

OUR SERVICES

Individual illumination jobs and sensor solutions

Micro workspaces
Image processing systems

Development and manufacture of customer specific component assemblies

Micro-optics > optical calculations > energy & irradiation paths
Mechanics > mechanical prototypes > null series > series
Electronics > circuit board layout and assembly > software

Fibre optic assemblies in special areas

Environmental conditions
Temperature, humidity, chemical influences liquids, gases, electrical shock, EMC

Optical guides for laser beam processing

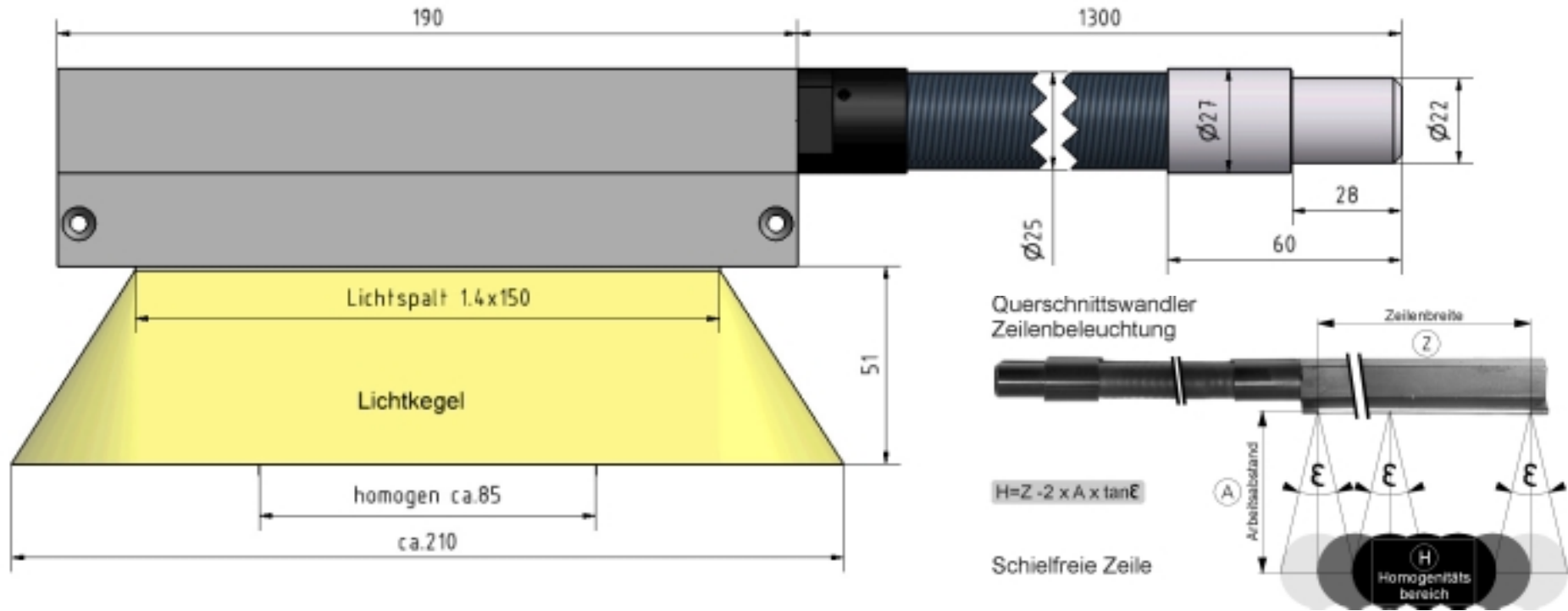
Digitised, controllable light sources
Components for analysis technology
Optoelectronic assemblies for computer peripheries
Conversion of electrical, optical and mechanical characteristic curves into optical signals.

Areas of application

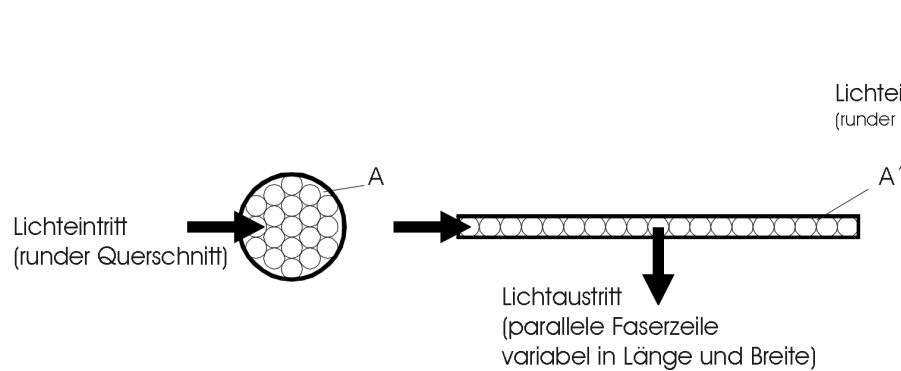
Microscopes and micro workplace illumination, image processing illumination, visual inspection, inspection tasks. Automation for manufacturing systems, filling stations, assembly lines, tool machines, packaging machines, printing machines...



