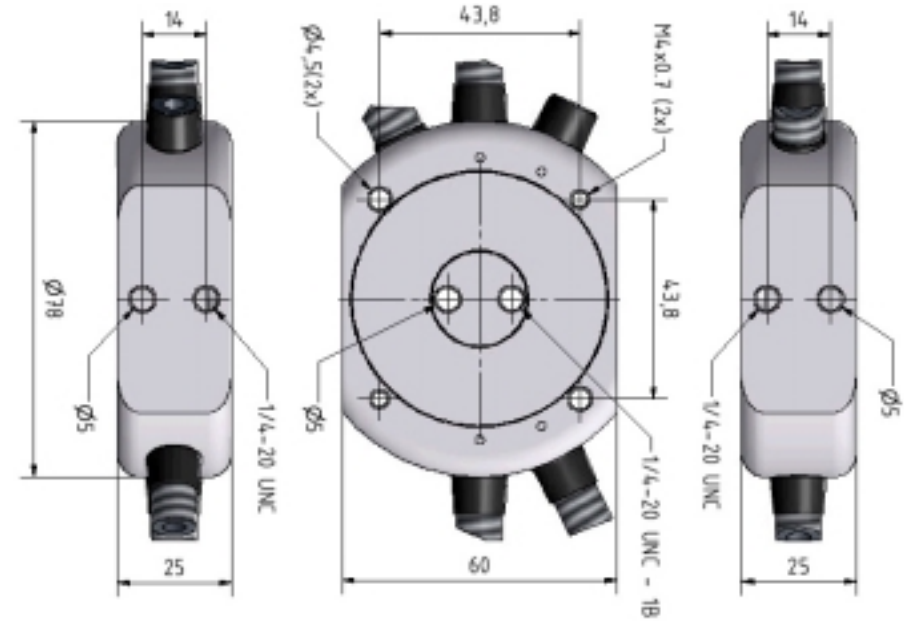


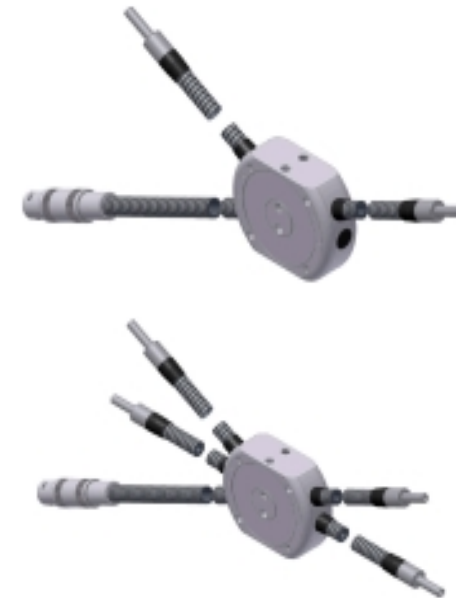


|                        |          |                                                              |
|------------------------|----------|--------------------------------------------------------------|
| Light input ActiveØ IN | mm       | 5.6                                                          |
| Fibre type             | G        | Glass                                                        |
| Fibre - damping losses | %        | 200db/km 4.5%/m at 820nm                                     |
| Light emission angle   | °ε       | 65                                                           |
| Light supply covering  | MP       | galvanised steel with plastic sheath, black                  |
| Temperature resistant  | °C       | <90                                                          |
|                        |          | Semi-rigid                                                   |
| End sleeve             | Type     | E61                                                          |
| End sleeve material    | V2A      | Steel                                                        |
| Light inlet adapter    | KLQ06.00 | LEMOSA plugs, light sources with active light emission >Ø6mm |



**SPOT ILLUMINATION**

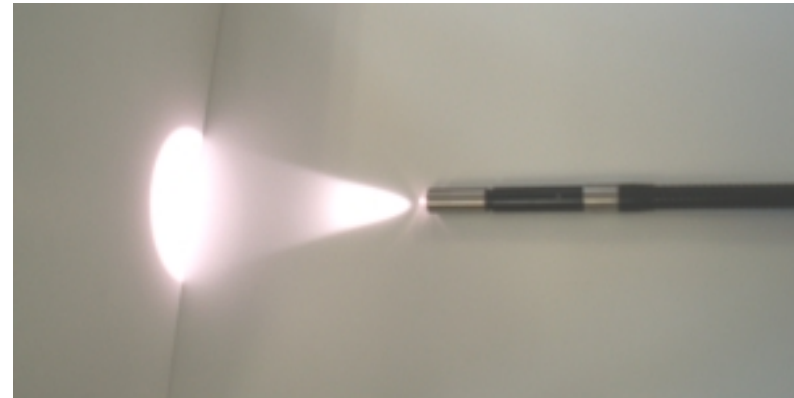
|                                    |    | <b>KRAKE 2</b>       | <b>KRAKE 2</b> | <b>KRAKE 4</b> |
|------------------------------------|----|----------------------|----------------|----------------|
| Light emission per arm ActiveØ OUT | mm | 4.0                  | 4.0            | 3.5            |
| Light supply length                | cm | 100                  | 100            | 200            |
| Arm length                         | cm | 55                   |                | 40             |
| Arm sheath                         |    | Brass/steel/silicone |                | Brass/steel    |
| Sheath colour                      | sw | Black or grey        |                | Black          |
| IP protection class                | IP | 41                   |                |                |
|                                    |    | 229152               | 205063         | 227759         |



