FB3 - <offline>

"Wait_for_Cal_Complete"

Name: **Family:**
Author: **Version:** 0.1
Block version: 2
Time stamp Code: 06/24/2015 02:09:31 PM
Interface: 06/22/2015 04:12:32 PM
Lengths (block/logic/data): 01684 01406 00030

Name	Data Type	Address	Initial Value	Comment
IN		0.0		
OUT		0.0		
IN_OUT		0.0		
STAT		0.0		
TMR_Timeout	TON	0.0		
TMR_CSC_Step1_TO	TON	22.0		CSC Step 1 Timeout
TMR_Step4_Delay	TON	44.0		
TMR_Step10_Delay	TON	66.0		
TEMP		0.0		
Return_Val	Int	0.0		
Run_Timeout	Bool	2.0		
TimeOut_Expired	Bool	2.1		
Step1_Timeout	Bool	2.2		
Step1_Timeout_Done	Bool	2.3		
Step4_Delay	Bool	2.4		
Step4_Delay_Complete	Bool	2.5		
Step10_Delay	Bool	2.6		
Step10_Delay_Complete	Bool	2.7		

Block: FB3 Wait For Calibration Complete

This Subroutine is called from the "Calibration_Procedure" routine whenever it kicks off a calibration step (such as Capture Zero, Capture Span, or Capture Span2 if Linearity is Enabled). The "Calibration_Procedure" routine will then wait until this subroutine indicates that the step is complete. A status is returned on the success or failure of the step, and on what failed (if anything).

Status values returned are:
- Motion Detected During Calibration Step
- Time Out
- Data OK bit did NOT turn OFF

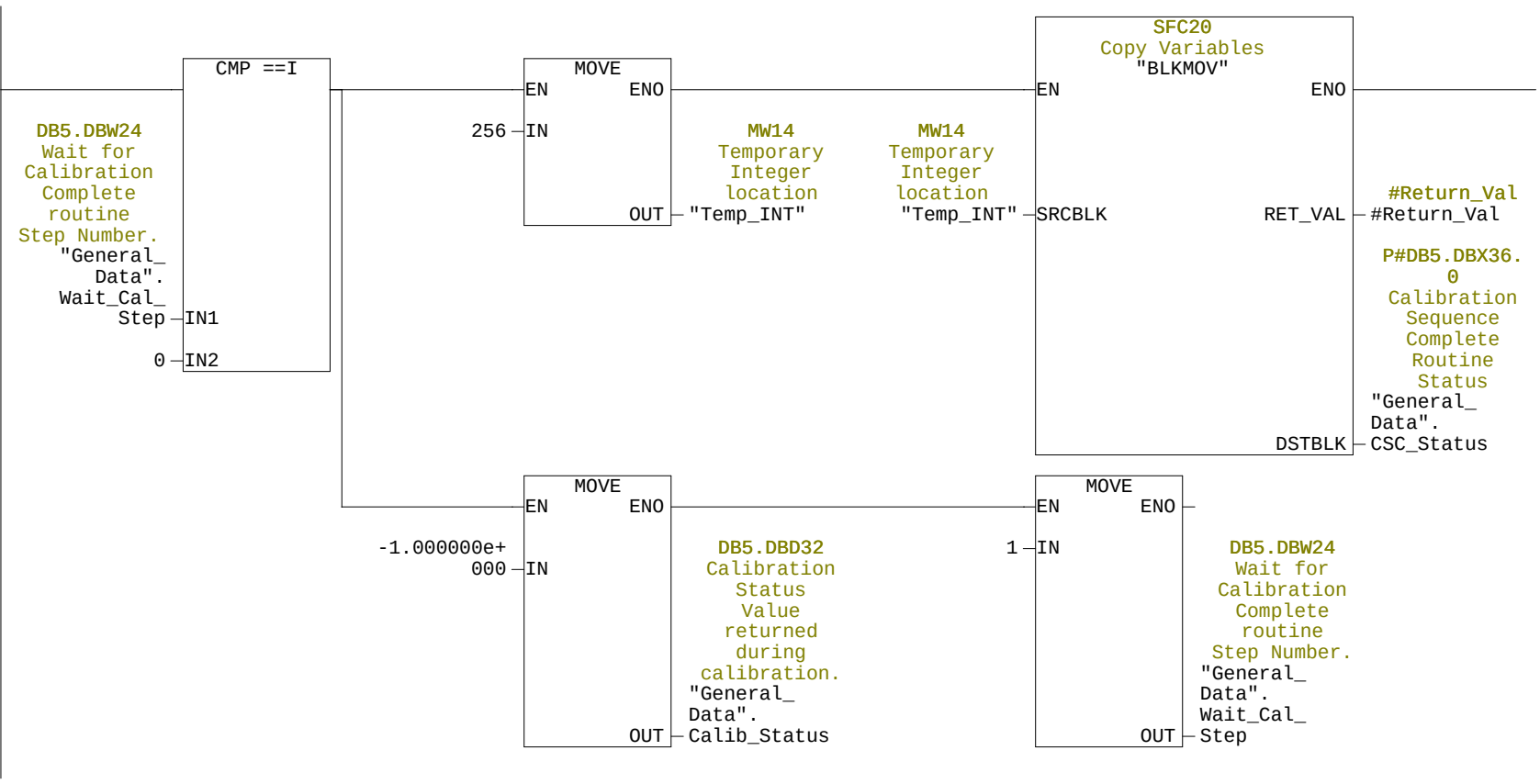
Note that we make use of the Command_Acked bit (set in the MainRoutine when a change in the Command Ack bits is detected) in this routine to drive the steps.

