



DR. FISCHER
Group

Catalogue
**UV Medium Pressure
Lamps**



Flash me



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The DR. FISCHER Group - Competence, Innovation, Service

The DR. FISCHER Group is one of the international leading providers of lamps and lights. The various companies of the Group complement each other with their individual specializations and together form a competent, innovative and fair partner for customers worldwide. The group employs more than 550 people in Europe.

The DR. FISCHER Group started 20 years ago as the result of the merge of three family companies : DR. FISCHER Speziallampenfabrik GmbH, Kegler Lichttechnik GmbH and Kandem Leuchten GmbH. Each individual company, with their specific fields, is a perfect complement to the others. This makes it possible to fulfill customer's wishes and requirements precisely, quickly and in a solution-oriented way. The greatest strengths of the group is

in offering tailor-made special applications and specific allround solutions.

The product portfolio includes signal lamps for streets, railways, air and waterways; special lamps for medicine and research; household lamps for ovens, extractor hoods and refrigerators; ultra violet (UV) medium pressure lamps for printing, drying; infrared halogen lamps and solutions for heating and warming; LED based lighting solutions.

More information:
www.dr-fischer-group.com



DR. FISCHER
Speziallampenfabrik GmbH

Ein Unternehmen der Dr. Fischer Gruppe



DR. FISCHER
Speziallampen Vertriebs GmbH

Ein Unternehmen der Dr. Fischer Gruppe



DR. FISCHER
Europe s.a.s.

A company of Dr. Fischer Group



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KEGLER
Lichttechnik GmbH

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KANDEM
Leuchten GmbH

Ein Unternehmen der Dr. Fischer Gruppe



DR. FISCHER
LED GmbH

Ein Unternehmen der Dr. Fischer Gruppe



We are certified for quality and environmental management.



Pont-à-Mousson (France) is the headquarters of DR. FISCHER Europe S.A.S., the R&D and production center of infrared halogen, UV medium pressure and high-voltage lamps.



The headquarter of the complete DR. FISCHER Group is located in Diez, Germany. This is the main production center for Kandem Luminaires, LED Solutions and low-voltage lamps.



DR. FISCHER Italy s.r.l., in Alpignano, produces special lamps for the domestic field.

The Pont-à-Mousson factory: a wealth of experience in lamps' production

The manufacturing of lamps started in 1886 in Pagny-sur-Moselle, France with Fabius Henrion launching the first production of incandescent lamps.

In 1981, Philips built a new factory in Pont-à-Mousson (10 km away) which became "Philips Eclairage" in 1985.

In 1989, the assembly of infrared halogen lamps began in Pont-à-Mousson in a new dedicated area. From this time, Philips Eclairage started developing innovative products like the internationally famous HeLeNTM range.

In 2010, the DR. FISCHER Group, took over the complete site of Philips Pont-à-Mousson. By this acquisition, the company strengthened its halogen production with high-speed machines. It now offers one of the biggest infrared and UV portfolios with marketing/sales and distribution services. This means that the biggest center of com-

petence and production for infrared and UV lamps and solutions is located in France, between Metz and Nancy.

DR. FISCHER Group also integrated in Pont-à-Mousson all competences for special UV solutions – from research over development, quality and production to marketing and sales.

This unique synergy of the latest technology, experienced and motivated employees, tried and trusted procedures, flexibility and many years of experience in creating specific solutions together with the customer make us the ideal partner in seeking future applications and solutions.

UV lamps are used for copying with UV sensitive materials, curing lacquers/paint/ink, curing glue/resin, diazo copying, polymerization of polyester, printed circuit boards exposure, platemaking (offset printing), copy board lighting/ copying, material durability testing. Innovative UV applica-

tions will become increasingly important in many industrial processes: polymer curing, photosensitive materials exposure and many others.

Our experience and know-how means that we can be competent, thinking partners for our customers in the development and realization of such innovative UV solutions.

More information:

www.dr-fischer-group.com



Our values:

- Strongly supporting our customers with customized and innovative solutions or systems
- Providing high quality products made in France

Our commitment

- Fulfilling our customers with the best solutions
- Offering a reliable after-sales service



The ISO certificates show the quality.



