

RM_RotorAssy_Rev15_Sm@rtserver_V19 / PLC_1 [CPU 1215C DC/DC/DC] / Program blocks / Operation Functions

Primary_Operation [FB8]

Primary_Operation Properties

General

Name	Primary_Operation	Number	8	Type	FB	Language	LAD
Numbering	Automatic						

Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Primary_Operation

Name	Data type	Default value	Retain	Accessible from HMI/OPC UA/Web API	Writ-able from HMI/OPC UA/ Web API	Visible in HMI engi-neering	Setpoint	Supervision	Comment
Input									
Output									
InOut									
▼ Static									
▼ Brake_Press_Instance	"Brake_Press"			True	True	True	True		
Input									
Output									
InOut									
▼ Static									
▼ Timers	Struct		Non-retain	True	True	True	False		
▼ Pchange1	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ Pchange2	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ Press_Retract	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ Counters	Struct		Non-retain	True	True	True	False		
▼ IX_P01_fail	IEC_COUNTER		Non-retain	True	True	True	True		
CU	Bool	false	Non-retain	True	True	True	False		
CD	Bool	false	Non-retain	True	True	True	False		
R	Bool	false	Non-retain	True	True	True	False		
LD	Bool	false	Non-retain	True	True	True	False		
QU	Bool	false	Non-retain	True	True	True	False		
QD	Bool	false	Non-retain	True	True	True	False		
PV	Int	0	Non-retain	True	True	True	False		
CV	Int	0	Non-retain	True	True	True	False		
▼ IX_P00_fail	IEC_COUNTER		Non-retain	True	True	True	True		
CU	Bool	false	Non-retain	True	True	True	False		
CD	Bool	false	Non-retain	True	True	True	False		
R	Bool	false	Non-retain	True	True	True	False		
LD	Bool	false	Non-retain	True	True	True	False		
QU	Bool	false	Non-retain	True	True	True	False		
QD	Bool	false	Non-retain	True	True	True	False		
PV	Int	0	Non-retain	True	True	True	False		
CV	Int	0	Non-retain	True	True	True	False		
▼ VE_P00_fail	IEC_COUNTER		Non-retain	True	True	True	True		
CU	Bool	false	Non-retain	True	True	True	False		
CD	Bool	false	Non-retain	True	True	True	False		
R	Bool	false	Non-retain	True	True	True	False		
LD	Bool	false	Non-retain	True	True	True	False		
QU	Bool	false	Non-retain	True	True	True	False		
QD	Bool	false	Non-retain	True	True	True	False		
PV	Int	0	Non-retain	True	True	True	False		
CV	Int	0	Non-retain	True	True	True	False		
▼ Counts	Struct		Non-retain	True	True	True	False		
IX_P00_fail	Int	0	Non-retain	True	True	True	False		
IX_P01_fail	Int	0	Non-retain	True	True	True	False		

Name	Data type	Default value	Retain	Accessible from HMI/OPC UA/Web API	Writ-able from HMI/OPC UA/ Web API	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment
▼ Timers	Struct		Non-retain	True	True	True	False		
▼ AC_Lock_Timer	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ Hyd_clamp	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ Lock	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ Preload_Backoff	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ AC_Backoff	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ Torque_Monitor	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ unlock	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ homing	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ initial_rundown	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ AC_Backoff2	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ HydHome_A	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ HydHome_B	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ Hyd_clamp_2	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ AC_OFF_Dwell	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		