Network: 1 Initialize the Wait procedure.

1. Initialize the Calibration Step Complete (CSC) Status to show that its running.

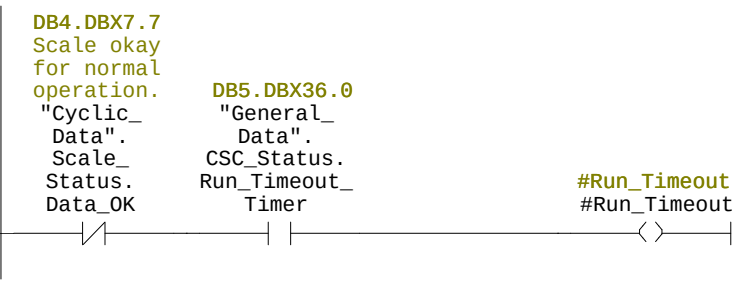
2. Initialize the Calibration Status (Calib_Status) so that we know when a real value comes in.

3. Initialize the Sequence Step (Wait_Cal_Step) to kick off the whole process.

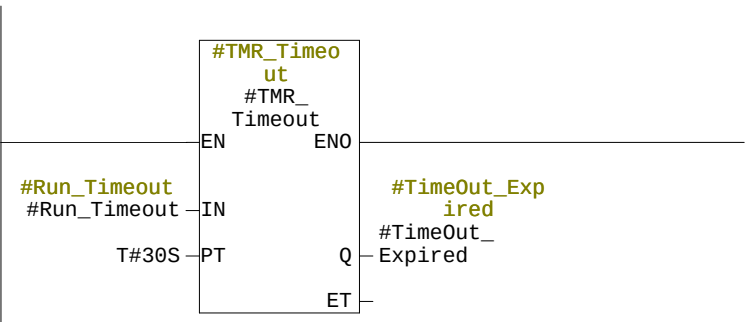


Network: 2 Timeout Timer Run Logic

While the Data OK bit is OFF, run a Timeout Timer that limits how long we'll
wait before flagging an Error Condition.

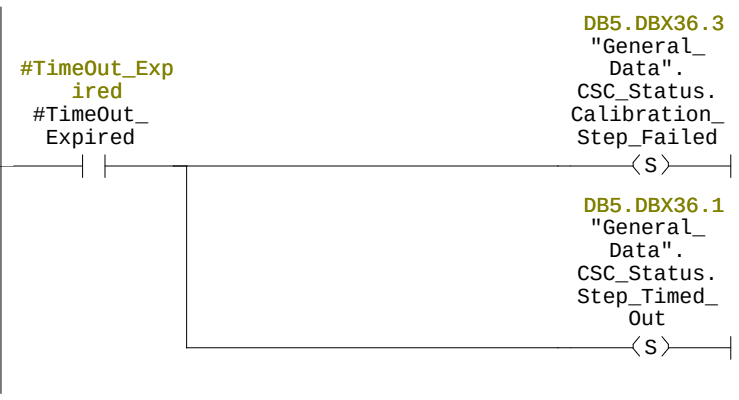


Network: 3 Timeout Timer



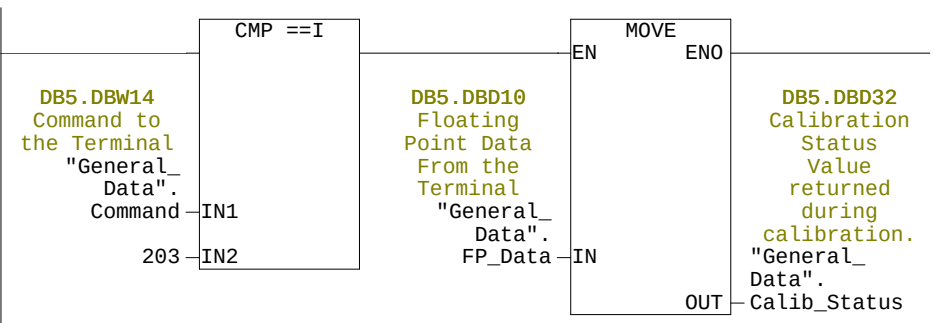
Network: 4 Timeout Timer Expired

Handle Setting the flags to indicate when the timeout timer expires.



Network: 5 Get Status Value

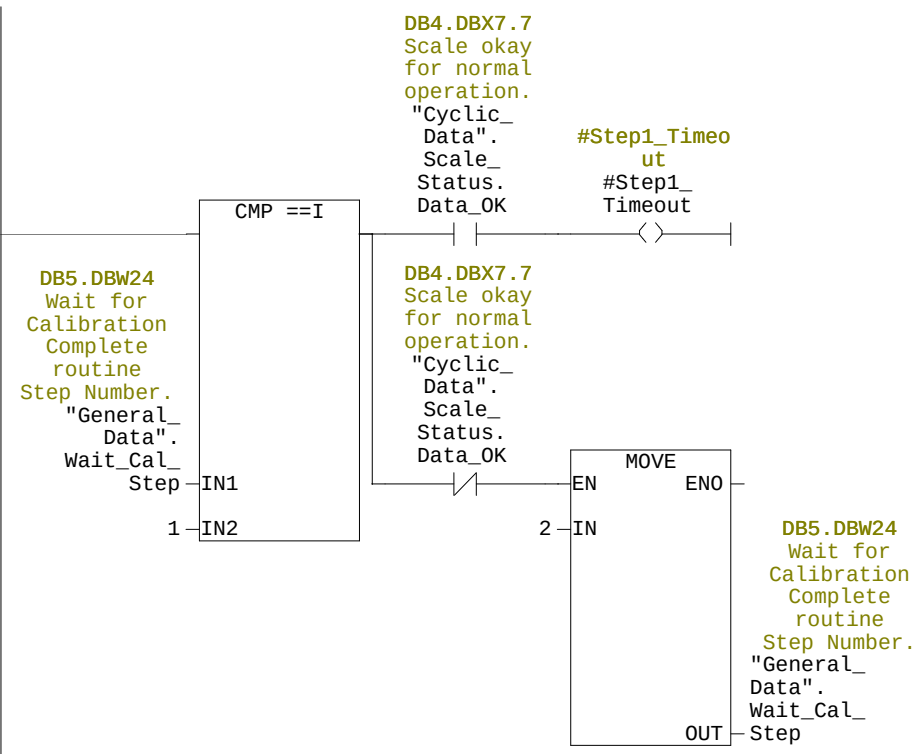
If the Command is set to return the Calibration Status, get the Calibration
Status.



