trigger impulse. 0008 // Library/Family: LGF (Library General Functions) 0009 // Author: Siemens Digital Industry Support 0010 // Tested with: CPU 1515F-2 PN FW:V2.6 0011 // Engineering: TIA Portal V15.1 Update 2 0012 // Restrictions: ENO disabled, forced to true - error handling done by er- ror and status 0013 // Requirements: PLC (S7-1200 / S7-1500) 0014 //----- ----- 0015 // Change log table: 0016 // Version Date Expert in charge Changes applied 0017 //----- ----- ----- ----- ----- 0018 // 01.00.00 16.06.2016 Siemens Industry Online Support 0019 // First released version 0020 // 01.00.01 02.01.2017 Siemens Industry Online Support 0021 // Upgrade: TIA Portal V14 Update 1 0022 // 01.01.00 21.02.2017 Siemens Industry Online Support 0023 // Adding variable window size for calculation 0024 // Optimizing calculation algorithm 0025 // 01.01.01 17.08.2018 Siemens Industry Online Support 0026 // Upgrade: TIA V15 Update 2 0027 // 01.01.02 23.11.2018 Siemens Industry Online Support 0028 // Upgrade: TIA V15.1 0029 // 01.01.03 07.11.2019 Siemens Industry Presales Support 0030 // Code refactoring, comments added 0031 // 03.00.00 23.04.2020 Siemens Industry Support 0032 // Set version to V3.0.0, harmonize the version of the whole library 0033 // ===== = 0034 END_REGION 0035 0036 REGION Initialization and input data processing 0037 //Copy commonly used data to temp variables 0038 #tempValue := #value; 0039 0040 //Positive edge detection for triggering of calculation 0041 #tempTriggerEdge := #trigger AND NOT #statTriggerOld; 0042 #statTriggerOld := #trigger; 0043 0044 // Reset OR if window size changes the calculation</pre> | | | | |
| | | | | |

| | | |
|---|--|--|
| Totally Integrated Automation Portal | | |
| <pre> 0045 IF #reset OR (#windowSize <> #statWindowSizeOld) THEN 0046 #statWindowSizeOld := #windowSize; 0047 #statCounter := #ZERO_INT; 0048 #statValuesSum := #ZERO_LREAL; 0049 #statArithmeticAverage := #ZERO_LREAL; 0050 #average := #ZERO_LREAL; 0051 #windowSizeReached := FALSE; 0052 #statwindowSizeReached := FALSE; 0053 #error := false; 0054 #status := #STATUS_FINISHED_NO_ERROR; 0055 RETURN; 0056 0057 // Check window size, in case of incorrect window size setup an error 0058 ELSIF (#windowSize <= #ZERO_INT) OR (#windowSize > #MAX_WINDOW_SIZE) THEN 0059 #statWindowSizeOld := #windowSize; 0060 #statCounter := #ZERO_INT; 0061 #statValuesSum := #ZERO_LREAL; 0062 #statArithmeticAverage := #ZERO_LREAL; 0063 #average := #ZERO_LREAL; 0064 #statwindowSizeReached := FALSE; 0065 #windowSizeReached := FALSE; 0066 #error := TRUE; 0067 #status := #ERR_WRONG_WINDOW_SIZE; // Info "No correct set of window size" 0068 RETURN; 0069 END_IF; 0070 0071 0072 END_REGION 0073 0074 REGION Floating average calculation 0075 // Triggered calculation OR cyclicly operation 0076 IF #cyclicExecution OR #tempTriggerEdge THEN 0077 0078 //Calculate array counter 0079 #tempIndex := #statCounter MOD #windowSize; 0080 // First filling of the Array with values 0081 IF (#statCounter < #windowSize) THEN 0082 #statValues[#tempIndex] := #tempValue; 0083 //Add value to sum 0084 #statValuesSum += #tempValue; 0085 //Increment counter 0086 #statCounter += #INCREMENT; 0087 //Calculate average value 0088 #statArithmeticAverage := #statValuesSum / #statCounter; 0089 0090 ELSE 0091 #statwindowSizeReached := TRUE; 0092 //Manipulate first value of window 0093 IF (#tempIndex = #ZERO_INT) THEN 0094 //Add value to sum 0095 #statValuesSum += #tempValue - #statValues[#ZERO_INT]; 0096 #statValues[#tempIndex] := #tempValue; 0097 //Increment counter 0098 #statCounter := #windowSize + #INCREMENT; 0099 //Calculate average value 0100 #statArithmeticAverage := #statValuesSum / #windowSize; 0101 ELSE 0102 //Add value to sum 0103 #statValuesSum += #tempValue - #statValues[#tempIndex]; </pre> | | |
| | | |

| | | |
|--|--|--|
| Totally Integrated Automation Portal | | |
| <pre>0104 //Add value to window 0105 #statValues[#tempIndex] := #tempValue; 0106 //Increment counter 0107 #statCounter := #statCounter + #INCREMENT; 0108 //Calculate avarage value 0109 #statArithmeticAverage := #statValuesSum / #windowSize; 0110 END_IF; 0111 END_IF; 0112 END_IF; 0113 END_REGION 0114 0115 REGION Outputs 0116 #average := #statArithmeticAverage; 0117 #windowSizeReached := #statwindowSizeReached; 0118 #error := FALSE; 0119 #status := #STATUS_FINISHED_NO_ERROR; 0120 0121 //ENO mechanism is not used - forced to true 0122 ENO := TRUE; 0123 END_REGION 0124</pre> | | |
| | | |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks / 099_LGF / 9 Measurement operations

LGF_FloatingAverage_DB [DB8]

LGF_FloatingAverage_DB Properties

General

| | | | | | |
|-----------------|------------------------|------------------|-----------|-------------|----|
| Name | LGF_FloatingAverage_DB | Number | 8 | Type | DB |
| Language | DB | Numbering | Automatic | | |

Information

| | | | | | |
|---------------|-----|----------------|--------------------------|------------------------|---------------------|
| Title | | Author | Siemens_Digital_Industry | Comment | |
| Family | LGF | Version | 0.1 | User-defined ID | LGF_FloatingAverage |

| Name | Data type | Start value | Retain |
|-----------------------|------------------------|-------------|--------|
| ▼ Input | | | |
| cyclicExecution | Bool | false | False |
| trigger | Bool | false | False |
| value | LReal | 0.0 | False |
| windowSize | Int | 100 | False |
| reset | Bool | false | False |
| ▼ Output | | | |
| average | LReal | 0.0 | False |
| windowSizeReached | Bool | false | False |
| error | Bool | false | False |
| status | Word | 16#0 | False |
| InOut | | | |
| ▼ Static | | | |
| statValues | Array[0..100] of LReal | | False |
| statValuesSum | LReal | 0.0 | False |
| statArithmeticAverage | LReal | 0.0 | False |
| statWindowSizeOld | Int | 0 | False |
| statCounter | Int | 0 | False |
| statwindowSizeReached | Bool | false | False |
| statTriggerOld | Bool | false | False |

Totally Integrated
Automation Portal

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks /
000_GENERAL

Main [OB1]

Main Properties

General

| | | | | | |
|----------|------|-----------|-----------|------|----|
| Name | Main | Number | 1 | Type | OB |
| Language | LAD | Numbering | Automatic | | |

Information

| | | | | | |
|--------|------------------------------|---------|-----|-----------------|--|
| Title | "Main Program Sweep (Cycle)" | Author | | Comment | |
| Family | | Version | 0.1 | User-defined ID | |

| Name | Data type | Default value |
|--------------|-----------|---------------|
| ▼ Input | | |
| Initial_Call | Bool | |
| Remanence | Bool | |
| Temp | | |
| Constant | | |

Network 1: Setování pomocné náběžné hrany

Set pomocné (na hodnotu 1) při náběžné hraně a 1Hz

%M0.5
"Clock_1Hz"

%M2.1
"Nabezna_hrana_1s"

%M2.0
"Pom_nabezna_hrana"

(P)

Network 2: Seqvenční logika

%FC1
"Sequence"

EN

ENO

Network 3: Logika ventilů

%FC6
"Vetlily"

EN

ENO

Network 4: Logika průtokoměru

| | | |
|---|--|--|
| Totally Integrated Automation Portal | | |
| <div><div></div><div><div>%FC2</div><div>"FI01"</div><div>EN</div><div>ENO</div><div></div></div></div> | | |
| Network 5: Logika řízení prodyšnosti | | |
| <div><div></div><div><div>%FC5</div><div>"Prodysnost"</div><div>EN</div><div>ENO</div><div></div></div></div> | | |
| | | |

| | | |
|--------------------------------------|--|--|
| Totally Integrated Automation Portal | | |
|--------------------------------------|--|--|

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks / 000_GENERAL

Cyclic interrupt [OB30]

Cyclic interrupt Properties

General

| | | | | | |
|----------|------------------|-----------|-----------|------|----|
| Name | Cyclic interrupt | Number | 30 | Type | OB |
| Language | LAD | Numbering | Automatic | | |

Information

| | | | | | |
|--------|--|---------|-----|-----------------|--|
| Title | | Author | | Comment | |
| Family | | Version | 0.1 | User-defined ID | |

| Name | Data type | Default value |
|--------------|-----------|---------------|
| ▼ Input | | |
| Initial_Call | Bool | |
| Event_Count | Int | |
| Temp | | |
| Constant | | |

Network 1:

%FC4
"PIC01"

EN

ENO

Network 2:

%FC3
"PIC02"

EN

ENO

Network 3:

| | | |
|--|--|--|
| | | |
|--|--|--|

| | | |
|--------------------------------------|--|--|
| Totally Integrated Automation Portal | | |
|--------------------------------------|--|--|

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks / 000_GENERAL

Simulace [DB14]

Simulace Properties

General

| | | | | | |
|----------|----------|-----------|-----------|------|----|
| Name | Simulace | Number | 14 | Type | DB |
| Language | DB | Numbering | Automatic | | |

Information

| | | | | | |
|--------|--|---------|-----|-----------------|--|
| Title | | Author | | Comment | |
| Family | | Version | 0.1 | User-defined ID | |

| Name | Data type | Start value | Retain |
|----------|-----------|-------------|--------|
| ▼ Static | | | |
| Errr | Bool | false | False |
| input | Int | 0 | False |
| errack | Bool | false | False |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks / 001_INPUTS

FI01 [FC2]

FI01 Properties

General

| | | | | | |
|----------|------|-----------|-----------|------|----|
| Name | FI01 | Number | 2 | Type | FC |
| Language | LAD | Numbering | Automatic | | |

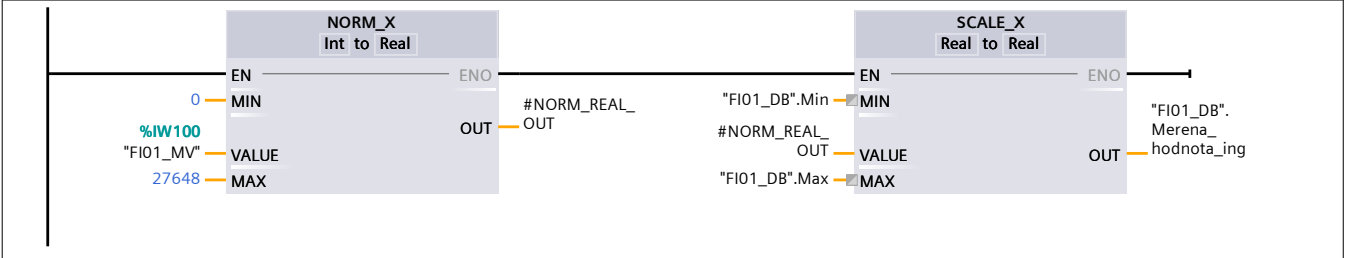
Information

| | | | | | |
|--------|--|---------|-----|-----------------|--|
| Title | | Author | | Comment | |
| Family | | Version | 0.1 | User-defined ID | |

| Name | Data type | Default value |
|---------------|-----------|---------------|
| Input | | |
| Output | | |
| InOut | | |
| ▼ Temp | | |
| NORM_REAL_OUT | Real | |
| Constant | | |
| ▼ Return | | |
| FI01 | Void | |

Network 1: FI01 MV

Převod vstupního signálu z FT01 na okamžitou hodnotu pomocí Min a Max z databáze



PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks / 001_INPUTS

PIC01 [FC4]

PIC01 Properties

General

| | | | | | |
|----------|-------|-----------|-----------|------|----|
| Name | PIC01 | Number | 4 | Type | FC |
| Language | LAD | Numbering | Automatic | | |

Information

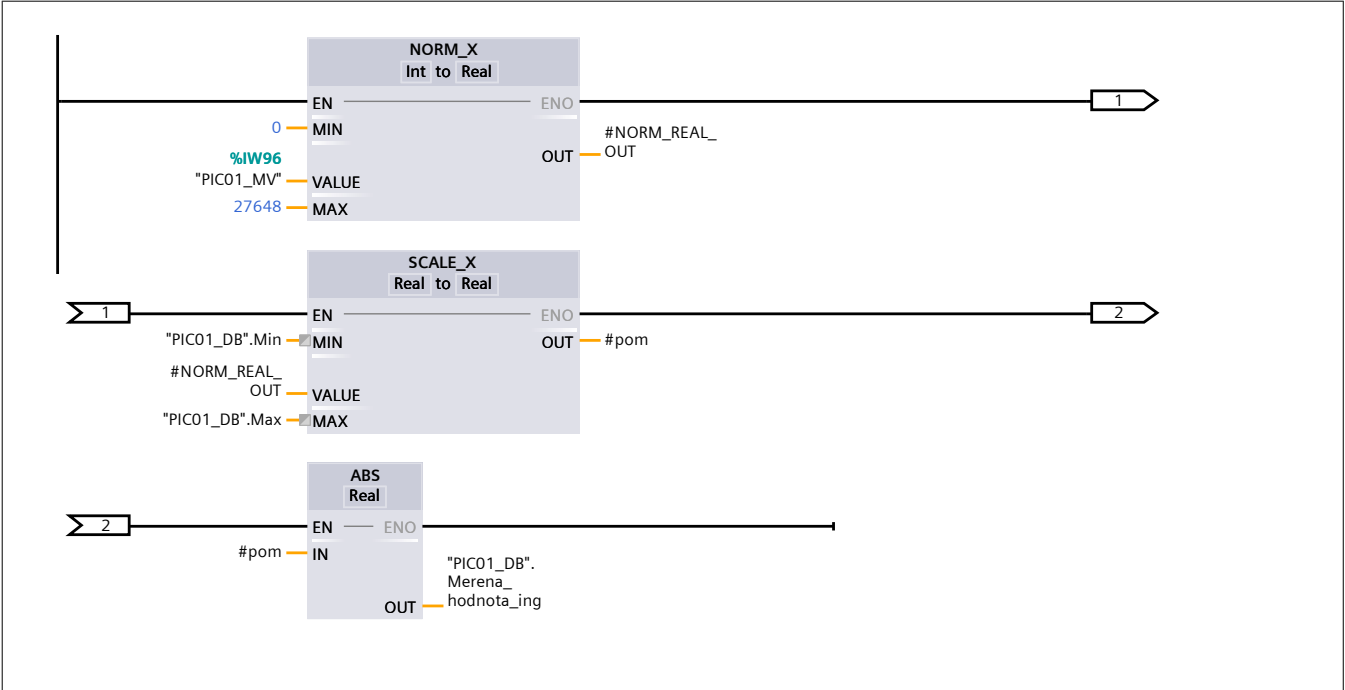
| | | | | | |
|--------|--|---------|-----|-----------------|--|
| Title | | Author | | Comment | |
| Family | | Version | 0.1 | User-defined ID | |

| Name | Data type | Default value |
|-----------------|-----------|---------------|
| Input | | |
| Output | | |
| InOut | | |
| ▼ Temp | | |
| NORM_REAL_OUT | Real | |
| NORM_REAL_OUT_1 | Real | |
| pom | Real | |
| Constant | | |
| ▼ Return | | |
| PIC01 | Void | |

Network 1: PIC01 MV

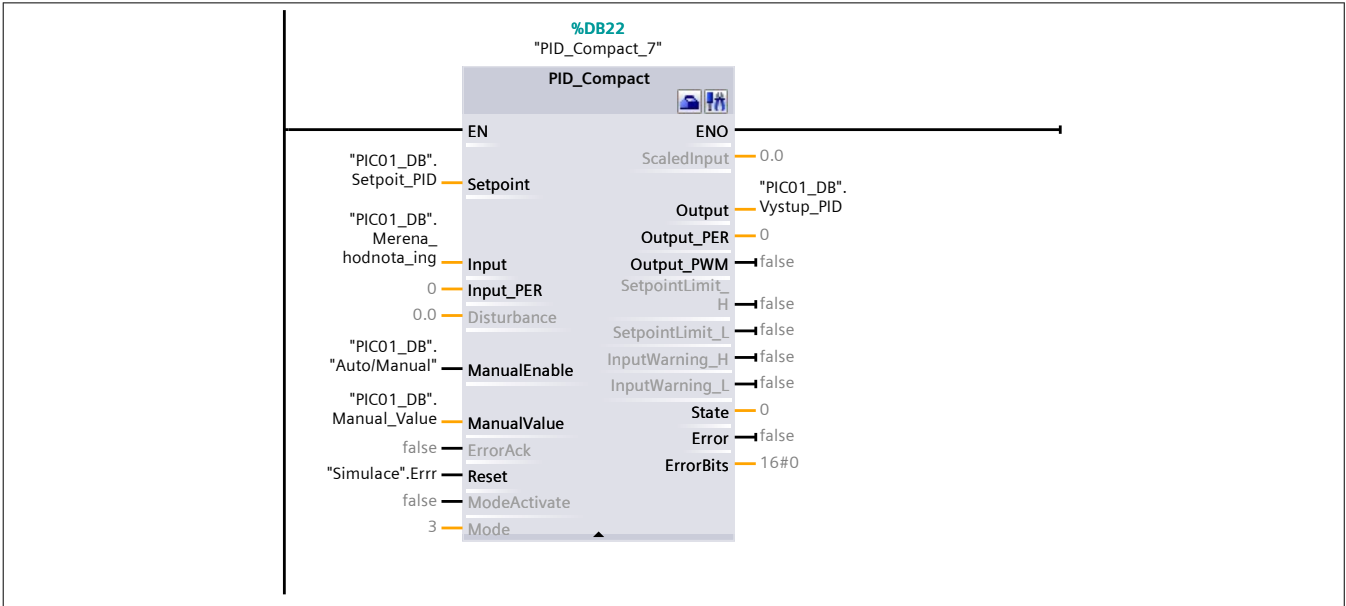
Převod vstupního signálu z PIC01 na okamžitou absolutní hodnotu pomocí Min a Max z databáze

