

THE POWER OF INNOVATION

We enhance the performance of your lasers

High-Power Laser Cables For All Lasers

REPAIR SERVICE

CE0535
FRANK OPTIC PRODUCTS®

bsi ISO 9001
Quality Management

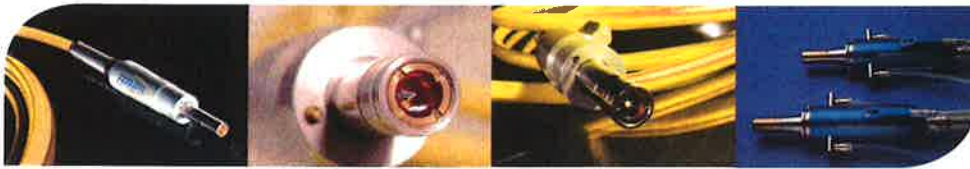
bsi ISO 13485
Medizinprodukte
Produktion
Management

Fraunhofer
IPA
TESTED DEVICE
VDE-Geprüfter
Hersteller für Klasse II

B2B SERVICE
FRANK OPTIC PRODUCTS®

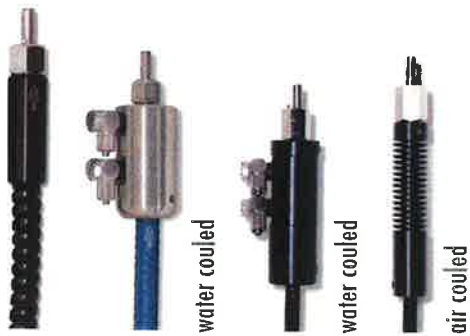
LS LASER SAFETY
CLASSIFICATION
CLASSIFICATION

FRANK OPTIC PRODUCTS®



HPLD-D15, HPLD-D10
HPLN-D15, HPLN-D10
HPLD automotive, HPLN automotive

The High Power-Laser Cable Modular System up to 10 kW



HPLK-Systems

Laser Cabs

The High Power-Laser Cable Modular System up to 1 kW

Laser Windows

**Flow Tubes,
Flow Plates**



SMA-Systems

Laser Reflectors

**Ceramic-based
IR Converter**



HPLK- The High Power-Laser Cable Modular System

Industrial HPLK-laser cable systems
water cooling, suitable up to 1kW

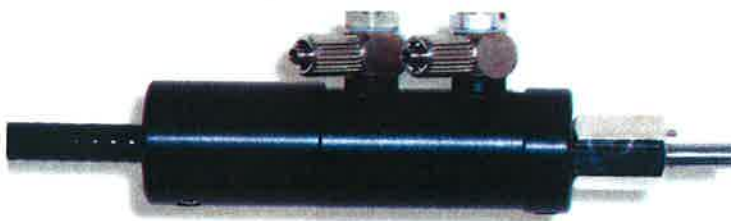


CoolConnect®
The Original!

HPLK-systems FD80 CoolConnect®

HPLK-FD80 CoolConnect®
FD80-connector, hybrid protective tubing, freestanding fibre, optional protection by reflection, keyed connector, water cooling

industrial HPLK-laser cable systems
water cooling and ModeStrip



HPLK-systems FD80 CoolConnect®

HPLK-FD80 ModeStripAC
FD80-connector, hybrid protective tubing, freestanding fibre, optional protection by reflection, keyed connector, ModeStrip, water cooling

industrial HPLK-laser cable systems
air cooling and ModeStrip



HPLK-systems FD80 air cooling

HPLK-FD80 ModeStripAC
FD80-connector, hybrid protective tubing, freestanding fibre, optional protection by reflection, keyed connector, ModeStrip, air cooling

industrial HPLK-laser cable systems standard
freestanding fibre with keyed connector