Totally Integrated Automation Portal										
Name	Data type	Default value	Retain	Accessible from HMI/OPC UA/Web API	Writ-able from HMI/OPC UA/ Web API	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment	
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ unlock_delay_1	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ Counters	Struct		Non-retain	True	True	True	False			
▼ Rework	IEC_COUNTER		Non-retain	True	True	True	True			
CU	Bool	false	Non-retain	True	True	True	False			
CD	Bool	false	Non-retain	True	True	True	False			
R	Bool	false	Non-retain	True	True	True	False			
LD	Bool	false	Non-retain	True	True	True	False			
QU	Bool	false	Non-retain	True	True	True	False			
QD	Bool	false	Non-retain	True	True	True	False			
PV	Int	0	Non-retain	True	True	True	False			
CV	Int	0	Non-retain	True	True	True	False			
reset	Bool	false	Non-retain	True	True	True	False			
Rework_count	Int	0	Non-retain	True	True	True	False			
▼ Modbus_Done	IEC_COUNTER		Non-retain	True	True	True	True			
CU	Bool	false	Non-retain	True	True	True	False			
CD	Bool	false	Non-retain	True	True	True	False			
R	Bool	false	Non-retain	True	True	True	False			
LD	Bool	false	Non-retain	True	True	True	False			
QU	Bool	false	Non-retain	True	True	True	False			
QD	Bool	false	Non-retain	True	True	True	False			
PV	Int	0	Non-retain	True	True	True	False			
CV	Int	0	Non-retain	True	True	True	False			
▼ Modbus_error	IEC_COUNTER		Non-retain	True	True	True	True			
CU	Bool	false	Non-retain	True	True	True	False			
CD	Bool	false	Non-retain	True	True	True	False			
R	Bool	false	Non-retain	True	True	True	False			
LD	Bool	false	Non-retain	True	True	True	False			
QU	Bool	false	Non-retain	True	True	True	False			
QD	Bool	false	Non-retain	True	True	True	False			
PV	Int	0	Non-retain	True	True	True	False			
CV	Int	0	Non-retain	True	True	True	False			
Saved_Torq_condition	Int	0	Non-retain	True	True	True	False		0= Pass, 1= tight, 2= loose	
▼ MB_Communication	MB_COMM_LO AD			True	True	True	True			
▼ Input										
REQ	Bool	false	Non-retain	True	True	True	False		The enable to initiate a Mod-bus configuration operation	
PORT	PORT	16#FFFF	Non-retain	True	True	True	False		The PtP hardware address	
BAUD	UDInt	0	Non-retain	True	True	True	False		The baud rate of the PtP port	
PARITY	UInt	0	Non-retain	True	True	True	False		The parity of the PtP port	
FLOW_CTRL	UInt	0	Non-retain	True	True	True	False		Transmit and receive flow control	
RTS_ON_DLY	UInt	0	Non-retain	True	True	True	False		The enable time of RTS be-fore sending the first charac-ter	
RTS_OFF_DLY	UInt	0	Non-retain	True	True	True	False		The enable time of RTS after sending the last character	
RESP_TO	UInt	1000	Non-retain	True	True	True	False		The time to wait for the Modbus slave to respond	
▼ Output										
DONE	Bool	false	Non-retain	True	True	True	False		Boolean indicating comple-tion without error	
ERROR	Bool	false	Non-retain	True	True	True	False		Boolean indicating comple-tion with error	
STATUS	Word	16#0	Non-retain	True	True	True	False		Status of the current opera-tion	
▼ InOut										
MB_DB	MB_BASE			False	False	False	False		The instance DB of the Mod-bus master or slave	
▼ Static										
ICHAR_GAP	UInt	0	Non-retain	True	True	True	False			
RETRIES	UInt	2	Non-retain	True	True	True	False			
WRREC_STATUS	Word	2	Non-retain	True	True	True	False			
RDREC_STATUS	Word	2	Non-retain	True	True	True	False			
SFC_STATUS	Word	2	Non-retain	True	True	True	False			
▼ Port_CFG_SFB	Array[0..25] of Byte		Non-retain	False	False	False	False			

Totally Integrated Automation Portal											
Name	Data type	Default value	Retain	Accessible from HMI/OPC UA/Web API	Writ-able from HMI/OPC UA/ Web API	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment		
Rcv_CFG_SFB[3 5]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[3 6]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[3 7]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[3 8]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[3 9]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[4 0]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[4 1]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[4 2]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[4 3]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[4 4]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[4 5]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[4 6]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[4 7]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[4 8]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[4 9]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[5 0]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[5 1]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[5 2]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[5 3]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[5 4]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[5 5]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[5 6]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[5 7]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[5 8]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[5 9]	Byte	16#0	Non-retain	False	False	False	False				
Rcv_CFG_SFB[6 0]	Byte	16#0	Non-retain	False	False	False	False				
STOP_BITS	USInt	1	Non-retain	True	True	True	False				
▼ MB_MASTER	MB_MASTER			True	True	True	True				
▼ Base	MB_BASE			True	True	True	True				
Input											
Output											
InOut											
▼ Static											
S_PORT	UInt	16#FFFF	Non-retain	False	False	False	False				
S_RESP_TO	UInt	1000	Non-retain	False	False	False	False				
S_ICHAR_GAP	UInt	28	Non-retain	False	False	False	False				
S_RETRIES	UInt	2	Non-retain	False	False	False	False				
▼ Input											
REQ	Bool	false	Non-retain	True	True	True	False			The enable to initiate a Mod-bus master request	
MB_ADDR	UInt	0	Non-retain	True	True	True	False			The station address of the Modbus slave	
MODE	USInt	0	Non-retain	True	True	True	False			Specifies a read, write, or di-agnostic operation	
DATA_ADDR	UDInt	0	Non-retain	True	True	True	False			The Modbus data address	
DATA_LEN	UInt	0	Non-retain	True	True	True	False			The Modbus data length	
▼ Output											
DONE	Bool	false	Non-retain	True	True	True	False			Boolean indicating comple-tion without error	
BUSY	Bool	false	Non-retain	True	True	True	False			Boolean indicating opera-tion in progress	

