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## General Description:

## | Advanced Optical Solutions |

Compact Beam Transformation System (BTS) for diode laser bars with 19 emitters: emitter size up to 150  $\mu\text{m}$ , emitter pitch 500  $\mu\text{m}$ . 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 FAC 286 fast axis collimation lens, a lens array for 90° rotation of the emitters and a bottom tab.

## Specification Data

	Unit	Value
Material		S-TIH53 (Ohara)
Length (L)	mm	11.5 $\pm$ 0.1
Width (W)	mm	1.0 $\pm$ 0.1
Thickness (T)	mm	1.9 $\pm$ 0.1
Clear aperture	mm <sup>2</sup>	10.0 x 0.45
Surface quality @ 633 nm		$\lambda/4$ (typically)
Back focal length BFL @ 808 nm	mm	0.09
Pitch	mm	0.5
Gap	mm	0.05 $\pm$ 0.01
Numerical aperture (NA)		FA: 0.6 SA: 0.1
Transmission	%	> 98

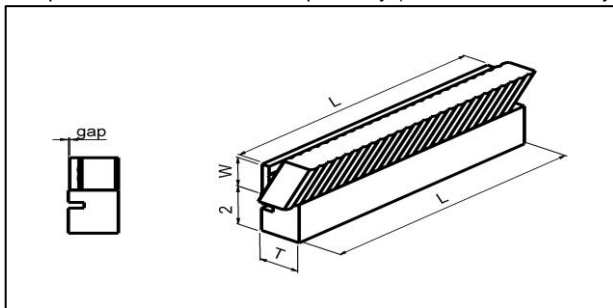
## On request

Customized coating

## Matrix of Product Codes

AR-coating	Remaining FA divergence (FW 1/e <sup>2</sup> ) (*)			Note
	< 7 mrad	< 10 mrad	< 13 mrad	
600 - 700 nm	MOD000562	MOD000622	MOD000623	Divergence measured at 808 nm
785 - 810 nm	MOD000132	MOD000122	MOD000548	Divergence measured at 808 nm
965 - 990 nm	MOD000152	MOD000268	MOD000547	Divergence measured at 976 nm
790 - 990 nm	MOD000124	MOD000115	MOD000116	Divergence optimized for 808 nm
790 - 990 nm	MOD000151	MOD000117	MOD000546	Divergence optimized for 976 nm
1000 - 1600 nm	MOD000352	MOD000283	MOD000284	Divergence measured at 976 nm

Apart from free beam lasers the BTS with remaining divergence for FA < 7, 10 or 13 mrad can be used for coupling into 200, 400 or 600  $\mu\text{m}$  fibers with NA 0.22, respectively (see also BTS-HOC systems for fiber coupling).



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

**RoHS compliant**  
2002/95/EG

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