## USB-adapter for PC ASC shutter and intensifier control box From the datasheet: - saturation voltage 0.1V (typ) and 0.2V (max) - TTL-logic input in the control box, max VLOW=0.8V - With Ic=1mA, R2=(5V-0.2V)/Ic=4k8 LED properties from datasheet With R2=3k3 we get about 1.5mA Ic VF= 1.2V (typical) Vdd=3V3 $I_F = (V_{DD} - V_F)/R1 = 10 \text{ mA}$ M12-female R1 PSoC5LP P2\_0 220R TPC816B C9G PSoC5LP GND PSoC 5LP prototyping kit CY8CKIT-059 <u>-</u>1 Connection cable to ASC intensifier and shutter control box: - 4-wire cable with M12 male/female 2m (RS#877-1198) - Panel mount connector M12 male (RS#877-1145) - Panel mount connector M12 female (RS#877-1110) Enclosure - Hammond 1455L1602 (RS#741-7506) - circuit board Eurocard 100x160mm (RS#435-434) PSoC5LP P2.5 PSoC5LP P2\_3 R3 R4 1k 1k D1 Power **▼** D2 MS/2025-07-18 ₩ Watchdog University Centre in Svalbard / Kjell Henriksen Observatory Sheet: / File: ComputerIF.kicad sch Title: ASC controller computer interface Size: A4 KiCad E.D.A. 9.0.1 ld: 1/1