

### General Description:

### | Advanced Optical Solutions |

Beam Transformation System (BTS) for diode laser bars with up to 50 emitters: emitter size up to 100  $\mu\text{m}$ , emitter pitch 200  $\mu\text{m}$ . The BTS is used to make the beam parameter product of diode laser bars symmetrical for free beam lasers or fiber coupling.

The BTS consists of a FAC160 fast axis collimation lens, a lens array for 90° rotation of the emitters and a bottom tab.

product similar to image

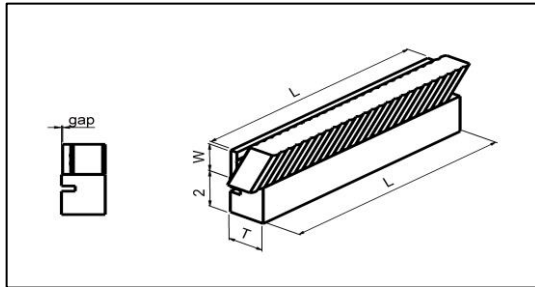
© Photo: Markus-Steur.de

### Specification Data

	Unit	Value
Material		S-NPH3 / S-TIH53 (Ohara)
Length (L)	mm	12 $\pm$ 0.1
Width (W)	mm	0.8
Clear aperture	mm <sup>2</sup>	10.5 x 0.25
Surface quality @ 633 nm		$\lambda/4$ (typically)
Back focal length BFL @ 980 nm	mm	0.034
Pitch	mm	0.2
Gap	mm	0.0 $\pm$ 0.01
Numerical aperture (NA)		FA: 0.5 SA: 0.09
Transmission	%	> 98
Remaining divergence (FW1/e <sup>2</sup> ) for fast axis (*)	mrad	< 12

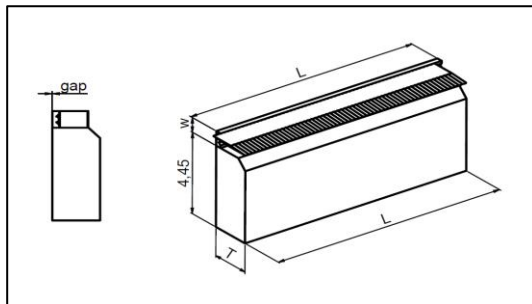
### Product Codes

AR-coating	Product code	Thickness (T)	Note
600 - 700 nm	MOD000674	1.5 $\pm$ 0.1 mm	Divergence measured at 808 nm
790 - 990 nm	MOD000681	1.5 $\pm$ 0.1 mm	Divergence optimized for 808 nm
790 - 990 nm	MOD000682	1.5 $\pm$ 0.1 mm	Divergence optimized for 976 nm



### Product Codes

AR-coating	Product code	Thickness (T)
948 - 998 nm	MOD000722	2.06 $\pm$ 0.1 mm



**RoHS compliant**  
2002/95/EG

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Version May 16, 2019

(\*) Valid for an emitter-height of 1 $\mu\text{m}$  and no smile of the laser diode.