Totally Integrated Automation Portal										
Name	Data type	Default value	Retain	Accessible from HMI/OPC UA/Web API	Writ-able from HMI/OPC UA/ Web API	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment	
ERROR	Bool	false	Non-retain	True	True	True	False		Boolean indicating comple-tion with error	
STATUS	Word	16#0	Non-retain	True	True	True	False		Status or error code of the completed operation	
▼ InOut										
DATA_PTR	Variant			False	False	False	False		Data area used to communi-cate with the Modbus slave	
▼ Static										
▼ SEND_PTP_SFB	Array[0..11] of Byte		Non-retain	False	False	False	False			
SEND_PTP_SFB[0]	Byte	16#0	Non-retain	False	False	False	False			
SEND_PTP_SFB[1]	Byte	16#0	Non-retain	False	False	False	False			
SEND_PTP_SFB[2]	Byte	16#0	Non-retain	False	False	False	False			
SEND_PTP_SFB[3]	Byte	16#0	Non-retain	False	False	False	False			
SEND_PTP_SFB[4]	Byte	16#0	Non-retain	False	False	False	False			
SEND_PTP_SFB[5]	Byte	16#0	Non-retain	False	False	False	False			
SEND_PTP_SFB[6]	Byte	16#0	Non-retain	False	False	False	False			
SEND_PTP_SFB[7]	Byte	16#0	Non-retain	False	False	False	False			
SEND_PTP_SFB[8]	Byte	16#0	Non-retain	False	False	False	False			
SEND_PTP_SFB[9]	Byte	16#0	Non-retain	False	False	False	False			
SEND_PTP_SFB[10]	Byte	16#0	Non-retain	False	False	False	False			
SEND_PTP_SFB[11]	Byte	16#0	Non-retain	False	False	False	False			
▼ RCV_PTP_SFB	Array[0..11] of Byte		Non-retain	False	False	False	False			
RCV_PTP_SFB[0]	Byte	16#0	Non-retain	False	False	False	False			
RCV_PTP_SFB[1]	Byte	16#0	Non-retain	False	False	False	False			
RCV_PTP_SFB[2]	Byte	16#0	Non-retain	False	False	False	False			
RCV_PTP_SFB[3]	Byte	16#0	Non-retain	False	False	False	False			
RCV_PTP_SFB[4]	Byte	16#0	Non-retain	False	False	False	False			
RCV_PTP_SFB[5]	Byte	16#0	Non-retain	False	False	False	False			
RCV_PTP_SFB[6]	Byte	16#0	Non-retain	False	False	False	False			
RCV_PTP_SFB[7]	Byte	16#0	Non-retain	False	False	False	False			
RCV_PTP_SFB[8]	Byte	16#0	Non-retain	False	False	False	False			
RCV_PTP_SFB[9]	Byte	16#0	Non-retain	False	False	False	False			
RCV_PTP_SFB[10]	Byte	16#0	Non-retain	False	False	False	False			
RCV_PTP_SFB[11]	Byte	16#0	Non-retain	False	False	False	False			
▼ RCV_RST_SFB	Array[0..9] of Byte		Non-retain	False	False	False	False			
RCV_RST_SFB[0]	Byte	16#0	Non-retain	False	False	False	False			
RCV_RST_SFB[1]	Byte	16#0	Non-retain	False	False	False	False			
RCV_RST_SFB[2]	Byte	16#0	Non-retain	False	False	False	False			
RCV_RST_SFB[3]	Byte	16#0	Non-retain	False	False	False	False			
RCV_RST_SFB[4]	Byte	16#0	Non-retain	False	False	False	False			
RCV_RST_SFB[5]	Byte	16#0	Non-retain	False	False	False	False			
RCV_RST_SFB[6]	Byte	16#0	Non-retain	False	False	False	False			
RCV_RST_SFB[7]	Byte	16#0	Non-retain	False	False	False	False			
RCV_RST_SFB[8]	Byte	16#0	Non-retain	False	False	False	False			

Totally Integrated Automation Portal										
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RCV_RST_SFB[9]	Byte	16#0	Non-retain	False	False	False	False			
PF_FREQUENCY	Real	0.0	Non-retain	False	False	False	False			
BLOCKED_PROC_TIMEOUT	Real	3.0	Non-retain	True	True	True	False			
CURRENT_TIME_VALUE	UDInt	0	Non-retain	False	False	False	False			
SAVED_TIME_VALUE	UDInt	0	Non-retain	False	False	False	False			
SAVED_SLAVE_ADDR	Word	0	Non-retain	False	False	False	False			
SAVED_MODE	Word	0	Non-retain	False	False	False	False			
SAVED_DATA_ADDR	DWord	0	Non-retain	False	False	False	False			
SAVED_DATA_LEN	UInt	0	Non-retain	False	False	False	False			
MB_STATE	UInt	0	Non-retain	False	False	False	False			
COMM_SENT_COUNT	UInt	0	Non-retain	False	False	False	False			
BYTE_COUNT	USInt	0	Non-retain	False	False	False	False			
INIT_OK	Bool	false	Non-retain	False	False	False	False			
ACTIVE	Bool	false	Non-retain	False	False	False	False			
BROADCAST_FLAG	Bool	false	Non-retain	False	False	False	False			
EXTENDED_ADDRESSING	Bool	false	Non-retain	True	True	True	False			
SAVED_START_ADDR	UInt	0	Non-retain	False	False	False	False			
TXBuf_Function_Offset	UDInt	0	Non-retain	False	False	False	False			
TXBuf_Address_Offset	UDInt	0	Non-retain	False	False	False	False			
TXBuf_Quantity_Offset	UDInt	0	Non-retain	False	False	False	False			
▼ MODBUS	Struct		Non-retain	True	True	True	False			
done	Bool	false	Non-retain	True	True	True	False			
busy	Bool	false	Non-retain	True	True	True	False			
error	Bool	false	Non-retain	True	True	True	False			
status	Word	16#0	Non-retain	True	True	True	False			
Stored_status	Word	16#0	Non-retain	True	True	True	False			
▼ Transaction_valid	Struct		Non-retain	True	True	True	False			
serial	Bool	false	Non-retain	True	True	True	False			
iteration	Bool	false	Non-retain	True	True	True	False			
backoff	Bool	false	Non-retain	True	True	True	False			
torque	Bool	false	Non-retain	True	True	True	False			
overall	Bool	false	Non-retain	True	True	True	False			
complete_row	Bool	false	Non-retain	True	True	True	False			
▼ Tab_Bender_Instance	"Tab_Bender"			True	True	True	True			
Input										
Output										
InOut										
▼ Static										
▼ Timers	Struct		Non-retain	True	True	True	False			
▼ Mid_extend_dwell1	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ Mid_extend_dwell2	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ clamp_timer1	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ clamp_timer2	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ Rad_Bearing_Press_Instance	"Rad_Bearing_Press"			True	True	True	True			