Location

Visit us:

Pont-à-Mousson is located in the East of France. Find useful hints for coming by:

Road:

- A31 Highway:
Luxembourg - Metz - Nancy - Lyon

Train:

- Roissy Charles de Gaulle TGV (High-speed train) - Lorraine TGV (1:20)
- Paris EST - Metz (1:40)

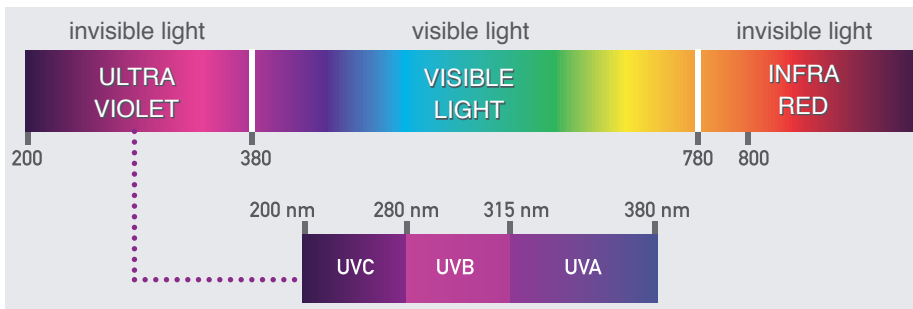
Airports:

- Metz-Nancy-Lorraine Regional Airport (20 min)
- Luxembourg and Saarbrücken International Airports (1:20)
- Roissy Charles de Gaulle (CDG) Airport / Orly Airport (3:00)
- Frankfurt Airport (2:45)



DR. FISCHER ultraviolet solutions

Ultraviolet solutions are used for applications in print, paint, glue and curing industries as well as in material testing and in the entertainment field. DR. FISCHER offers a wide range of standard products and is able to extend the range to meet our customers requirements. Lamp spectra are tuned by changing the lamp chemistry to meet specific application needs. All lamps are long arc discharge lamps.



Fundamentals:

UV lamps rely on the technology of medium pressure discharge lamps. They are mainly located into the UV-A range. However, they may emit UV-B and UV-C which require precautions in use.

In operation, the UV medium-pressure emitters emit rather wide spectra, approximately made of:

- 28% of UV radiation (UV-C 14%, UV-B 7%, UV-A 7%),
- 21% of visible light,
- 34% of infrared radiation,
- 17% are consumed by the power supply and heat.

The mercury content of the lamp is responsible for the generation of emission lines that peak at wavelength close to the absorption peaks of the photo-initiators used in inks, varnishes or UV powders.

To broaden or tune the spectrum of UV radiation, in addition to mercury, we can introduce a variety of metal salts such as gallium, iron or cobalt.

Medium-pressure UV lamps

The power of an UV lamp is expressed in W/cm (electrical power in W/arc length in cm) and is determined by:

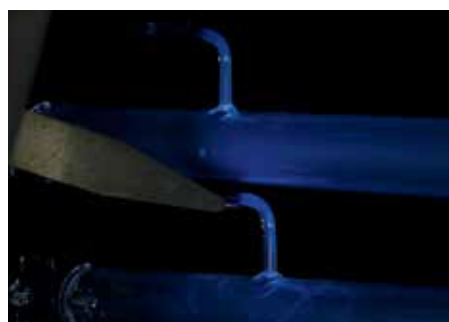
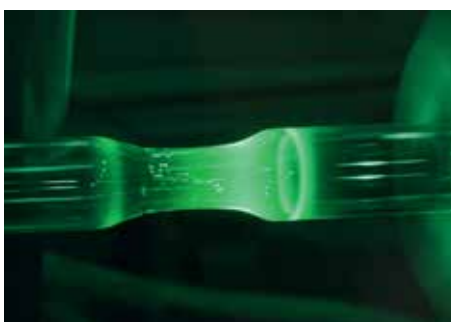
- electrical power
- quartz tube
- UV radiation spectrum

Typical powers densities are 80, 100 and

120 W/cm. The medium pressure UV lamps are primarily used in polymerization equipment of inks, varnishes and UV powders. Some manufacturers also use them for disinfection of appliances.

In addition to standard products, we manufacture a large number of special lamps

designed for our partners' specific applications. Every day, we work with our customers to find together the best solutions for their needs.



Sealing technology

Our customers need hermetic structure adapted to their applications. DR. FISCHER lamps can be manufactured with one of two types of seal:

• Pinch Seal

- More compact lamp
- Cheaper process



• Shrink Seal

- Flexible shrink length
- Asymmetrical lamp possible



Overview of applications:

The HPA and HPM product ranges are based on mercury lamps with additives. These are typically metals that will help to tune the lamp spectrum exactly to what is needed to cure inks or activate compounds.