HPLK-systems FD80 STD

HPLK-FD80basic
HPLK-FD80
HPLK-FD80HR
FD80-connector, hybrid protective tubing, freestanding fibre, optional protection by reflection (fibre holder with HR-Coating), keyed connector

equipment, connection flanges



HPLK 4-hole flange
standard



HPLK 4-hole flange
with key

4-hole flange for HPLK-FD80 cables
without and with key



SMA



FC-PC



ST

connector sleeve
for fibre/fibre-coupling
SMA, FC-PC, ST

① suitable for quartz glass fibres \varnothing 100 to 1200 μ m

PLUG-IN CONNECTOR SYSTEMS

for industrial laser cables LCS



industrial SMA-laser cable systems standard

industrial SMA-laser cable systems
with hybrid protective tubing



industrial SMA-laser cable systems
with electrical isolation



industrial SMA-laser cable systems
with SMA-hexagonal nut



industrial SMA-laser cable systems
connector without glue, suitable for high power applications



industrial SMA-laser cable systems
connector without glue, suitable for high power applications



industrial SMA-laser cable systems
with sealing ring and SMA-hexagonal nut



industrial SMA-laser cable systems
ModeStrip with air cooling



industrial ST-laser cable systems



industrial FC-laser cable systems



SMA-systems STD

LCS-S05

LCS-S05free

SMA-connector, optional freestanding fibre, with plastic sheathing, kink protection, Kevlar-strain relief

SMA-systems with stainless steel tubing

LCS-S05

LCS-S05free

SMA-connector, optional freestanding fibre, stainless steel tubing

SMA-systems EI

LCS-S05

LCS-S05free

SMA-connector, optional freestanding fibre, stainless steel tubing, with electrical isolation

SMA-systems Hexagonal SP

LCS-S05

LCS-S05free

SMA-connector, optional freestanding fibre, stainless steel tubing, sleeve with grooves, hexagonal nut

SMA-systems SP

LCS-S05free

SMA-connector, freestanding fibre, stainless steel tubing with blue plastic sheathing, aluminium sleeve, fibre in connector without glue, nut nickel-plated black

SMA-systems SP

LCS-S05free

SMA-connector, freestanding fibre, stainless steel tubing with yellow plastic sheathing, aluminium sleeve, fibre in connector without glue

SMA-systems Hexagonal DR

LCS-S05DR

SMA-connector, with sealing ring, aluminium sleeve, stainless steel tubing with silicone sheathing, hexagonal nut

SMA-systems ModeStrip

LCS-S05 ModeStripAC

SMA-connector, freestanding fibre, stainless steel tubing, ModeStrip with air cooling

ST-systems

LCS-ST

ST-connector with ceramic ferrule, plastic tubing, Kevlar-strain relief

FC-systems

LCS-FC

FC-connector, plastic tubing and kink protection, Kevlar-strain relief

① suitable for quartz glass fibres $\varnothing 50$ to $1000 \mu\text{m}$

① STD = standard

① SP = special / individual

① DR = sealing ring

① EI = electrical isolation



DIN EN ISO 9001 : 2008
ZertifikatsNr. ZQ082981-9



DIN EN ISO 13485 : 2012
ZertifikatsNr. ZQ071901-13

LLK | Laserkabel-Reparaturservice

für faseroptische Strahlführungssysteme
LLK Nd:YAG-, Dioden-, Faser- und Scheibenlaser

Neben der Entwicklung und Herstellung von Laserkabeln haben wir auch einen umfassenden, schnellen Reparatur- und Umbauservice weltweit und anbieterübergreifend für alle Laserkabeltypen.

Alle Laserkabelsysteme können individuell nach Kundenwunsch und der jeweiligen Applikation kombiniert und umgebaut werden.

Als Spezialist bieten wir die Kombination unterschiedlichster Steckverbindersysteme zur komplementären Anwendung an.

LLK-Reparatur und Umbauservice für z.B.:



LLK-Typ	LLK-Typ	LLK-Typ	LLK-Typ	LLK-Typ	LLK-Typ	Laserkabel
Trumpf LLK-A	Trumpf LLK-B	Trumpf LLK-D		Trumpf LLK-Q		Laserscope
Highyag LLK-LP	Highyag LLK-HP	Highyag LLK-Auto				
IPG LLA	IPG HLC-8	IPG LCA		IPG HLC-8		
FOP HPLD-D10	Optoskand Q5	Optoskand QD		Optoskand QBH Optoskand RQB	Optoskand SMAQ	
	FOP HPLD-D15 FOP HPLD-D15CCB	FOP HPLD <i>automotive</i>	FOP HPLK-FD80		FOP HPLK FOP LCS, MLCS	
			Mitsubishi LD80			

Weitere Faseroptische Strahlführungssysteme LLK auf Anfrage.



The Power of Innovation!
www.frank-optic-products.de