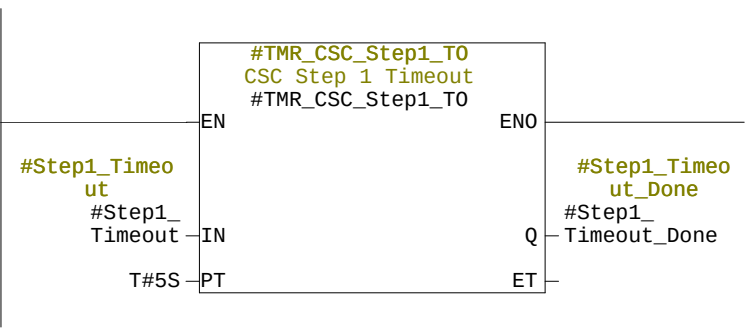
Network: 6 Wait for the Data OK to turn OFF

Make sure that the Data_OK bit is OFF before moving on to step 2.

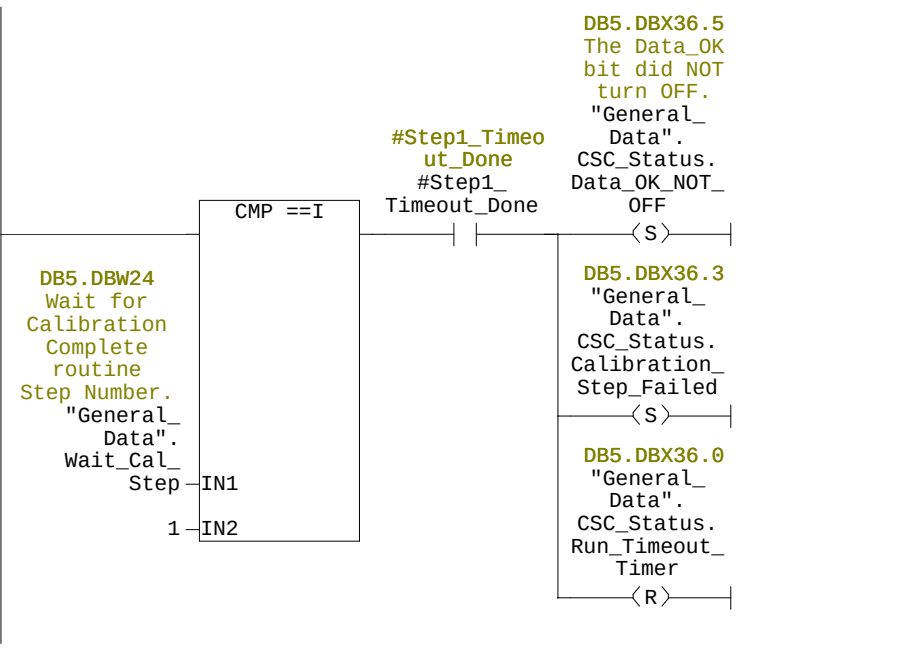
If the Data_OK bit doesn't turn off eventually, then set an alarm bit and terminate this routine.