XOP products are filled with pure Xenon gas. This inert gas has the advantage of sending out a broad spectrum that is very close to sunlight. XOP are instant light and hot restrike.

Applications	Lamp types		
	HP	HPM/HPA	XOP
Copying with UV sensitive materials	•	•	
Drying lacquers/paint/ink	•	•	
Curing adhesives (glue, resin)	•	•	
Diazo copying		•	
Photopolymerisation		•	
Printed circuit board exposure		•	
Oxidation of organic pollutants	•		
Surface disinfection	•		•
Plate-making (offset printing)	•	•	
Copy board lighting/copying			•
Stroboscope/entertainment			•
Material testing		•	•

Benefits & Advantages of DR. FISCHER ultraviolet lamps:

DR. FISCHER UV Medium Pressure lamps combine a high UV radiation and a long lifetime. For our standard UV lamps (100 W/cm), we guarantee a lifetime of 1,500 operating hours with less than 25% UV radiation decrease. However, DR. FISCHER UV emitters frequently achieve more than 4,000 hours

of life. It is strongly influenced by their operating conditions and their applications.

All our UV lamps are developed for a high efficiency and very stable arc.





HPA lamps





Introduction

Offset Print HPA UV-A: Medium-pressure metal halide lamps

DR. FISCHER HPA lamps, optimized for the UV-A bandwidth (315 to 400 nm), are ideal for reprography and photochemical processes. Their high radiant efficiency and high arc-stability ensure cost-efficient and reliable usage. They provide the ideal

optimal light source for contact copying of images from transparent film to UV-sensitive carriers such as film, offset plates, printed circuit boards and microfilms. These DR. FISCHER HPA lamps are also perfectly suitable for photochemical

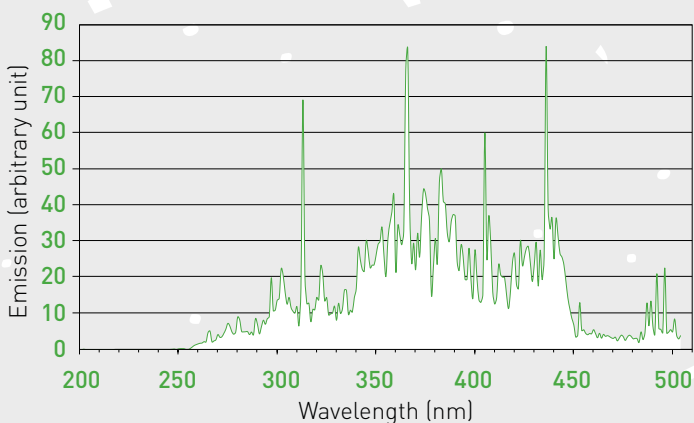
process applications such as the UV-curing of glues, resins and pigmented lacquers.

Applications	Integration in systems
<ul style="list-style-type: none"> ■ Reprography photochemical processes <ul style="list-style-type: none"> • Plate-making, • UV-curing of glues, resins, pigmented lacquers, • Printed circuits. ■ Copying of images <ul style="list-style-type: none"> • Film, • Offset plates, • Microfilms. 	<ul style="list-style-type: none"> ■ Measures must be taken to protect eyes and skin from UV-B and UV-C light which are emitted by the lamps. <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <ul style="list-style-type: none"> ■ Bulb temperature should be kept between 750 and 950°C, with maximum 350°C at the pinches. This might require forced air cooling adapted to power level. ■ DR. FISCHER HPA lamps are made of ozone-free quartz and are constructed to generate an optimum UV-A spectrum.

