

Broadband filter
Spectral range
400 nm to 800 nm

Type	KMZ 50 (2 cavities)
λ_m -tolerance [% of λ_m]	± 1
Available with λ_m in range [nm]	400–800
Spectral values	
Half width HW [nm]	30–60 (λ_m from 400 nm to 800 nm)
Maximum spectral transmittance τ_{\max} within passband	≥ 0.45 (λ_m from 400 nm to 449 nm) ≥ 0.55 (λ_m from 450 nm to 800 nm)
$Q = \frac{\text{tenth width}}{\text{half width}}$	approx. 1.8
$q = \frac{\text{thousandth width}}{\text{half width}}$	approx. 6
Blocking range [nm]	unlimited
Average value τ_{SM} of spectral transmittance within blocking range	$\leq 10^{-4}$
Other properties	
Humidity resistance of filters with preferred dimensions	MIL-Std-810 C, method 507, proc. 1 : 5 cycles
Operating temperature	up to 70 °C for several hours up to 100 °C for short periods
Temperature dependence of λ_m $\Delta\lambda_m/\Delta T$ [nm/°C]	approx. +0.02
Notes	Fit filters with mirror side facing light source.

Table 12: Specifications of filter type KMZ 50

Preferred dimensions [mm]	
External dimensions	Dimensions of utilizable area
$\varnothing 12 +0/-0.3$	$\varnothing \geq 9$
$\varnothing 25 +0/-0.3$	$\varnothing \geq 22$
$\varnothing 50 +0/-0.3$	$\varnothing \geq 47$
$\square 50 +0/-0.3$	$\square \geq 47$
Thickness	≤ 4
Other dimensions on request	

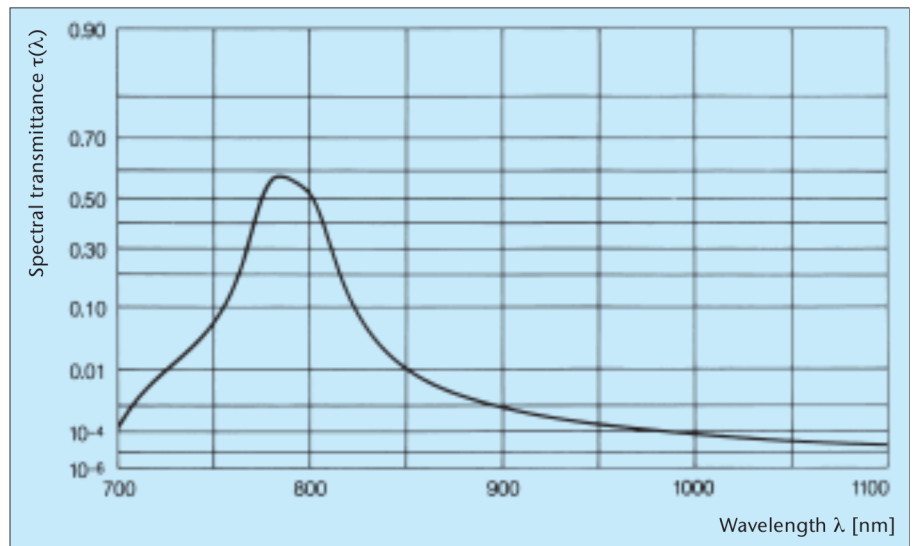


Fig. 20: Spectral transmittance curve (general curve) of filter type KMZ 50