Network 1: PIC01 MV



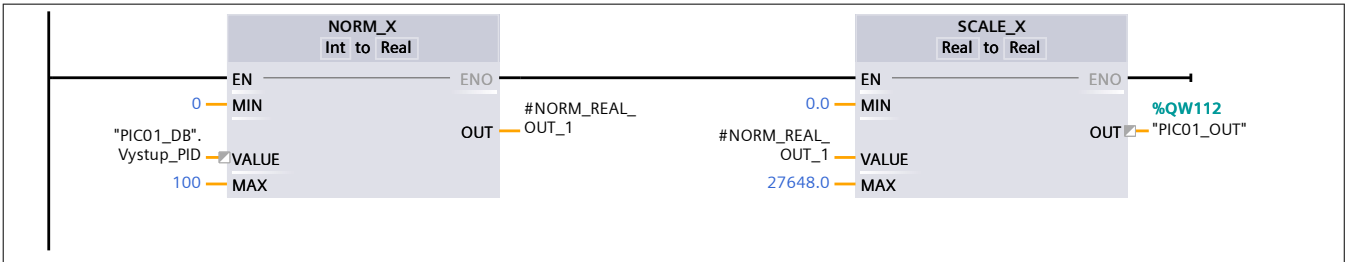
Network 2: PID regulator

PID Compact s přepínáním automatického a manuálního řízení

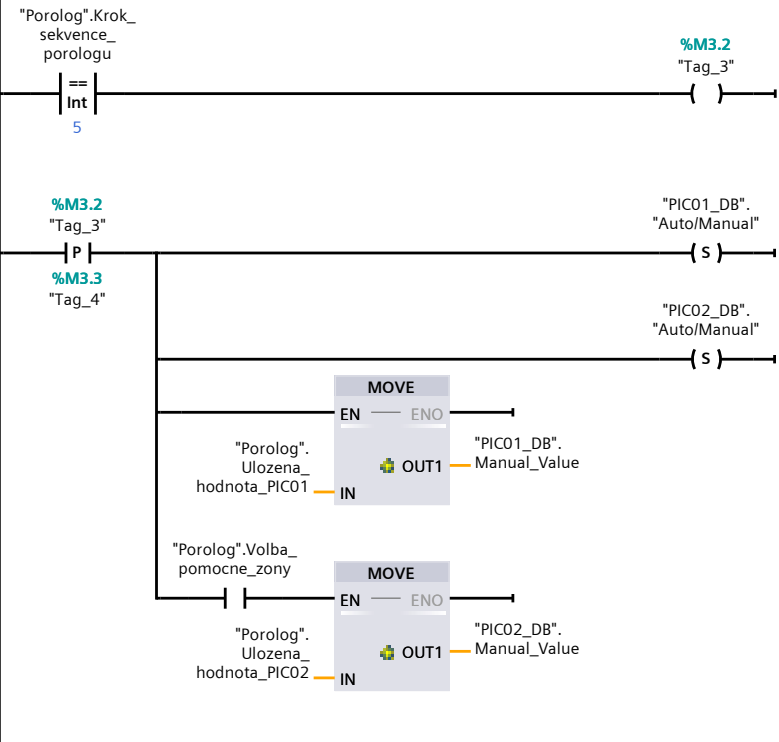


Network 3: PIC01 OUT

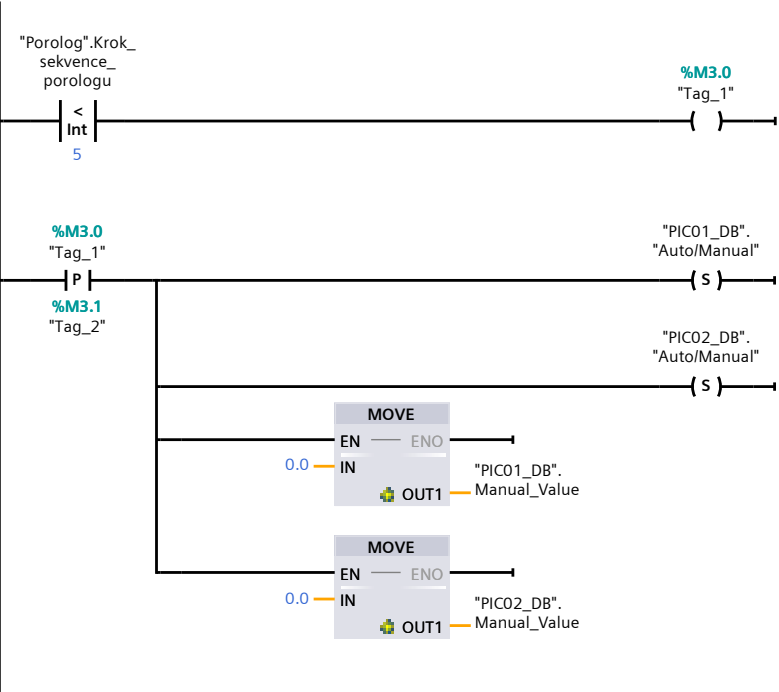
Převod hodnoty akčního zásahu z regulátoru na výstupní signál



Network 4: Prepínání modu ze sekvence pro krok 5



Network 5: Prepinani modu ze sekvence pro krok 4



Network 6: Prepinani do auto modu ze sekvence pro krok 6

| | | |
|---|--|--|
| Totally Integrated Automation Portal | | |
| <div><div></div><div><div>"Porolog".Krok_sekvence_porologu</div><div>==</div><div>Int</div><div>6</div></div><div><div>%M3.4</div><div>"Tag_5"</div><div>P</div></div><div><div>%M3.5</div><div>"Tag_6"</div></div><div><div>"PIC01_DB". "Auto/Manual"</div><div>(R)</div></div><div><div>"Porolog".Volba_pomocne_zony</div><div>(R)</div></div><div><div>"PIC02_DB". "Auto/Manual"</div><div>(R)</div></div></div> | | |
| | | |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks / 001_INPUTS

PIC02 [FC3]

PIC02 Properties

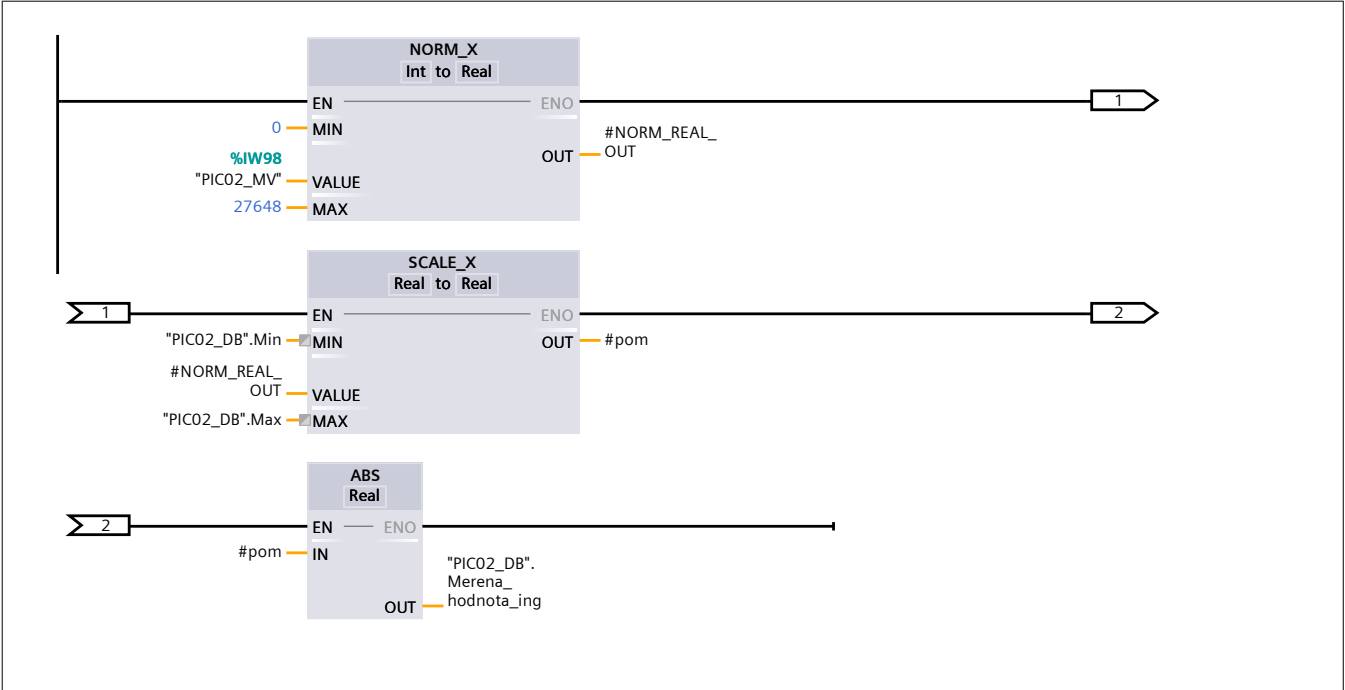
| General | | | | | |
|-------------|-------|-----------|-----------|-----------------|----|
| Name | PIC02 | Number | 3 | Type | FC |
| Language | LAD | Numbering | Automatic | | |
| Information | | | | | |
| Title | | Author | | Comment | |
| Family | | Version | 0.1 | User-defined ID | |

| Name | Data type | Default value |
|---------------|-----------|---------------|
| Input | | |
| Output | | |
| InOut | | |
| ▼ Temp | | |
| NORM_REAL_OUT | Real | |
| pom | Real | |
| Pomocna01 | Real | |
| Constant | | |
| ▼ Return | | |
| PIC02 | Void | |

Network 1: PIC02 MV

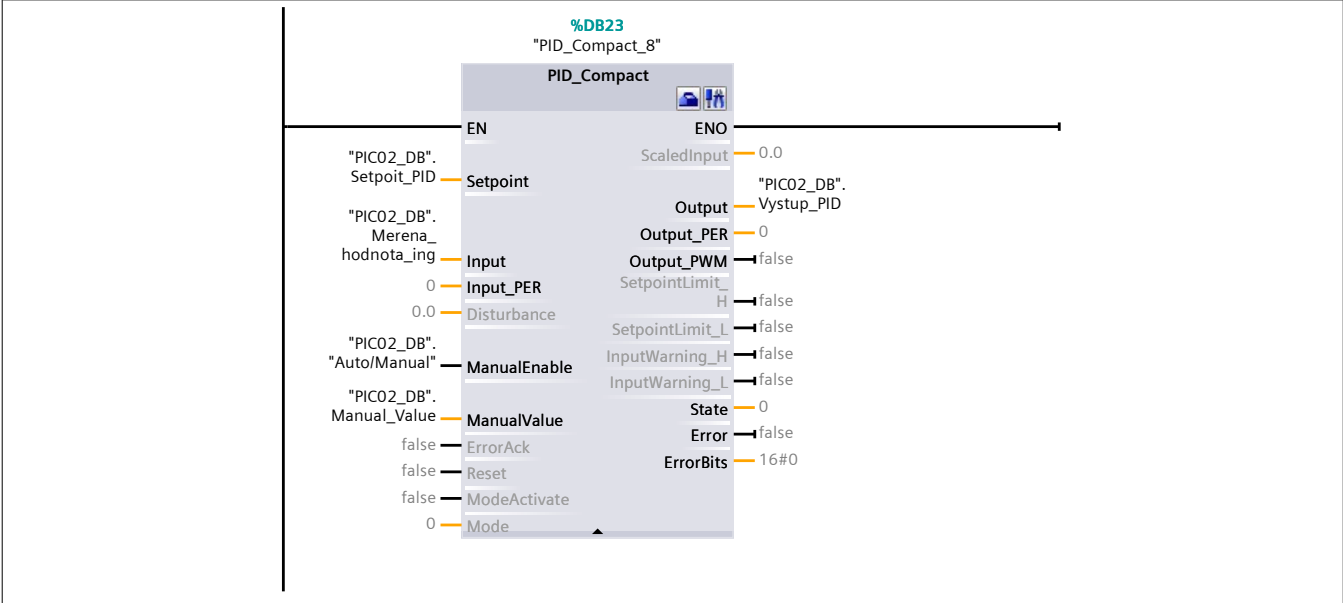
Převod vstupního signálu z PIC02 na okamžitou absolutní hodnotu pomocí Min a Max z databáze

Network 1: PIC02 MV



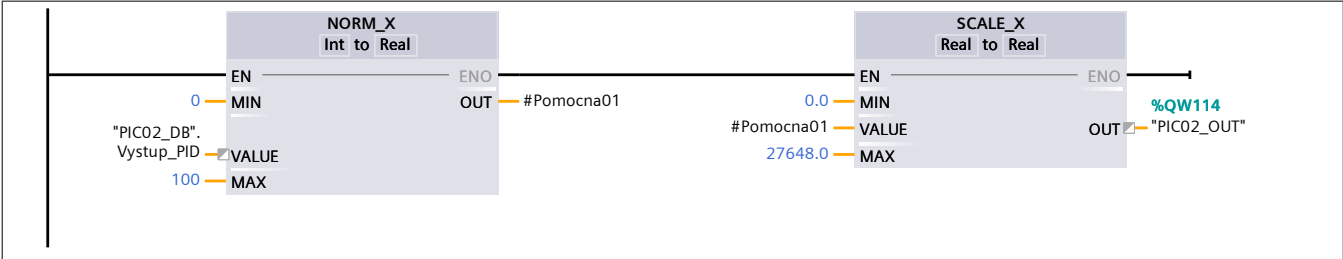
Network 2: PID regulator

PID Compact s přepínáním automatického a manuálního řízení



Network 3: PIC02 OUT

Převod hodnoty akčního zásahu z regulátoru na výstupní signál



| | | |
|--------------------------------------|--|--|
| Totally Integrated Automation Portal | | |
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PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks / 001_INPUTS

FI01_DB [DB17]

FI01_DB Properties

General

| | | | | | |
|----------|---------|-----------|-----------|------|----|
| Name | FI01_DB | Number | 17 | Type | DB |
| Language | DB | Numbering | Automatic | | |

Information

| | | | | | |
|--------|--|---------|-----|-----------------|--|
| Title | | Author | | Comment | |
| Family | | Version | 0.1 | User-defined ID | |

| Name | Data type | Start value | Retain |
|--------------------|-----------|-------------|--------|
| ▼ Static | | | |
| Analog_vstup | Int | 0 | False |
| Max | Int | 2000 | False |
| Min | Int | 0 | False |
| Merena_hodnota_ing | Real | 0.0 | False |

| | | |
|--|--|--|
| | | |
|--|--|--|

Totally Integrated Automation Portal

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks / 001_INPUTS

PIC01_DB [DB4]

PIC01_DB Properties

General

| | | | | | |
|----------|----------|-----------|-----------|------|----|
| Name | PIC01_DB | Number | 4 | Type | DB |
| Language | DB | Numbering | Automatic | | |

Information

| | | | | | |
|--------|--|---------|-----|-----------------|--|
| Title | | Author | | Comment | |
| Family | | Version | 0.1 | User-defined ID | |

| Name | Data type | Start value | Retain |
|--------------------|-----------|-------------|--------|
| ▼ Static | | | |
| Analog_vstup | Int | 0 | False |
| Max | Int | 0 | False |
| Min | Int | -100 | False |
| Merena_hodnota_ing | Real | 0.0 | False |
| Setpoit_PID | Real | 10.0 | True |
| Vystup_PID | Real | 0.0 | False |
| Manual_Value | Real | 0.0 | True |
| Auto/Manual | Bool | true | True |
| Mode | Int | 4 | False |
| Mode/Activ | Bool | false | False |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks / 001_INPUTS
PIC02_DB [DB16]

| PIC02_DB Properties | | | | | |
|---------------------|----------|-----------|-----------|-----------------|----|
| General | | | | | |
| Name | PIC02_DB | Number | 16 | Type | DB |
| Language | DB | Numbering | Automatic | | |
| Information | | | | | |
| Title | | Author | | Comment | |
| Family | | Version | 0.1 | User-defined ID | |

| Name | Data type | Start value | Retain |
|--------------------|-----------|-------------|--------|
| ▼ Static | | | |
| Analog_vstup | Int | 0 | False |
| Max | Int | 0 | False |
| Min | Int | -100 | False |
| Merena_hodnota_ing | Real | 0.0 | False |
| Setpoit_PID | Real | 10.0 | True |
| Vystup_PID | Real | 0.0 | False |
| Manual_Value | Real | 0.0 | True |
| Auto/Manual | Bool | true | True |
| Mode | Int | 4 | False |
| Mode/Activ | Bool | false | False |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks / 002_PROCES&OUTPUTS

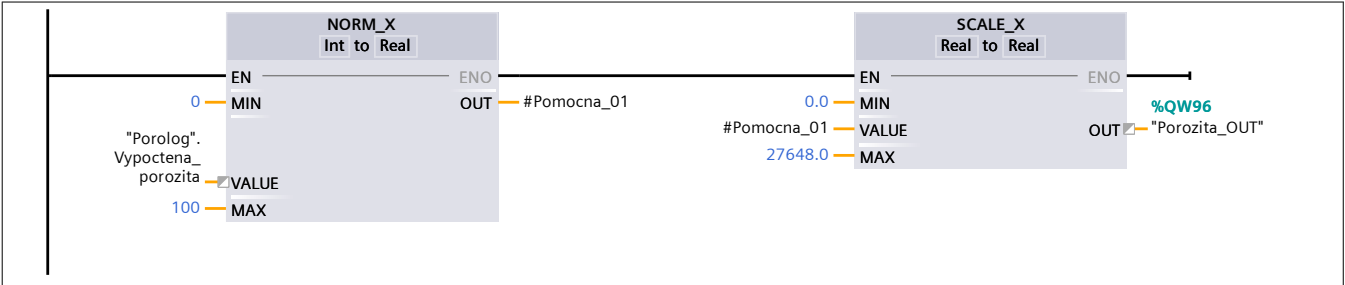
Porozita a alarm [FC5]

| Porozita a alarm Properties | | | | | |
|-----------------------------|------------------|-----------|-----------|-----------------|----|
| General | | | | | |
| Name | Porozita a alarm | Number | 5 | Type | FC |
| Language | LAD | Numbering | Automatic | | |
| Information | | | | | |
| Title | | Author | | Comment | |
| Family | | Version | 0.1 | User-defined ID | |

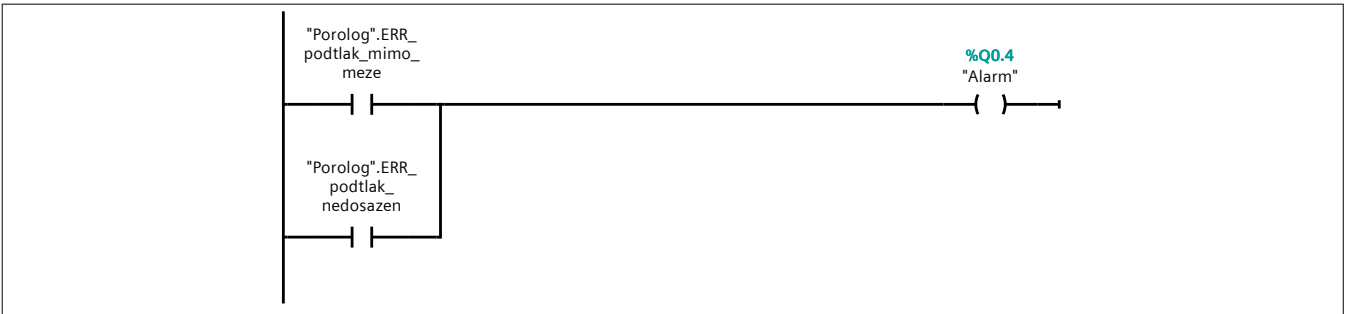
| Name | Data type | Default value |
|------------------|-----------|---------------|
| Input | | |
| Output | | |
| InOut | | |
| ▼ Temp | | |
| Pomocna_01 | Real | |
| Constant | | |
| ▼ Return | | |
| Porozita a alarm | Void | |

