**mMS magazine station 1 I/O LIST**

**1.control panel**

i\_Switch\_Auto\_S0 AT%IX1.2:BOOL; (\* Switch Auto S0\*)

i\_Start\_Button\_SH10 AT%IX1.3:BOOL; (\*Start button SH10\*)

i\_Stop\_Button\_SH11 AT%IX1.4:BOOL; (\*Stop button SH11\*)

i\_Acknowledgement\_Button\_SH12 AT%IX1.5:BOOL; (\*Acknowledgement button SH12\*)

i\_SH6\_can\_be\_freely\_defined AT%IX1.6:BOOL; (\*SH6 can be freely defined\*)

i\_S8\_Switch\_Emergency\_stop\_operated AT%IX1.7:BOOL; (\*S8 Switch Emergency stop operated\*)

i\_S1\_Switch\_can\_be\_freely\_defined AT%IX2.0:BOOL; (\*S1 Switch can be freely defined\*)

i\_S2\_Switch\_can\_be\_freely\_defined AT%IX2.1:BOOL; (\*S2 Switch can be freely defined\*)

i\_S3\_Switch\_can\_be\_freely\_defined AT%IX2.2:BOOL; (\*S3 Switch can be freely defined\*)

i\_S4\_Switch\_can\_be\_freely\_defined AT%IX2.3:BOOL; (\*S4 Switch can be freely defined\*)

i\_S5\_Switch\_can\_be\_freely\_defined AT%IX2.4:BOOL; (\*S5 Switch can be freely defined\*)

(\*---------------------------------------------- Outputs Control panel QX1.0 - QX1.3 ------------------------------------------\*)

q\_SH10\_ML\_Start AT%QX1.0:BOOL; (\*Indicator lamp SH10 Start\*)

q\_SH11\_ML\_Stop AT%QX1.1:BOOL; (\*Indicator lamp SH11 Program Stop\*)

q\_SH12\_ML\_Acknowledgement AT%QX1.2:BOOL; (\*Indicator lamp SH12 Acknowledgement\*)

q\_SH6\_ML\_can\_be\_freely\_defined AT%QX1.3:BOOL; (\*Indicator lamp SH6 can be freely defined\*)

END\_VAR

**2.Conveyor belt**

VAR\_GLOBAL

(\*------------------------------------------ Inputs Conveyor belt IX5.0 - IX5.3 --------------------------------------------\*)

i\_Light\_pushbutton\_Sensor\_B1 AT%IX5.0:BOOL; (\*LightSensor B1 \*)

(\*------------------------------------------ Outputs Conveyor belt QX5.0 - QX5.3 --------------------------------------------\*)

q\_Motor\_Conveyor\_belt\_Clockwise\_K1 AT%QX5.0:BOOL; (\*Motor Conveyor belt Clockwise K1\*)

q\_Motor\_Conveyor\_belt\_Counter\_clockwise\_K2 AT%QX5.1:BOOL; (\*Motor Conveyor belt Counter-clockwise K2\*)

END\_VAR

**3.Magazine**

VAR\_GLOBAL

(\*------------------------------------------ Inputs Magazine 1 IX6.0 - IX6.3 --------------------------------------------\*)

i\_Cylinder\_Extended\_B1\_Magazine1 AT%IX6.0:BOOL; (\*Magazine 1 Cylinder extended Sensor B1 \*)

i\_Cylinder\_Retracted\_B2\_Magazine1 AT%IX6.1:BOOL; (\*Magazine 1 Cylinder retracted Sensor B2 \*)

i\_Magazine\_1\_empty\_S3 AT%IX6.2:BOOL; (\*Magazine 1 empty\*)

(\*------------------------------------------ Inputs Magazine 2 IX7.0 - IX7.3 --------------------------------------------\*)

i\_Cylinder\_Extended\_B1\_Magazine2 AT%IX7.0:BOOL; (\*Magazine 2 Cylinder extended Sensor B1 \*)

i\_Cylinder\_Retracted\_B2\_Magazine2 AT%IX7.1:BOOL; (\*Magazine 2 Cylinder retracted Sensor B2 \*)

i\_Magazine\_2\_empty\_S3 AT%IX7.2:BOOL; (\*Magazine 2 empty\*)

