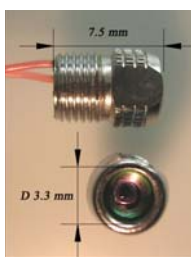
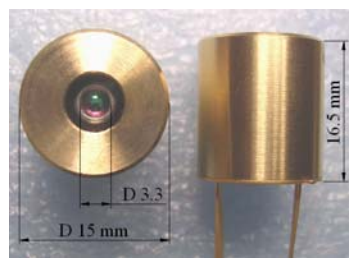
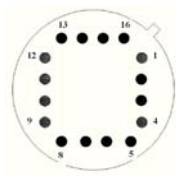
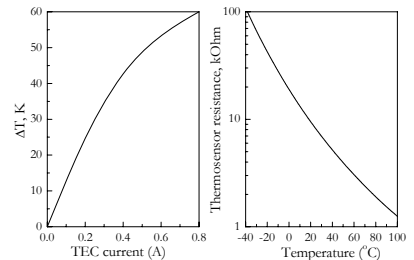


Optically Immersed 4.2 μm photodiode			PD42Sc
Peak wavelength	λ	μm	4.15 ± 0.1
Cutoff wavelength (10 %)	λ_{co}	μm	$4.5 \div 4.6$
Detectivity	$D^*_{\lambda_{\text{max}}}$	$\text{cmHz}^{1/2}\text{W}^{-1}$	$(0.7 \div 1) \times 10^{10}$
Current sensitivity	S_I	A/W	≥ 0.7
Voltage sensitivity	S_U	V/W	≥ 30
Resistance at zero bias	R_0	Ohm	≥ 40
Switching time	τ	ns	≤ 20

Code	Thread	Sensitive area, mm	Lens material	Angle of view FWHM, deg.	Operation (storage) conditions, $^{\circ}\text{C}$	Polarity
PD42Sc	M5x0.5	$\varnothing 3.3$	Si	≤ 20	$-25 \div +60$	short wire or black point is negative
PD42TO8TEC			Si lens and quartz window			See fig. below

	PD42Sc	PD42TO8TEC
Product view		  1 TEC -; 4 TEC + 8 PD +; 13 PD - 10, 11 thermosensor, 16 PD house
		

- ✓ Angle of view of the PD is small and thus we recommend adjusting PD position before final evaluation/use of the devices. All data in spec. are valid for room temperature (22°C).
- ✓ PD could be equipped with preamplifier. Preamplifier has been designed for conversion of PD photocurrent into a convenient output voltage. Normally each preamplifier is adjusted for the particular PD and specifications issued by a customer (e.g. taking into account the R_0 value and frequency range).
- ✓ The maximal cooling in PD42TO8TEC mounted onto a heatsink is around $\Delta T = -50 \text{ K}$ (at current through TEC of 0.8 A)