Network 1: Vystup porozity

Převod hodnoty akčního zásahu na výstupní signál



Network 2: Alarm výstup do DCS



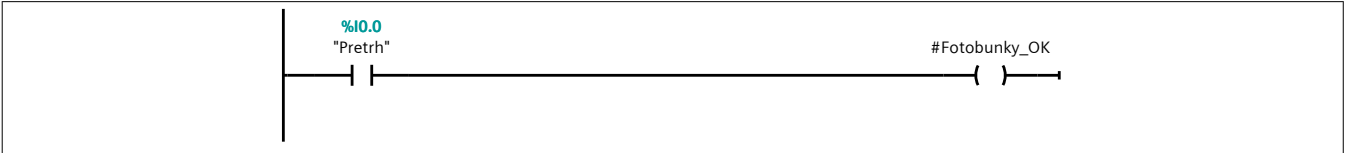
PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks /
002_PROCES&OUTPUTS

Sequence [FC1]

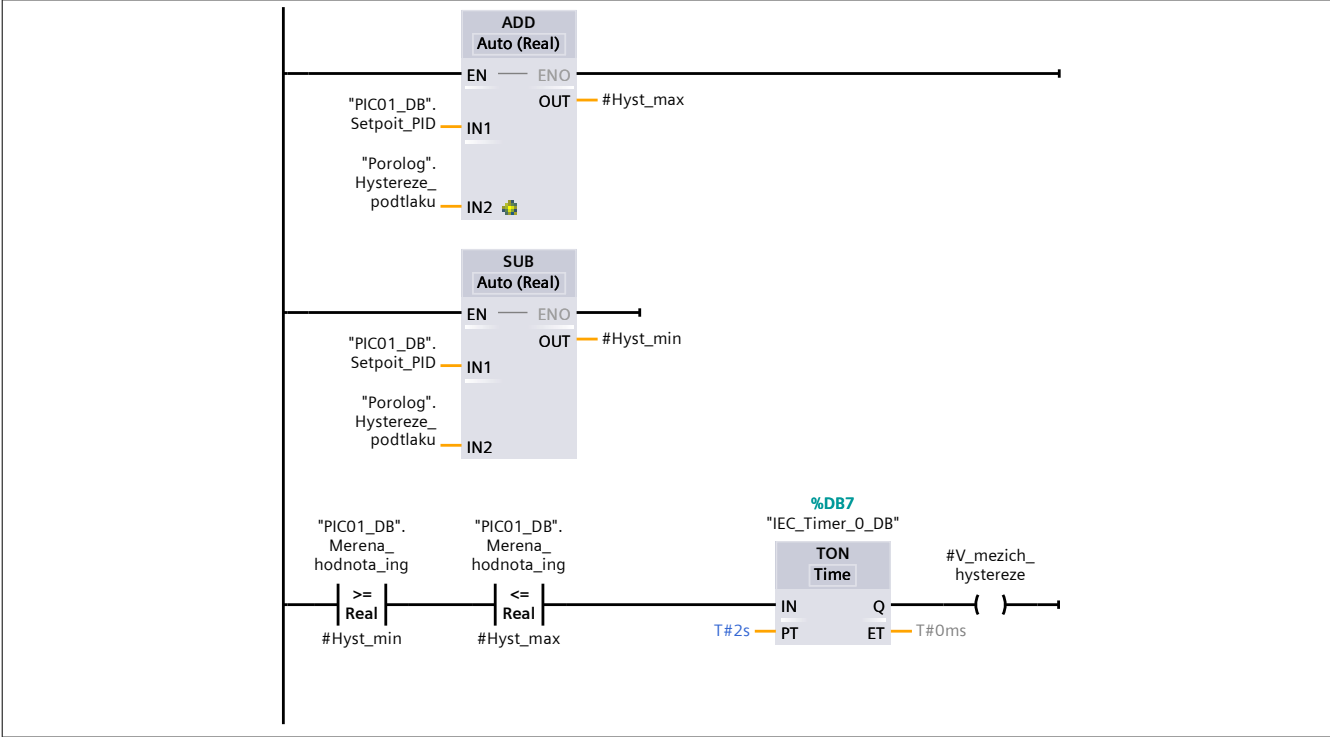
| Sequence Properties | | | | | |
|---------------------|----------|-----------|-----------|-----------------|-------------------|
| General | | | | | |
| Name | Sequence | Number | 1 | Type | FC |
| Language | LAD | Numbering | Automatic | | |
| Information | | | | | |
| Title | | Author | | Comment | Sekvence Porologu |
| Family | | Version | 0.1 | User-defined ID | |

| Name | Data type | Default value |
|----------------------|-----------|---------------|
| Input | | |
| Output | | |
| InOut | | |
| ▼ Temp | | |
| Fotobunky_OK | Bool | |
| V_mezich_hystereze | Bool | |
| Vypocet_AI_s_korekci | Real | |
| Vypocet_x | Real | |
| Vypocet_y | Real | |
| Hyst_min | Real | |
| Hyst_max | Real | |
| Ret | Int | |
| Mezivypocet | Real | |
| Hrana_hrana_1 | Bool | |
| Hrana_hrana_2 | Bool | |
| Constant | | |
| ▼ Return | | |
| Sequence | Void | |

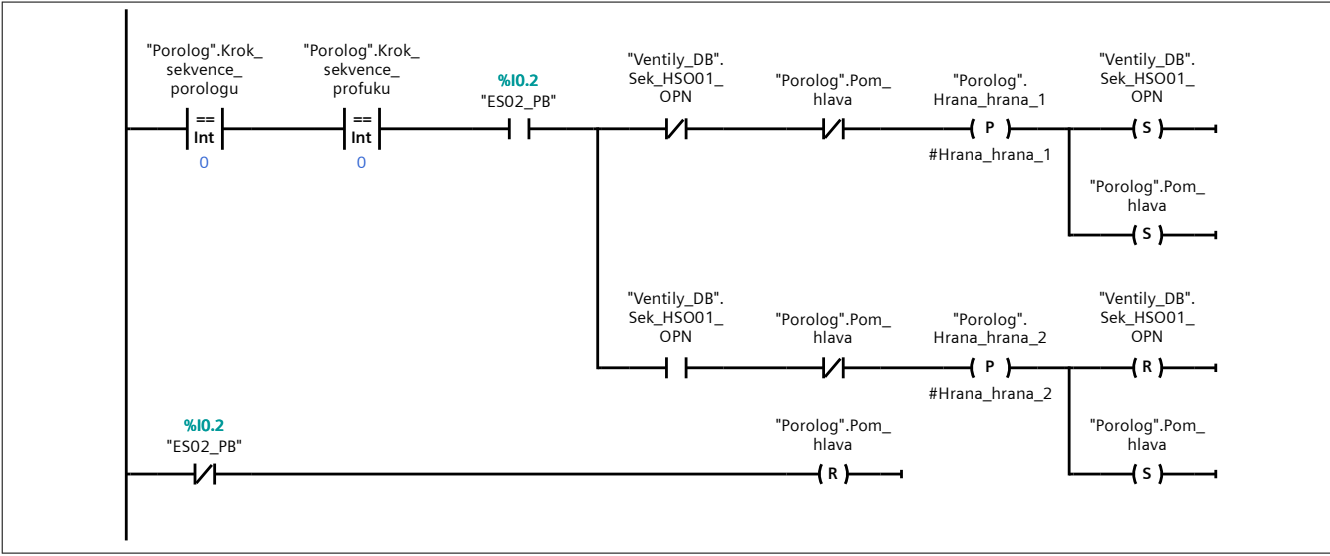
Network 1: Vyhodnoceni fotobunek



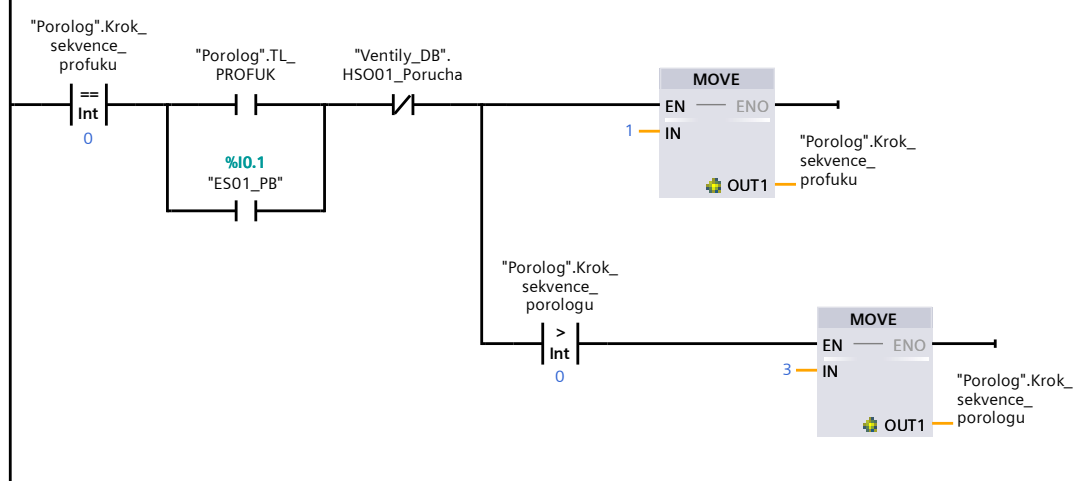
Network 2: Kontrola zda je podtlak na PIC01 v mezich



Network 3: Ovládání hlavy porologu tlačítkem z rozvaděče

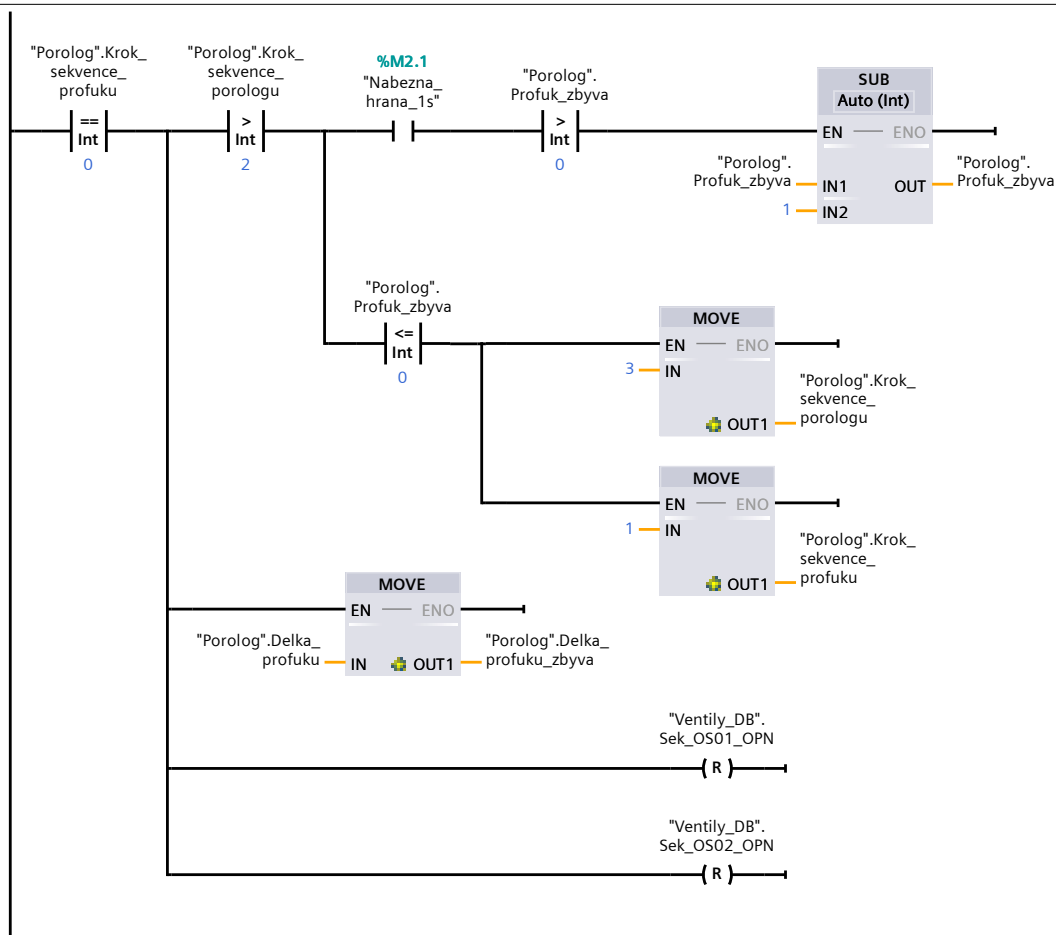


Network 4: Spuštění profuku tlačítkem z vizualizace nebo z rozvaděče

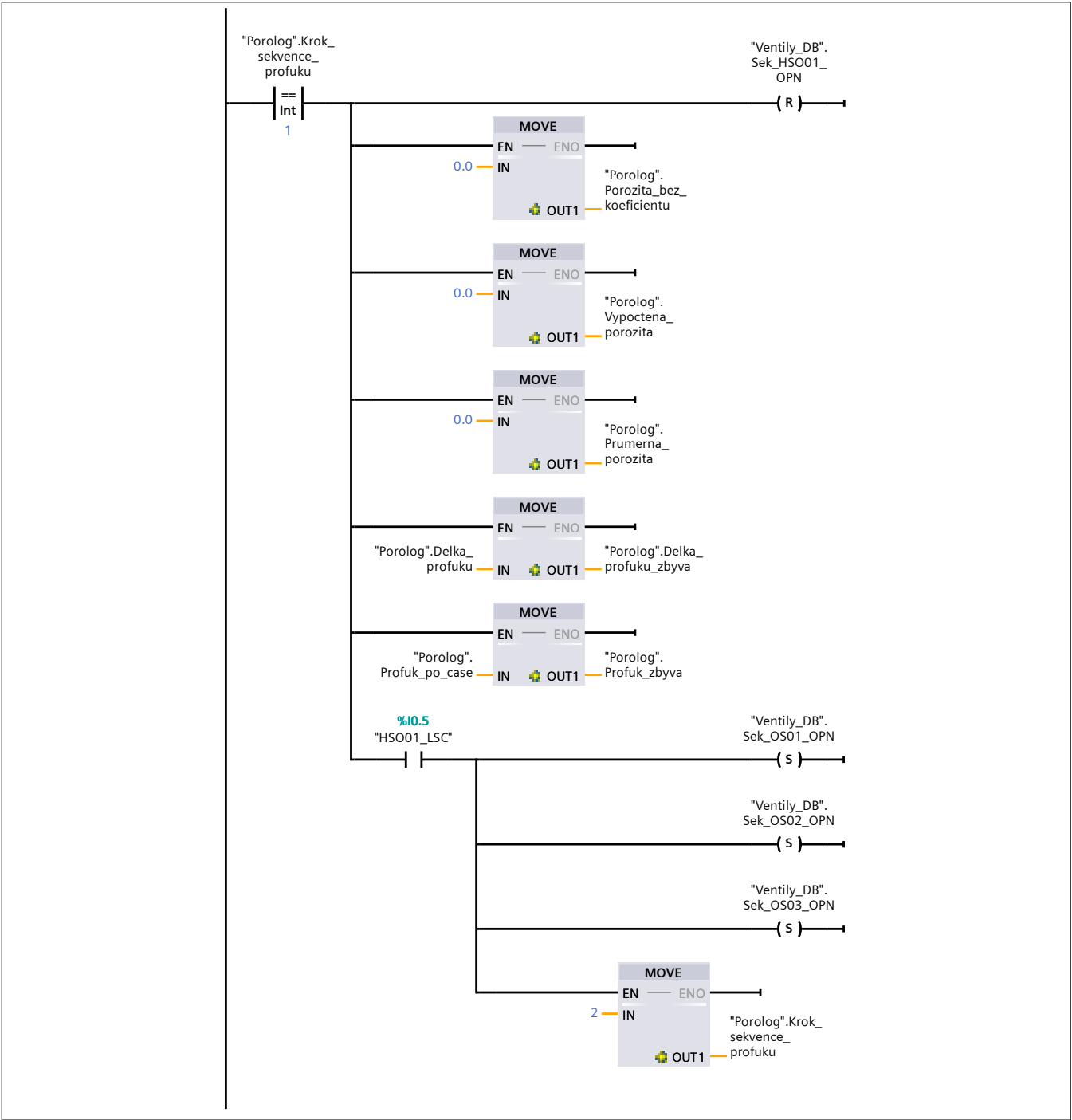


Network 5: PROFUK - KROK 0 = profuk vypnut, počítání času do dalšího

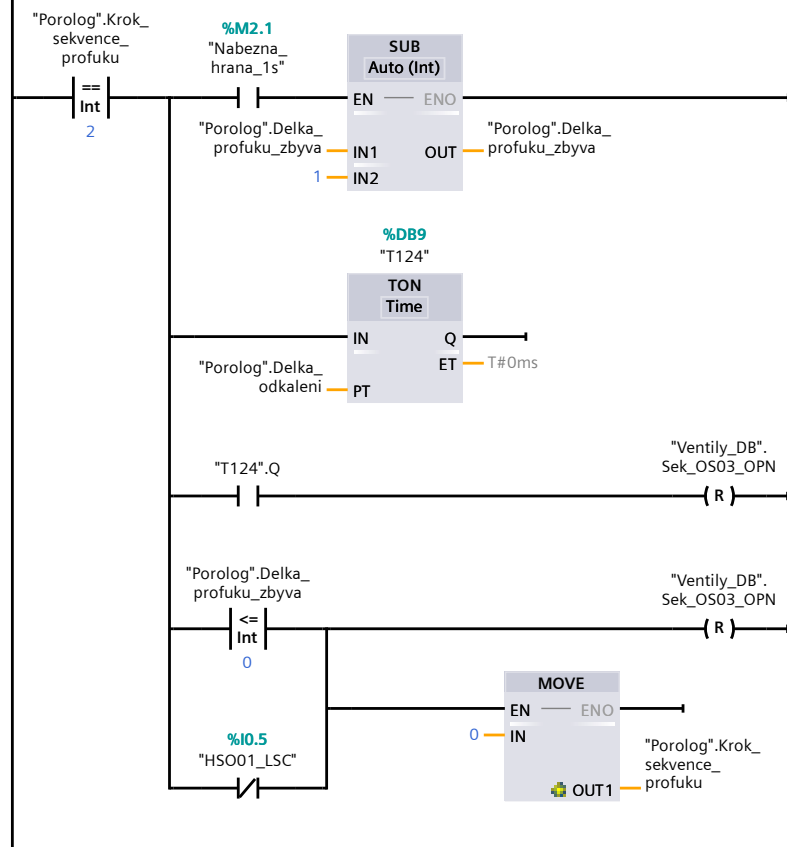
Po dosažení času dalšího profuku potom čekám na stisk tlačítka "Nový TAMBOR"



