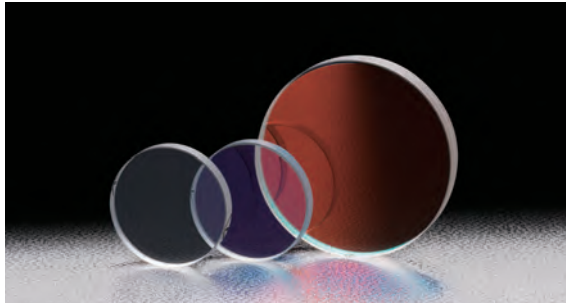
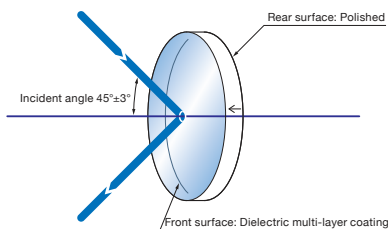


These laser mirrors are designed for specific wavelength laser applications where low wavefront distortion, low scattering and high reflectivity are usually important. These narrowband reflectors are for several wavelengths and sizes.

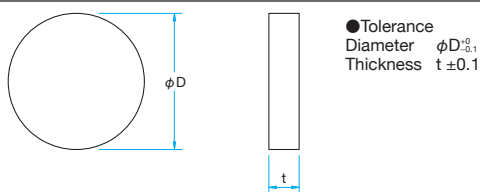
- Dielectric multi-layer coating does not have absorption like Aluminum coatings and provide higher than 99% reflectance except some mirrors for UV wavelength use are provide 95% reflectance.
- These coatings are much harder and provide higher laser damage threshold than Al+MgF2 coating.



Schematic



Outline Drawing



Specifications

Material	BK7 (CaF ₂ crystal for TFM-157 only)
Coating	Dielectric multi-layer coating
Incident angle	45°±3°
Surface Flatness	λ/10, Polished (TFM-157)
Parallelism	<3'
Surface Quality (Scratch-Dig)	10-5 (TFM-157: 40-20)
Clear aperture	90% of Actual Aperture

Guide

- ▶ Please consult our Sales Division for assistance in your selection and for customized products. (customized on outer diameter, wavelength characteristic, etc.) Please use the inquiry sheet. [Reference](#) B041
- ▶ Also available are our surface flatness guarantee (HTFM) mirrors with accuracy guarantee after surface coating. [Reference](#) B016

Attention

- ▶ The un-coated rear surface of the mirror is polished and the arrow on the side of the substrate points towards the coated surface.
- ▶ Reflectance values of laser line mirrors are different according to the polarization of input beams. S-Polarization has high reflectance with a wide reflective bandwidth when compared to P-Polarization. The reflectance specification listed is at random polarization or (P-Polarization reflectance + S-Polarization reflectance) / 2.
- ▶ The reflectance curves are based on actual measurements and may be vary by production lots.
- ▶ Be sure to wear laser safety goggles when checking optical path and adjusting optical axis.
- ▶ The surface flatness is the reflected surface wavefront distortion before coating.

Laser Line Mirrors Narrowband

157 – 337.1nm						
Part Number	Wavelength Range [nm]	Diameter φD [mm]	Thickness t [mm]	Reflectance [%]	Laser Damage Threshold* [J/cm ²]	Rear Surface
TFM-30C03-157	157	φ30	3	>95.0	0.5	Polished
TFM-50C05-157	157	φ50	5	>95.0	0.5	Polished
TFM-25.4C05-193	193	φ25.4	5	>95.0	0.8	Polished
TFM-30C05-193	193	φ30	5	>95.0	0.8	Polished
TFM-50C08-193	193	φ50	8	>95.0	0.8	Polished
TFM-25.4C05-248	248.4	φ25.4	5	>99.0	2	Polished
TFM-30C05-248	248.4	φ30	5	>99.0	2	Polished
TFM-50C08-248	248.4	φ50	8	>99.0	2	Polished
TFM-25.4C05-266	266	φ25.4	5	>99.2	2	Polished
TFM-30C05-266	266	φ30	5	>99.2	2	Polished
TFM-50C08-266	266	φ50	8	>99.2	2	Polished
TFM-25.4C05-282	281.8	φ25.4	5	>99.3	2	Polished
TFM-30C05-282	281.8	φ30	5	>99.3	2	Polished
TFM-50C08-282	281.8	φ50	8	>99.3	2	Polished
TFM-25.4C05-308	308	φ25.4	5	>99.5	3	Polished
TFM-30C05-308	308	φ30	5	>99.5	3	Polished
TFM-50C08-308	308	φ50	8	>99.5	3	Polished
TFM-25.4C05-325/337	325 – 337	φ25.4	5	>99.5	3	Polished
TFM-30C05-325/337	325 – 337	φ30	5	>99.5	3	Polished
TFM-50C08-325/337	325 – 337	φ50	8	>99.5	3	Polished