Network: 7 Step 1 Timeout Timer

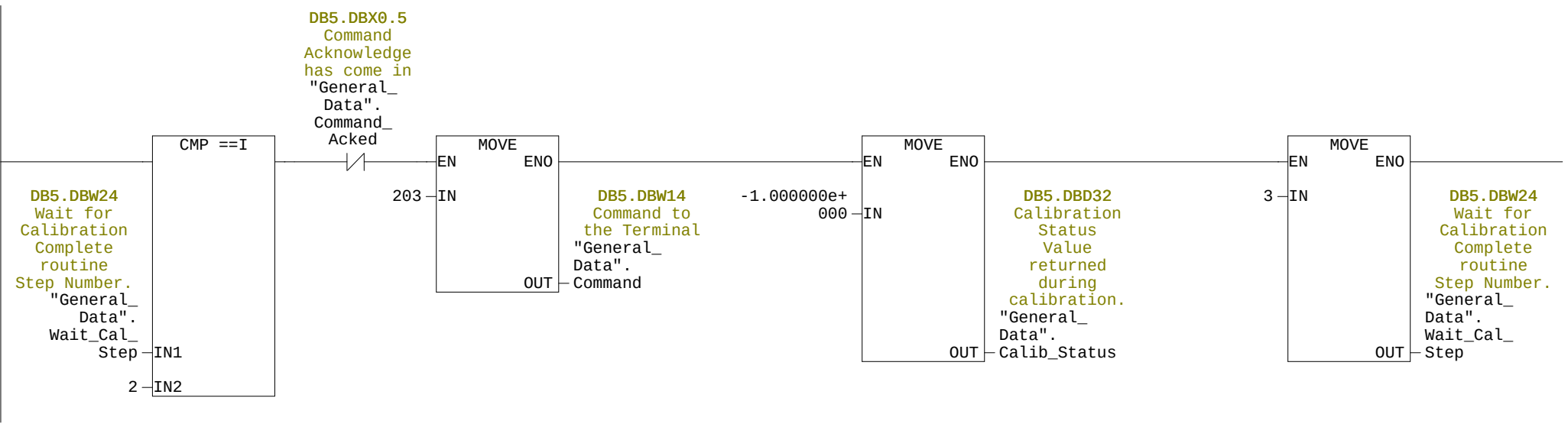


Network: 8 Step 1 Timeout Expired

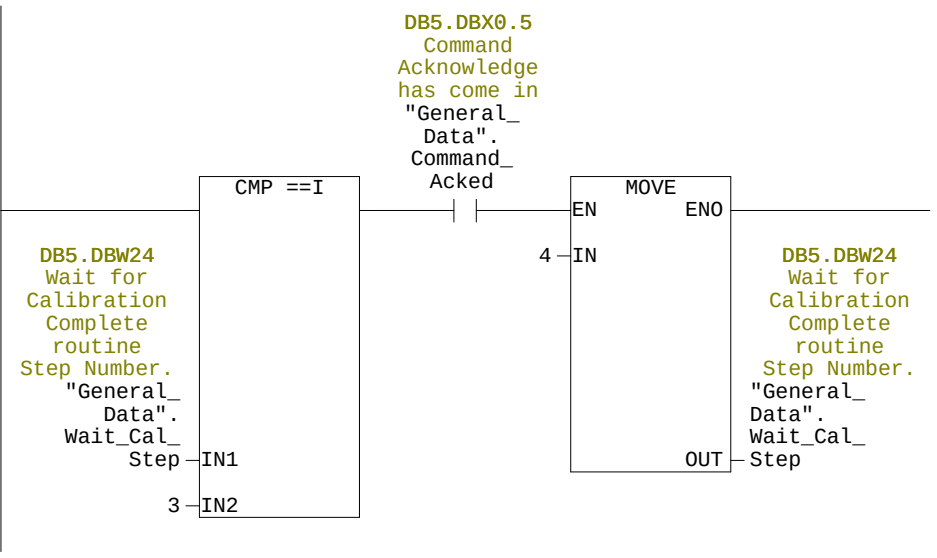


Network: 9 Return Calibration Status

Issue the command to return the Calibration Status (203).

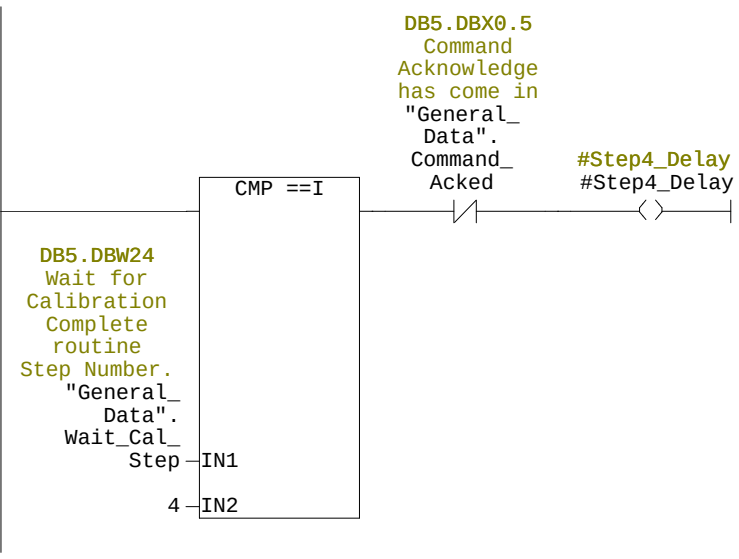


Network: 10 Wait for the 203 command to be Acknowledged.