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Baseplate 226764

A range of **focusing attachments** pluggable to light emission, accessories see page 27 | Item Nr. 101894



DIFFUSED

FOCUSSED

**FOCUSSING ATTACHMENT FOR LIGHT GUIDE & OCTOPUS**

- 101894                      Focusing attachment Variofocus
- 229302                      Focusing attachment Variofocus

- Light input ActiveØ IN                      up to 4.2cm / end sleeve type E61
- Light input ActiveØ IN                      up to 7.5cm / end sleeve type E62

A homogeneous image is achieved when using the focussing attachment.  
 reducing the emission aperture = increases the illumination strength by a min. 100%  
 When focussing typical diameters of light guides and glass rods - no "spot focusing".

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Light supply line sheath depending on application

MP- protective hose

**MP**



|             |                                                                 |
|-------------|-----------------------------------------------------------------|
| Material    | Aluminium with plastic covering                                 |
| temperature | -20°C to +80°C                                                  |
| Colours     | black                                                           |
| Properties  | very flexible, high tensile with high peak compressive strength |

Flat cable coil - silicone protective hose

**MS**



|             |                                                                                                                                                            |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material    | Protective hose stainless steel with silicone rubber sheath                                                                                                |
| temperature | -60°C to +180°C                                                                                                                                            |
| Colours     | grey                                                                                                                                                       |
| Properties  | Silicone rubber sheath can be sterilised, is water-tight, and to a large extent resistant to chemicals and solvents, is stress-relieved and very flexible. |

PVC hose

**PC**



|             |                         |
|-------------|-------------------------|
| Material    | Polyvinylchloride (PVC) |
| temperature | up to approx. 70° C     |
| Colours     | black                   |

Stainless steel protective hose

**VA**



|             |                                              |
|-------------|----------------------------------------------|
| Material    | Stainless steel 1.4301                       |
| temperature | 600°C                                        |
| Colours     | dark grey                                    |
| Properties  | Media resistance conforms to 1.4301 material |

Alu- protective hose

**AL**

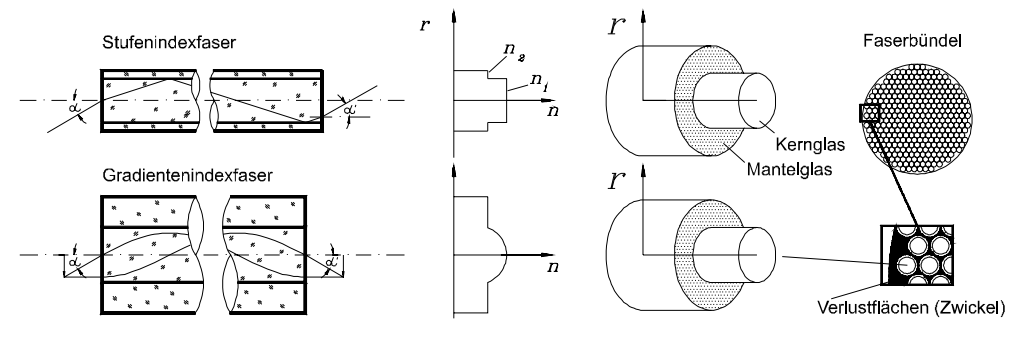
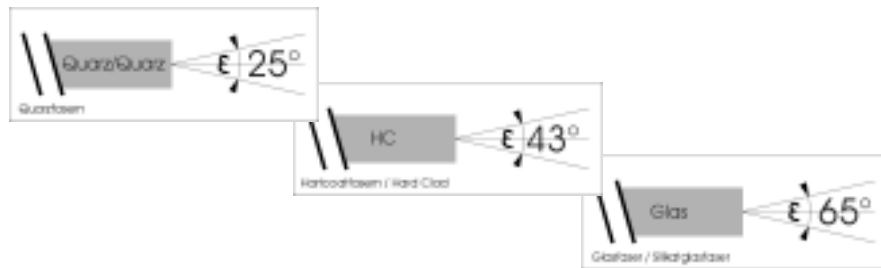


|             |                      |
|-------------|----------------------|
| Material    | Aluminium            |
| temperature | -60°C to +180°C      |
| Colours     | silver               |
| Properties  | anti-kink protection |