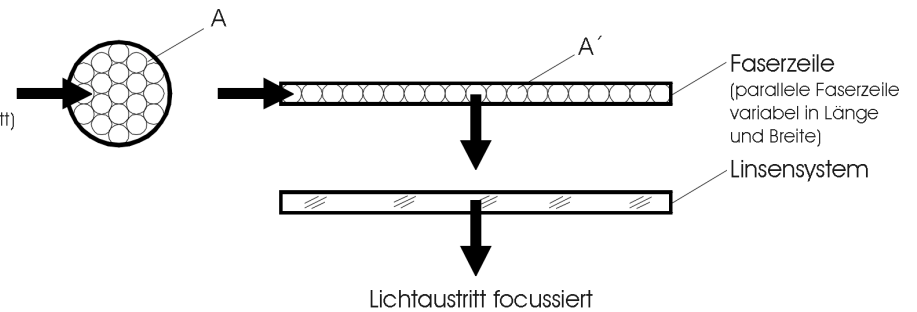
LINE ILLUMINATION CROSS-SECTIONAL CONVERTER



What does cross-sectional converter mean?



What does columnar illumination mean?



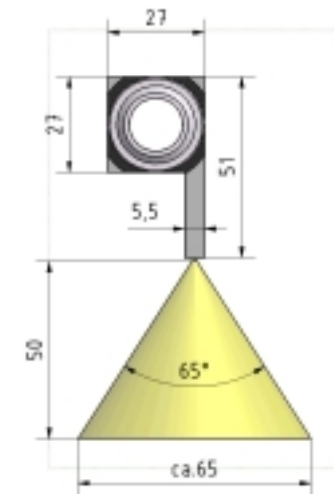
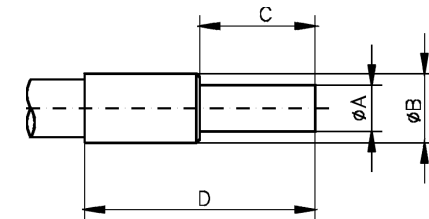
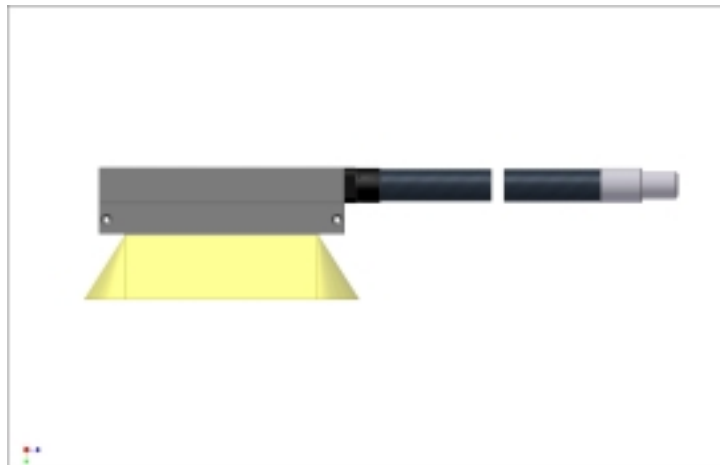
The circular area at light inlet = the area of the fibre line, length x width at light emission.