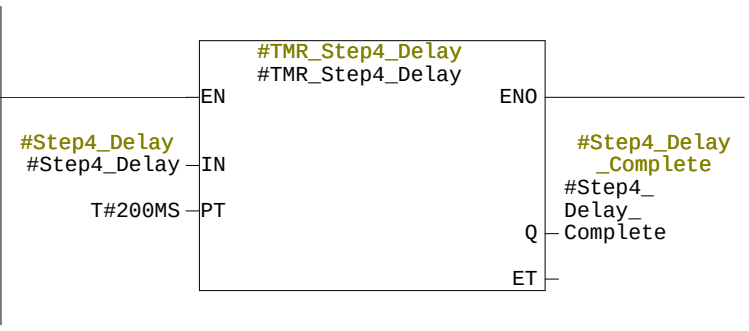


Network: 11 Update Delay

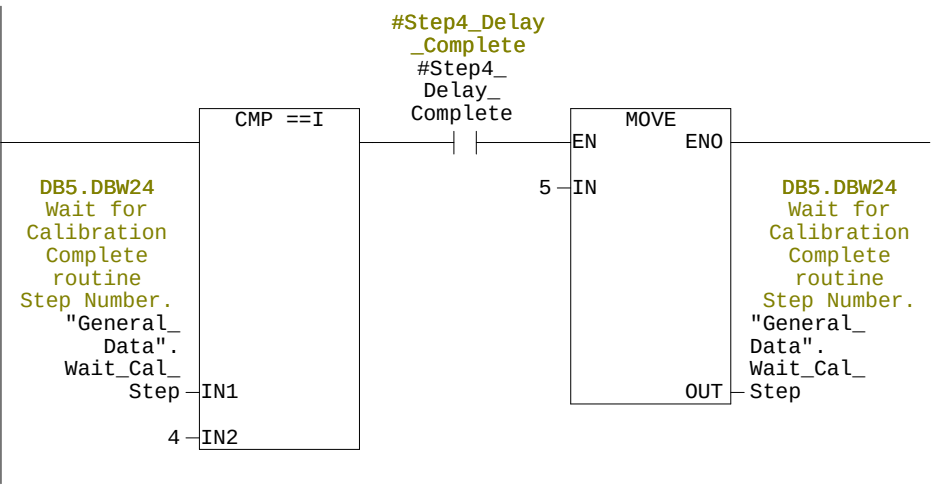
Give the Terminal a little time to update the buffer before attempting to act
on the results.



Network: 12 Step 4 delay

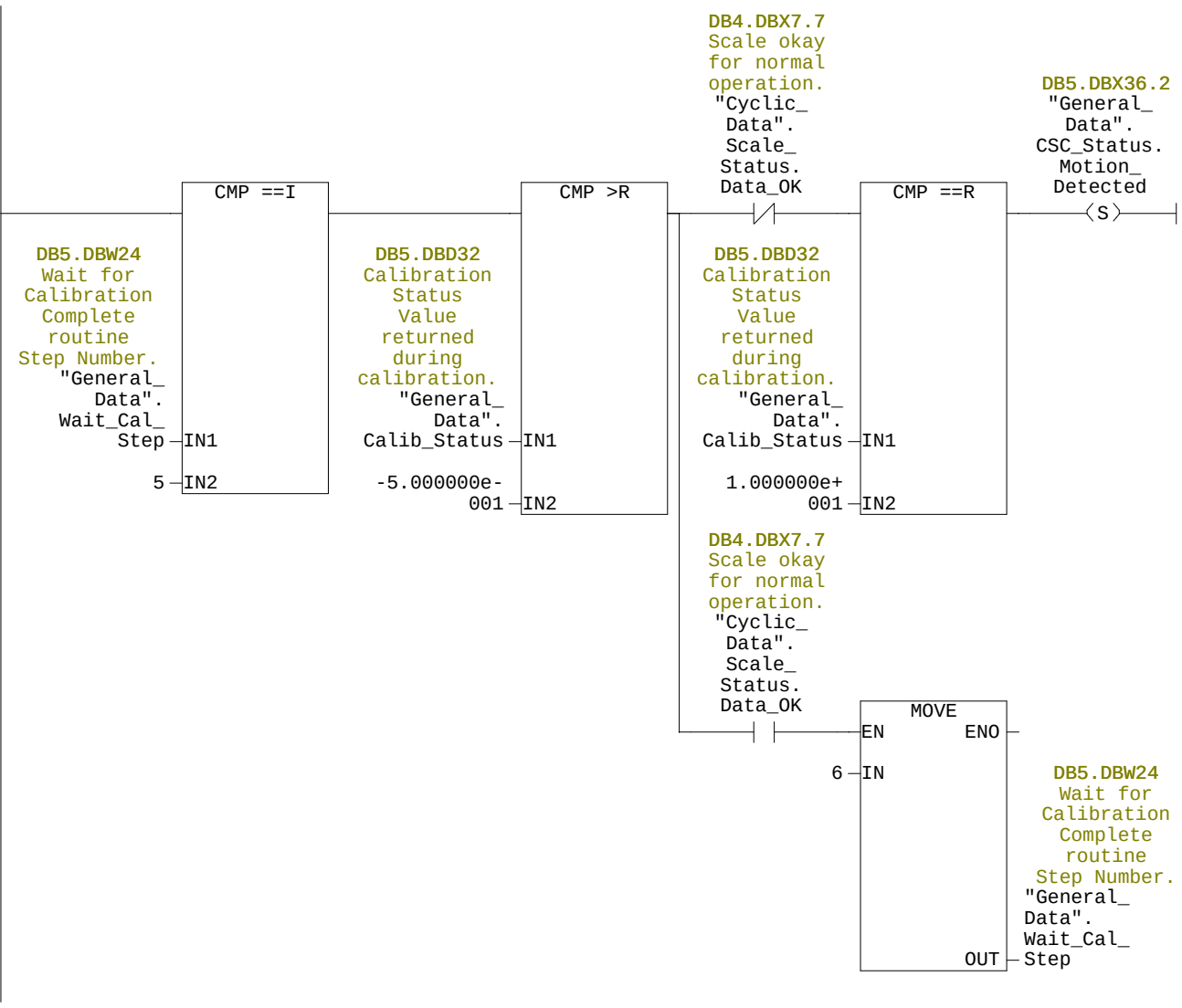


Network: 13 Step 4 Delay complete.