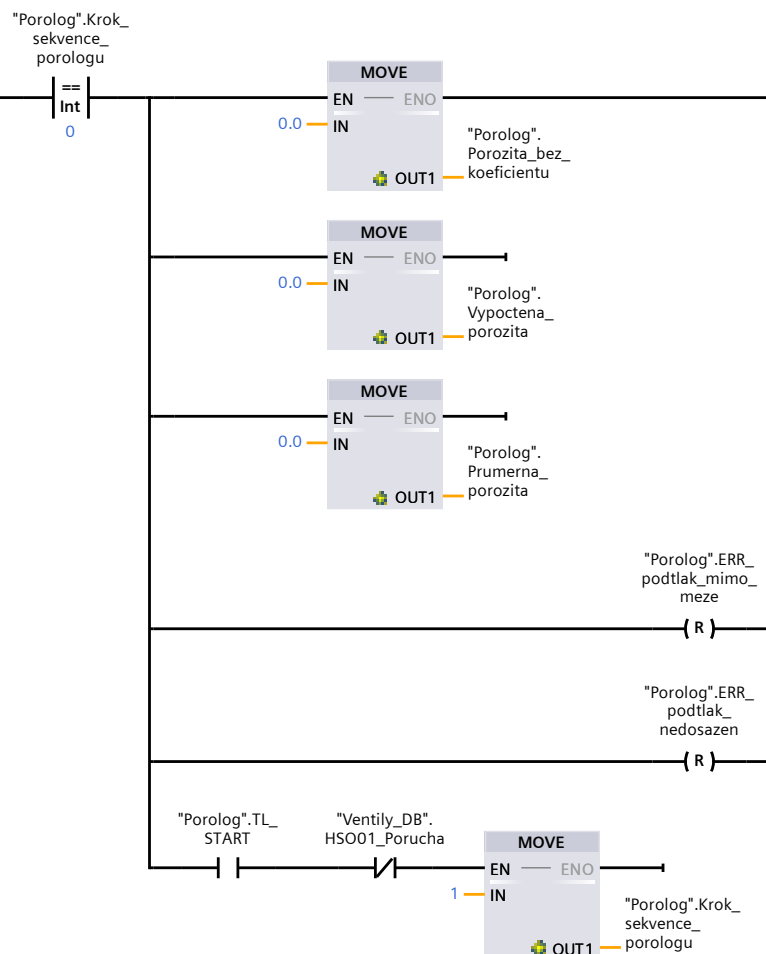
Network 6: PROFUK - KROK 1 - Profuk - spuštění



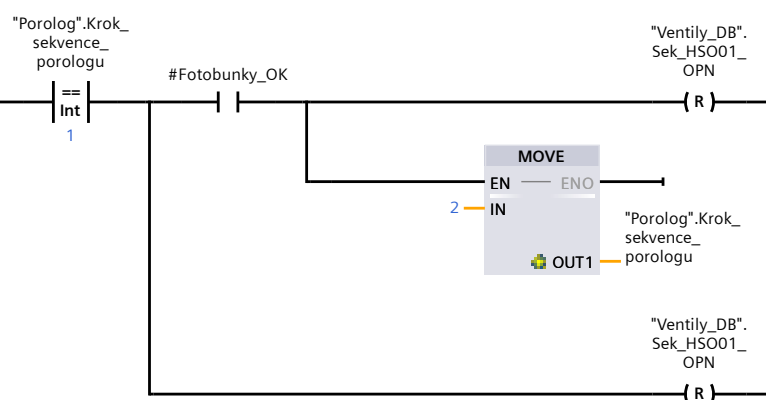
Network 7: PROFUK - KROK 2 - počítání délky času profuku, ukončení



Network 8: POROLOG - KROK 0 - STOP měření porologu

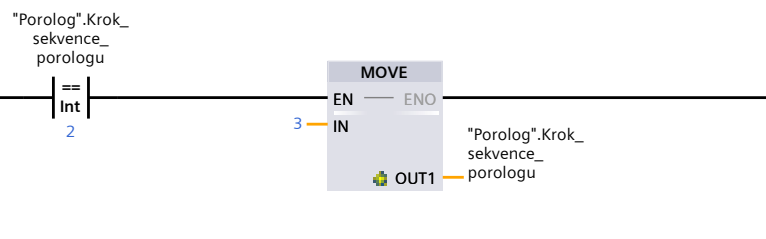


Network 9: POROLOG - KROK 1 - START Sekvence - čekám na fotobuňku

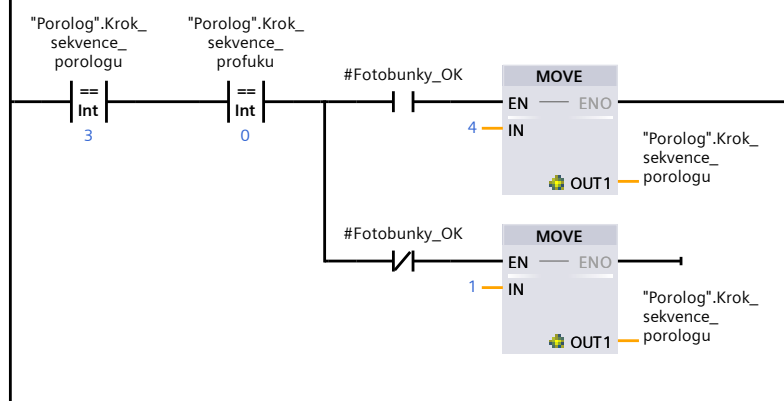


Network 10: POROLOG - KROK 2 - spuštění profuku

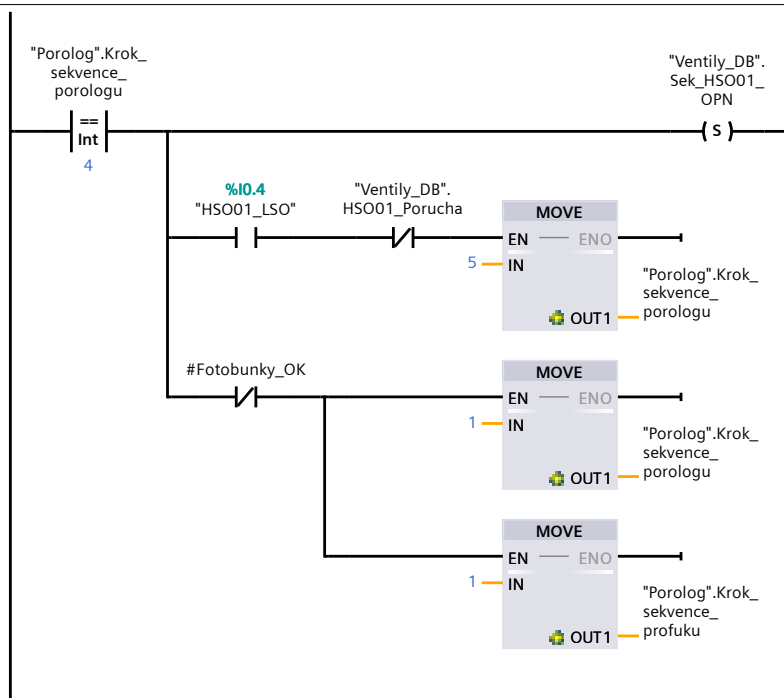
Spuštění profuku při spuštění sekvence porologu zrušeno



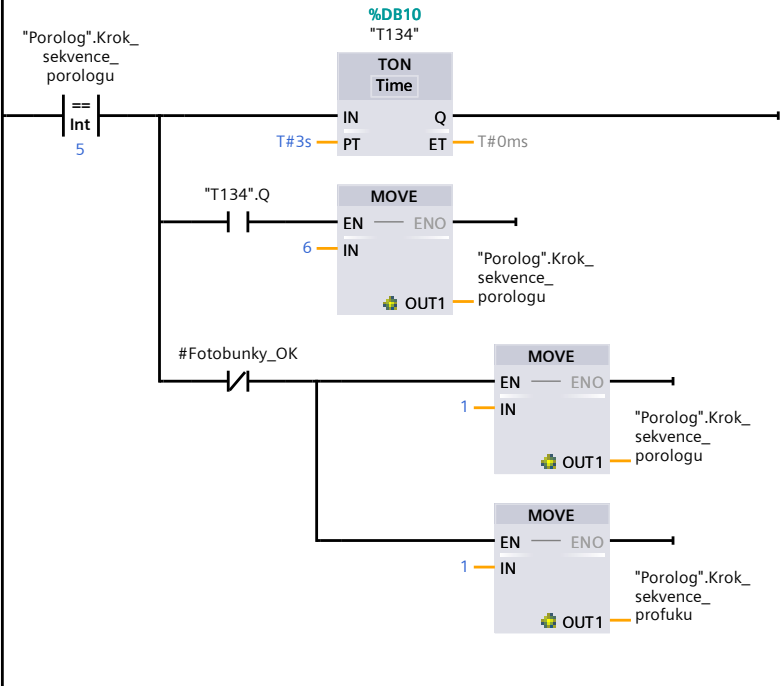
Network 11: POROLOG - KROK 3 - čekání na ukončení profuku



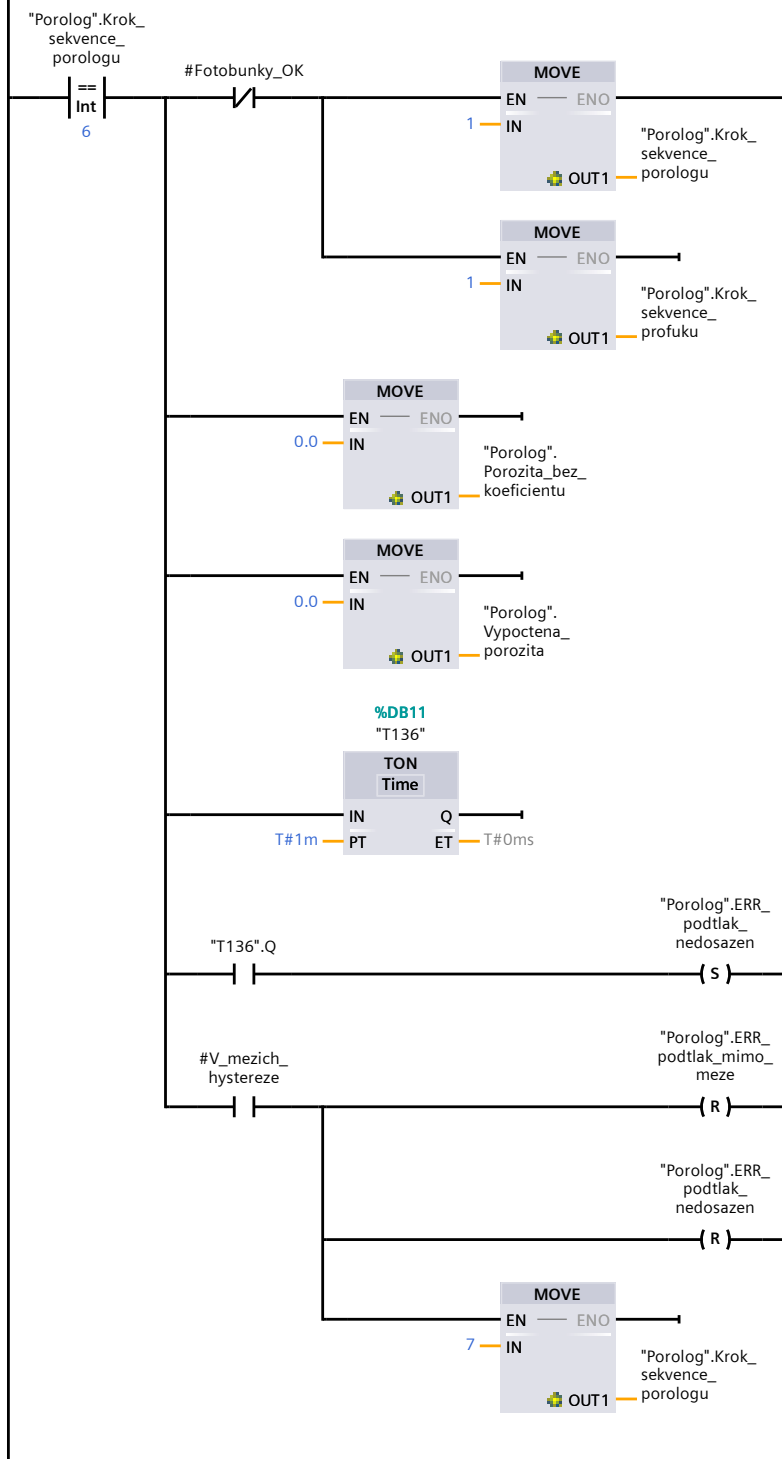
Network 12: POROLOG - KROK 4 - přiklopení hlavy



Network 13: POROLOG - KROK 5 - nastavení výstupů regulátorů na SYS_O hodnotu



Network 14: POROLOG - KROK 6 - PID regulace podtlaku, čekám na ustálení



Network 15: POROLOG - KROK 7 - PID regulace podtlaku, výpočet porozity

Výpočet porozity :

Od analogového vstupu PIC01 se odečítá (korekce) ztráty tlaku\
v hadičce a hlavě = 0.0 mbar, výsledek je uložen do "#vypocet_AI_s_korekci"

Q Q

$Zt = \frac{P \cdot A \cdot v_{pocet_x}}{Q}$

P * A vypocet_x

Zt = porozita v CU

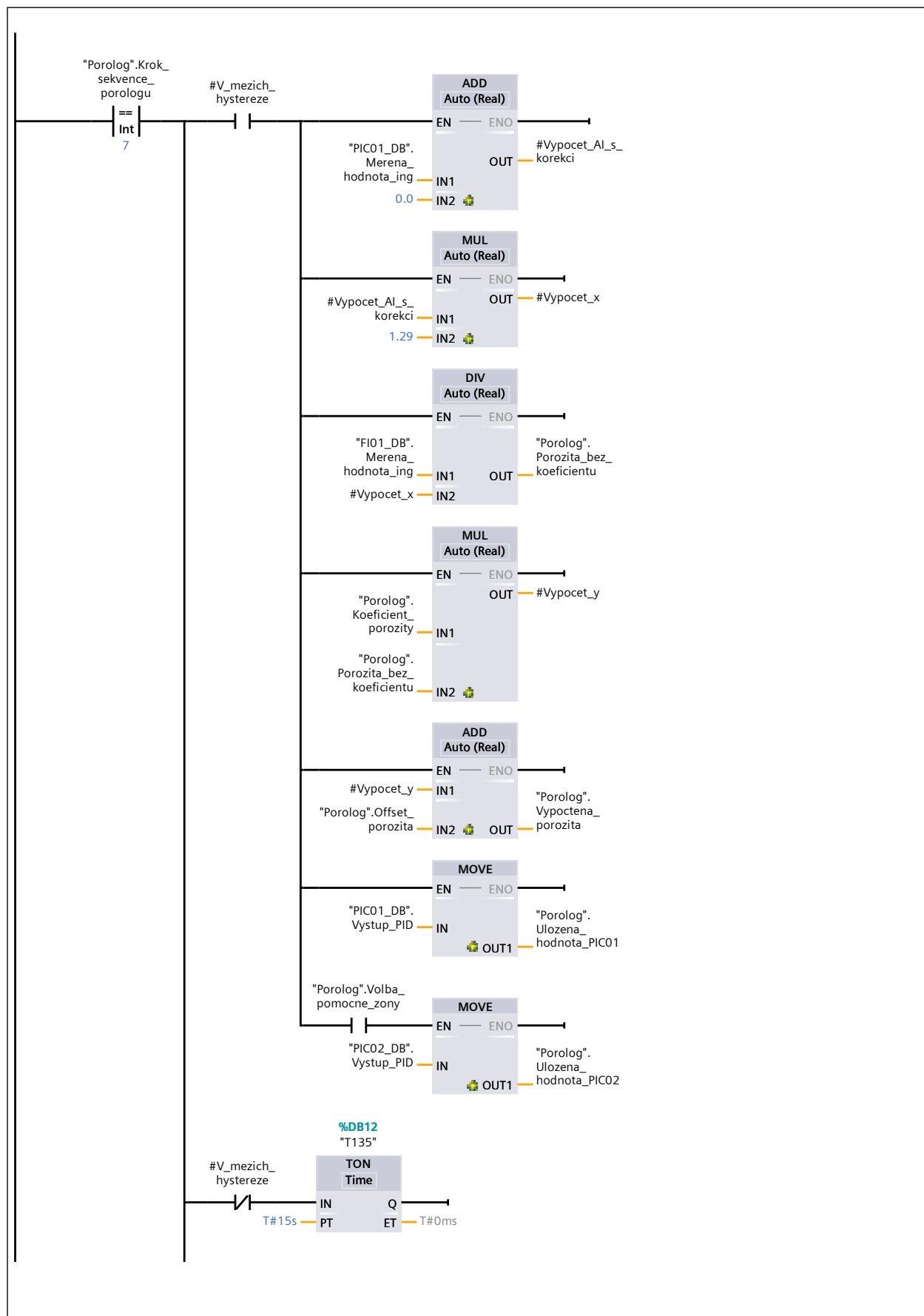
Q = průtok vzduchu v ml/min (průtokoměr 0 - 2000 ml/min)

P = tlak v kPa (měřený je v mbar), proto P = PIC01 /10

A = plocha hlavy = 12,9 cm²

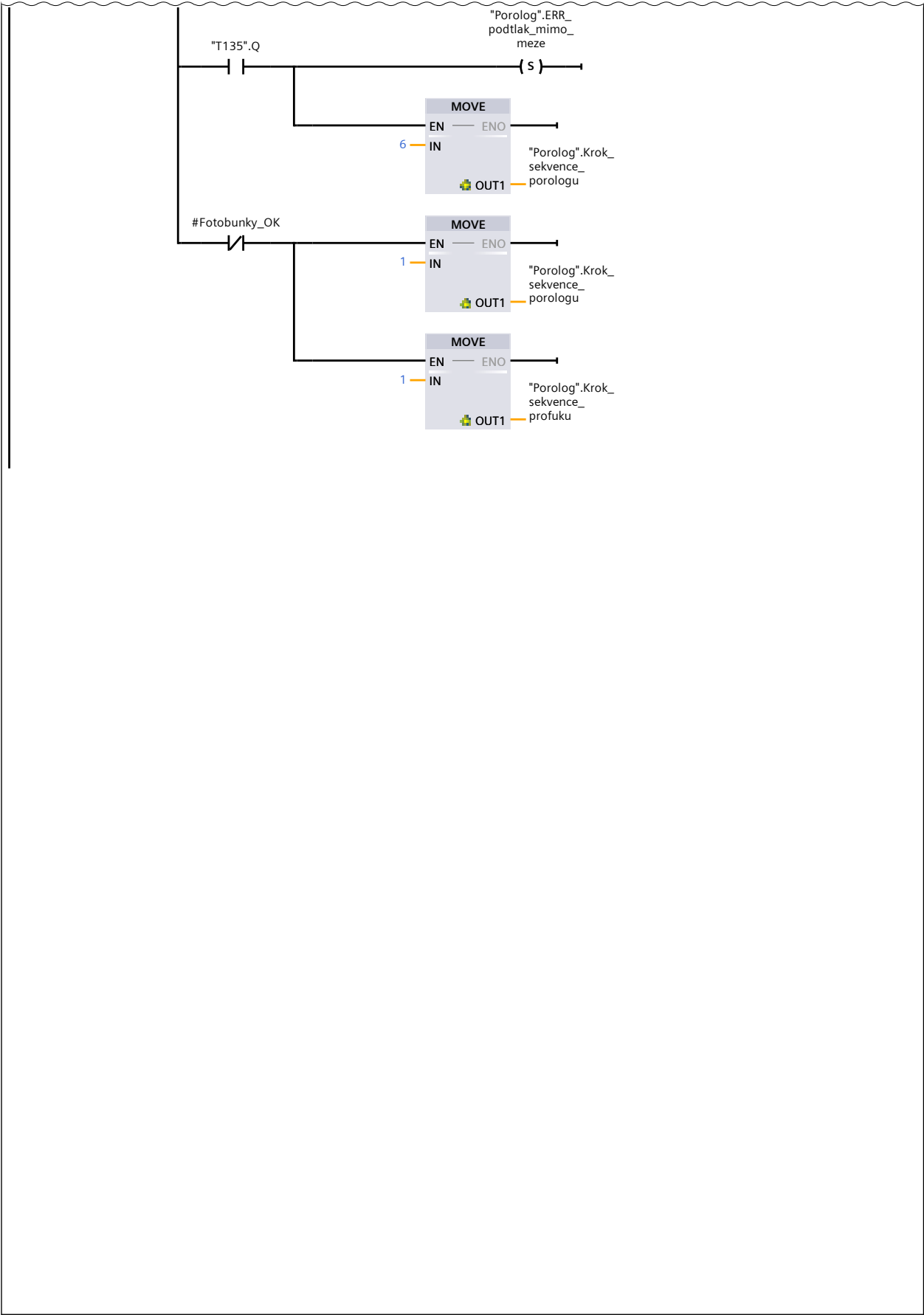
| | | |
|--|--|--|
| Totally Integrated Automation Portal | | |
| <p>Výpočet s offsetem :</p> <p>$Z_{tout} = \text{koeficient} * Z_{tin} + \text{offset}$</p> | | |
| | | |

