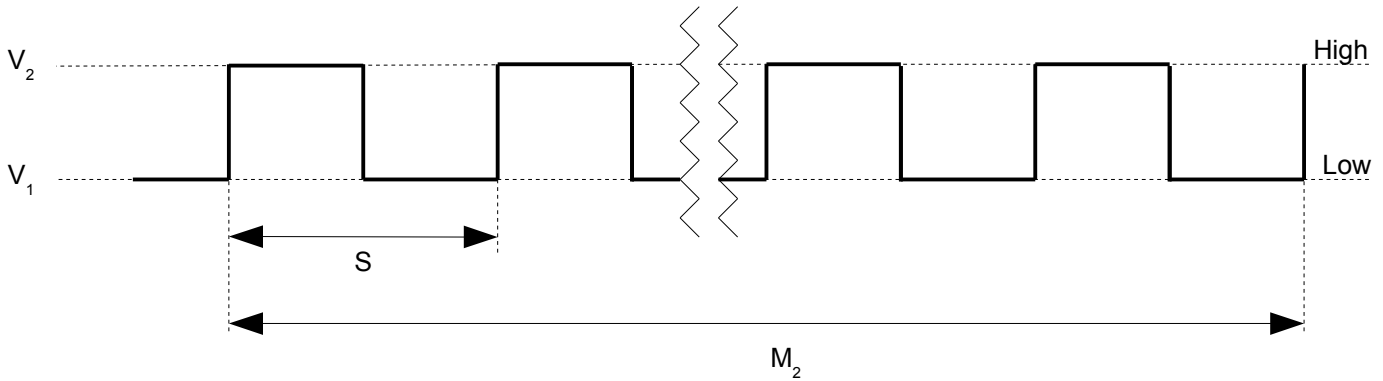


# RPM measurement

## Digital signal diagram



## Interval measurement

By using the Gel 2474 we can measure the rounds per minute on a gear wheel by timing the frequency interval with the following formula:

$$\text{RPM} = (M_1 / S) / T$$

## Time measurement

We can also measure the rounds per minute on a gear wheel by counting the amount of intervals with the following formula:

$$\text{RPM} = ((M_1 / M_2) * C) / T$$

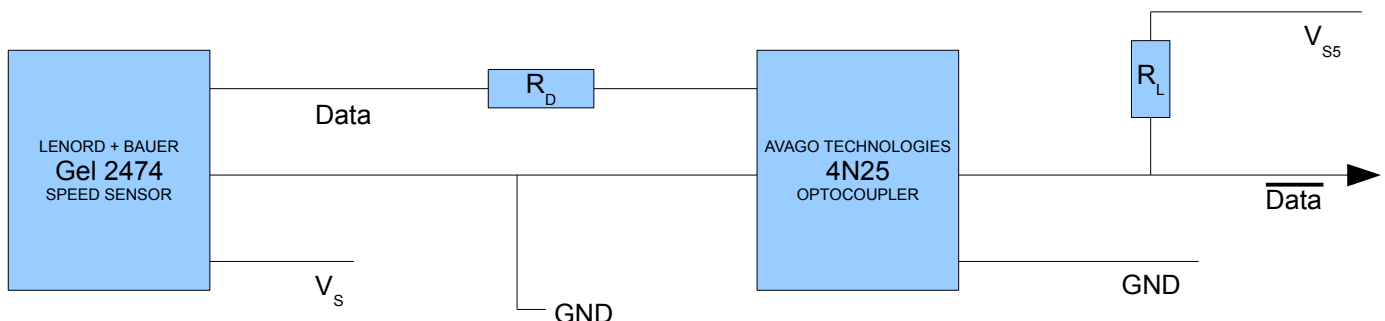
C = amount of interval's during  $M_2$

$V_s$	Power supply 10-30 Volt
$V_{s5}$	Power supply 5 Volt
$V_1$	1 Volt
$V_2$	$(V_s - 1)$ Volt
S	Microseconds of one complete interval
C	Interval counter
$M_1$	One minute in microseconds (60 000 000)
$M_2$	Predefined time in microseconds
T	Amount of tooth's on the gearwheel



The 'Lenord + Bauer Speed Sensor Gel 2474'

## Simple circuit overview



For more specific information on the 'Speed Sensor Gel 2474' please visit,  
<http://www.sensorprod.com/lenord/speed-sensor-gel-2474.php>