**mMS station 2 HYPRESS I/O LIST**

**1.control panel**

VAR\_GLOBAL

(\*---------------------------------------------- Inputs Control panel IX1.0 - IX2.7 ------------------------------------------\*)

i\_Emergency\_stop\_Relay\_OK AT %IX1.0:BOOL;(\*Emergency stop Relay OK\*)

i\_Switch\_Manual\_S0 AT %IX1.1:BOOL;(\*Switch Manual S0\*)

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\_Referencing\_run AT%IX1.6:BOOL;(\*SH6 Referencing run\*)

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

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\_Referencing\_run AT%QX1.3:BOOL;(\*Indicator lamp SH6 Referencing run\*)

END\_VAR

**2.CONVEYOR BELT**

VAR\_GLOBAL

(\*------------------------------------------ Inputs Conveyor belt IX 5.0 - IX5.3 --------------------------------------------\*)

i\_Light\_button\_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.HANDLING DEVICE**

VAR\_GLOBAL

(\*----------------------------------------- Inputs IX 3.0 - IX3.3 Handling device --------------------------------------\*)

i\_Home\_Position\_B1 AT%IX3.0:BOOL;(\*Sensor B1 Home Position\*)

i\_Vertical\_cylinder\_down\_B2 AT%IX3.1:BOOL;(\*Sensor B2 Vertical cylinder up\*)

i\_Vertical\_cylinder\_up\_B3 AT%IX3.2:BOOL;(\*Sensor B3 Vertical cylinder down\*)

i\_Z\_axis\_retracted\_B4 AT%IX3.3:BOOL;(\*Sensor B4 Z-axis retracted\*)

(\*----------------------------------------- Inputs IX 4.0 - IX4.3 Handling device --------------------------------------\*)

i\_Z\_axis\_extended\_B5 AT%IX4.0:BOOL;(\*Sensor B5 Z-axis extended\*)

(\*----------------------------------------- Outputs QX3.0 - QX3.3 Handling device --------------------------------------\*)

q\_Vertical\_cylinder\_up\_Y1 AT%QX3.0:BOOL;(\*Vertical cylinder up Y1\*)

q\_Sucking\_ON\_Y2 AT%QX3.1:BOOL;(\*Sucking ON Y2\*)

q\_Extend\_Z\_axis\_Y3 AT%QX3.2:BOOL;(\*Extend Z-axis Y3\*)

q\_Motor\_Clockwise\_K1 AT%QX3.3:BOOL;(\*Motor Clockwise K1\*)

(\*----------------------------------------- Outputs QX4.0 - QX4.3 Handling device --------------------------------------\*)

q\_Motor\_Counter\_clockwise\_K2 AT%QX4.0:BOOL;(\*Motor Counter-clockwise K2\*)

END\_VAR

**4. ONBOARD I/O**

VAR\_GLOBAL

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

i\_Station1\_finished AT %IX0.0:BOOL;(\*Station 1 finished --> Station 2\*)

i\_Ackn\_from\_Table1 AT %IX0.1:BOOL;(\*Acknowledgement key of table 1 pressed\*)

i\_Station1\_coupled AT%IX0.2:BOOL;(\* Station 1 coupled with Station 2 Acknowledgement key of table\*)

Reserve\_E\_3 AT %IX0.3:BOOL;(\*Reserve E0.3\*)

i\_Ackn\_from\_Table3 AT %IX0.4:BOOL;(\*Acknowledgement key of table 3 pressed\*)

i\_Station3\_coupled AT %IX0.5:BOOL;(\*Station 3 coupled with station 2\*)

i\_Converter\_unit\_Channel\_A AT%IX0.6:BOOL;(\*Converter unit Channel A\*)

i\_Converter\_unit\_Channel\_B AT%IX0.7:BOOL;(\*Converter unit Channel B\*)

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

q\_Station2\_finished AT %QX0.0:BOOL;(\*Station 2 fertig --> Station 3\*)

Reserve\_A\_1 AT%QX0.1:BOOL;(\*Reserve A0.1\*)

q\_Ackn\_Table3 AT%QX0.2:BOOL;(\*Quittieren Table 3\*)