Totally Integrated Automation Portal										
Name	Data type	Default value	Retain	Accessible from HMI/OPC UA/Web API	Writ-able from HMI/OPC UA/ Web API	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment	
Input										
Output										
InOut										
▼ Static										
▼ Timers	Struct		Non-retain	True	True	True	False			
▼ Press_Dwell	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ Press_Retract	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ Retract_delay	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ Inspection_delay	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ counter_reset	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ counters	Struct		Non-retain	True	True	True	False			
▼ fail	IEC_COUNTER		Non-retain	True	True	True	True			
CU	Bool	false	Non-retain	True	True	True	False			
CD	Bool	false	Non-retain	True	True	True	False			
R	Bool	false	Non-retain	True	True	True	False			
LD	Bool	false	Non-retain	True	True	True	False			
QU	Bool	false	Non-retain	True	True	True	False			
QD	Bool	false	Non-retain	True	True	True	False			
PV	Int	0	Non-retain	True	True	True	False			
CV	Int	0	Non-retain	True	True	True	False			
fail_reset	Bool	false	Non-retain	True	True	True	False			
▼ Pulley_Press_Instance	"Pulley_Press"			True	True	True	True			
Input										
Output										
InOut										
▼ Static										
▼ Timers	Struct		Non-retain	True	True	True	False			
▼ Pchange1	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ Pchange2	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ Dispensing	Struct		Non-retain	False	False	False	False			
Max	Time	T#4s	Non-retain	False	False	False	False			
Min	Time	T#1.5s	Non-retain	False	False	False	False			
Elapsed	Time	T#0ms	Non-retain	False	False	False	False			
Min_reached	Bool	false	Non-retain	False	False	False	False			
Reset	Bool	false	Non-retain	False	False	False	False			
▼ Dispense_Max	IEC_TIMER		Non-retain	False	False	False	True			
PT	Time	T#0ms	Non-retain	False	False	False	False			
ET	Time	T#0ms	Non-retain	False	False	False	False			
IN	Bool	false	Non-retain	False	False	False	False			
Q	Bool	false	Non-retain	False	False	False	False			
▼ Dispense_Min	IEC_TIMER		Non-retain	False	False	False	True			

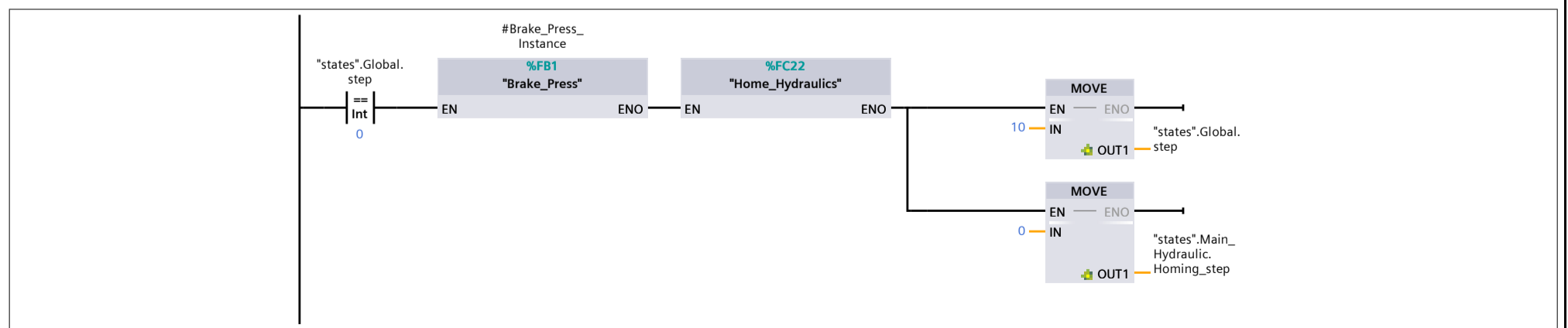
Totally Integrated Automation Portal										
Name	Data type	Default value	Retain	Accessible from HMI/OPC UA/Web API	Writ-able from HMI/OPC UA/ Web API	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment	
PT	Time	T#0ms	Non-retain	False	False	False	False			
ET	Time	T#0ms	Non-retain	False	False	False	False			
IN	Bool	false	Non-retain	False	False	False	False			
Q	Bool	false	Non-retain	False	False	False	False			
▼ Press_dwell1	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ Press_dwell2	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ Press_retract	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ Retract_delay	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ Write_to_server_Instance	"Write_to_serv-er"			True	True	True	True			
▼ Input										
Serial	String	"	Non-retain	True	True	True	False			
Iteration_count	String	"	Non-retain	True	True	True	False			
Backoff_angle	String	"	Non-retain	True	True	True	False			
Bearing_torque	String	"	Non-retain	True	True	True	False			
Overall_result	String	"	Non-retain	True	True	True	False			
Output										
InOut										
▼ Static										
▼ server_response	Struct		Non-retain	True	True	True	False			
▼ write_serial	Struct		Non-retain	True	True	True	False			
Trans_valid	Bool	false	Non-retain	True	True	True	False			
Partial_row	Bool	false	Non-retain	True	True	True	False			
Complete_row	Bool	false	Non-retain	True	True	True	False			
Transaction_com-plete	Bool	false	Non-retain	True	True	True	False			
▼ write_iteration	Struct		Non-retain	True	True	True	False			
Trans_valid	Bool	false	Non-retain	True	True	True	False			
Partial_row	Bool	false	Non-retain	True	True	True	False			
Complete_row	Bool	false	Non-retain	True	True	True	False			
Transaction_com-plete	Bool	false	Non-retain	True	True	True	False			
▼ write_backoff	Struct		Non-retain	True	True	True	False			
Trans_valid	Bool	false	Non-retain	True	True	True	False			
Partial_row	Bool	false	Non-retain	True	True	True	False			
Complete_row	Bool	false	Non-retain	True	True	True	False			
Transaction_com-plete	Bool	false	Non-retain	True	True	True	False			
▼ write_bearing_torque	Struct		Non-retain	True	True	True	False			
Trans_valid	Bool	false	Non-retain	True	True	True	False			
Partial_row	Bool	false	Non-retain	True	True	True	False			
Complete_row	Bool	false	Non-retain	True	True	True	False			
Transaction_com-plete	Bool	false	Non-retain	True	True	True	False			
▼ write_overall_result	Struct		Non-retain	True	True	True	False			
Trans_valid	Bool	false	Non-retain	True	True	True	False			
Partial_row	Bool	false	Non-retain	True	True	True	False			
Complete_row	Bool	false	Non-retain	True	True	True	False			
Transaction_com-plete	Bool	false	Non-retain	True	True	True	False			
▼ Write_serial	"Server Write"			True	True	True	True			
▼ Input										
column	Byte	16#0	Non-retain	True	True	True	False			
value to send	String	"	Non-retain	True	True	True	False			