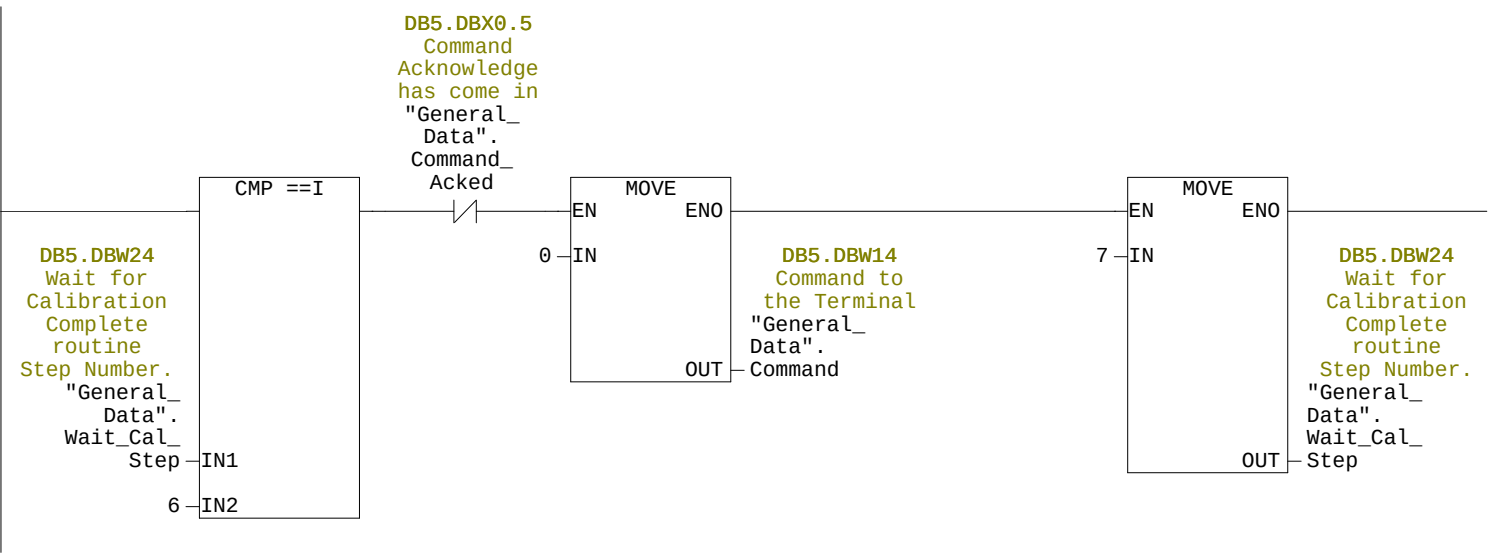
Network: 14 Motion Check

While the Data OK bit is off, look for a value of 10.0 to be returned, which indicates that there is motion on the scale. If a 10 is found, set the motion flag.

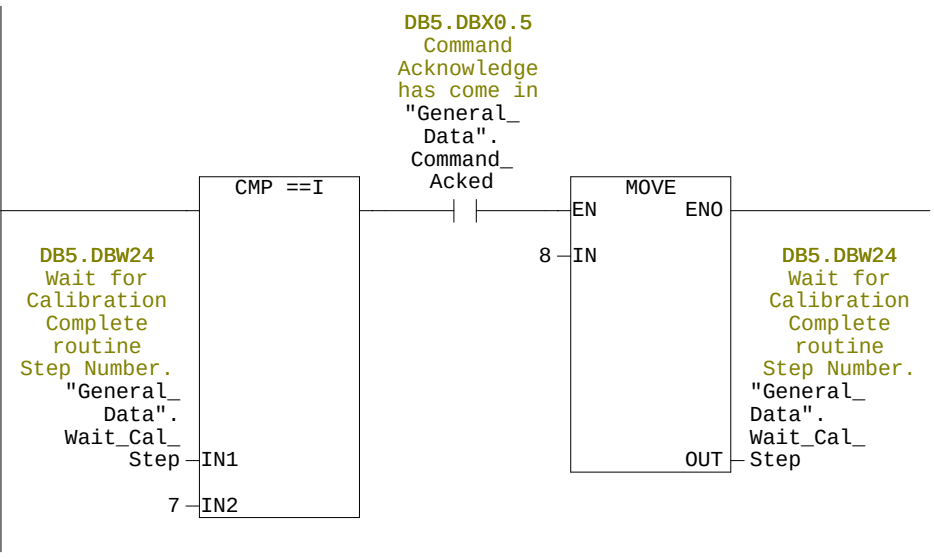


Network: 15 Issue Command Zero

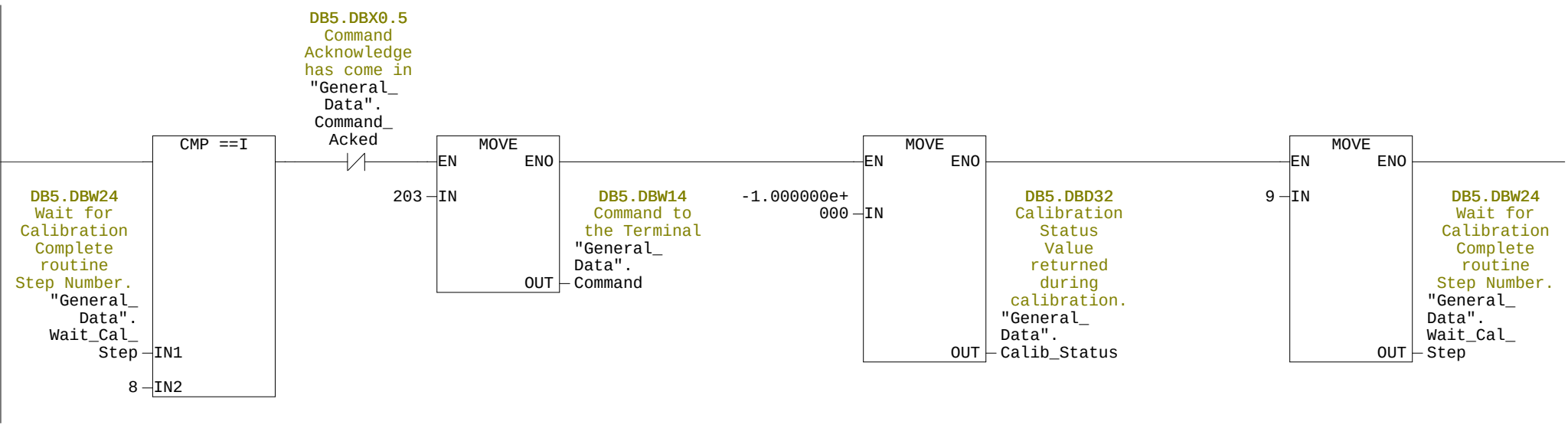
We need to re-issue the 203 command after the Data OK bit comes back on to get the final status of the calibration. To do that, we first have to change the command in the buffer so the terminal will see the new issue of 203. So, issue a command 0 here.