* Laser pulse width 10ns (TFM-157, TFM-193: 20ns), repetition frequency 20Hz

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Frameless

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Dielectric Coating

Aluminum Coating

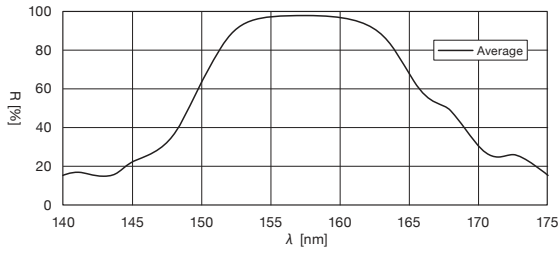
Gold Coating



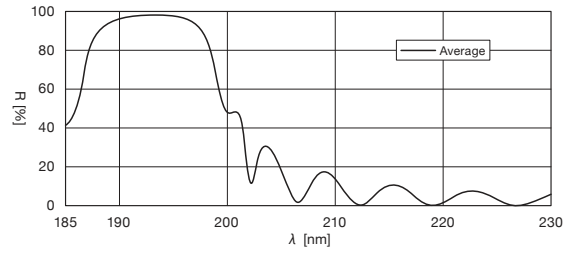
Typical Reflectance Data ... Laser Line Mirrors Narrowband

R: Reflectance

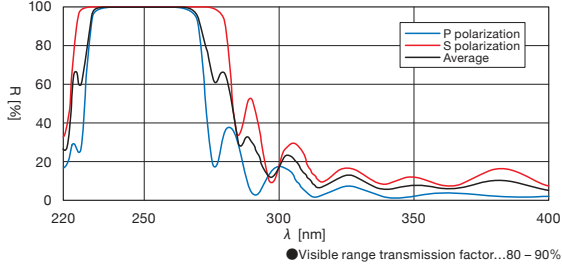
TFM-157



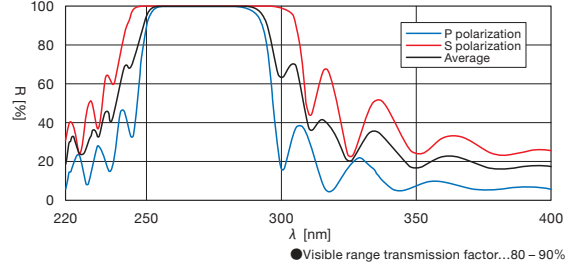
TFM-193



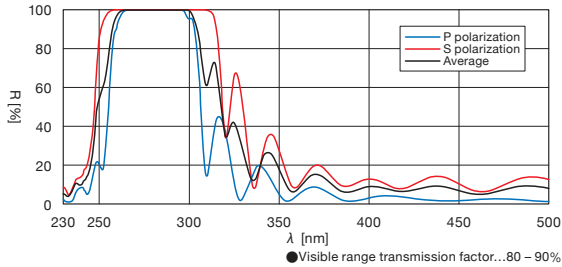
TFM-248



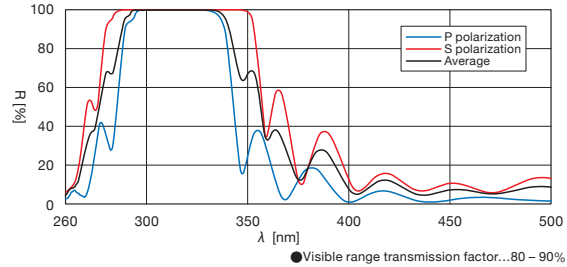
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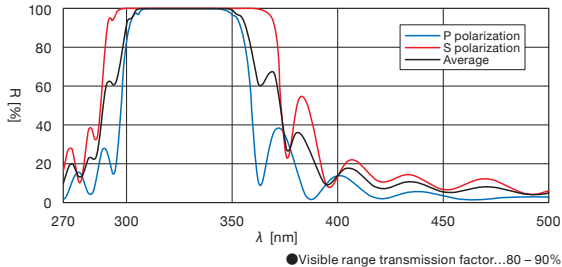
TFM-282