Network 15: POROLOG - KROK 7 - PID regulace podtlaku, výpočet porozity (1.1 / 2.1)

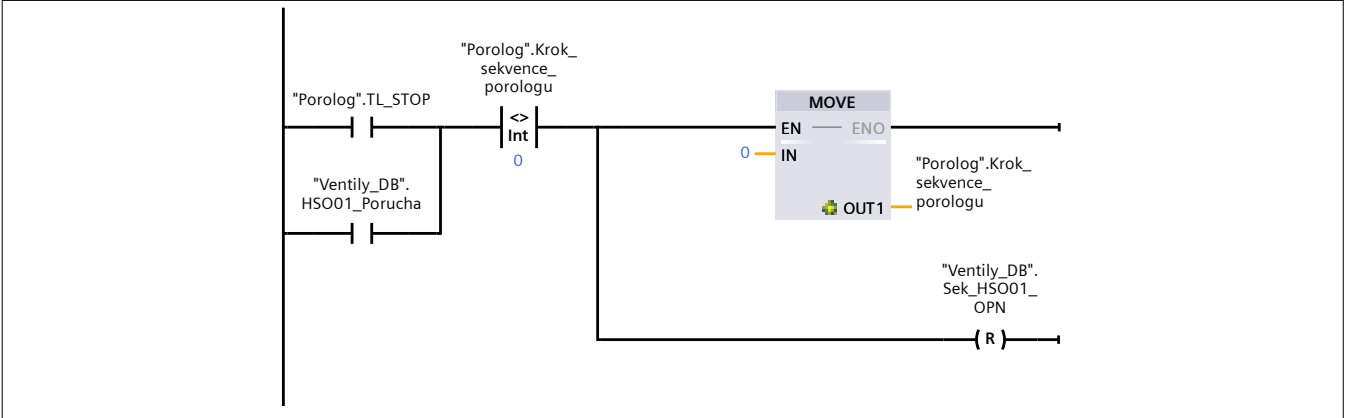


Network 15: POROLOG - KROK 7 - PID regulace podtlaku, výpočet porozity (2.1 / 2.1)

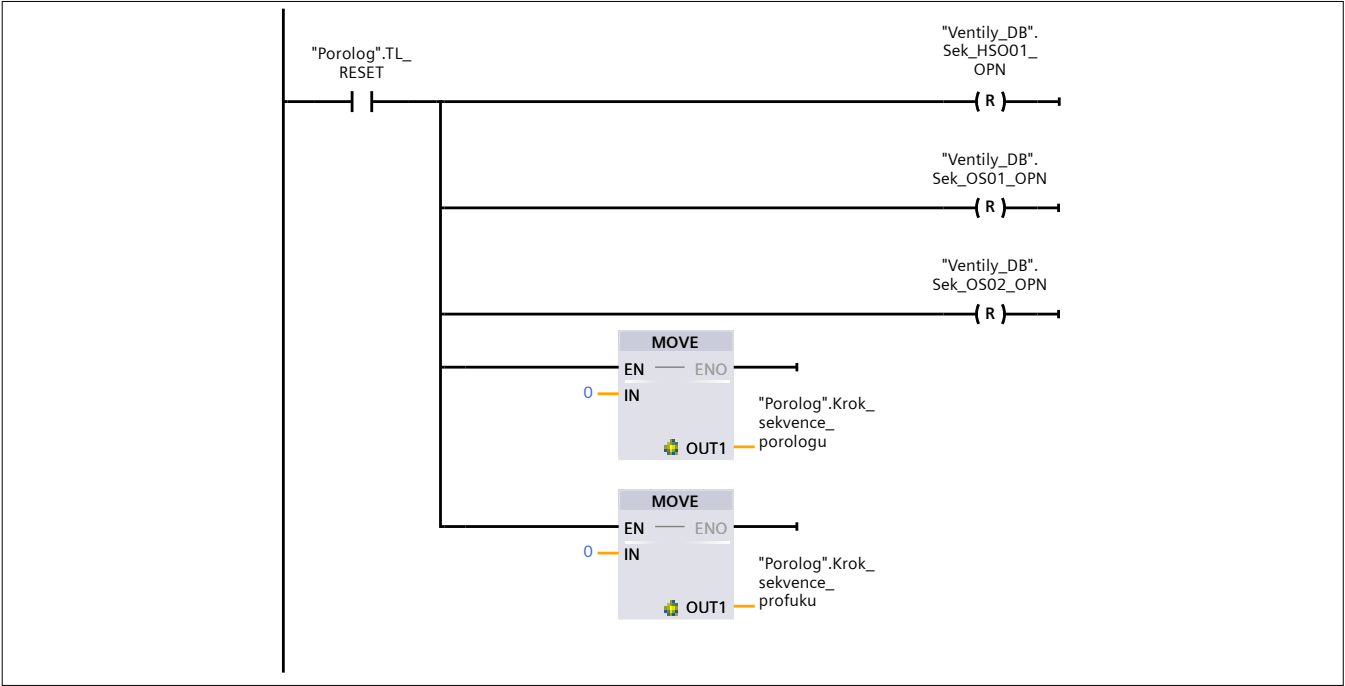
1.1 (Page23 - 11)



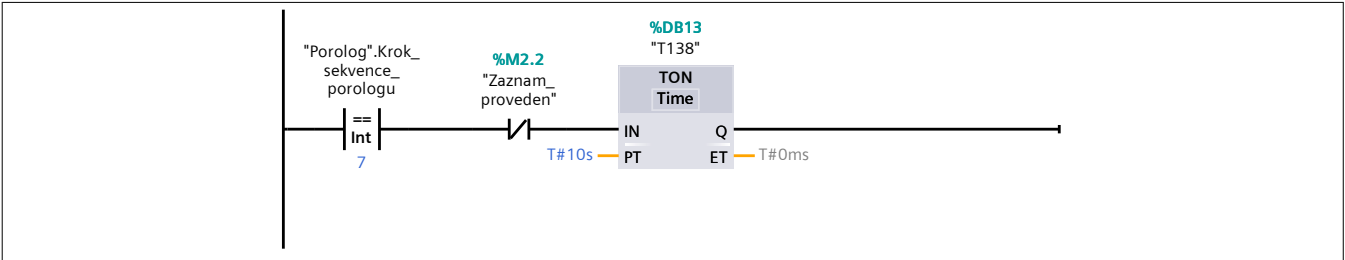
Network 16: STOP Sekvence měření porologu



Network 17: RESET Sekvence měření a profuku



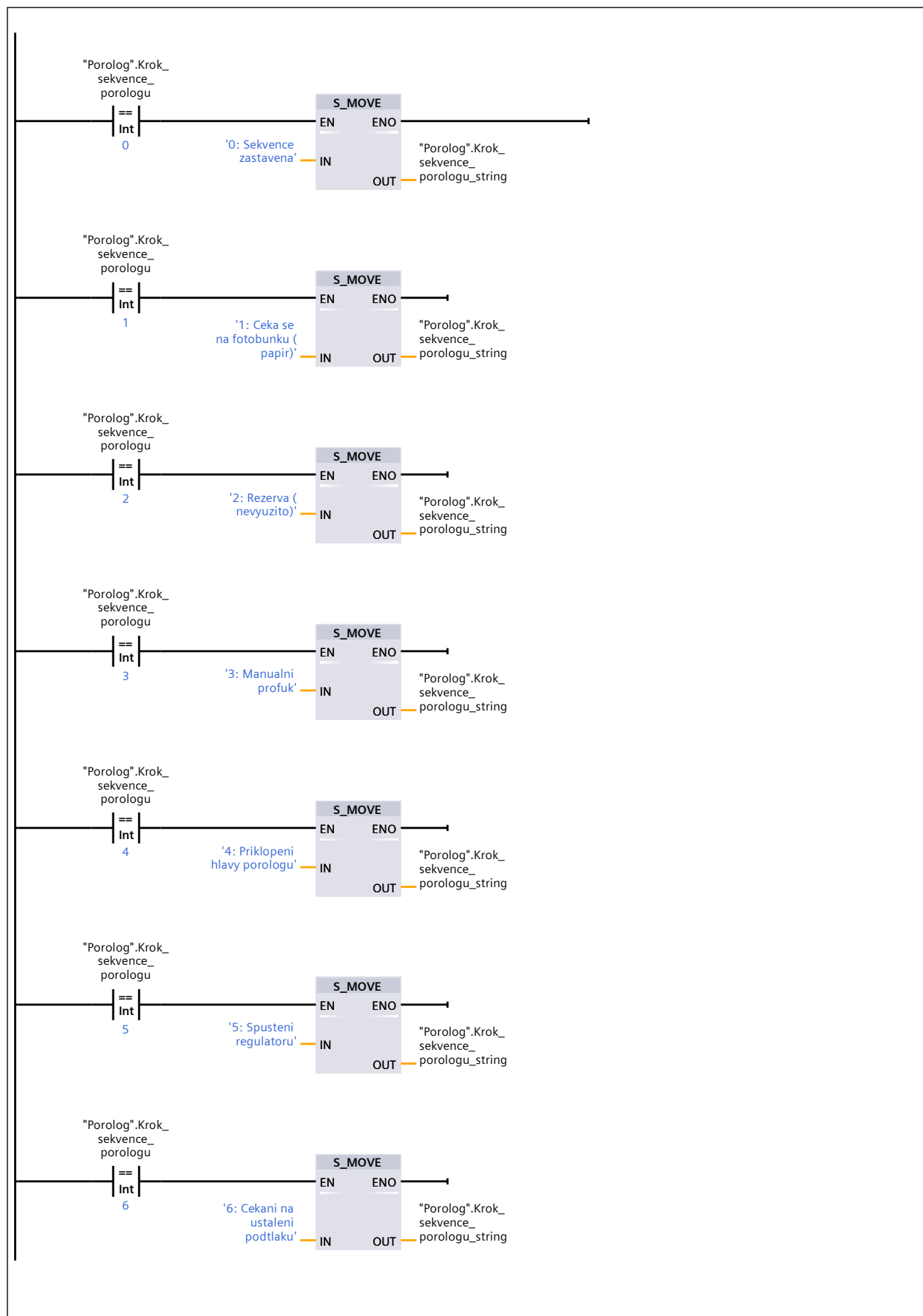
Network 18: Počítání času pro záznam vzorku



Network 19: Záznam vzorku - Reset

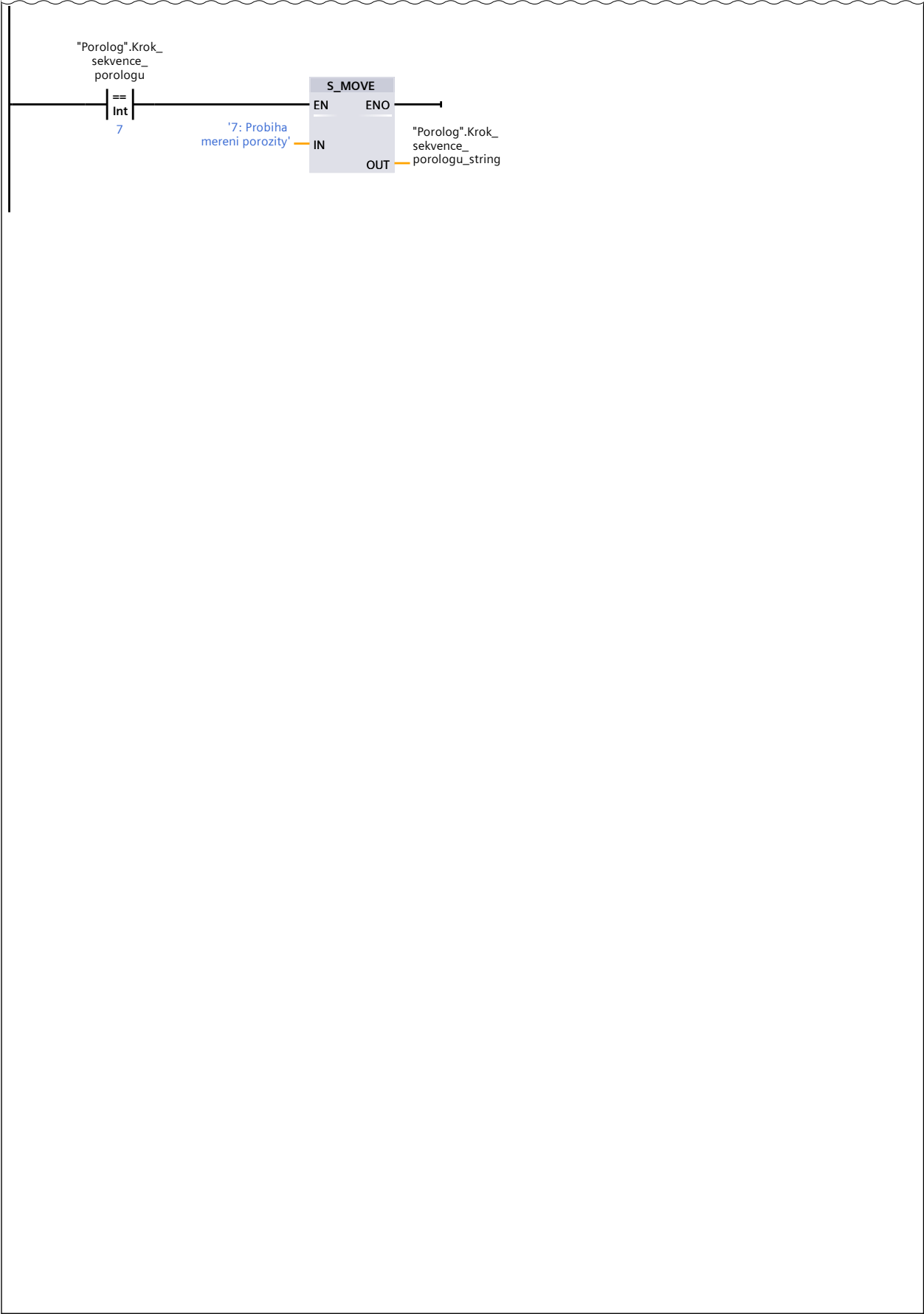
| | | |
|--|--|--|
| Totally Integrated Automation Portal | | |
| <div><div></div><div><div><div>%M2.2 "Zaznam_proveden"</div></div><div><div></div><div></div></div><div><div>%M2.2 "Zaznam_proveden"</div></div><div><div>(R)</div></div></div></div> | | |
| Network 20: Záznam vzorku - Set | | |
| <div><div></div><div><div><div>"T138".Q</div></div><div><div></div><div></div></div><div><div>%M2.2 "Zaznam_proveden"</div></div><div><div>(S)</div></div></div></div> | | |
| Network 21: Výpočet průměrné porozity pomocí klouzavého průměru | | |
| <div><div></div><div><div><div><div><div>%DB8 "LGF_FloatingAverage_DB"</div></div><div><div>%FB10031 "LGF_FloatingAverage"</div></div></div><div><div><div>EN</div><div>ENO</div></div><div><div>false</div><div>cyclicExecution</div><div></div></div><div><div><div>%M2.2 "Zaznam_proveden"</div></div><div>trigger</div><div></div></div><div><div><div>"Porolog". Vypoctena_porozita</div></div><div>value</div><div></div></div><div><div>10</div><div>windowSize</div><div></div></div><div><div>false</div><div>reset</div><div></div></div><div><div>average</div><div>windowSizeReached</div><div>error</div><div>status</div></div><div><div></div><div>false</div><div>false</div><div>16#0</div></div><div><div>"Porolog". Prumerna_porozita</div></div></div></div></div></div> | | |
| Network 22: Popis sekvence porologu - string | | |
| Převod údaje aktuální sekvence do formátu string | | |
| | | |

Network 22: Popis sekvence porologu - string (1.1 / 2.1)