(\*------------------------------------------ Outputs Magazine 1 QX6.0 - QX6.3 --------------------------------------------\*)

q\_Retract\_Cylinder\_Y1\_Magazine1 AT%QX6.0:BOOL; (\*Magazine 1 Retract cylinder Valve Y1\*)

q\_Extend\_Cylinder\_Y2\_Magazine1 AT%QX6.1:BOOL; (\*Magazine 1 Extend cylinder Valve Y2\*)

(\*------------------------------------------ Outputs Magazine 2 QX7.0 - QX7.3 --------------------------------------------\*)

q\_Retract\_Cylinder\_Y1\_Magazine2 AT%QX7.0:BOOL; (\*Magazine 2 Retract cylinder Valve Y1\*)

q\_Extend\_Cylinder\_Y2\_Magazine2 AT%QX7.1:BOOL; (\*Magazine 2 Extend cylinder Valve Y2\*)

END\_VAR

**4.Onboard I/O**

VAR\_GLOBAL

(\*---------------------------------------------- Inputs Onboard IX0.0 - IX0.7 ------------------------------------------\*)

Reserve\_E\_0 AT %IX0.0:BOOL; (\*Reserve E0.0\*)

Reserve\_E\_1 AT %IX0.1:BOOL; (\*Reserve E0.1\*)

i\_Station2\_Coupled AT%IX0.2:BOOL; (\*Station 1 coupled with Station 2 pressed \*)

i\_Ackn\_from\_Table2 AT %IX0.3:BOOL; (\*Acknowledgement button of table 2 pressed \*)

Reserve\_E\_4 AT %IX0.4:BOOL; (\*Reserve E0.4\*)

Reserve\_E\_5 AT %IX0.5:BOOL; (\*Reserve E0.5\*)

Reserve\_E\_6 AT %IX0.6:BOOL; (\*Reserve E0.6\*)

Reserve\_E\_7 AT %IX0.7:BOOL; (\*Reserve E0.7\*)

(\*-------------------------------------------- Outputs Onboard QX0.0 - QX0.7 -------------------------------------------------------\*)

q\_Station1\_Finished AT%QX0.0:BOOL; (\*Routing Station 1 finished\*)

q\_Ackn\_to\_Table2 AT%QX0.1:BOOL; (\*Acknowledgement button of table 1 pressed\*)

Reserve\_A\_2 AT%QX0.2:BOOL; (\*Reserve A0.2\*)

Reserve\_A\_3 AT%QX0.3:BOOL; (\*Reserve A0.3\*)

q\_KR\_Emergency\_stop AT%QX0.4:BOOL; (\*Coupling relay (CR) Acknowledge emergency stop \*)

Reserve\_A\_5 AT%QX0.5:BOOL; (\*Reserve A0.5\*)

Reserve\_A\_6 AT%QX0.6:BOOL; (\*Reserve A0.6\*)

Reserve\_A\_7 AT%QX0.7:BOOL; (\*Reserve A0.7\*)

END\_VAR

**5. TEST**

VAR\_GLOBAL

(\*-------------------------------------------- Inputs Testing unit IX8.0 - IX8.3 --------------------------------------------------------\*)

i\_B1\_Workpiece\_available AT%IX8.0:BOOL; (\*Sensor B1 Workpiece available\*)

i\_B2\_Contour\_depth\_OK AT%IX8.1:BOOL; (\*Sensor B2 Contour depth OK\*)

i\_B3\_Workpiece\_Light AT%IX8.2:BOOL; (\*Sensor B1 Workpiece Light\*)

i\_B4\_Workpiece\_Metal AT%IX8.3:BOOL; (\*Sensor B1 Workpiece Metal\*)

(\*-------------------------------------------- Outputs Testing unit QX8.0 - QX8.3 -------------------------------------------------------\*)

q\_Extend\_Cylinder\_Y2\_Testing\_unit AT%QX8.0:BOOL; (\*Extend cylinder Testing unit Y2\*)

q\_Retract\_Cylinder\_Y1\_Testing\_unit AT%QX8.1:BOOL; (\*Retract cylinder Testing unit Y1\*)

END\_VAR