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

q\_KR\_Emergency\_stop AT%QX0.4:BOOL;(\*Coupling relay (KR) Acknowledgge Emergency stop \*)

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

q\_Ackn\_Table1 AT%QX0.6:BOOL;(\*Acknowledge Table 1\*)

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

END\_VAR

**5. PIN PRESS**

VAR\_GLOBAL

(\*----------------------------------------------------- Inputs Pin station IX10.0 - IX10.3 --------------------------------------------------------\*)

i\_Clamping\_cylinder\_is\_extended\_B1 AT %IX10.0:BOOL;(\* Sensor B1 Clamping cylinder is extended\*)

i\_Clamping\_cylinder\_is\_retracted\_B2 AT %IX10.1:BOOL;(\* Sensor B2 Clamping cylinder is retracted\*)

i\_Pin\_cylinder\_is\_extended\_B3 AT %IX10.2:BOOL;(\* Sensor B3 Pin cylinder is extended\*)

i\_Pin\_cylinder\_is\_retracted\_B4 AT %IX10.3:BOOL;(\* Sensor B4 Pin cylinder is retracted\*)

(\*----------------------------------------------------- Outputs Pin station QX10.0 - QX10.3 --------------------------------------------------------\*)

q\_Extend\_clamping\_cylinder\_Y1 AT%QX10.0:BOOL;(\*Extend clamping cylinder Y1\*)

q\_Extend\_pin\_cylinder\_Y2 AT%QX10.1:BOOL;(\*Extend pin cylinder Y2\*)

END\_VAR

**6.PORTAL**

VAR\_GLOBAL

(\*-------------------------------------------- Inputs Portal IX11.0 - IX11.3 -----------------------------------------------------------\*)

i\_Cylinder\_is\_up\_B1 AT%IX11.0:BOOL;(\*Sensor B1 Cylinder is up \*)

i\_Cylinder\_is\_down\_B2 AT%IX11.1:BOOL;(\*Sensor B2 Cylinder is down \*)

i\_Shuttle\_is\_right\_B3 AT%IX11.2:BOOL;(\*Sensor B3 Shuttle is right \*)

i\_Shuttle\_is\_left\_B4 AT%IX11.3:BOOL;(\*Sensor B4 Shuttle is left\*)

(\*-------------------------------------------- Outputs Portal QX11.0 - QX11.3 -----------------------------------------------------------\*)

q\_Lower\_cylinder\_Y1 AT%QX11.0:BOOL;(\*Lower cylinder Y1\*)

q\_Shuttle\_left\_Y2 AT%QX11.1:BOOL;(\*Shuttle left Y2\*)

q\_Sucking\_ON\_Y3 AT%QX11.2:BOOL;(\*Sucking ON Y3\*)

END\_VAR

**7. PRESS**

VAR\_GLOBAL

(\*------------------------------------------ Inputs Press IX12.0 - IX12.3 --------------------------------------------------------\*)

i\_Protective\_door\_up\_B1 AT %IX12.0:BOOL;(\*Sensor B1 Protective door up\*)

i\_Protective\_door\_down\_B2 AT %IX12.1:BOOL;(\*Sensor B2 Protective door down\*)

i\_Ejector\_extended\_B3 AT %IX12.2:BOOL;(\*Sensor B3 Ejector extended\*)

i\_Ejector\_retracted\_B4 AT %IX12.3:BOOL;(\*Sensor B4 Ejector retracted\*)

(\*------------------------------------------ Inputs Press IX13.0 - IX13.3 --------------------------------------------------------\*)

i\_Button\_right\_SH5 AT %IX13.0:BOOL;(\*Button right SH5\*)

i\_Button\_left\_SH6 AT %IX13.1:BOOL;(\*Button left SH6\*)

i\_Reserve\_E\_4 AT %IX13.2:BOOL;(\*Reserve Input\*)

i\_Pressure\_switch\_Power\_unit\_29S8 AT %IX13.3:BOOL;(\*Pressure switch 29S8 power unit\*)