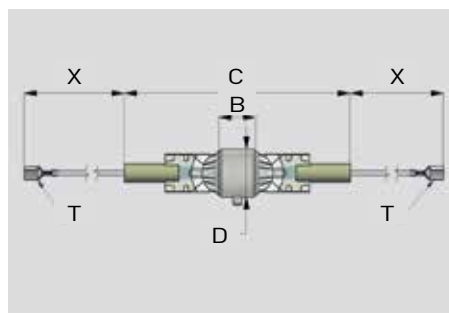
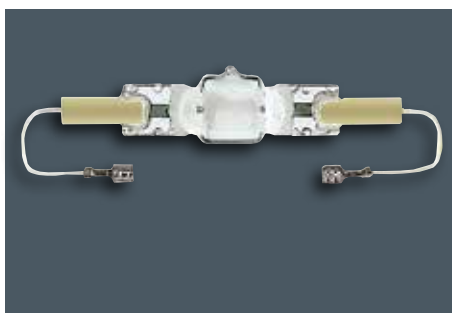
Characteristics of HPA lamps:

Features	Benefits
Spectrum is optimized for UV-A radiation	Best match with UV-A photo sensitizers
No ozone production	Best environmental choice

HPA Typical Spectrum of an iron doped lamp



HPA products



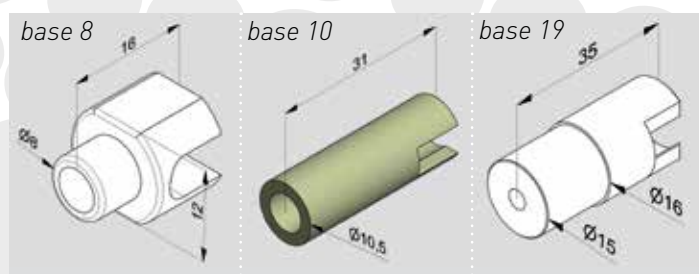
Pinch Seal

12NC	Type #	Watt W	Volt V	Lamp Current A	UV-A (*) irrad. at 0h $\mu\text{W}/\text{cm}^2$	Arc length mm (B)	Total length mm (C)	Bulb diameter mm (D)	Base	Cables +/-5 mm (X)	Terminal (T)	Qty Box pc
9280 756 06002	HPA 1000/20R	1,100	120	10.5	1,780	21	129	30	10	100/100	straight faston	4
9280 805 06054	HPA 1200	1,200	125	10.5	2,240	83	147	30	8	195/195	stripped end	4
9280 810 06002	HPA 1001R	1,150	130	10.0	2,000	26	137	25	10	110/110	straight faston	4
9280 563 06002	HPA 2020S	2,000	240	8.7	515	83	185	28	10	350/350	stripped end	4

(*) UV irradiation measured perpendicular to lamp axis at 1 m distance with a relative spectral sensitivity according to IEC. UV-A is the wavelength range between 315-400 nm.

Shrink Seal

12NC	Type #	Retrofit lamp	Watt W	Volt V	Lamp Current A	Arc length mm (B)	Total Length mm (C)	Bulb diameter mm (D)	Base	Cables +/-5 mm (X)	Terminal (T)
UV-1211-00	HPA 130/120-S	Natgraph - NG 1300 Fe	15,500	1,700	10	1,338	1,486	23	19	100/100	eyelet 5 mm
UV-1211-10	HPA 110/120-S	Natgraph - NG 1100 Fe	14,000	1,550	10	1,170	1,321	23	19	100/100	eyelet 5 mm
UV-1211	HPA 90/120-S	Natgraph - NG 900 Fe	11,000	1,270	10	960	1,095	23	19	100/100	eyelet 5 mm





HPM lamps





HPM Lamps: Medium-pressure metal halide lamps

DR. FISCHER HPM Diazo lamps emit in the Diazo range (230 – 450 nm) and are optimized for UV-A radiation. Being similar to HPA lamps, HPM lamps are designed to meet the special spectral demands of reprography, photochemical applications and the use of Diazo colors.

The lamp spectrum has been modified by adding additives and adjusting the mercury content to generate exactly those spectral lines needed to cure Diazo colors. They are therefore ideal for high-quality, large-format printing and plotting applications in the architectural and engineering

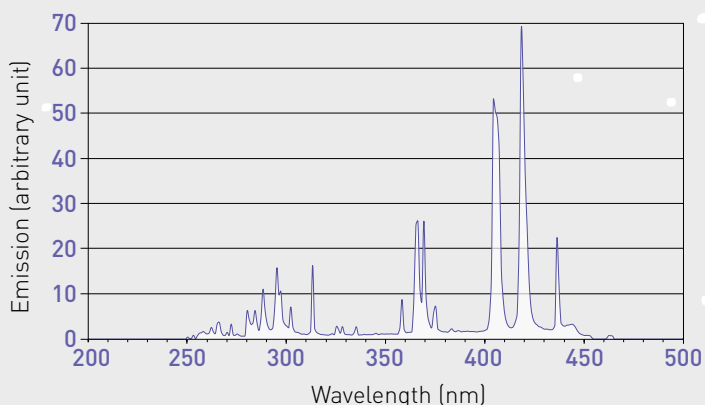
industries. In addition, HPM Diazo lamps provide a high radiant efficiency and high arc stability for cost-efficient and reliable usage.