Totally Integrated Automation Portal										
Name	Data type	Default value	Retain	Accessible from HMI/OPC UA/Web API	Writ-able from HMI/OPC UA/ Web API	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment	
▼ Output										
transaction valid	Bool	false	Non-retain	True	True	True	False			
partial row	Bool	false	Non-retain	True	True	True	False			
complete row	Bool	false	Non-retain	True	True	True	False			
InOut										
▼ Static										
step	UDInt	0	Non-retain	True	True	True	False			
valid	Int	0	Non-retain	True	True	True	False			
complete	Int	0	Non-retain	True	True	True	False			
partial	Int	0	Non-retain	True	True	True	False			
▼ IEC_Timer_0_Instance	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ IEC_Timer_0_Instance_1	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ IEC_Timer_0_Instance_2	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ IEC_Timer_0_Instance_3	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ write_iteration	"Server Write"			True	True	True	True			
▼ Input										
column	Byte	16#0	Non-retain	True	True	True	False			
value to send	String	"	Non-retain	True	True	True	False			
▼ Output										
transaction valid	Bool	false	Non-retain	True	True	True	False			
partial row	Bool	false	Non-retain	True	True	True	False			
complete row	Bool	false	Non-retain	True	True	True	False			
InOut										
▼ Static										
step	UDInt	0	Non-retain	True	True	True	False			
valid	Int	0	Non-retain	True	True	True	False			
complete	Int	0	Non-retain	True	True	True	False			
partial	Int	0	Non-retain	True	True	True	False			
▼ IEC_Timer_0_Instance	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ IEC_Timer_0_Instance_1	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ IEC_Timer_0_Instance_2	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ IEC_Timer_0_Instance_3	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ write_backoff	"Server Write"			True	True	True	True			

