

## *Speed meter function V. 1.0*

### *Descriptions*

*This function measure the motor speed (unit RPM).  
Due to the low resolution of the hall pulses, the speed value is valid only at 1 Hz.  
The small step measure capability is 15 RPM the max speed motor depend by load,  
with no load it may be about 9000 RPM.*

**Syntax:** `SpeedMeter()`

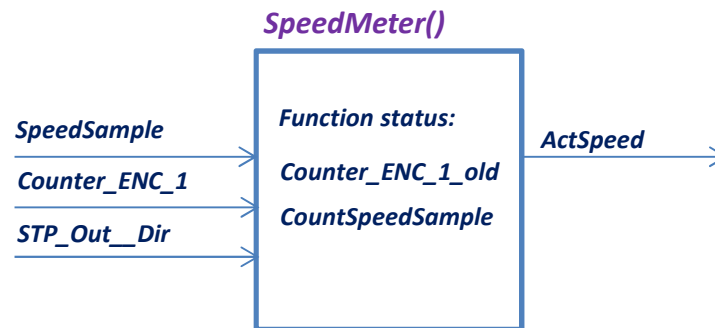
**Input parameters:** `SpeedSample, Counter_ENC_1, STP_Out_Dir.`

**Output parameters:** `ActSpeed`

**Status:** `Counter_ENC_1_old, CountSpeedSample`

**Calls:**

## SpeedMeter function



```
void SpeedMeter ()
{
    //ActSpeed = motor RPM. SpeedSample must be equal to sample rate at second.
    //The constant 15 is due to operation x 60 seconds/4 (count x4)

    if ( CountSpeedSample >= SpeedSample)
    {
        ActSpeed = (Counter_ENC_1 - Counter_ENC_1_old) *15;
        CountSpeedSample = 0;
        Counter_ENC_1_old = Counter_ENC_1;
    }
    else
        { CountSpeedSample++;}
}
```

