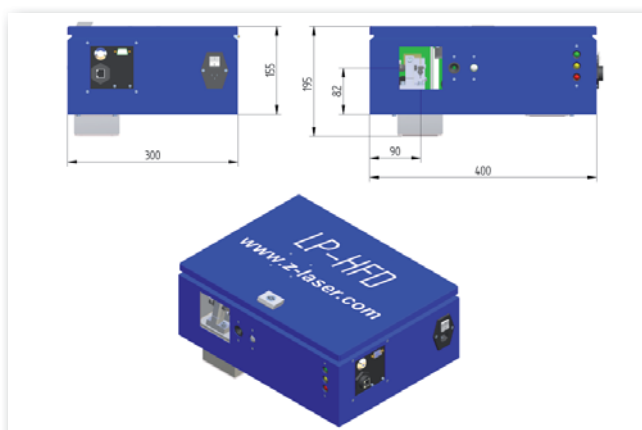


LP-HFD

2D / 3D laser projector



- Repetition rate: 50Hz
- Optimised for 3D
- Optional extendable air cooling
- Highest accuracy of projection: 0,5 mm per 1m projection distance
- Multi-projection system for huge and complex projections



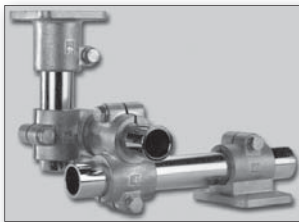
Housing	Dimensions (mm)	400 x 300 x 155 (195 including fan)
	Protection class	IP 40
	Weight	10 kg
Voltage	Input voltage	95/240 VAC, 50-60Hz
	Power consumption	<ul style="list-style-type: none"> • Standby: < 55W, • In operate < 170W
Data transfer	Type of connection	Ethernet / Serial
	Serial (without converter)	RS232 / V24 (10m)
	Serial (with converter)	optical fiber / RS485
	Ethernet	Ethernet TP, 100 Base TX, cable or WLAN
	Software	LPM
	Format of graphics without LPM	HPGL
Laser	red	modulatable diode laser red, 635nm \pm 5nm
	green (optional)	modulatable DPSS laser green, 532nm
	Output power	7mW nominal (vertical beam outside the housing)
	Laser class	2M (3A)
Projection	Accuracy of projection (typical) passive cooling	0,5mm/m mounting height (at 23°C, optical angle 70° and 0° slope)
	Optical angle/axis	max. 80° x 80°
	Refresh rate	50Hz (Reference Test image quad.plt)
	Optical resolution	1/812 calculative (at 80° fan angle)
	Projection	arbitrary polygons
Conditions for installation	Working temperature	min. 5°C / 41° F
	Passive cooling	max. 40°C / 104°F
	Active cooling (optional)	max. 45°C / 110°F
	Humidity	< 80% relative, non condensing

Included in delivery: Laser projector, 2m power cable with Euro plug, 4 glass reflectors in aluminium, Software LPM, digital user manual

Working range in relation to the mounting height

Distance from the projector to the top edge of material (mm)	Optical angle 76° (mm)
1.000	1.562,57
2.000	3.125,14
3.000	4.687,71
4.000	6.250,29
5.000	7.812,86
6.000	9.375,43
7.000	10.938,00
8.000	12.500,57
9.000	14.063,14

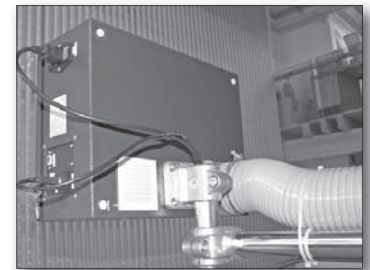
Accessories



Cardanic mount

Cardanic mount for a flexible positioning along all three directional axes. Flexible, simple, stable, industrial standard.

Extendable air cooling



Data transfer via optical fibre (LWL set)

At distances over 15m a connection via optical fibre is strongly recommended if the LP HFD is controlled via RS232. Additional advantages: fast data transfer, no data loss, good shielding against magnetic fields.



Installation kit

contains: 1 Cardanic mount, 2 Patch cables, 1 Crossover cable, 1 Ethernet mini - HUB, 1 tube (600mm), 1 set reflectors.



Cable or wireless remote control

Can be used with LP-HFD red and LP-HFD green. Some commands can be: „Calibrate laser“, „Next and previous Pen“, „Change of projection image“, „Rotation“ and „Adjustment“. Transmission distance approx. 30m with wireless control absolutely precise shift of the projection etc.



Glass reflectors

Used for the drift compensation and referencing the laser systems. Exact adjustment of the laser to the operating area at mechanical and thermal effects.

Industrial PC cabinet

Optional with UPS.