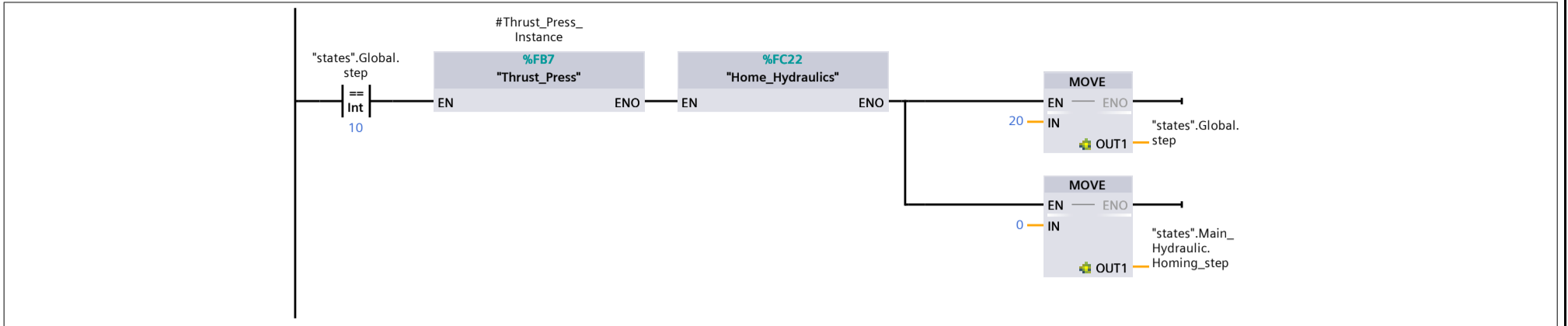
Totally Integrated Automation Portal										
Name	Data type	Default value	Retain	Accessible from HMI/OPC UA/Web API	Writ-able from HMI/OPC UA/ Web API	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment	
▼ Input										
column	Byte	16#0	Non-retain	True	True	True	False			
value to send	String	"	Non-retain	True	True	True	False			
▼ Output										
transaction valid	Bool	false	Non-retain	True	True	True	False			
partial row	Bool	false	Non-retain	True	True	True	False			
complete row	Bool	false	Non-retain	True	True	True	False			
InOut										
▼ Static										
step	UDInt	0	Non-retain	True	True	True	False			
valid	Int	0	Non-retain	True	True	True	False			
complete	Int	0	Non-retain	True	True	True	False			
partial	Int	0	Non-retain	True	True	True	False			
▼ IEC_Timer_0_Instance	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ IEC_Timer_0_Instance_1	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ IEC_Timer_0_Instance_2	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ IEC_Timer_0_Instance_3	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ write_prev_torque	"Server Write"			True	True	True	True			
▼ Input										
column	Byte	16#0	Non-retain	True	True	True	False			
value to send	String	"	Non-retain	True	True	True	False			
▼ Output										
transaction valid	Bool	false	Non-retain	True	True	True	False			
partial row	Bool	false	Non-retain	True	True	True	False			
complete row	Bool	false	Non-retain	True	True	True	False			
InOut										
▼ Static										
step	UDInt	0	Non-retain	True	True	True	False			
valid	Int	0	Non-retain	True	True	True	False			
complete	Int	0	Non-retain	True	True	True	False			
partial	Int	0	Non-retain	True	True	True	False			
▼ IEC_Timer_0_Instance	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ IEC_Timer_0_Instance_1	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ IEC_Timer_0_Instance_2	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			
IN	Bool	false	Non-retain	True	True	True	False			
Q	Bool	false	Non-retain	True	False	True	False			
▼ IEC_Timer_0_Instance_3	IEC_TIMER		Non-retain	True	True	True	True			
PT	Time	T#0ms	Non-retain	True	True	True	False			
ET	Time	T#0ms	Non-retain	True	False	True	False			

Name	Data type	Default value	Retain	Accessible from HMI/OPC UA/Web API	Writ-able from HMI/OPC UA/ Web API	Visible in HMI engi-neering	Setpoint	Supervi-sion	Comment
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ write_overall	"Server Write"			True	True	True	True		
▼ Input									
column	Byte	16#0	Non-retain	True	True	True	False		
value to send	String	"	Non-retain	True	True	True	False		
▼ Output									
transaction valid	Bool	false	Non-retain	True	True	True	False		
partial row	Bool	false	Non-retain	True	True	True	False		
complete row	Bool	false	Non-retain	True	True	True	False		
InOut									
▼ Static									
step	UDInt	0	Non-retain	True	True	True	False		
valid	Int	0	Non-retain	True	True	True	False		
complete	Int	0	Non-retain	True	True	True	False		
partial	Int	0	Non-retain	True	True	True	False		
▼ IEC_Timer_0_In-stance	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ IEC_Timer_0_In-stance_1	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ IEC_Timer_0_In-stance_2	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ IEC_Timer_0_In-stance_3	IEC_TIMER		Non-retain	True	True	True	True		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ Temp									
▼ Transaction_valid	Struct								
serial	Bool								
iteration	Bool								
backoff	Bool								
torque	Bool								
overall	Bool								
▼ complete_row	Struct								
serial	Bool								
iteration	Bool								
backoff	Bool								
torque	Bool								
overall	Bool								
Constant									

