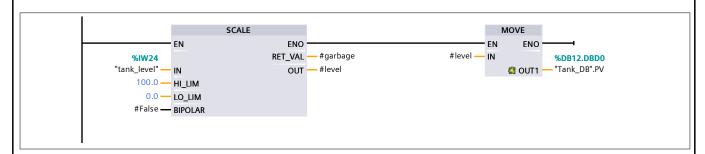
# IA\_Project / PLC\_1 [CPU 1511-1 PN] / Program blocks / 09 tank level control

# tank\_level\_control [FB10]

| tank_level_control Properties |                    |           |           |              |    |  |  |  |  |
|-------------------------------|--------------------|-----------|-----------|--------------|----|--|--|--|--|
| General                       |                    |           |           |              |    |  |  |  |  |
| Name                          | tank_level_control | Number    | 10        | Туре         | FB |  |  |  |  |
| Language                      | LAD                | Numbering | Automatic |              |    |  |  |  |  |
| Information                   |                    |           |           |              |    |  |  |  |  |
| Title                         |                    | Author    |           | Comment      |    |  |  |  |  |
| Family                        |                    | Version   | 0.1       | User-defined |    |  |  |  |  |
|                               |                    |           |           | ID           |    |  |  |  |  |

| tank_level_control |           |               |               |  |  |  |
|--------------------|-----------|---------------|---------------|--|--|--|
| Name               | Data type | Default value | Default value |  |  |  |
| <b>▼</b> Input     |           |               |               |  |  |  |
| SP                 | Real      | 0.0           |               |  |  |  |
| manual_mode        | Bool      | false         |               |  |  |  |
| manual_level       | Real      | 0.0           |               |  |  |  |
| out_valve          | Real      | 0.0           |               |  |  |  |
| RST                | Bool      | false         |               |  |  |  |
| <b>▼</b> Output    |           |               |               |  |  |  |
| level              | Real      | 0.0           |               |  |  |  |
| out_flow           | Real      | 0.0           |               |  |  |  |
| НА                 | Bool      | false         |               |  |  |  |
| LA                 | Bool      | false         |               |  |  |  |
| startup_mode       | Bool      | true          |               |  |  |  |
| InOut              |           |               |               |  |  |  |
| <b>▼</b> Static    |           |               |               |  |  |  |
| False              | Bool      | false         |               |  |  |  |
| garbage            | Word      | 16#0          |               |  |  |  |
| CV                 | Real      | 0.0           |               |  |  |  |
| Temp               |           |               |               |  |  |  |
| Constant           |           |               |               |  |  |  |

### Network 1:



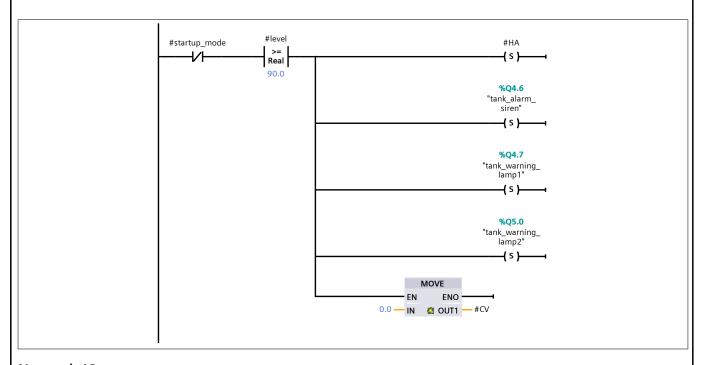
### Network 2:

# Totally Integrated **Automation Portal** ENO ' RET\_VAL — #garbage %IW26 OUT — #out\_flow "tank\_output\_ flow" — IN 100.0 — HI\_LIM 0.0 — LO\_LIM #False - BIPOLAR Network 3: MOVE #SP — IN %DB12.DBD8 OUT1 — "Tank\_DB".SP Network 4: %DB12.DBX12.0 #manual\_mode "Tank\_DB".Manual +**→** Network 5: MOVE EN - ENO #manual\_level — IN %DB12.DBD14 "Tank\_DB". ## OUT1 — Manual\_Value Network 6: Indicates that the tank is currently in startup or normal mode %Q5.2 "tank\_startup\_ mode\_light" #startup\_mode <del>(</del> )- $\dashv$ $\vdash$ Network 7: Indicates that the tank is currently in manual or auto mode %O5.1 "tank\_manual\_ mode\_light" #manual\_mode

| Totally Integrated<br>Automation Portal |                                   |  |  |
|---|-----------------------------------|--|--|
| Network 8:                              |                                   |  |  |
|   | ROUN<br>Real to                   | ID<br>Int                                |  |
|   | #level — IN                       | %QW48 "tank_level_ OUT — display"        |  |
| Network 9:                              | 1                                 |  |  |
|   | #level >= Real 20.0               | #startup_mode                            |  |
| Network 10:                             | 1                                 |  |  |
|   | #startup_mode #level <= Real 10.0 | #LA<br><b>(</b> S <b>}</b>               |  |
|   | 10.0                              | %Q4.6 "tank_alarm_ siren"  { S }         |  |
|   |                                   | %Q4.7<br>"tank_warning_<br>lamp1"<br>(S) |  |
|   |                                   | %Q5.0 "tank_warning_ lamp2"  { S }       |  |
|   |                                   | MOVE EN ENO 100.0 IN @ OUT1 #CV          |  |
| Network 11:                             | 1                                 |  |  |
| Network 11:                             |                                   |  |  |
|   |                                   |  |  |
|   |                                   |  |  |
|   |                                   |  |  |

### Totally Integrated Automation Portal #level #startup\_mode #LA #LA >= Real <del>-1</del>/|--( R )-20.0 %Q4.6 "tank\_alarm\_ siren" -( R )---**%Q4.7**"tank\_warning\_ lamp1" -( R )-%Q5.0 "tank\_warning\_ lamp2" -( R )-

### Network 12:



### Network 13:

## Totally Integrated **Automation Portal** #level #startup\_mode #HA #HA <= Real <del>-</del> | / |--( R )-80.0 %Q4.6 "tank\_alarm\_ siren" -( R )---%Q4.7 "tank\_warning\_ lamp1" -( R )-%Q5.0 "tank\_warning\_ lamp2" -( R )-Network 14: #HA #LA MOVE <del>1</del>/⊦ <del>//</del>|-EN. ENO dia out1 ── #CV %DB12.DBD4 "Tank\_DB".CV — IN Network 15: UNSCALE ENO -- EN #CV — IN RET\_VAL — #garbage 100.0 — HI\_LIM %QW46 "tank\_input\_ valve" 0.0 — LO\_LIM #False — BIPOLAR Network 16: UNSCALE - EN ENO -#out\_valve — IN RET\_VAL — #garbage 100.0 — HI\_LIM 0.0 — LO\_LIM %QW50 "tank\_output\_ OUT — valve" #False — BIPOLAR Network 17:

| Totally Integrated<br>Automation Portal |  |         |
|---|--|---------|
| -                                       | #RST #startup_n  (s)  #HA  (R)  #LA  (R) | <b></b> |
|   |  |         |
|   |  |         |
|   |  |         |
|   |  |         |
|   |  |         |
|   |  |         |