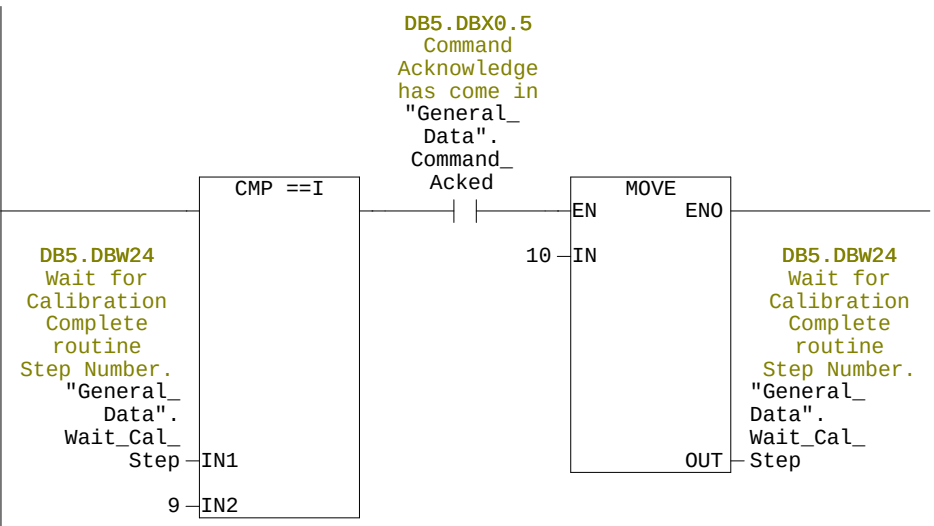
Network: 16



Network: 17

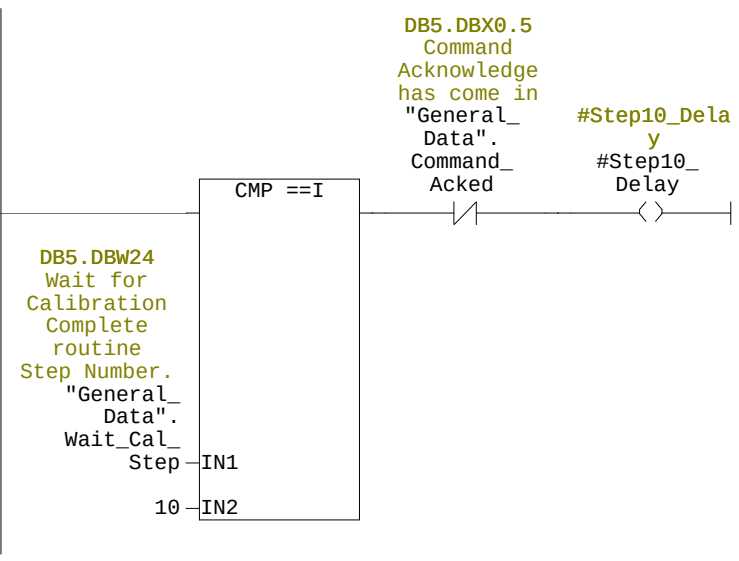


Network: 18

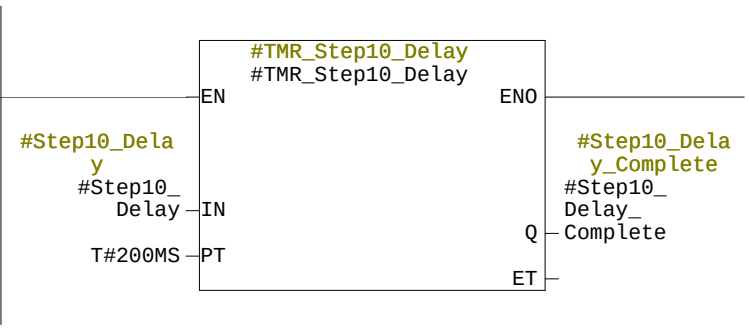


Network: 19 Read Delay

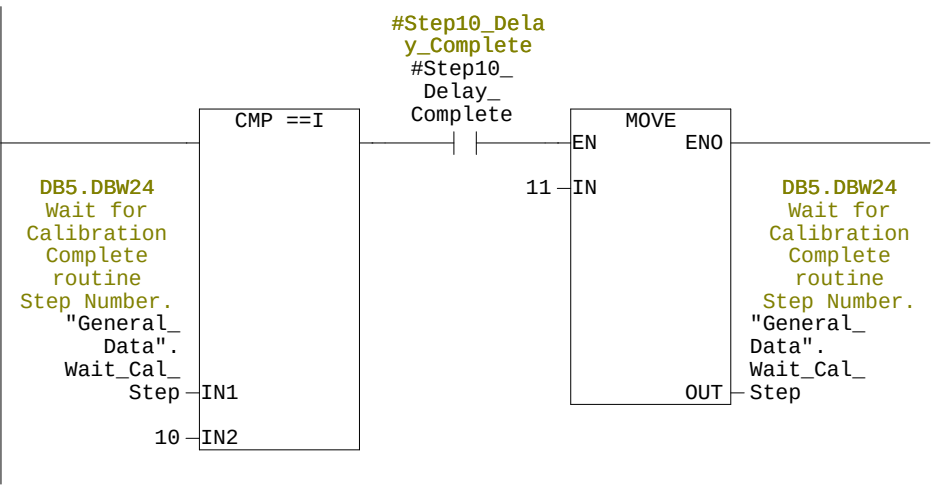
Give the terminal a little time to update the value before trying to read it.



