

Function Block-Documentation

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Note

This document were originally written in German and have been translated into English.
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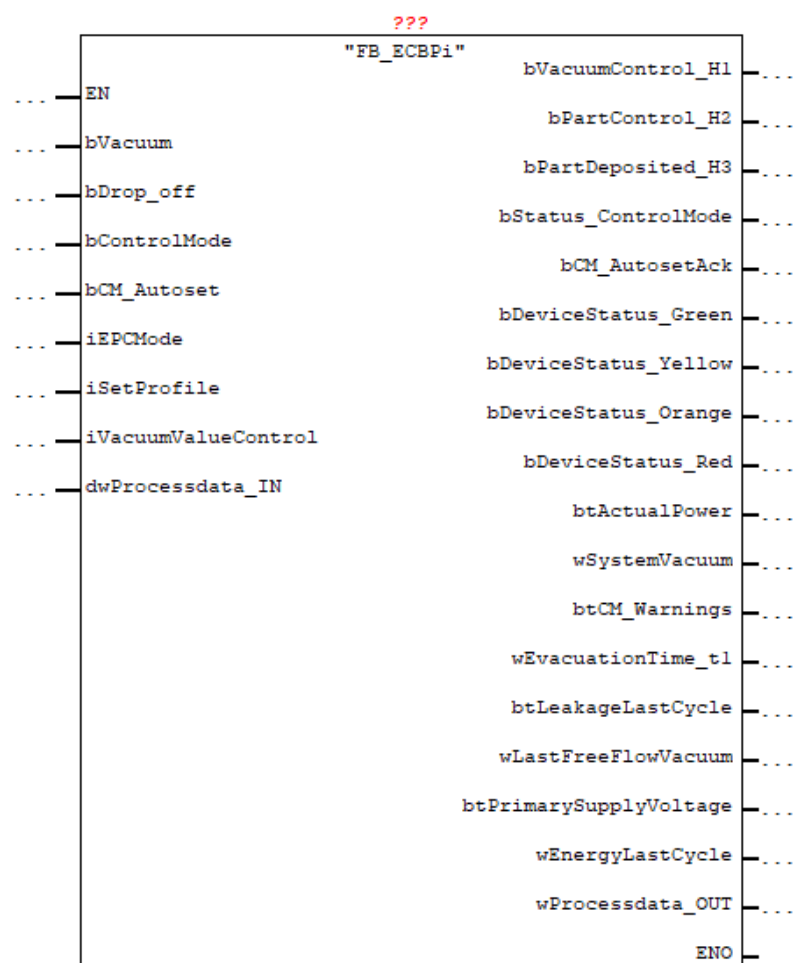
1 Function block "FB_ECBPi"

1.1 Brief description

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

1.2 Image of function block

Example of function block:



1.3 Parameter - Input

name	data type	description
bVacuum	BOOL	Request for suction
bDrop_off	BOOL	Request to drop-off
bControlMode	BOOL	Control Mode (see: iVacuumValueControl)
bCM_Autoset	BOOL	Automatic determination and storage in the active profile of max. leakage rate (-L-) and evacuation time (t-1) of last cycle
iEPCMode	INT	Request for EPC data can be controlled as following: 0 = no request 1 = request for values of EPC-Select 0 2 = request for values of EPC-Select 1 3 = request for values of EPC-Select 2 4 = request for values of EPC-Select 3 5 = values are automatically picked up
iSetProfile	INT	Choice of desired vacuum profile (0 – 3)
iVacuumValueControl	INT	bControlMode = 0 : setting setpoint value bControlMode = 1 : engine speed control
dwProcessdata_IN	DWORD	Input doubling word of process data

1.4 Parameter - Output

name	data type	description
bVacuumControl_H1	BOOL	Vacuum value within setpoint area (only in setpoint mode)
bPartControl_H2	BOOL	Switch-on value signal output „Part control“
bPartDeposited_H3	BOOL	Part deposited
bStatus_ControlMode	BOOL	Status of control function
bCM_AutoSetAck	BOOL	Active when CM Autostart completes successfully
bDeviceStatus_Green	BOOL	Device is working optimally
bDeviceStatus_Yellow	BOOL	Device is working but there are warnings
bDeviceStatus_Orange	BOOL	Device is working but there are severe warnings
bDeviceStatus_Red	BOOL	Device is not working properly
btActualPower	BYTE	Actual Power (%)
wSystemVacuum	WORD	System vacuum (mBar)
btCM_Warnings	BYTE	CM Warnings
wEvacuationTime_t1	WORD	Evacuation time t1 (ms)
btLeakageLastCycle	BYTE	Leakage of last handling cycle (mbar/s)
wLastFreeFlowVacuum	WORD	Last free flow vacuum (mbar)
btPrimarySupplyVoltage	BYTE	Input voltage (V)
wEnergyLastCycle	WORD	Energy consumption of last handling cycle (Ws)
wProcessdata_OUT	WORD	Output word of process data

1.5 Additional information

To successfully import the AWL source, the assignment between the symbol of the source and the desired block address in the symbol table must first be created.

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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