TFM-308



TFM-325/337



Compatible Optic Mounts

MHG-MP12.7-NL / MHG-HS25-NL, -HS30-NL / MHG-MP50-NL, -MP50.8-NL

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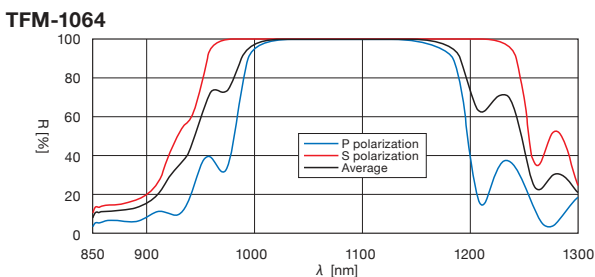
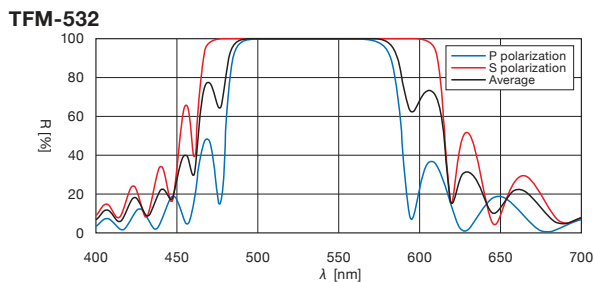
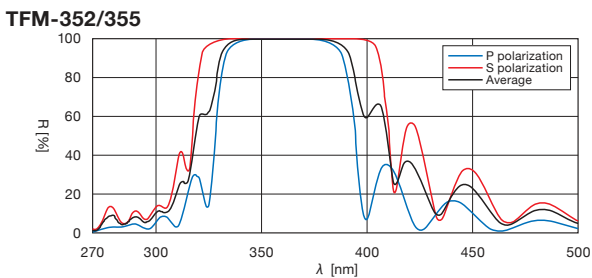
Laser Line Mirrors | TFM

Laser Line Mirrors Narrowband

352 – 1064nm						
Part Number	Wavelength Range [nm]	Diameter D [mm]	Thickness t [mm]	Reflectance [%]	Laser Damage Threshold* [J/cm ²]	Rear Surface
TFM-25.4C05-352/355	352 – 355	φ25.4	5	>99.5	5	Polished
TFM-30C05-352/355	352 – 355	φ30	5	>99.5	5	Polished
TFM-50C08-352/355	352 – 355	φ50	8	>99.5	5	Polished
TFM-12.7C05-532	532	φ12.7	5	>99.5	8	Ground
TFM-25C05-532	532	φ25	5	>99.5	8	Polished
TFM-25.4C05-532	532	φ25.4	5	>99.5	8	Polished
TFM-30C05-532	532	φ30	5	>99.5	8	Polished
TFM-40C06-532	532	φ40	6	>99.5	8	Polished
TFM-50C08-532	532	φ50	8	>99.5	8	Polished
TFM-50.8C08-532	532	φ50.8	8	>99.5	8	Polished
TFM-12.7C05-1064	1064	φ12.7	5	>99.5	20	Ground
TFM-25.4C05-1064	1064	φ25.4	5	>99.5	20	Polished
TFM-30C05-1064	1064	φ30	5	>99.5	20	Polished
TFM-40C06-1064	1064	φ40	6	>99.5	20	Polished
TFM-50C08-1064	1064	φ50	8	>99.5	20	Polished
TFM-50.8C08-1064	1064	φ50.8	8	>99.5	20	Polished

* Laser pulse width 10ns, repetition frequency 20Hz

Typical Reflectance Data ... Laser Line Mirrors Narrowband R: Reflectance



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