Applications	Integration in systems
<ul style="list-style-type: none"> ■ Printing and plotting applications ■ Copying of images from transparent film to UV-sensitive carriers such as film, offset plates, printed circuit board and microfilms ■ UV curing of glues, resins and pigmented lacquers 	<ul style="list-style-type: none"> ■ Measures must be taken to protect eyes and skin from UV-B and UV-C light which are emitted by the lamps. <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <ul style="list-style-type: none"> ■ Bulb temperature should be kept between 750 and 950°C, with maximum 350°C at the pinches. This might require forced air cooling adapted to power level. ■ DR. FISCHER HPM lamps are made of ozone-free quartz

Characteristics of HPM lamps:

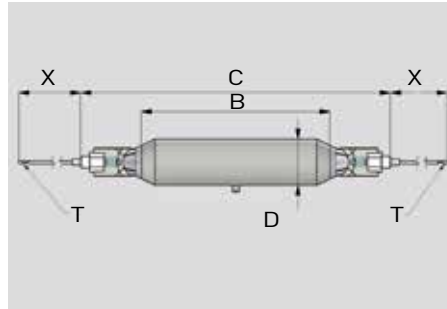
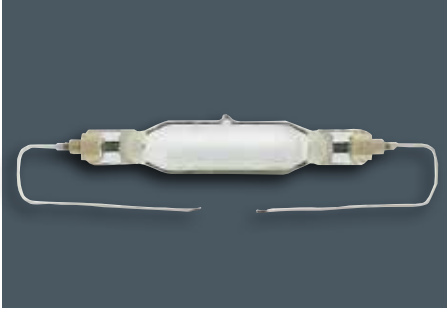
Features	Benefits
Spectrum is optimized for UV-A radiation	Best environmental choice
No ozone production	Ideal for high quality, large-format printing and plotting applications
HPM Repro lamps radiate in the Diazo range	Cost-efficient
Most lamps are designed to run at several power levels, e.g. standby, medium and full	Reliable usage
Burning position horizontal (+/- 10°)	High radiant efficiency
	High arc-stability