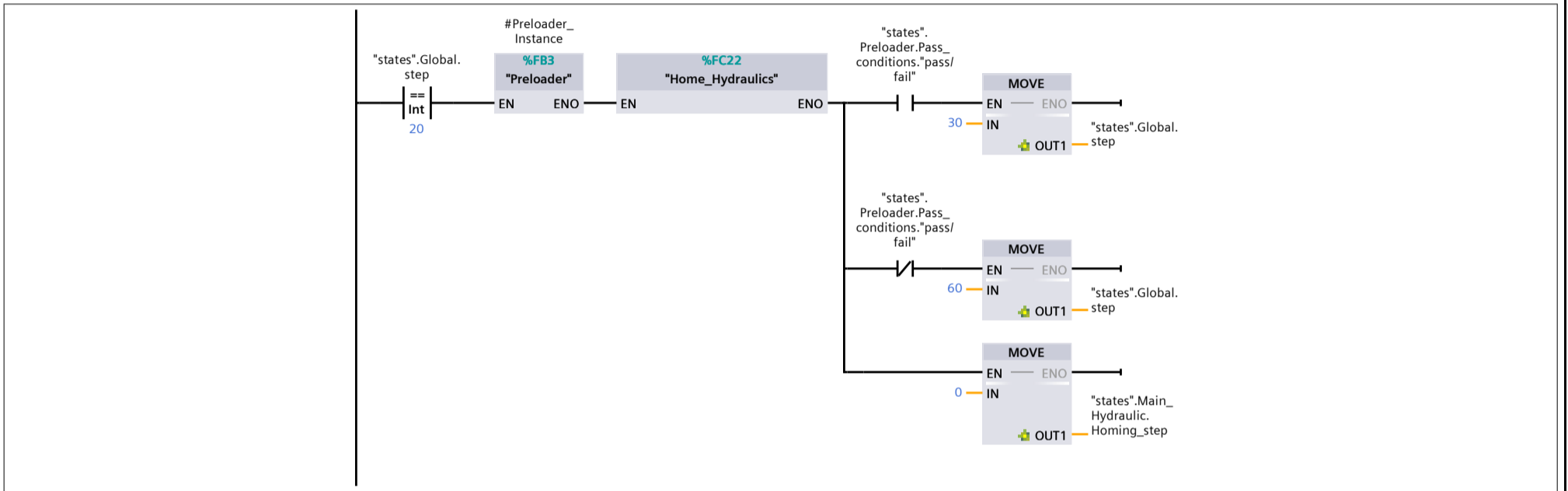
Network 1: Brake Press



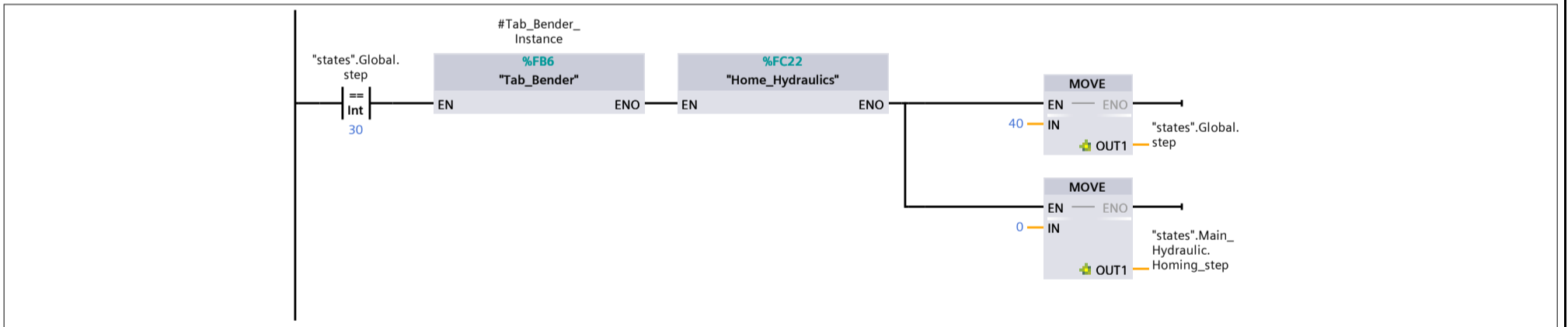
Network 2: Thrust Press



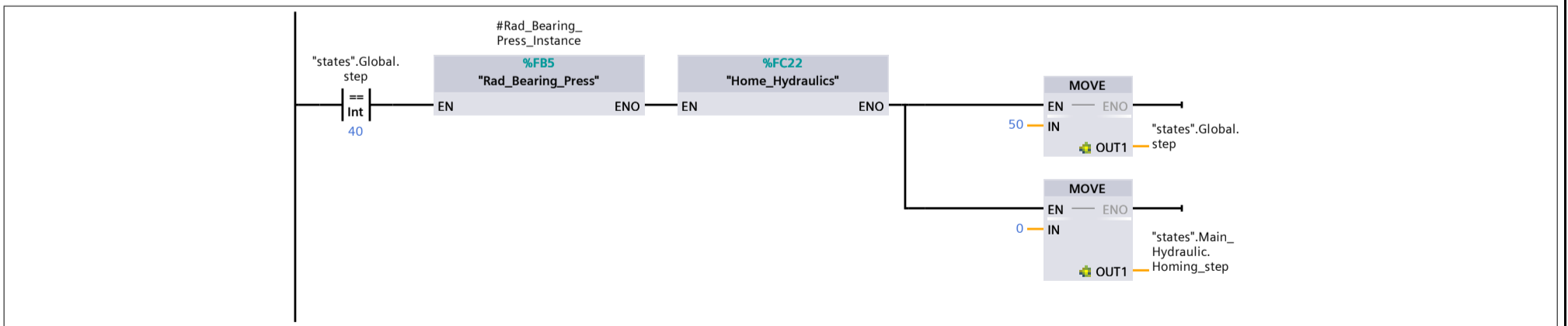
Network 3: Preloader



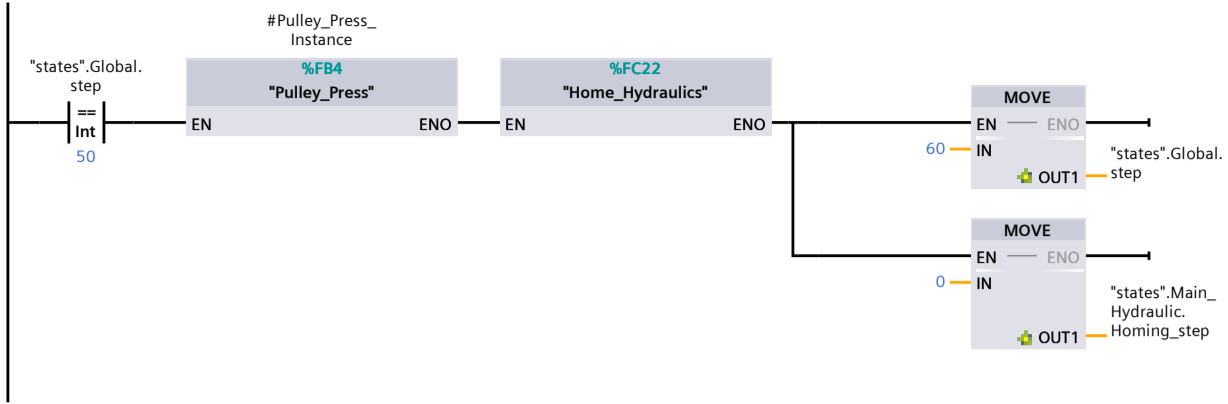