Network: 20 Step 10 Delay

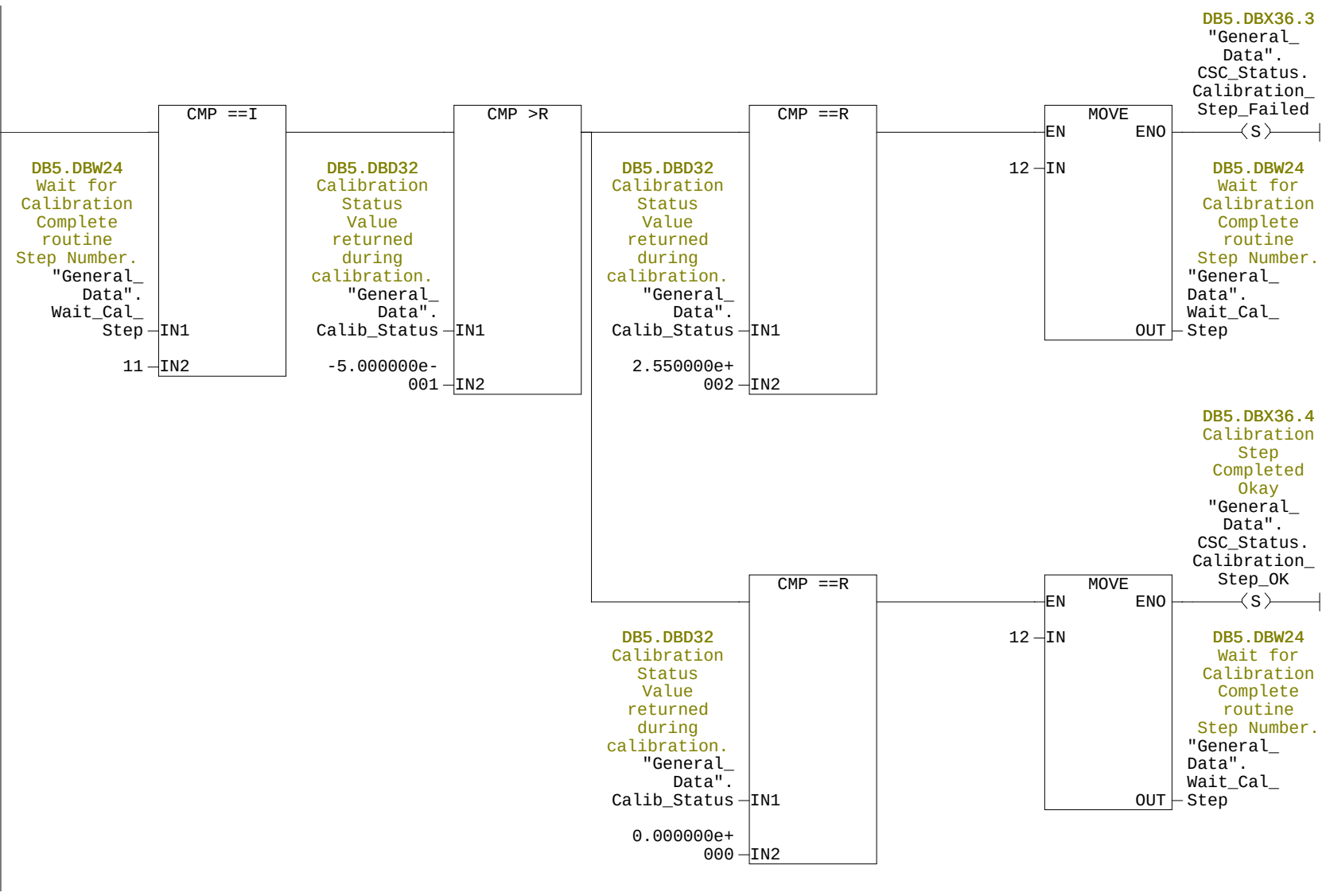
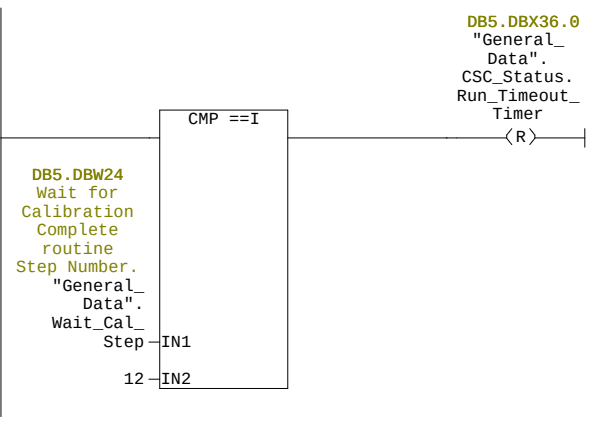


Network: 21 Step 10 Delay Complete



Network: 22 Update the calilbration status bits

Update the calilbration status bits based on the returned status value from the terminal.



Network: 23 End of routine