

End-stops linear units

Purchased: Photomicrosensor, transmissive sensing method, termination type - terminal type and mounting type - through hole

- Photomicrosensor (Transmissive) - EE-SX1018 from *Omron*.
- One LED (emitter) and one phototransistor on each side of the fork.
- Need a limiting resistor (forward impedance of LED is “limitless”)!
- Lower limit of Forward voltage LED: 1.2 V (specification sheet)
- Optimal forward current: 20 mA.
- $R = (V_{CC} - V_F) / I_F$, V_{CC} = supply voltage, V_F = forward voltage and I_F = forward current

Page 17 for circuit design:

Questions

- What ON/OFF currents?/voltages does the Gertbot react to? And what voltages should we supply? Different to the diode and the phototransistor?
- How do we deal with the leakage current in the phototransistor? Is it going to pose a problem?