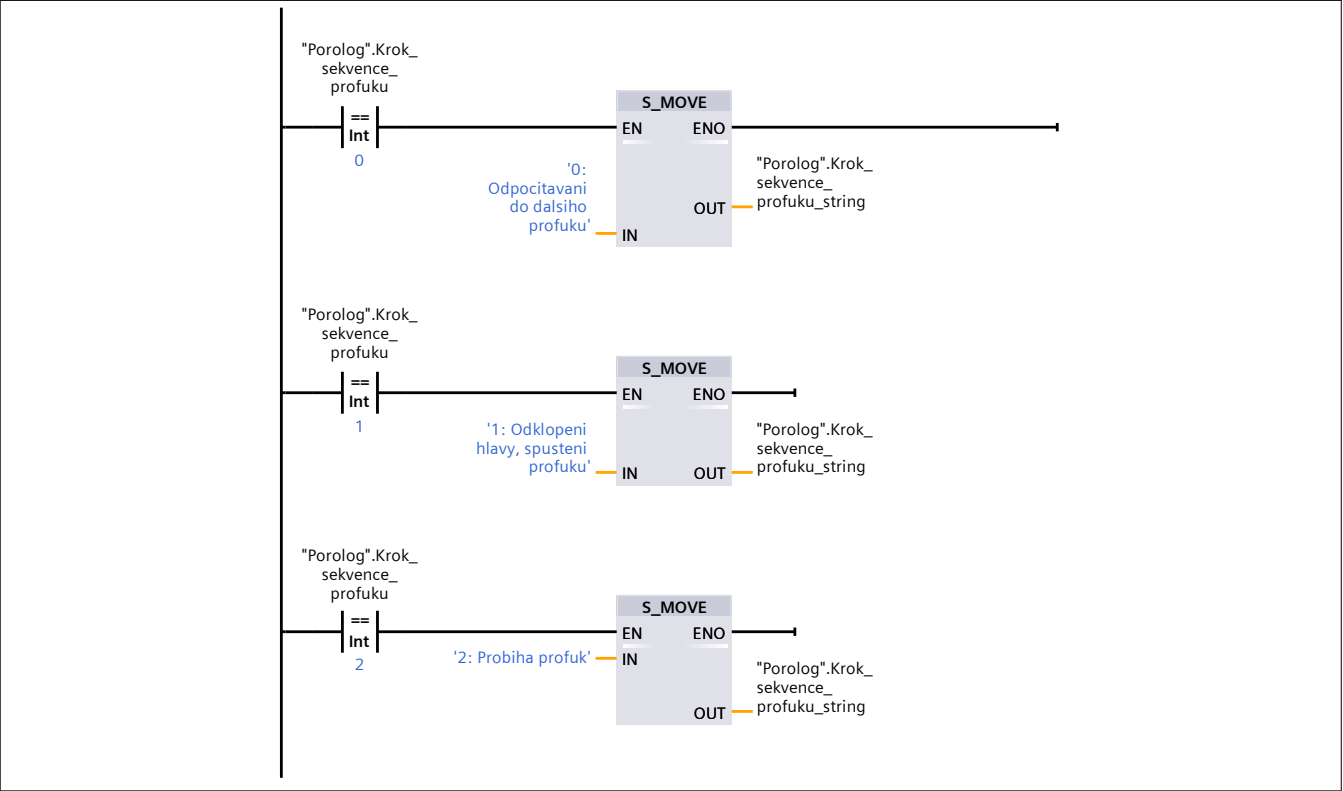
Network 22: Popis sekvence porologu - string (2.1 / 2.1)

1.1 (Page23 - 15)



Network 23: Popis sekvence profuku - string

Převod údaje aktuální sekvence profuku do formátu string



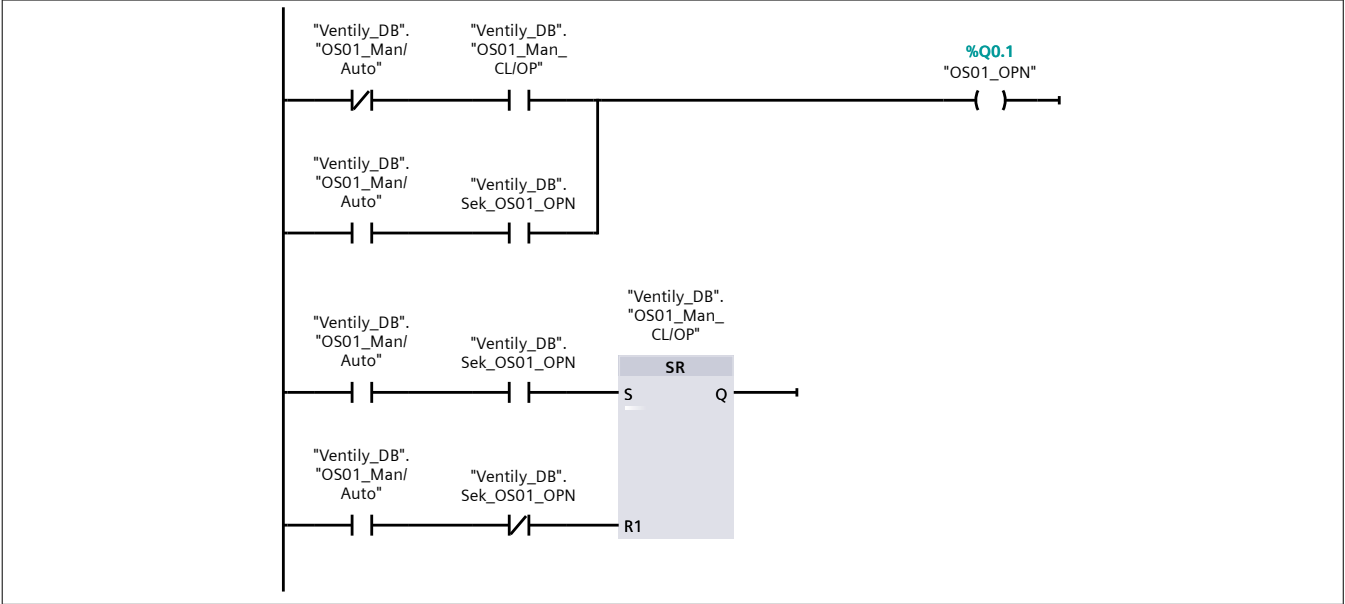
PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks /
002_PROCES&OUTPUTS

Vetlily [FC6]

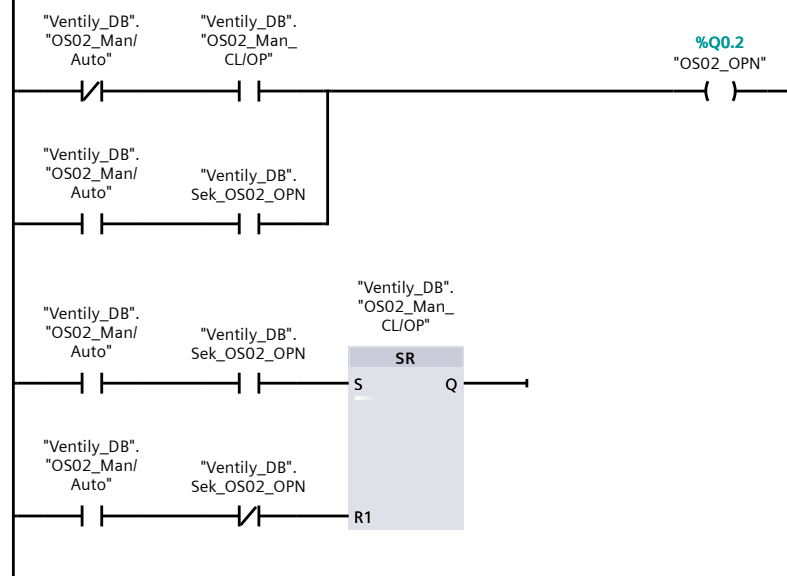
| Vetlily Properties | | | | | |
|--------------------|---------|-----------|-----------|-----------------|----|
| General | | | | | |
| Name | Vetlily | Number | 6 | Type | FC |
| Language | LAD | Numbering | Automatic | | |
| Information | | | | | |
| Title | | Author | | Comment | |
| Family | | Version | 0.1 | User-defined ID | |

| Name | Data type | Default value |
|----------|-----------|---------------|
| Input | | |
| Output | | |
| InOut | | |
| ▼ Temp | | |
| Auto/Man | Bool | |
| Constant | | |
| ▼ Return | | |
| Vetlily | Void | |

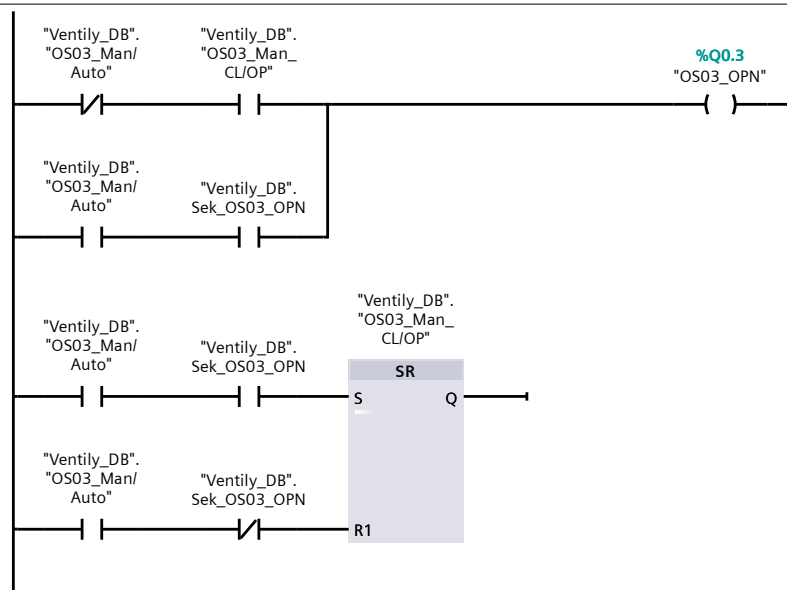
Network 1: OS01 prepinani Auto/man a pamatovani se posledniho stavu (prechod bez zmeny)



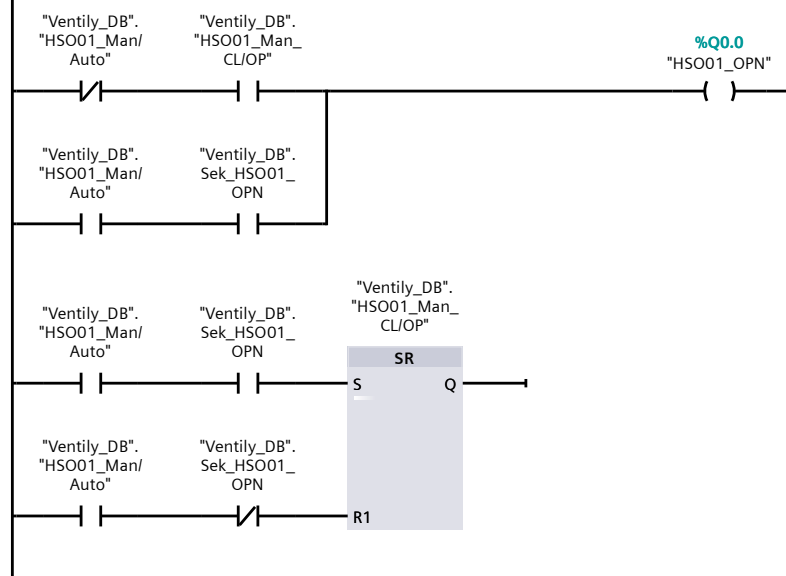
Network 2: OS02 prepinani Auto/man a pamatovani se posledniho stavu (prechod bez zmeny)



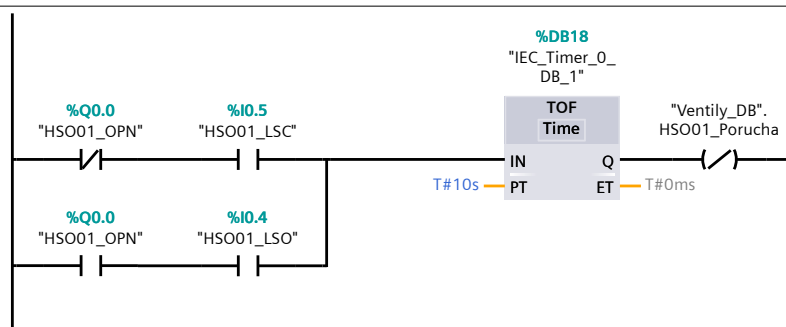
Network 3: OS03 prepinani Auto/man a pamatovani se posledniho stavu (prechod bez zmeny)



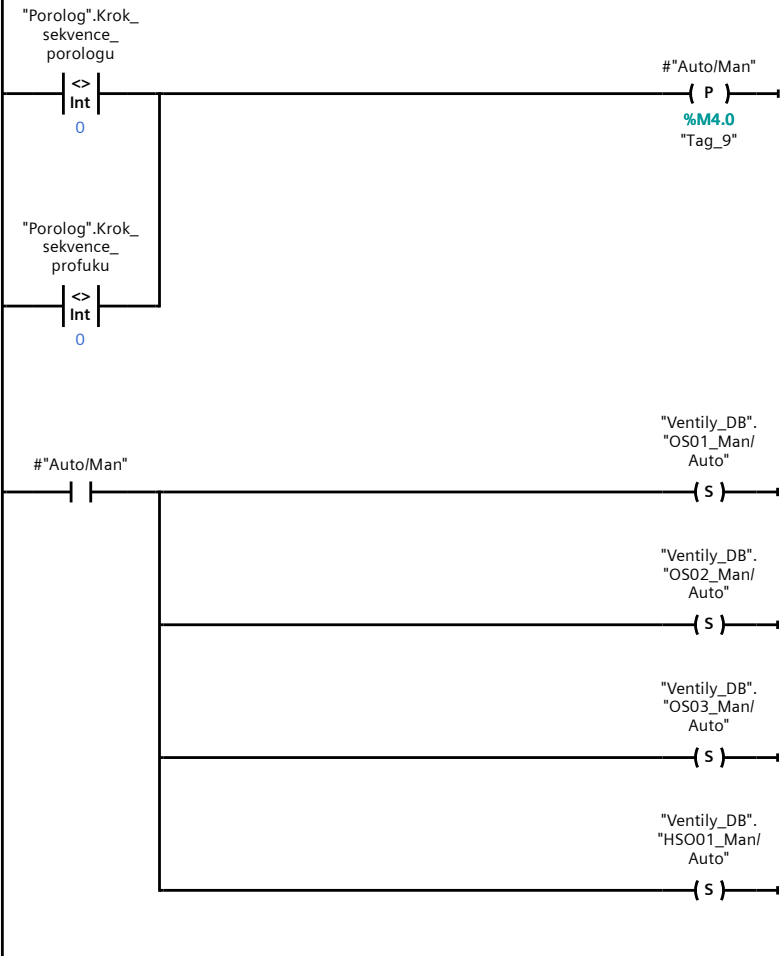
Network 4: HOS01 prepinani Auto/man a pamatovani se posledniho stavu (prechod bez zmeny)



Network 5: HSO01 porucha ventilu



Network 6: Prepnuti ventilu do auto modu pri startu sekvence



PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks / 002_PROCES&OUTPUTS

Porolog [DB3]

Porolog Properties

General

| | | | | | |
|-----------------|---------|------------------|-----------|-------------|----|
| Name | Porolog | Number | 3 | Type | DB |
| Language | DB | Numbering | Automatic | | |

Information

| | | | | | |
|---------------|--|----------------|-----|------------------------|--|
| Title | | Author | | Comment | |
| Family | | Version | 0.1 | User-defined ID | |

| Name | Data type | Start value | Retain |
|-------------------------------|-----------|-------------|--------|
| ▼ Static | | | |
| TL_START | Bool | false | False |
| TL_STOP | Bool | false | False |
| TL_PROFUK | Bool | false | False |
| TL_RESET | Bool | false | False |
| Volba_pomocne_zony | Bool | false | True |
| Krok_sekvence_porologu | Int | 0 | False |
| Krok_sekvence_profuku | Int | 0 | False |
| Krok_sekvence_porologu_string | String | " | False |
| Krok_sekvence_profuku_string | String | " | False |
| Profuk_po_case | Int | 20000 | True |
| Profuk_zbyva | Int | 20000 | False |
| Delka_profuku | Int | 10 | True |
| Delka_profuku_zbyva | Int | 10 | False |
| Porozita_bez_koeficientu | Real | 0.0 | False |
| Koeficient_porozity | Real | 1.0 | True |
| Offset_porozita | Real | 0.0 | True |
| Vypoctena_porozita | Real | 0.0 | False |
| Pom_hlava | Bool | false | False |
| Hrana_hrana_1 | Bool | false | False |
| Hrana_hrana_2 | Bool | false | False |
| Ulozena_hodnota_PIC01 | Real | 0.0 | True |
| Ulozena_hodnota_PIC02 | Real | 0.0 | True |
| ERR_podtlak_nedosazen | Bool | false | False |
| ERR_podtlak_mimo_meze | Bool | false | False |
| Hystereze_podtlaku | Real | 2.0 | True |
| Prumerna_porozita | Real | 0.0 | False |
| Delka_odkaleni | Time | T#2s | True |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Program blocks /
002_PROCES&OUTPUTS

Ventily_DB [DB6]

| Ventily_DB Properties | | | | | |
|-----------------------|------------|-----------|-----------|-----------------|----|
| General | | | | | |
| Name | Ventily_DB | Number | 6 | Type | DB |
| Language | DB | Numbering | Automatic | | |
| Information | | | | | |
| Title | | Author | | Comment | |
| Family | | Version | 0.1 | User-defined ID | |

| Name | Data type | Start value | Retain |
|-----------------|-----------|-------------|--------|
| ▼ Static | | | |
| OS01_Man/Auto | Bool | TRUE | True |
| OS02_Man/Auto | Bool | false | True |
| OS03_Man/Auto | Bool | false | True |
| HSO01_Man/Auto | Bool | false | True |
| HSO01_Porucha | Bool | false | False |
| OS01_Man_CL/OP | Bool | false | False |
| OS02_Man_CL/OP | Bool | false | False |
| OS03_Man_CL/OP | Bool | false | False |
| HSO01_Man_CL/OP | Bool | false | False |
| Sek_HSO01_OPN | Bool | false | False |
| Sek_OS01_OPN | Bool | false | False |
| Sek_OS02_OPN | Bool | false | False |
| Sek_OS03_OPN | Bool | false | False |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Technology objects

PID_Compact_7 [DB22]

PID_Compact_7 Properties

General

| | | | | | |
|----------|---------------|-----------|-----------|------|----|
| Name | PID_Compact_7 | Number | 22 | Type | DB |
| Language | DB | Numbering | Automatic | | |

