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Contact

J. Schmalz GmbH
Johannes-Schmalz-Str. 1
72293 Glatten, Germany

Tel. +49 (0) 7443 2403-0
Fax +49 (0) 7443 2403-259
schmalz@schmalz.de
www.schmalz.com

Contact information for Schmalz companies and trade partners worldwide can be found at

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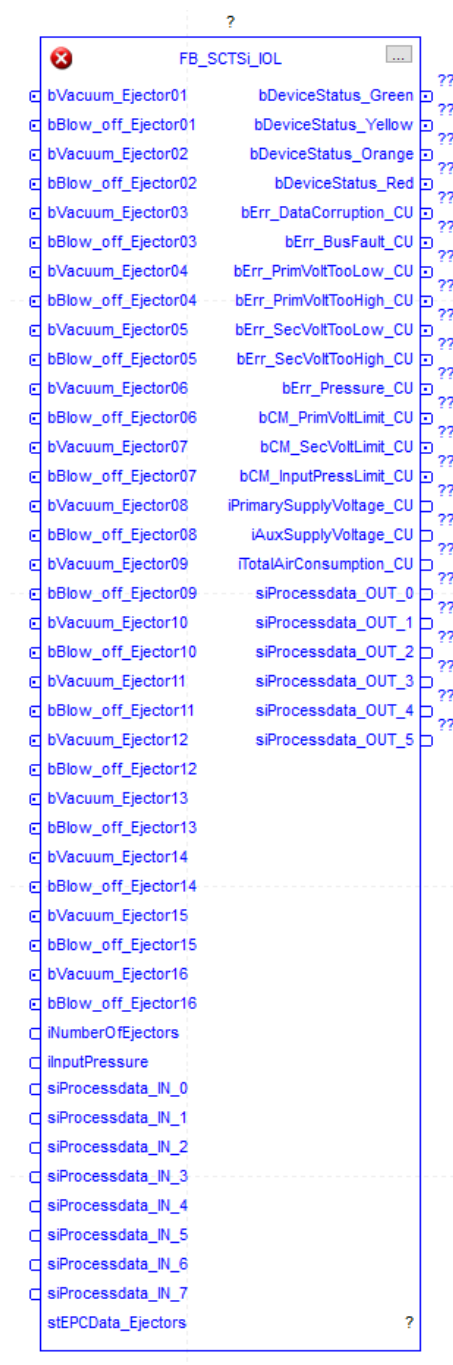
1 Function block "FB_SCTSi_IOL"

1.1 Brief description

This function block controls the Processdata of Schmalz SCTSi with IO-Link.

1.2 Image of function block

Example of function block:



1.3 Parameter - Input

name	data type	description
bVacuum_Ejector01	BOOL	Request for suction of the corresponding ejector
...		
bVacuum_Ejector16		
bBlow_off_Ejector01	BOOL	Request for blow-off of the corresponding ejector
...		
bBlow_off_Ejector16		
iNumberOfEjectors	INT	The number of how many ejectors are operated with the terminal. (2-16)
iInputPressure	INT	With this parameter, the terminal gets the input pressure in mbar to be able to create EPC analysis.
siProcessdata_IN_0	SINT	Process data byte 0 from SCTSi IO-Link
si Processdata_IN_1	SINT	Process data byte 1 from SCTSi IO-Link
si Processdata_IN_2	SINT	Process data byte 2 from SCTSi IO-Link
si Processdata_IN_3	SINT	Process data byte 3 from SCTSi IO-Link
si Processdata_IN_4	SINT	Process data byte 4 from SCTSi IO-Link
si Processdata_IN_5	SINT	Process data byte 5 from SCTSi IO-Link
si Processdata_IN_6	SINT	Process data byte 6 from SCTSi IO-Link
si Processdata_IN_7	SINT	Process data byte 7 from SCTSi IO-Link

1.4 Parameter – In-/Output

Name	Datentyp	Beschreibung
stEPCData_Ejectors	ARRAY [0..15] OF stSCTSi_IO_Link_Ejector	This In / OUT parameter returns a structure for each ejector. In this structure, all relevant data of each ejector are stored.