CROSS-SECTIONAL CONVERTER LINE ILLUMINATION

218848	04.9 LL	KLQ06.00 MP QW0.50x036	0200	A centre
228118	04.9 LL	KLQ06.00 MP QW0.75x036	0150	A centre
229089	06.2 LL	KLQ08.00 MP QW2.15x014	0100	A centre
207976	06.2 LL2	KLQ08.00 MP QW0.50x115	0100	A centre
208871	06.7 LL2	KLQ08.00 MP QW0.50x135	0100	A centre
207974	06.8 LL	KLQ08.00 MP QW0.50x070	0100	A centre
228119	06.8 LL	KLQ08.00 MP QW0.50x070	0150	A centre
229225	06.8 LL2	KLQ08.00 MP QW0.50x700	0120	A centre
216350	07.5 LL2	KLQ08.00 MP QW0.50x160	0100	A centre
228776	08.5 LL	KLQ10.00 MP QW0.50x120	0150	A centre
228776	08.5 LL	KLQ10.00 MP QW0.50x120	0150	A centre
226272	08.8 LL	KLQ10.00 MP QW0.50x115	0100	A centre
226273	09.3 LL	KLQ10.00 MP QW0.50x135	0100	A centre
226274	10.0 LL	KLQ10.00 MP QW0.50x160	0100	A centre
206004	15.0 LL	E91 MS QW1.15x150	0130	G left
102506	15.1 LL	E91 MP QW0.60x270	0100	G right
101730	15.1 LL	E91 MP QW0.60x270	0130	G right
102505	15.1 LL	E91 MP QW0.60x270	0150	G right
206096	15.1 LL	E91 MS QW0.60x270	0170	G right
215425	16.0 LL	E97 MP QW1.30x150	0098	G right
215425	16.0 LL	E97 MP QW1.30x150	0098	G right
215732	16.0 LL	E97 MP QW1.30x150	0130	G left
207594	16.0 LL	E97 MP QW1.30x150	0130	G right
207595	16.0 LL	E97 MP QW1.30x150	0150	G right
206183	17.5 LL	E97 MP QW1.00x250	0100	G right
206111	17.5 LL	E97 MP QW1.00x250	0130	G right
206184	17.5 LL	E97 MP QW1.00x250	0150	G right
208089	17.5 LL	E97 MP QW1.00x250	0170	G right
207281	17.5 LL	E97 MP QW1.00x250	0180	G left
218409	18.3 LL	E94 MP QW1.00x250	0130	A left

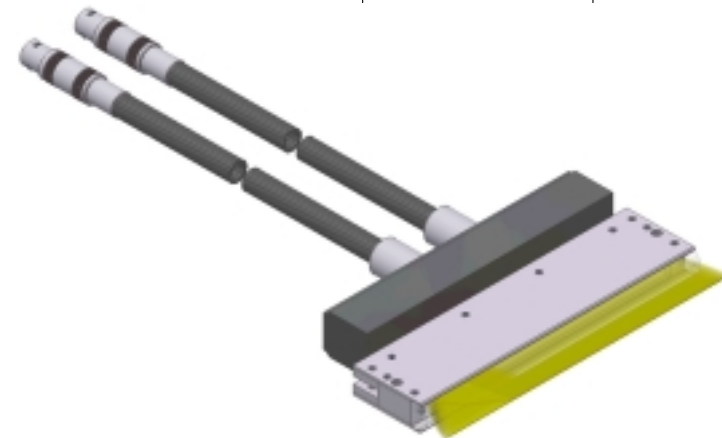
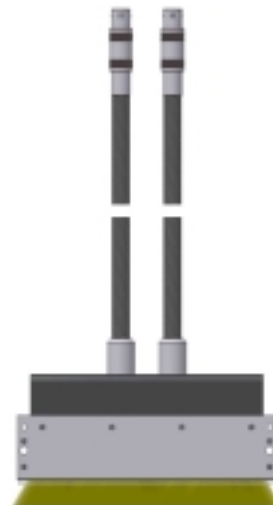
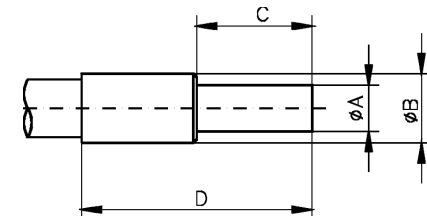
Light input Active	Ø IN	04.9	Ø4.9mm
Number of arms		LL	1-arm light guide, LL2-arm light guide
Light inlet adapter		KLQ	LEMOSA self-interlocking light guide connection
Light source connection		06.00	Active light emission at light source
Light inlet end sleeve		E91	Type description, see table below
Hose / sheath		MP	Aluminium with plastic covering, black
Hose types pages 32-33		PV	Polyvinylchloride (PVC), black
		MS	Protective hose stainless steel with silicone rubber sheath, grey
Line dimensions	QW0.50x036		Width 0.5mm x length 36mm
Total length		0050	Arm length in cm
Fibre type		A	Acrylic / POF (Polymer Optical Fibre),
Fibre types page 34		G	Glass
		HCP	Hard clad / hard coat fibre
Connection side		Centre	Light guide bundle, centre, right, left