Information

| | | | | | |
|--------|---------|---------|---------|-----------------|----------|
| Title | | Author | SIMATIC | Comment | |
| Family | COMPPID | Version | 2.3 | User-defined ID | PID_Cmpt |

| Name | Data type | Start value | Retain |
|-----------------------------|-----------|----------------|--------|
| ▼ Input | | | |
| Setpoint | Real | 0.0 | False |
| Input | Real | 0.0 | False |
| Input_PER | Int | 0 | False |
| Disturbance | Real | 0.0 | False |
| ManualEnable | Bool | false | False |
| ManualValue | Real | 0.0 | False |
| ErrorAck | Bool | false | False |
| Reset | Bool | false | False |
| ModeActivate | Bool | false | False |
| ▼ Output | | | |
| ScaledInput | Real | 0.0 | False |
| Output | Real | 0.0 | False |
| Output_PER | Int | 0 | False |
| Output_PWM | Bool | false | False |
| SetpointLimit_H | Bool | false | False |
| SetpointLimit_L | Bool | false | False |
| InputWarning_H | Bool | false | False |
| InputWarning_L | Bool | false | False |
| State | Int | 0 | False |
| Error | Bool | false | False |
| ErrorBits | DWord | 16#0 | True |
| ▼ InOut | | | |
| Mode | Int | 3 | True |
| ▼ Static | | | |
| InternalDiagnostic | DWord | 0 | False |
| InternalVersion | DWord | DW#16#02030003 | False |
| InternalRTVersion | DWord | 0 | False |
| IntegralResetMode | Int | 4 | False |
| OverwriteInitialOutputValue | Real | 0.0 | False |
| RunModeByStartup | Bool | true | False |
| LoadBackUp | Bool | false | False |
| SetSubstituteOutput | Bool | true | False |
| PhysicalUnit | Int | 0 | False |
| PhysicalQuantity | Int | 2 | False |
| ActivateRecoverMode | Bool | true | False |
| Warning | DWord | 16#0 | True |
| WarningInternal | DWord | 16#0 | True |
| Progress | Real | 0.0 | False |

| Totally Integrated Automation Portal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------|-------------|--------|-----------|-------------|--------|-----------------|------|-----|-------|-------------------|------|------|-------|------------------|------|-----|-------|--------|-------------------|--|-------|-----------|---------------|--|-------|------------------|---------------------------|--|-------|-------------|----------------------|--|-------|---------|--------------------|--|-------|--------|-------------------|--|------|
| <table><tr><th>Name</th><th>Data type</th><th>Start value</th><th>Retain</th></tr><tr><td>CurrentSetpoint</td><td>Real</td><td>0.0</td><td>False</td></tr><tr><td>CancelTuningLevel</td><td>Real</td><td>10.0</td><td>False</td></tr><tr><td>SubstituteOutput</td><td>Real</td><td>0.0</td><td>False</td></tr><tr><td>Config</td><td>PID_CompactConfig</td><td></td><td>False</td></tr><tr><td>CycleTime</td><td>PID_CycleTime</td><td></td><td>False</td></tr><tr><td>CtrlParamsBackUp</td><td>PID_CompactControl-Params</td><td></td><td>False</td></tr><tr><td>PIDSelfTune</td><td>PID_CompactSelf-Tune</td><td></td><td>False</td></tr><tr><td>PIDCtrl</td><td>PID_CompactControl</td><td></td><td>False</td></tr><tr><td>Retain</td><td>PID_CompactRetain</td><td></td><td>True</td></tr></table> | | | Name | Data type | Start value | Retain | CurrentSetpoint | Real | 0.0 | False | CancelTuningLevel | Real | 10.0 | False | SubstituteOutput | Real | 0.0 | False | Config | PID_CompactConfig | | False | CycleTime | PID_CycleTime | | False | CtrlParamsBackUp | PID_CompactControl-Params | | False | PIDSelfTune | PID_CompactSelf-Tune | | False | PIDCtrl | PID_CompactControl | | False | Retain | PID_CompactRetain | | True |
| Name | Data type | Start value | Retain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CurrentSetpoint | Real | 0.0 | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CancelTuningLevel | Real | 10.0 | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SubstituteOutput | Real | 0.0 | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Config | PID_CompactConfig | | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CycleTime | PID_CycleTime | | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CtrlParamsBackUp | PID_CompactControl-Params | | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PIDSelfTune | PID_CompactSelf-Tune | | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PIDCtrl | PID_CompactControl | | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retain | PID_CompactRetain | | True | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Technology objects

PID_Compact_8 [DB23]

PID_Compact_8 Properties

General

| | | | | | |
|----------|---------------|-----------|-----------|------|----|
| Name | PID_Compact_8 | Number | 23 | Type | DB |
| Language | DB | Numbering | Automatic | | |

Information





































| | | | | | |
|--------|---------|---------|---------|-----------------|----------|
| Title | | Author | SIMATIC | Comment | |
| Family | COMPPID | Version | 2.3 | User-defined ID | PID_Cmpt |






















| Name | Data type | Start value | Retain |
|-----------------------------|-----------|----------------|--------|
| ▼ Input | | | |
| Setpoint | Real | 0.0 | False |
| Input | Real | 0.0 | False |
| Input_PER | Int | 0 | False |
| Disturbance | Real | 0.0 | False |
| ManualEnable | Bool | false | False |
| ManualValue | Real | 0.0 | False |
| ErrorAck | Bool | false | False |
| Reset | Bool | false | False |
| ModeActivate | Bool | false | False |
| ▼ Output | | | |
| ScaledInput | Real | 0.0 | False |
| Output | Real | 0.0 | False |
| Output_PER | Int | 0 | False |
| Output_PWM | Bool | false | False |
| SetpointLimit_H | Bool | false | False |
| SetpointLimit_L | Bool | false | False |
| InputWarning_H | Bool | false | False |
| InputWarning_L | Bool | false | False |
| State | Int | 0 | False |
| Error | Bool | false | False |
| ErrorBits | DWord | 16#0 | True |
| ▼ InOut | | | |
| Mode | Int | 0 | True |
| ▼ Static | | | |
| InternalDiagnostic | DWord | 0 | False |
| InternalVersion | DWord | DW#16#02030003 | False |
| InternalRTVersion | DWord | 0 | False |
| IntegralResetMode | Int | 4 | False |
| OverwriteInitialOutputValue | Real | 0.0 | False |
| RunModeByStartup | Bool | true | False |
| LoadBackUp | Bool | false | False |
| SetSubstituteOutput | Bool | true | False |
| PhysicalUnit | Int | 0 | False |
| PhysicalQuantity | Int | 2 | False |
| ActivateRecoverMode | Bool | true | False |
| Warning | DWord | 16#0 | True |
| WarningInternal | DWord | 16#0 | True |
| Progress | Real | 0.0 | False |

| Totally Integrated Automation Portal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------|-------------|--------|-----------|-------------|--------|-----------------|------|-----|-------|-------------------|------|------|-------|------------------|------|-----|-------|--------|-------------------|--|-------|-----------|---------------|--|-------|------------------|---------------------------|--|-------|-------------|----------------------|--|-------|---------|--------------------|--|-------|--------|-------------------|--|------|
| <table><tr><th>Name</th><th>Data type</th><th>Start value</th><th>Retain</th></tr><tr><td>CurrentSetpoint</td><td>Real</td><td>0.0</td><td>False</td></tr><tr><td>CancelTuningLevel</td><td>Real</td><td>10.0</td><td>False</td></tr><tr><td>SubstituteOutput</td><td>Real</td><td>0.0</td><td>False</td></tr><tr><td>Config</td><td>PID_CompactConfig</td><td></td><td>False</td></tr><tr><td>CycleTime</td><td>PID_CycleTime</td><td></td><td>False</td></tr><tr><td>CtrlParamsBackUp</td><td>PID_CompactControl-Params</td><td></td><td>False</td></tr><tr><td>PIDSelfTune</td><td>PID_CompactSelf-Tune</td><td></td><td>False</td></tr><tr><td>PIDCtrl</td><td>PID_CompactControl</td><td></td><td>False</td></tr><tr><td>Retain</td><td>PID_CompactRetain</td><td></td><td>True</td></tr></table> | | | Name | Data type | Start value | Retain | CurrentSetpoint | Real | 0.0 | False | CancelTuningLevel | Real | 10.0 | False | SubstituteOutput | Real | 0.0 | False | Config | PID_CompactConfig | | False | CycleTime | PID_CycleTime | | False | CtrlParamsBackUp | PID_CompactControl-Params | | False | PIDSelfTune | PID_CompactSelf-Tune | | False | PIDCtrl | PID_CompactControl | | False | Retain | PID_CompactRetain | | True |
| Name | Data type | Start value | Retain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CurrentSetpoint | Real | 0.0 | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CancelTuningLevel | Real | 10.0 | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SubstituteOutput | Real | 0.0 | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Config | PID_CompactConfig | | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CycleTime | PID_CycleTime | | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CtrlParamsBackUp | PID_CompactControl-Params | | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PIDSelfTune | PID_CompactSelf-Tune | | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PIDCtrl | PID_CompactControl | | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retain | PID_CompactRetain | | True | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / PLC tags / Default tag table [74]

PLC tags

| PLC tags | | | | |
|---|-------------------|-----------|---------|--------|
| | Name | Data type | Address | Retain |
|  | Pretrh | Bool | %I0.0 | False |
|  | PIC01_MV | Int | %IW96 | False |
|  | ES01_PB | Bool | %I0.1 | False |
|  | ES02_PB | Bool | %I0.2 | False |
|  | HSO01_OPN | Bool | %Q0.0 | False |
|  | System_Byte | Byte | %MB1 | False |
|  | FirstScan | Bool | %M1.0 | False |
|  | DiagStatusUpdate | Bool | %M1.1 | False |
|  | AlwaysTRUE | Bool | %M1.2 | False |
|  | AlwaysFALSE | Bool | %M1.3 | False |
|  | Clock_Byte | Byte | %MB0 | False |
|  | Clock_10Hz | Bool | %M0.0 | False |
|  | Clock_5Hz | Bool | %M0.1 | False |
|  | Clock_2.5Hz | Bool | %M0.2 | False |
|  | Clock_2Hz | Bool | %M0.3 | False |
|  | Clock_1.25Hz | Bool | %M0.4 | False |
|  | Clock_1Hz | Bool | %M0.5 | False |
|  | Clock_0.625Hz | Bool | %M0.6 | False |
|  | Clock_0.5Hz | Bool | %M0.7 | False |
|  | Pom_nabezna_hrana | Bool | %M2.0 | False |
|  | Nabezna_hrana_1s | Bool | %M2.1 | False |
|  | HSO01_LSC | Bool | %I0.5 | False |
|  | HSO01_LSO | Bool | %I0.4 | False |
|  | Zaznam_proveden | Bool | %M2.2 | False |
|  | FI01_MV | Int | %IW100 | False |
|  | PIC02_MV | Int | %IW98 | False |
|  | PIC01_OUT | Int | %QW112 | False |
|  | PIC02_OUT | Int | %QW114 | False |
|  | POROZITA | Int | %QW116 | False |
|  | OS01_OPN | Bool | %Q0.1 | False |
|  | OS02_OPN | Bool | %Q0.2 | False |
|  | Tag_1 | Bool | %M3.0 | False |
|  | Tag_2 | Bool | %M3.1 | False |
|  | Tag_3 | Bool | %M3.2 | False |
|  | Tag_4 | Bool | %M3.3 | False |
|  | Tag_5 | Bool | %M3.4 | False |

| Totally Integrated Automation Portal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|-----------|---------|-----------|---------|--------|---|-------|------|-------|-------|---|----------|------|-------|-------|---|-------|------|-------|-------|---|-------|------|-------|-------|---|-------|------|-------|-------|---|--------------|-----|-------|-------|---|-------|------|-------|-------|--|--|--|
| | <table><tr><th></th><th>Name</th><th>Data type</th><th>Address</th><th>Retain</th></tr><tr><td></td><td>Tag_6</td><td>Bool</td><td>%M3.5</td><td>False</td></tr><tr><td></td><td>OS03_OPN</td><td>Bool</td><td>%Q0.3</td><td>False</td></tr><tr><td></td><td>Tag_7</td><td>Bool</td><td>%M3.6</td><td>False</td></tr><tr><td></td><td>Tag_8</td><td>Bool</td><td>%M3.7</td><td>False</td></tr><tr><td></td><td>Tag_9</td><td>Bool</td><td>%M4.0</td><td>False</td></tr><tr><td></td><td>Porozita_OUT</td><td>Int</td><td>%QW96</td><td>False</td></tr><tr><td></td><td>Alarm</td><td>Bool</td><td>%Q0.4</td><td>False</td></tr></table> | | Name | Data type | Address | Retain |  | Tag_6 | Bool | %M3.5 | False |  | OS03_OPN | Bool | %Q0.3 | False |  | Tag_7 | Bool | %M3.6 | False |  | Tag_8 | Bool | %M3.7 | False |  | Tag_9 | Bool | %M4.0 | False |  | Porozita_OUT | Int | %QW96 | False |  | Alarm | Bool | %Q0.4 | False | | | |
| | Name | Data type | Address | Retain | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | Tag_6 | Bool | %M3.5 | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | OS03_OPN | Bool | %Q0.3 | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | Tag_7 | Bool | %M3.6 | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | Tag_8 | Bool | %M3.7 | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | Tag_9 | Bool | %M4.0 | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | Porozita_OUT | Int | %QW96 | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | Alarm | Bool | %Q0.4 | False | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / PLC tags /
Default tag table [74]

User constants

| User constants | | |
|----------------|-----------|-------|
| Name | Data type | Value |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / PLC data types / System data types

PID_CompactConfig

PID_CompactConfig Properties

General

| | | | | | |
|-----------------|-------------------|------------------|------|-------------|-----|
| Name | PID_CompactConfig | Number | 1134 | Type | UDT |
| Language | | Numbering | | | |

Information

| | | | | | |
|---------------|------------------------|----------------|--|------------------------|--|
| Title | configuration data set | Author | | Comment | |
| Family | | Version | | User-defined ID | |

| Name | Data type | Default value |
|--------------------|-------------|---------------|
| InputPerOn | Bool | true |
| InvertControl | Bool | false |
| InputUpperLimit | Real | 120.0 |
| InputLowerLimit | Real | 0.0 |
| InputUpperWarning | Real | 3.402822e+38 |
| InputLowerWarning | Real | -3.402822e+38 |
| OutputUpperLimit | Real | 100.0 |
| OutputLowerLimit | Real | 0.0 |
| SetpointUpperLimit | Real | 3.402822e+38 |
| SetpointLowerLimit | Real | -3.402822e+38 |
| MinimumOnTime | Real | 0.0 |
| MinimumOffTime | Real | 0.0 |
| InputScaling | PID_Scaling | |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / PLC data types /
System data types

PID_Scaling

| PID_Scaling Properties | | | | | |
|------------------------|------------------|-----------|------|-----------------|-----|
| General | | | | | |
| Name | PID_Scaling | Number | 1135 | Type | UDT |
| Language | | Numbering | | | |
| Information | | | | | |
| Title | data for scaling | Author | | Comment | |
| Family | | Version | | User-defined ID | |

| Name | Data type | Default value |
|---------------|-----------|---------------|
| UpperPointIn | Real | 27648.0 |
| LowerPointIn | Real | 0.0 |
| UpperPointOut | Real | 100.0 |
| LowerPointOut | Real | 0.0 |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / PLC data types / System data types

PID_CycleTime

PID_CycleTime Properties

General

| | | | | | |
|-----------------|---------------|------------------|------|-------------|-----|
| Name | PID_CycleTime | Number | 1137 | Type | UDT |
| Language | | Numbering | | | |

Information

| | | | | | |
|---------------|---|----------------|--|----------------------------|--|
| Title | data set for cycle time es- timation | Author | | Comment | |
| Family | | Version | | User-defined ID | |

| Name | Data type | Default value |
|-----------------|------------------|----------------------|
| StartEstimation | Bool | true |
| EnEstimation | Bool | true |
| EnMonitoring | Bool | true |
| Value | Real | 0.1 |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / PLC data types / System data types

PID_CompactControlParams

PID_CompactControlParams Properties

General

| | | | | | |
|-------------|---------------------------|---------------|------|-------------|-----|
| Name | PID_CompactControlPar-ams | Number | 1138 | Type | UDT |
|-------------|---------------------------|---------------|------|-------------|-----|

| | | | | | |
|-----------------|--|------------------|--|--|--|
| Language | | Numbering | | | |
|-----------------|--|------------------|--|--|--|

Information

| | | | | | |
|--------------|---------------------------|---------------|--|----------------|--|
| Title | controlling parameter set | Author | | Comment | |
|--------------|---------------------------|---------------|--|----------------|--|

| | | | | | |
|---------------|--|----------------|--|------------------------|--|
| Family | | Version | | User-defined ID | |
|---------------|--|----------------|--|------------------------|--|

| Name | Data type | Default value |
|-------------|-----------|---------------|
| Gain | Real | 1.0 |
| Ti | Real | 20.0 |
| Td | Real | 0.0 |
| TdFiltRatio | Real | 0.2 |
| PWeighting | Real | 1.0 |
| DWeighting | Real | 1.0 |
| Cycle | Real | 1.0 |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / PLC data types /
System data types

PID_CompactSelfTune

| PID_CompactSelfTune Properties | | | | | |
|--------------------------------|--------------------------|-----------------|------|-----------------|-----|
| General | | | | | |
| Name | PID_CompactSelfTune | Number | 1139 | Type | UDT |
| Language | | Numbering | | | |
| Information | | | | | |
| Title | data set for self tuning | Author | | Comment | |
| Family | | Version | | User-defined ID | |
| Name | | Data type | | Default value | |
| SUT | | PID_Compact_SUT | | | |
| TIR | | PID_Compact_TIR | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-----------------------------------|---------------|------|------------------------|--------|------|------|-----|----------|--|-----------|--|--|--|-------|-----------------------------------|--------|--|---------|--|--------|--|---------|--|-----------------|--|------|-----------|---------------|--|--|--|
| Totally Integrated Automation Portal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div>PorologPM6-PLC [CPU 1214C DC/DC/DC] / PLC data types / System data types</div> <div>PID_GradientEstimation</div> <div><div>PID_GradientEstimation Properties</div><div><div>General</div><table><tr><td>Name</td><td>PID_GradientEstimation</td><td>Number</td><td>1508</td><td>Type</td><td>UDT</td></tr><tr><td>Language</td><td></td><td>Numbering</td><td></td><td></td><td></td></tr></table><div>Information</div><table><tr><td>Title</td><td>structure for gradient estimation</td><td>Author</td><td></td><td>Comment</td><td></td></tr><tr><td>Family</td><td></td><td>Version</td><td></td><td>User-defined ID</td><td></td></tr></table></div><div><table><tr><td>Name</td><td>Data type</td><td>Default value</td></tr><tr><td colspan="3"></td></tr></table></div></div> | | | Name | PID_GradientEstimation | Number | 1508 | Type | UDT | Language | | Numbering | | | | Title | structure for gradient estimation | Author | | Comment | | Family | | Version | | User-defined ID | | Name | Data type | Default value | | | |
| Name | PID_GradientEstimation | Number | 1508 | Type | UDT | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Language | | Numbering | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Title | structure for gradient estimation | Author | | Comment | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Family | | Version | | User-defined ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Name | Data type | Default value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|---|---|---------------|------|--------------------|--------|------|------|-----|----------|--|-----------|--|--|--|-------|---|--------|--|---------|--|--------|--|---------|--|-----------------|--|------|-----------|---------------|--|--|--|
| Totally Integrated Automation Portal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div>PorologPM6-PLC [CPU 1214C DC/DC/DC] / PLC data types / System data types</div> <div>PID_GradientParams</div> <div><div>PID_GradientParams Properties</div><div><div>General</div><table><tr><td>Name</td><td>PID_GradientParams</td><td>Number</td><td>1511</td><td>Type</td><td>UDT</td></tr><tr><td>Language</td><td></td><td>Numbering</td><td></td><td></td><td></td></tr></table><div>Information</div><table><tr><td>Title</td><td>dataset of parameters for gradient estimation</td><td>Author</td><td></td><td>Comment</td><td></td></tr><tr><td>Family</td><td></td><td>Version</td><td></td><td>User-defined ID</td><td></td></tr></table></div><div><table><tr><td>Name</td><td>Data type</td><td>Default value</td></tr><tr><td colspan="3"></td></tr></table></div></div> | | | Name | PID_GradientParams | Number | 1511 | Type | UDT | Language | | Numbering | | | | Title | dataset of parameters for gradient estimation | Author | | Comment | | Family | | Version | | User-defined ID | | Name | Data type | Default value | | | |
| Name | PID_GradientParams | Number | 1511 | Type | UDT | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Language | | Numbering | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Title | dataset of parameters for gradient estimation | Author | | Comment | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Family | | Version | | User-defined ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Name | Data type | Default value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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|--|--------------------------------------|---------------|------|-----------------------|--------|------|------|-----|----------|--|-----------|--|--|--|-------|--------------------------------------|--------|--|---------|--|--------|--|---------|--|-----------------|--|------|-----------|---------------|
| Totally Integrated Automation Portal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div>PorologPM6-PLC [CPU 1214C DC/DC/DC] / PLC data types / System data types</div> <div>PID_StandardDeviation</div> <div><div>PID_StandardDeviation Properties</div><div><div>General</div><table><tr><td>Name</td><td>PID_StandardDeviation</td><td>Number</td><td>1509</td><td>Type</td><td>UDT</td></tr><tr><td>Language</td><td></td><td>Numbering</td><td></td><td></td><td></td></tr></table><div>Information</div><table><tr><td>Title</td><td>data for estimation of de- viance</td><td>Author</td><td></td><td>Comment</td><td></td></tr><tr><td>Family</td><td></td><td>Version</td><td></td><td>User-defined ID</td><td></td></tr></table></div><div><table><tr><td>Name</td><td>Data type</td><td>Default value</td></tr></table></div></div> | | | Name | PID_StandardDeviation | Number | 1509 | Type | UDT | Language | | Numbering | | | | Title | data for estimation of de- viance | Author | | Comment | | Family | | Version | | User-defined ID | | Name | Data type | Default value |
| Name | PID_StandardDeviation | Number | 1509 | Type | UDT | | | | | | | | | | | | | | | | | | | | | | | | |
| Language | | Numbering | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Title | data for estimation of de- viance | Author | | Comment | | | | | | | | | | | | | | | | | | | | | | | | | |
| Family | | Version | | User-defined ID | | | | | | | | | | | | | | | | | | | | | | | | | |
| Name | Data type | Default value | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / PLC data types /
System data types