HPM Typical Spectrum of a gallium doped lamp



Products

HPM products



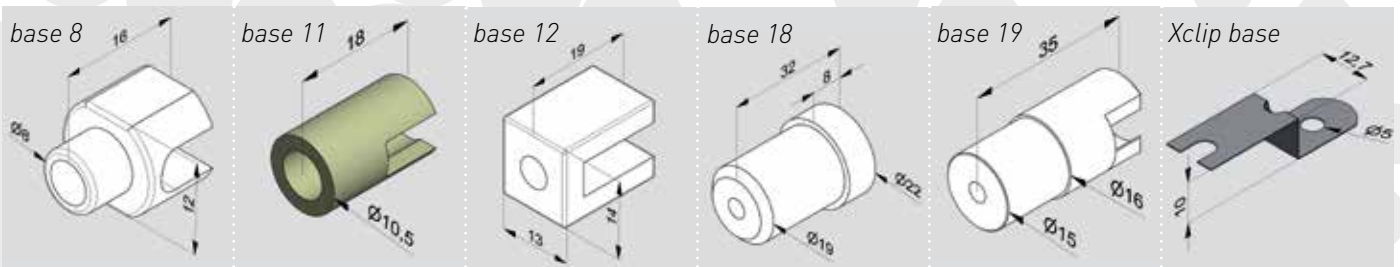
Pinch Seal

12NC	Type #	Watt W	Volt V	Lamp Cur- rent A	Diazo ^(*) irrad. at 0h $\mu\text{W}/\text{cm}^2$	Arc length mm (B)	Total length mm (C)	Bulb diame- ter mm (D)	Base	Cables +/-5 mm (X)	Terminal (T)	Qty Box pc
9280 723 05102	HPM 15	1,950	245	9.0	4,100	131	203	33	8	295/295	stripped end	4
9280 724 05138	HPM 16	2,000	245	8.7	4,600	113	220	30	X-CLIP	-	-	4
9280 727 05102	HPM 17	2,000	243	8.7	4,600	113	175	30	8	320/320	stripped end	4
9280 728 05102	HPM 15	1,950	245	9.0	4,100	131	203	33	8	320/320	stripped end	4
9280 729 05102	HPM 12	460	120	4.1	800	44	98	22	8	315/315	stripped end	4
9280 744 05102	HPM 13	1,000	125	8.6	2,000	83	147	30	8	145/145	stripped end	4
9280 792 06002	HPM 25/C	5,000	245	23.0	12,000	186	276	30	12	190/190	stripped end	4
9280 794 06002	HPM 4010 (HPM30)	4,000	310	13.5	10,500	117	204	33	11	190/190	stripped end	4
9280 807 06002	HPM 4020	4,000	400	11.5	11,500	162	249	30	11	120/120	straight faston	4
9280 813 06002	HPM 3000	3,350	400	9.0	9,000	105	191	30	11	125/125	straight faston	4

(*) UV irradiation measured perpendicular to lamp axis at 1 m distance with a relative spectral sensitivity according to IEC. Diazo is the wavelength range between 320-440 nm.

Shrink Seal

12NC	Type #	Retrofit lamp	Watt W	Volt V	Lamp Cur- rent A	Arc length mm (B)	Total Length mm (C)	Bulb diame- ter mm (D)	Base	Cables +/-5 mm (X)	Terminal (T)
UV-1214-20	HPM 140/120-S	Bayer -KB1841 1400 Ga	16,800	1,520	12.8	1,400	1,535	22.0	18	300/300	eyelet 5mm
UV-1221-10	HPM 142/100-S	UV-Technik - UVH-14222 G-1	14,200	1,900	8.3	1,420	1,575	22.5	19	600/2280	stripped end





HP lamps



Introduction

HP Lamps: Medium-pressure mercury lamps



Lamps are primarily used in polymerization equipment of inks, varnishes and UV powders. Some manufacturers also use them for disinfecting appliances.

HP lamps are available in a wide range with an arc length between 4 and 140 centimeters. HP /80 and /120 can be loaded up to 80 and 120 W per cm of arc length

respectively. The lamps can be fitted with various types of end fittings from our catalogue or equipped with customer specific fittings, cables or pins.

Medium pressure mercury lamps contain sophisticated quantities of mercury bromides, providing a self-cleaning halogen

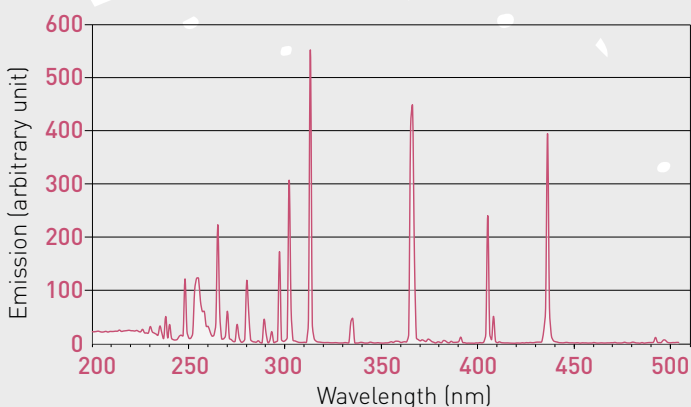
cycle, to ensure a constant UV output over lamp life.

Applications	Integration in systems
<ul style="list-style-type: none"> Advanced oxidation of organic pollutants UV curing of adhesives, glues, resins Drying of pigmented lacquers, inks 	<ul style="list-style-type: none"> Measures must be taken to protect eyes and skin from UV-B and UV-C light which are emitted by the lamps. <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <ul style="list-style-type: none"> Bulb temperature should be kept between 750 and 950°C, with maximum 350°C at the pinches. This might require forced air cooling adapted to power level. HP lamps, made of high-quality quartz, are generating ozone. A ventilation system might be necessary to evacuate the ozone produced by the lamp.