1.5 Parameter - Output

name	data type	description
bDeviceStatus_Green	BOOL	Status of the terminal is green
bDevice Status_Yellow	BOOL	Status of the terminal is yellow
bDevice Status_Orange	BOOL	Status of the terminal is orange
bDevice Status_Red	BOOL	Status of the terminal is red
bErr_DataCorruption_CU	BOOL	Error control unit: Data corruption
bErr_BusFault_CU	BOOL	Error control unit: Bus fault
bErr_PrimVoltTooLow_CU	BOOL	Error control unit: Primary voltage too low
bErr_PrimVoltTooHigh_CU	BOOL	Error control unit: Primary voltage too high
bErr_SecVoltTooLow_CU	BOOL	Error control unit: Secondary voltage too low
bErr_SecVoltTooHigh_CU	BOOL	Error control unit: Secondary voltage too high
bErr_Pressure_CU	BOOL	Error control unit: Supply pressure too low or too high
bCM_PrimVoltLimit_CU	BOOL	Condition monitoring of control unit: Primary voltage limit
bCM_SecVoltLimit_CU	BOOL	Condition monitoring of control unit: Secondary voltage limit
bCM_InputPressLimit_CU	BOOL	Condition monitoring of control unit: Input pressure limit
iPrimarySupplyVoltage_CU	INT	Current primary voltage (V)
iAuxSupplyVoltage_CU	INT	Current auxillary voltage (V)
iTotalAirConsumption_CU	INT	Total air consumption of the last handling cycle (0.1NL)
siProcessdata_OUT_0	SINT	Processdata byte 0 to SCTSi IO-Link
siProcessdata_OUT_1	SINT	Processdata byte 1 to SCTSi IO-Link
siProcessdata_OUT_2	SINT	Processdata byte 2 to SCTSi IO-Link
siProcessdata_OUT_3	SINT	Processdata byte 3 to SCTSi IO-Link
siProcessdata_OUT_4	SINT	Processdata byte 4 to SCTSi IO-Link
siProcessdata_OUT_5	SINT	Processdata byte 5 to SCTSi IO-Link

1.6 Additional information

In addition to the function block, the structure " stSCTSi_IO_LINK_Ejector " must also be imported into the respective plc system. Here you can proceed exactly in the same way as when importing a function block. As already mentioned, the block returns a structure for each ejector which contains all relevant data. Without importing / creating the structure, errors will occur when the plc program is compiled.

1.6.1 Structure „stSCTSi_IO_LINK_Ejector“

Name	Datentyp	Beschreibung
bVacuumControl_H1	BOOL	Status of H1
bPartControl_H2	BOOL	Status H2
siError	SINT	Error Code oft the ejector
siCM_Warnings	SINT	Code for pending warnings of the ejector
siLeakageLastCycle	SINT	Measured leakage of the last handling cycle (mbar/s)
iSystemVacuum	INT	Current vacuum value of the ejector (mbar)
iEvacuationTime_t1	INT	Measured evacuation time T1 (ms)
iLastFreeFlowVacuum	INT	Measured free flow vacuum (mbar)
iAirConsumptionLastCycle	INT	Air consumption of the last handling cycle (0.1NL)

2 Appendix

2.1 List of abbreviations

abbreviation	description
FB	Function block
EPC	Energy- and Processcontrol
CM	Condition Monitoring
EM	Energy Monitoring
PM	Predictive Maintenance

2.2 Note

- The byte order of the product is represented as big endian.
- The triggering of the vacuum must be carried out in accordance with the corresponding ejector variant (e.g., NO, NC, IMP).

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J. Schmalz GmbH
Johannes-Schmalz-Str. 1
72293 Glatten, Germany
T: +49 7443 2403-0
schmalz@schmalz.de
WWW.SCHMALZ.COM

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