|                             |             |                                                                                                                                                                                                   |
|-----------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Decabon pipe                |             | <b>DK</b>                                                                                                                                                                                         |
|                             | Material    | Interior pipe made of double-sided coated overlapping aluminium foil, exterior sheath made of high density polyurethane (HD-PE)                                                                   |
|                             | temperature | -25°C to +65°C                                                                                                                                                                                    |
|                             | Colours     | black (standard)                                                                                                                                                                                  |
|                             | Properties  | It can be easily formed by hand, retains its shape and does not spring back.<br>It can be bent several times without damage.                                                                      |
| PE protective hose          |             | <b>PE</b>                                                                                                                                                                                         |
| <br>                        | Material    | PE protective hose                                                                                                                                                                                |
|                             | temperature | -0°C to +80°C                                                                                                                                                                                     |
|                             | Colours     | black                                                                                                                                                                                             |
|                             | Properties  | resistant to acids, alkalis and salt solutions / break and impact resistant                                                                                                                       |
| Tecalan protective hose     |             | <b>TC</b>                                                                                                                                                                                         |
|                             | Material    | Tecalan                                                                                                                                                                                           |
|                             | temperature | For continuous load -60°C to +100°C, for short-term loading to +130°C                                                                                                                             |
|                             | Colours     | black                                                                                                                                                                                             |
| PU protective hose          |             | <b>PU</b>                                                                                                                                                                                         |
| <br>                        | Material    | Electrical discharge protective PU hose                                                                                                                                                           |
|                             | temperature | -40°C to +80°C                                                                                                                                                                                    |
|                             | Colours     | black, blue, white                                                                                                                                                                                |
|                             | Properties  | High rupture stress, very good stability against cold, oils, fats, acids, alkalis and salt solutions; hardness: Shore A 98<br>Working pressure, temperature dependent! 12bar at 24°C 5bar at 66°C |
| PTFE coiled hose            |             | <b>PTFE</b>                                                                                                                                                                                       |
| <br><br>                    | Material    | PTFE coiled hose with glass fibre braiding                                                                                                                                                        |
|                             | temperature | -70°C to +260°C                                                                                                                                                                                   |
|                             | Colours     | black                                                                                                                                                                                             |
|                             | Properties  | non-flammable, chemical resistant                                                                                                                                                                 |
| Silicone hose               |             | <b>SL</b>                                                                                                                                                                                         |
| <br>                        | Material    | Silicone hose                                                                                                                                                                                     |
|                             | temperature | -60°C to +200°C, short-term +260° C                                                                                                                                                               |
|                             | Colours     | grey, black, transparent                                                                                                                                                                          |
|                             | Properties  | very flexible, acid and alkali resistant, Shore hardness A 55 ± 5°, autoclavable, ethylene oxide, light scent, non-toxic                                                                          |
| PVC hose with fabric insert |             | <b>GPVC</b>                                                                                                                                                                                       |
|                             | Material    | PVC hose with natural fabric insert                                                                                                                                                               |
|                             | temperature | -20°C to +65°C                                                                                                                                                                                    |
|                             | Colours     | transparent                                                                                                                                                                                       |
|                             | Properties  | permanently transparent, comfortable flexibility, good aging resistance, KTW approved, food materials approved according to RAL-E71                                                               |

| Fibre type                           | Acrylic fibre ( Polymer Optical Fibre) | Glass fibre silicate glass fibre | Hardcoat fibre hard clad                 | Quartz fibre                     | Quartz fibre         |
|--------------------------------------|----------------------------------------|----------------------------------|------------------------------------------|----------------------------------|----------------------|
| <b>Profile</b>                       | Index step fibre (Si)                  | Index step fibre (Si)            | Index step fibre (Si)                    | Index step fibre (Si)            | Gradient fibre (Gi)  |
| <b>ØD</b><br>Fibre exterior diameter | 250µm<br>500µm<br>750µm<br>1000µm      | 30µm<br>50µm<br>70µm             | 125µm<br><br>225µm<br><br>425µm<br>630µm | 155µm<br>250µm<br>270µm<br>415µm | 125µm<br>140µm       |
| <b>Ød</b><br>Fibre core diameter     | 240µm<br>490µm<br>740µm<br>990µm       | 27µm<br>47µm<br>67µm             | 100µm<br>200µm<br>400µm<br>600µm         | 105µm<br>200µm<br>200µm<br>320µm | 85µm<br>100µm        |
| <b>NA</b><br>Numerical Aperture      | 0.47                                   | 0.54                             | 0.37                                     | 0.22                             | 0.2                  |
| <b>2α=ε</b><br>Light exit angle      | 56°                                    | 65°                              | 43°                                      | 25°                              | ~25°                 |
| <b>%</b><br>Damping losses           | 200dB/km<br>3.4%/m<br>at 580nm         | 200dB/km<br>4.5%/m<br>at 820nm   | 10dB/km<br>0.002%/m<br>(at 820 nm)       | ≥14db/km<br>at 820nm             | 1dB/km<br>at 13000nm |
| <b>C°</b><br>Temperature resistance  | 92                                     | 600                              | 125                                      | 300                              | 125                  |

Light exit angle  $\epsilon$  for various fibre materials



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