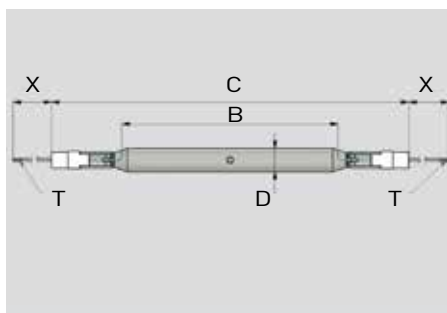
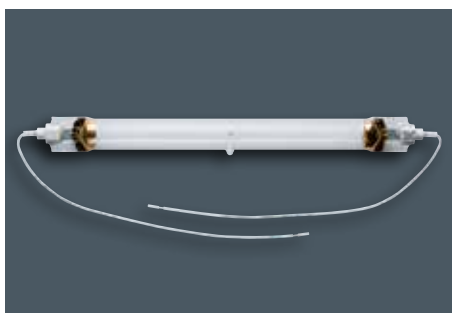
Characteristics of HP lamps:

Features	Benefits
Short waves UV radiation with a peak at 253.7 nm	High arc stability
Ozone producing	Ideal for high quality printing application
Burning position horizontal (+/- 10°)	High system efficacy

HP Typical Spectrum of a mercury lamp



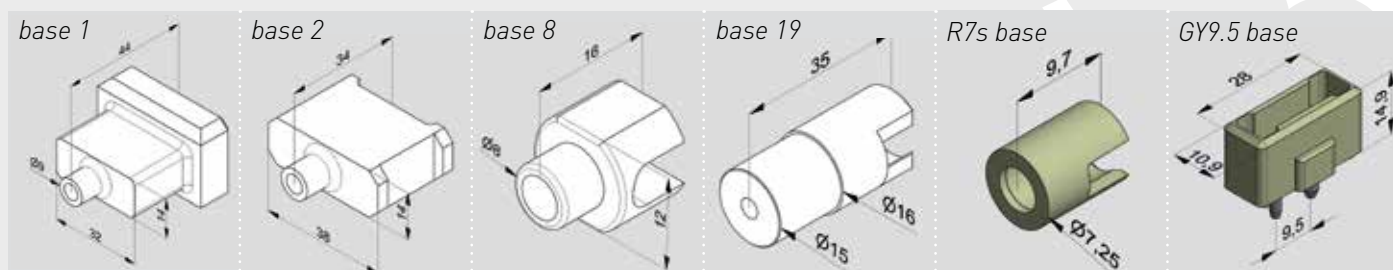
HP products



Pinch Seal

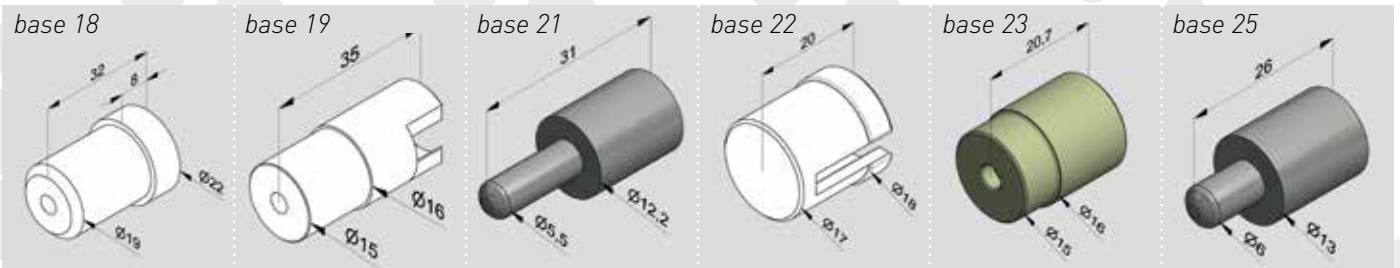
12NC	Type #	Watt W	Volt V	Lamp Current A	Power density $\mu\text{W}/\text{cm}$	UV-C (*) irrad. at 0h $\mu\text{W}/\text{cm}^2$	Arc length mm	Total length mm	Bulb diameter mm (D)	Base	Cables +/-5 mm (X)	Terminal (T)	Burning pos.	Qty Box pc
9285 500 05156	HP 20/120	2,000	230	9.0	120	2,500	200	331	22.0	19	175/175	stripped end	Horiz.	4
9285 569 05154	HP 70/60	4,000	1,400	3.0	60	3,700	700	765	14.5	8	95/95	stripped end	Horiz.	4
9285 864 05128	HP 4/120	400	125	3.5	120	410	31	105	14.0	R7s	-	-	Any	10
9285 865 05128	HP 4/120 SE	400	125	3.5	120	410	31	111	14.0	GY9.5	-	-	Any	10
9285 875 05154	HP 70/30	2,000	1,400	1.6	30	1,600	700	765	14.5	8	95/95	stripped end	Horiz.	4
9285 882 05156	HP 20/100	2,100	245	9.6	100	2,500	195	255	22.0	8	240/240	stripped end	Horiz.	4
9285 883 05154	HP 35/120	2,850	490	6.0	120	3,600	343	380	22.0	1	235/235	stripped end	Horiz.	4
9285 884 05154	HP 50/120	4,100	670	7.2	120	5,700	502	532	22.0	1	235/235	stripped end	Horiz.	4
9285 886 05154	HP 65/80	5,000	840	6.6	80	6,700	645	669	22.0	2	235/235	stripped end	Horiz.	4
9285 888 05154	HP 140/80	11,000	1,850	6.5	80	14,800	1,415	1,439	22.0	2	235/235	stripped end	Horiz.	4
9285 892 05154	HP 65/120	5,000	840	6.6	120	6,700	637	669	22.0	1	235/235	stripped end	Horiz.	4
9285 893 05154	HP 80/120	6,400	1,030	7.0	120	8,600	800	832	22.0	1	240/240	stripped end	Horiz.	4
9285 896 05154	HP 105/120	8,300	1,350	6.7	120	11,000	1,057	1,089	22.0	1	230/230	stripped end	Horiz.	4
9285 898 05154	HP 140/120	11,000	1,850	6.5	120	14,800	1,407	1,439	22.0	1	235/235	stripped end	Horiz.	4