PID_Compact_SUT

| PID_Compact_SUT Properties | | | | | |
|----------------------------|------------------------------|-----------|------|-----------------|-----|
| General | | | | | |
| Name | PID_Compact_SUT | Number | 1142 | Type | UDT |
| Language | | Numbering | | | |
| Information | | | | | |
| Title | data set for start up tuning | Author | | Comment | |
| Family | | Version | | User-defined ID | |
| Name | | Data type | | Default value | |
| CalculateParams | | Bool | | false | |
| TuneRule | | Int | | 0 | |
| State | | Int | | 0 | |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / PLC data types /
System data types

PID_Compact_TIR

| PID_Compact_TIR Properties | | | | | |
|----------------------------|----------------------------|-----------|------|-----------------|-----|
| General | | | | | |
| Name | PID_Compact_TIR | Number | 1143 | Type | UDT |
| Language | | Numbering | | | |
| Information | | | | | |
| Title | data set for tuning in run | Author | | Comment | |
| Family | | Version | | User-defined ID | |
| Name | | Data type | | Default value | |
| RunIn | | Bool | | false | |
| CalculateParams | | Bool | | false | |
| TuneRule | | Int | | 0 | |
| State | | Int | | 0 | |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / PLC data types /
System data types

PID_CompactControl

| PID_CompactControl Properties | | | | | |
|-------------------------------|---------------------------|-----------|------|-----------------|-----|
| General | | | | | |
| Name | PID_CompactControl | Number | 1144 | Type | UDT |
| Language | | Numbering | | | |
| Information | | | | | |
| Title | data for controlling part | Author | | Comment | |
| Family | | Version | | User-defined ID | |
| Name | | Data type | | Default value | |
| PIDInit | | Bool | | false | |
| IntegralSum | | Real | | 0.0 | |

| | | |
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| Totally Integrated Automation Portal | | |
|--------------------------------------|--|--|

PorologPM6-PLC [CPU 1214C DC/DC/DC] / PLC data types / System data types

PID_CompactRetain

PID_CompactRetain Properties

General

| | | | | | |
|----------|-------------------|-----------|------|------|-----|
| Name | PID_CompactRetain | Number | 1145 | Type | UDT |
| Language | | Numbering | | | |

Information

| | | | | | |
|--------|-------------|---------|--|-----------------|--|
| Title | retain data | Author | | Comment | |
| Family | | Version | | User-defined ID | |

| Name | Data type | Default value |
|------------|--------------------------|---------------|
| CtrlParams | PID_CompactControlParams | |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Watch and force tables

Force table

| Name | Address | Display format | Force value |
|------|---------|----------------|-------------|
|------|---------|----------------|-------------|

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Watch and force tables

Watch table_1

| Name | Address | Display format | Modify value |
|----------------------------------|---------|----------------|--------------|
| "Pretrh" | %IO.0 | Bool | TRUE |
| "FI01_MV" | %IW100 | DEC+/- | 100 |
| "PIC01_MV" | %IW96 | DEC+/- | 100 |
| "PIC02_MV" | %IW98 | DEC+/- | 100 |
| "PIC01_OUT" | %QW112 | DEC+/- | 0 |
| "PIC02_OUT" | %QW114 | DEC+/- | 0 |
| "POROZITA" | %QW116 | DEC+/- | 0 |
| "Porolog".Krok_sekvenca_porologu | | DEC+/- | 1 |

| | | |
|---|--|--|
| Totally Integrated Automation Portal | | |
| <div>PorologPM6-PLC [CPU 1214C DC/DC/DC]</div> <div>Traces</div> <div><div>Name</div></div> | | |
| | | |

| | | |
|---|--|--|
| Totally Integrated Automation Portal | | |
| <div><div>PorologPM6-PLC [CPU 1214C DC/DC/DC] / Traces</div><div>Measurements</div><div>This folder is empty.</div></div> | | |
| | | |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Traces

Combined measurements

Name

PorologPM6-PLC [CPU 1214C DC/DC/DC]

PLC alarm text lists

This folder is empty.

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Local modules

PorologPM6-PLC [CPU 1214C DC/DC/DC]

PorologPM6-PLC

Project information

| | | | |
|---------|----------------|--------|--------|
| Name | PorologPM6-PLC | Author | RYZNAR |
| Comment | | Slot | 1 |
| Rack | 0 | | |

Catalog information

| | | | |
|-------------------|---------------------|------------------|--|
| Short designation | CPU 1214C DC/DC/DC | Description | Work memory 100 KB; 24VDC power supply with DI14 x 24VDC SINK/ SOURCE, DQ10 x 24VDC and AI2 on board; 6 high-speed counters and 4 pulse outputs on board; signal board expands on-board I/O; up to 3 communication modules for serial communication; up to 8 signal modules for I/O expansion; 0.04 ms/1000 instructions; PROFINET interface for programming, HMI and PLC to PLC communication |
| Article number | 6ES7 214-1AG40-0XB0 | Firmware version | V4.2 |

Connection resources\

| | Station resources - Reserved - Maximum | Station resources - Reserved - Configured | Station resources - Dynamic - Configured | Module resources - PorologPM6-PLC [CPU 1214C DC/DC/DC] - Configured |
|------------------------------|--|---|--|---|
| Maximum number of resources: | | 62 | 6 | 68 |
| | Maximum | Configured | Configured | Configured |
| PG communication: | 4 | - | - | - |
| HMI communication: | 12 | 1 | 0 | 1 |
| S7 communication: | 8 | 0 | 0 | 0 |
| Open user communication: | 8 | 0 | 0 | 0 |
| Web communication: | 30 | - | - | - |
| Other communication: | - | - | 0 | 0 |
| Total resources used: | | 1 | 0 | 1 |
| Available resources: | | 61 | 6 | 67 |

Overview of addresses\Overview of addresses\Overview of addresses

| | | | |
|--------------|-------|---------|------|
| Inputs | True | Outputs | True |
| Address gaps | False | Slot | True |

| Totally Integrated Automation Portal | | | | | | | | | | |
|--------------------------------------|------------|----------|---------------|------------------|--------------------------------------|---------------|---------|--------------------|------|------|
| Type | Addr. from | Addr. to | Module | PIP | Device name | Device number | Size | Master / IO system | Rack | Slot |
| I | 0 | 1 | DI 14/DQ 10_1 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 2 Bytes | - | 0 | 1 1 |
| O | 0 | 1 | DI 14/DQ 10_1 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 2 Bytes | - | 0 | 1 1 |
| I | 64 | 67 | AI 2_1 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 1 2 |
| I | 1000 | 1003 | HSC_1 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 1 16 |
| I | 1004 | 1007 | HSC_2 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 1 17 |
| I | 1008 | 1011 | HSC_3 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 1 18 |
| I | 1012 | 1015 | HSC_4 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 1 19 |
| I | 1016 | 1019 | HSC_5 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 1 20 |
| I | 1020 | 1023 | HSC_6 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 1 21 |
| O | 1000 | 1001 | Pulse_1 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 2 Bytes | - | 0 | 1 32 |
| O | 1002 | 1003 | Pulse_2 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 2 Bytes | - | 0 | 1 33 |
| O | 1004 | 1005 | Pulse_3 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 2 Bytes | - | 0 | 1 34 |
| O | 1006 | 1007 | Pulse_4 | Automatic update | Poro-logPM6- | - | 2 Bytes | - | 0 | 1 35 |
| | | | | | | | | | | |

| Totally Integrated Automation Portal | | | | | | | | | | |
|--------------------------------------|------------|----------|--------------------------|------------------|--------------------------------------|---------------|---------|--------------------|------|------|
| Type | Addr. from | Addr. to | Module | PIP | Device name | Device number | Size | Master / IO system | Rack | Slot |
| | | | | | PLC [CPU 1214C DC/DC/DC] | | | | | |
| I | 96 | 103 | AI 4x13BIT/A Q 2x14BIT_1 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 8 Bytes | - | 0 | 2 |
| O | 96 | 99 | AI 4x13BIT/A Q 2x14BIT_1 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 2 |
| I | 112 | 119 | AI 4x13BIT/A Q 2x14BIT_2 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 8 Bytes | - | 0 | 3 |
| O | 112 | 115 | AI 4x13BIT/A Q 2x14BIT_2 | Automatic update | Poro-logPM6-PLC [CPU 1214C DC/DC/DC] | - | 4 Bytes | - | 0 | 3 |
| | | | | | | | | | | |
| | | | | | | | | | | |

PorologPM6-PLC [CPU 1214C DC/DC/DC] / Local modules

AI 4x13BIT/AQ 2x14BIT_1

AI 4x13BIT/AQ 2x14BIT_1

General\Project information

| | | | |
|---------|-------------------------|--------|--------|
| Name | AI 4x13BIT/AQ 2x14BIT_1 | Author | RYZNAR |
| Comment | | Slot | 2 |

General\Catalog information

| | | | |
|-------------------|---------------------|------------------|--|
| Short designation | SM 1234 AI4/AQ2 | Description | Analog input/output module AI4 + AQ2; plug-in terminal blocks; inputs: 13 bits, 2.5V, 5V, 10V and 0/4 to 20 mA; selectable frequency suppression; selectable smoothing; configurable diagnostics; outputs: +/-10V and 0 to 20 mA; configurable diagnostics; configurable substitute value for output |
| Article number | 6ES7 234-4HE32-0XB0 | Firmware version | V2.0 |

AI 4/AQ 2\Project information

| | | | |
|------|-------------------------|---------|--|
| Name | AI 4x13BIT/AQ 2x14BIT_1 | Comment | |
|------|-------------------------|---------|--|

AI 4/AQ 2\Module diagnostics

| | | | |
|---------------------------------|---|---|--|
| Enable power supply diagnostics | 1 | Additional diagnostics may be selected for each input/output. | |
|---------------------------------|---|---|--|

AI 4/AQ 2\Analog inputs\Noise reduction

| | | | |
|------------------|---------------|--|--|
| Integration time | 50 Hz (20 ms) | | |
|------------------|---------------|--|--|

AI 4/AQ 2\Analog inputs\Channel0

| | | | |
|-----------------------------|----------|--------------------------------|-----------------|
| Channel address | IW96 | Measurement type | Current |
| Current range | 4..20 mA | Smoothing | Weak (4 cycles) |
| Empty | | Enable broken wire diagnostics | 0 |
| Enable overflow diagnostics | 1 | Enable underflow diagnostics | 0 |

AI 4/AQ 2\Analog inputs\Channel1

| | | | |
|-----------------------------|----------|--------------------------------|-----------------|
| Channel address | IW98 | Measurement type | Current |
| Current range | 4..20 mA | Smoothing | Weak (4 cycles) |
| Empty | | Enable broken wire diagnostics | 0 |
| Enable overflow diagnostics | 1 | Enable underflow diagnostics | 0 |

AI 4/AQ 2\Analog inputs\Channel2

| | | | |
|-----------------------------|----------|--------------------------------|-----------------|
| Channel address | IW100 | Measurement type | Current |
| Current range | 4..20 mA | Smoothing | Weak (4 cycles) |
| Empty | | Enable broken wire diagnostics | 0 |
| Enable overflow diagnostics | 1 | Enable underflow diagnostics | 0 |

AI 4/AQ 2\Analog inputs\Channel3

| | | | |
|-----------------------------|----------|--------------------------------|-----------------|
| Channel address | IW102 | Measurement type | Current |
| Current range | 4..20 mA | Smoothing | Weak (4 cycles) |
| Empty | | Enable broken wire diagnostics | 0 |
| Enable overflow diagnostics | 1 | Enable underflow diagnostics | 0 |

AI 4/AQ 2\Analog outputs

| | | | |
|----------------------|----------------------|--|--|
| Reaction to CPU STOP | Use substitute value | | |
|----------------------|----------------------|--|--|

AI 4/AQ 2\Analog outputs\Channel0

| | | | |
|-----------------|------|--------------------|---------|
| Channel address | QW96 | Analog output type | Current |
|-----------------|------|--------------------|---------|

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|--|------------|---|---------|--|--|
| Totally Integrated Automation Portal | | | | | |
| Current range | 4 to 20 mA | Substitute value for channel on a change from RUN to STOP | 4.000mA | | |
| Empty | | Enable broken wire diagnostics | 0 | | |
| Enable overflow diagnostics | 1 | Enable underflow diagnostics | 1 | | |
| AI 4/AQ 2\Analog outputs\Channel1 | | | | | |
| Channel address | QW98 | Analog output type | Current | | |
| Current range | 4 to 20 mA | Substitute value for channel on a change from RUN to STOP | 4.000mA | | |
| Empty | | Enable broken wire diagnostics | 0 | | |
| Enable overflow diagnostics | 1 | Enable underflow diagnostics | 1 | | |
| AI 4/AQ 2\I/O addresses\Input addresses | | | | | |
| Start address | 96 | End address | 103 | | |
| Organization block | 0 | Process image | 0 | | |
| AI 4/AQ 2\I/O addresses\Output addresses | | | | | |
| Start address | 96 | End address | 99 | | |
| Organization block | 0 | Process image | 0 | | |
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PorologPM6-PLC [CPU 1214C DC/DC/DC] / Local modules

AI 4x13BIT/AQ 2x14BIT_2

AI 4x13BIT/AQ 2x14BIT_2

General\Project information

| | | | |
|---------|-------------------------|--------|--------|
| Name | AI 4x13BIT/AQ 2x14BIT_2 | Author | RYZNAR |
| Comment | | Slot | 3 |

General\Catalog information

| | | | |
|-------------------|---------------------|------------------|--|
| Short designation | SM 1234 AI4/AQ2 | Description | Analog input/output module AI4 + AQ2; plug-in terminal blocks; inputs: 13 bits, 2.5V, 5V, 10V and 0/4 to 20 mA; selectable frequency suppression; selectable smoothing; configurable diagnostics; outputs: +/-10V and 0 to 20 mA; configurable diagnostics; configurable substitute value for output |
| Article number | 6ES7 234-4HE32-0XB0 | Firmware version | V2.0 |

AI 4/AQ 2\Project information

| | | | |
|------|-------------------------|---------|--|
| Name | AI 4x13BIT/AQ 2x14BIT_2 | Comment | |
|------|-------------------------|---------|--|

AI 4/AQ 2\Module diagnostics

| | | | |
|---------------------------------|---|---|--|
| Enable power supply diagnostics | 1 | Additional diagnostics may be selected for each input/output. | |
|---------------------------------|---|---|--|

AI 4/AQ 2\Analog inputs\Noise reduction

| | | | |
|------------------|---------------|--|--|
| Integration time | 50 Hz (20 ms) | | |
|------------------|---------------|--|--|

AI 4/AQ 2\Analog inputs\Channel0

| | | | |
|-----------------------------|----------|--------------------------------|-----------------|
| Channel address | IW112 | Measurement type | Current |
| Current range | 4..20 mA | Smoothing | Weak (4 cycles) |
| Empty | | Enable broken wire diagnostics | 0 |
| Enable overflow diagnostics | 1 | Enable underflow diagnostics | 0 |

AI 4/AQ 2\Analog inputs\Channel1

| | | | |
|-----------------------------|----------|--------------------------------|-----------------|
| Channel address | IW114 | Measurement type | Current |
| Current range | 4..20 mA | Smoothing | Weak (4 cycles) |
| Empty | | Enable broken wire diagnostics | 0 |
| Enable overflow diagnostics | 1 | Enable underflow diagnostics | 0 |

AI 4/AQ 2\Analog inputs\Channel2

| | | | |
|-----------------------------|----------|--------------------------------|-----------------|
| Channel address | IW116 | Measurement type | Current |
| Current range | 4..20 mA | Smoothing | Weak (4 cycles) |
| Empty | | Enable broken wire diagnostics | 0 |
| Enable overflow diagnostics | 1 | Enable underflow diagnostics | 0 |

AI 4/AQ 2\Analog inputs\Channel3

| | | | |
|-----------------------------|----------|--------------------------------|-----------------|
| Channel address | IW118 | Measurement type | Current |
| Current range | 4..20 mA | Smoothing | Weak (4 cycles) |
| Empty | | Enable broken wire diagnostics | 0 |
| Enable overflow diagnostics | 1 | Enable underflow diagnostics | 0 |

AI 4/AQ 2\Analog outputs

| | | | |
|----------------------|----------------------|--|--|
| Reaction to CPU STOP | Use substitute value | | |
|----------------------|----------------------|--|--|

AI 4/AQ 2\Analog outputs\Channel0

| | | | |
|-----------------|-------|--------------------|---------|
| Channel address | QW112 | Analog output type | Current |
|-----------------|-------|--------------------|---------|

| | | | |
|--|------------|---|---------|
| Totally Integrated Automation Portal | | | |
| Current range | 4 to 20 mA | Substitute value for channel on a change from RUN to STOP | 4.000mA |
| Empty | | Enable broken wire diagnostics | 0 |
| Enable overflow diagnostics | 1 | Enable underflow diagnostics | 1 |
| AI 4/AQ 2\Analog outputs\Channel1 | | | |
| Channel address | QW114 | Analog output type | Current |
| Current range | 4 to 20 mA | Substitute value for channel on a change from RUN to STOP | 4.000mA |
| Empty | | Enable broken wire diagnostics | 0 |
| Enable overflow diagnostics | 1 | Enable underflow diagnostics | 1 |
| AI 4/AQ 2\I/O addresses\Input addresses | | | |
| Start address | 112 | End address | 119 |
| Organization block | 0 | Process image | 0 |
| AI 4/AQ 2\I/O addresses\Output addresses | | | |
| Start address | 112 | End address | 115 |
| Organization block | 0 | Process image | 0 |