Network 4: Tab bender



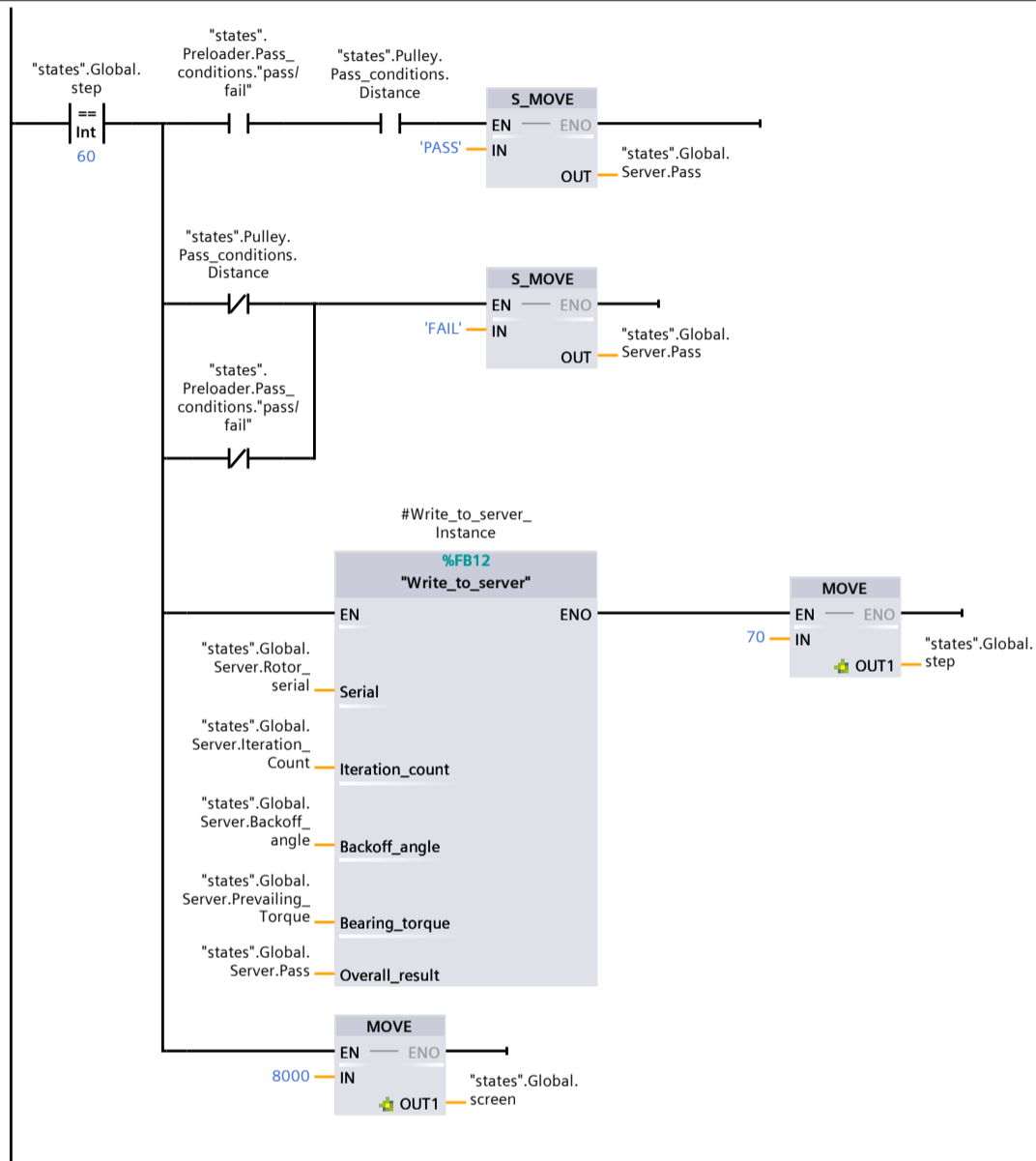
Network 5: Radial Bearing press



Network 6: Pulley Press



Network 7: clear serial transaction valids, Pass/Fail judgement



Network 8: end