ØA	ØB	C	D	
18	25	40	60	E91
22	30	28.2	60	E94
22	27	28	60	E97



COLUMNAR ILLUMINATION LINE ILLUMINATION

225936	04.9 LL	KLQ06.00 MP QW0.50x036 0200 A vF	Light input Active	Ø IN	04.9	Ø4.9mm
214395	04.9 LL2	KLQ06.00 MP QW0.50x036 0150 A vF	Number of arms		LL	1-arm light guide, LL2-arm light guide
206147	05.5 LL	KLQ06.00 MP QW0.50x050 0150 A vF	Light inlet adapter		KLQ	LEMOSA self-interlocking light guide connection
207162	05.5 LL	KLQ08.00 MP QW0.50x050 0285 A vF	For light sources Active	Ø OUT	06.00	Active light emission at light source
218013	05.5 LL2	KLQ08.00 MP QW0.50x050 0050 A vF	Light inlet end sleeve		E93	Type description, see table below
205059	05.5 LL2	KLQ08.00 MP QW0.50x050 0150 A vF	Hose / sheath		MP	Aluminium with plastic covering, black, hose type page 31
206799	05.5 LL2	KLQ08.00 MP QW0.50x050 0300 A vF			PV	Polyvinylchloride (PVC), black
206871	05.9 LL2	KLQ08.00 MP QW0.50x110 0100 A ff S8			MS	Protective hose stainless steel with silicone rubber sheath, grey
226275	06.3 LL2	KLQ08.00 MP QW0.50x125 0100 A vF	Line dimensions	QW0.50x036		Width 0.5mm x length 36mm
209248	06.8 LL	KLQ08.00 MP QW0.50x070 0100 A vF S11	Connection length		0050	Light guide in cm
216345	07.5 LL2	KLQ08.00 MP QW0.50x160 0100 A vF S17	Fibre type		A	Acrylic / POF (Polymer Optical Fibre),Fibre type page 31
209150	09.5 LL2	E93 MP QW0.50x260 0100 A vF S17			G	Glass
229219	09.5 LL2	ES MP QW0.50x070 0120 A VF S50			HCP	Hard clad / hard coat fibre
229219	09.5 LL2	ES MP QW0.50x070 0120 A VF S50	Connection side		Centre	Light guide bundle, centre, right, left
208967	11.0 LL2	E94 MP QW0.50x360 0100 A vF S100	Focussing		vF	VarioFocus
229397	13.0 LL	ES MP QW0.50x300 0100 A			ff	FixFocus
212609	13.5 LL2	E94 MP QW0.50x500 0060 A ff S17	Increment / working distance		S8	Increments in 8mm
213262	15.5 LL	E94 MP QW0.50x360 0220 A ff li				
208447	16.0 LL	E94 MP QW0.75x260 0220 A ff re	ØA	ØB	C	D
207670	19.0 LL	E94 MP QW0.75x360 0220 A ff li	22	24	28.2	60
207899	19.0 LL	E94 MP QW0.75x360 0220 A ff li	22	30	28.2	60
215222	19.0 LL	E95 MP QW0.50x500 0150 G ff S17	22	34	32.5	70



CROSS-SECTIONAL CONVERTER

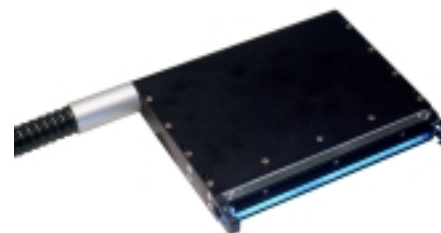
Item Nr. 228653

Column	34.25x0.25mm WxH
Focussing	without
supply	7x1100mm
Fibre type	Acrylic fibre
	Numerical Aperture NA=0.44
	Exit angle $\epsilon=52^\circ$
Light guide	7x \varnothing 1.7mm active
Connection	SMA plug for laser diodes

**COLUMNAR ILLUMINATION**

Item Nr. 226930

Column	124x0.22mm WxH
Focussing	Cylinder lens with filter holder for a range of working distances
supply	600mm
Fibre type	Quartz fibre
	Numerical Aperture NA=0.28
	Exit angle $\epsilon=16^\circ$
Light guide	\varnothing 4.8mm active
Connection	KBA coupling to short arc lamp 300Watt



High intensity, homogeneous, parallel light for columnar microscopes.

COLUMNAR ILLUMINATION

Item Nr. 225570

Column	10x1.6mm WxH
Focussing	Cylinder lens for a range of working distances
supply	2x100cm
Fibre type	Acrylic fibre
	Numerical Aperture NA=0.47
	Exit angle $\epsilon=56^\circ$
Light guide	2x \varnothing 4.5mm active
Connection	KLQ 08.00 halogen cold light source 150 Watt



225570

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