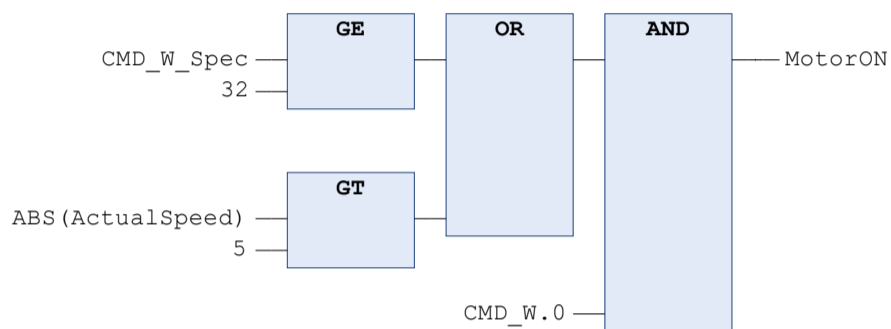


```

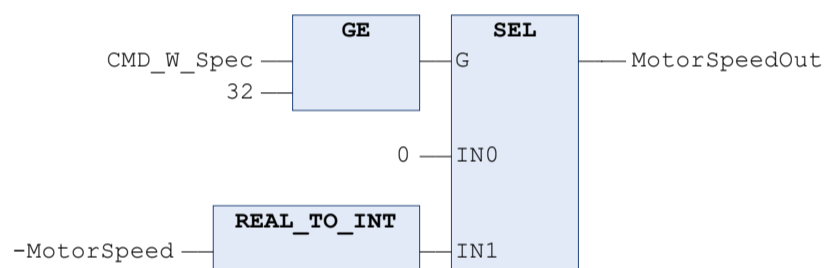
1  FUNCTION_BLOCK VFDCCommand
2  VAR_INPUT
3      CMD_W_Spec : INT ;
4      ActualSpeed : INT ;
5      MeterWirePulledOut : REAL ;
6      Tension_kg : REAL ;
7      MotorSpeed : REAL ;
8  END_VAR
9  VAR
10     SaturationComp_0 : SaturationComp ;
11     DiameterComp_0 : DiameterComp ;
12     LoadSlip_0 : LoadSlip ;
13 END_VAR
14 VAR_OUTPUT
15     MotorON : BOOL ;
16     MotorSpeedOut : INT ;
17     TorqueMotor : UINT ;
18     TorqueGen : UINT ;
19 END_VAR
20

```

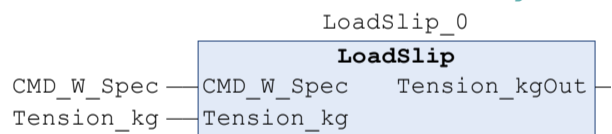
1 Inverter is turned ON if the commandword is 4 or more (TotSlow, TotFast, PullLow or PullHigh).



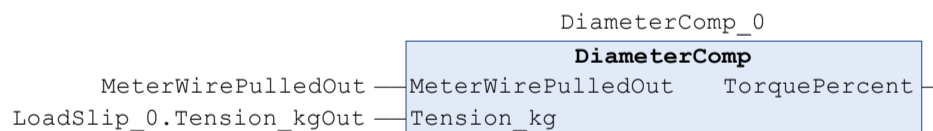
2 Motorspeed reference just go directly through, unless commandword is 3 or less.



3 Resistive torque is automatically applied if the wire is being pulled out. If the tension is released from a high state, a little tensions is applied for some time to avoid wire jam.



4 Calculation from tension in [kg] to torque in [%]. 14.6% extra torque is added when the wire is fully in, as the effective diameter of the drum is changing. Limits the torque to 20kg when less than 10m wire, otherwise the motor can tend oscillate at stillstand.



5 Compansation of motor magnetic saturation and convection to [0.1%]