(\*------------------------------------------ Outputs Press QX12.0 - QX12.3--------------------------------------------------------\*)

q\_Open\_protective\_door\_Y1 AT %QX12.0:BOOL;(\*Open protective door Y1\*)

q\_Close\_protective\_door\_Y2 AT %QX12.1:BOOL;(\*Close protective door Y2\*)

q\_Extend\_ejector\_Y3 AT %QX12.2:BOOL;(\*Extend ejector Y3\*)

q\_Ejector\_einfahren\_Y4 AT %QX12.3:BOOL;(\*Retract ejector Y4\*)

(\*------------------------------------------ Outputs Press QX13.0 - QX13.3--------------------------------------------------------\*)

q\_Lamp\_right\_SH5 AT %QX13.0:BOOL;(\*Lamp right SH5\*)

q\_Lamp\_left\_SH6 AT %QX13.1:BOOL;(\*Lamp left SH6\*)

q\_Reserve\_A1 AT%QX13.2:BOOL;(\*Reserve Output\*)

q\_Reserve\_A2 AT %QX13.3:BOOL;(\*Reserve Output\*)

(\*------------------------------------------ Outputs Press QX14.0 - QX14.1--------------------------------------------------------\*)

q\_Lift\_pressing\_cylinder\_Y5 AT%QX14.0:BOOL;(\*Lift pressing cylinder Y5\*)

q\_Lower\_pressing\_cylinder\_Y6 AT %QX14.1:BOOL;(\*Lower pressing cylinder Y6\*)

END\_VAR

**8.TURNING UNIT**

VAR\_GLOBAL

(\*------------------------------------------ Inputs Press IX12.0 - IX12.3 --------------------------------------------------------\*)

i\_Protective\_door\_up\_B1 AT %IX12.0:BOOL;(\*Sensor B1 Protective door up\*)

i\_Protective\_door\_down\_B2 AT %IX12.1:BOOL;(\*Sensor B2 Protective door down\*)

i\_Ejector\_extended\_B3 AT %IX12.2:BOOL;(\*Sensor B3 Ejector extended\*)

i\_Ejector\_retracted\_B4 AT %IX12.3:BOOL;(\*Sensor B4 Ejector retracted\*)

(\*------------------------------------------ Inputs Press IX13.0 - IX13.3 --------------------------------------------------------\*)

i\_Button\_right\_SH5 AT %IX13.0:BOOL;(\*Button right SH5\*)

i\_Button\_left\_SH6 AT %IX13.1:BOOL;(\*Button left SH6\*)

i\_Reserve\_E\_4 AT %IX13.2:BOOL;(\*Reserve Input\*)

i\_Pressure\_switch\_Power\_unit\_29S8 AT %IX13.3:BOOL;(\*Pressure switch 29S8 power unit\*)

(\*------------------------------------------ Outputs Press QX12.0 - QX12.3--------------------------------------------------------\*)

q\_Open\_protective\_door\_Y1 AT %QX12.0:BOOL;(\*Open protective door Y1\*)

q\_Close\_protective\_door\_Y2 AT %QX12.1:BOOL;(\*Close protective door Y2\*)

q\_Extend\_ejector\_Y3 AT %QX12.2:BOOL;(\*Extend ejector Y3\*)

q\_Ejector\_einfahren\_Y4 AT %QX12.3:BOOL;(\*Retract ejector Y4\*)

(\*------------------------------------------ Outputs Press QX13.0 - QX13.3--------------------------------------------------------\*)

q\_Lamp\_right\_SH5 AT %QX13.0:BOOL;(\*Lamp right SH5\*)

q\_Lamp\_left\_SH6 AT %QX13.1:BOOL;(\*Lamp left SH6\*)

q\_Reserve\_A1 AT%QX13.2:BOOL;(\*Reserve Output\*)

q\_Reserve\_A2 AT %QX13.3:BOOL;(\*Reserve Output\*)

(\*------------------------------------------ Outputs Press QX14.0 - QX14.1--------------------------------------------------------\*)

q\_Lift\_pressing\_cylinder\_Y5 AT%QX14.0:BOOL;(\*Lift pressing cylinder Y5\*)

q\_Lower\_pressing\_cylinder\_Y6 AT %QX14.1:BOOL;(\*Lower pressing cylinder Y6\*)

END\_VAR