(*) UV irradiation measured perpendicular to lamp axis at 1 m distance with a relative spectral sensitivity according to IEC. UV-C is the wavelength range between 200-280 nm.



Shrink Seal

12NC	Type #	Retrofit lamp	Watt W	Volt V	Lamp Cur- rent A	Power den- sity W/cm	Arc length mm (B)	Total Length mm (C)	Bulb diame- ter mm (D)	Base	Cables +/-5 mm (X)	Terminal (T)
UV-1214-00	HP 140/120-S	Bayer - KB1959 1400 Hg	16,800	1,520	12.80	120	1,400	1,535	22.0	18	300/300	eyelet 5 mm
UV-1221-00	HP 142/100-S	UV-Technik - UVH-14222-1	14,200	1,900	8.30	100	1,420	1,575	22.5	19	600/2280	stripped end
UV-1221-20	HP 120/130-S	UV-Technik - UVH-12022-3	15,400	1,900	9.00	130	1,200	1,353	22.5	19	600/2030	stripped end
UV-1221-30	HP 107/100-S	UV-Technik - UVH-10722-0	10,800	1,500	8.00	100	1,070	1,223	22.5	19	600/1920	stripped end
UV-1221-40	HP 65/80-S	UV-Technik - UVH-6522-0	5,400	840	7.00	80	650	803	22.5	19	600/1500	stripped end
UV-1226-20	HP 105/180-S	IST - T-1050 -K2H	18,500	1,850	10.00	180	1,050	1,160	26.0	23	500/2000	eyelet 5 mm
UV-1307-01	HP 55/160-S	IST - T-550 -NA-3H	9,000	1,100	9.00	160	550	665	25.0	21	NA	NA
UV-1307-11	HP 105/160-S	IST - T-1050 -NA-2H	20,000	2,070	9.60	160	1,050	1,165	25.0	21	NA	NA
UV-1307-21	HP 108/200-S	IST - T-1080 -NA-2H	22,000	2,250	9.50	200	1,080	1,195	25.0	21	NA	NA
UV-1310	HP 105/110-S	Ushio - UVH-1055-105-03-1	11,700	1,530	8.50	110	1,055	1,150	22.0	19	150/150	straight faston
UV-1311-01	HP 30/140-S	F820489	4,000	360	9.00	140	300	380	18.0	22	150/150	splice
UV-1315-00	HP 75/160-S	Honle - 075-24-160-TB1	7,000	850	8.40	160	750	850	26.0	22	500/500	eyelet 5 mm
UV-1315-10	HP 78/160-S	Honle - 078-24-160-TB1	7,200	860	8.40	160	780	880	26.0	22	500/500	eyelet 5 mm
UV-1324-20	HP 40/80-S	Alpha Cure - AC-0690	3,000	252	11.00	80	400	530	21.0	18	220/360	eyelet 5 mm
UV-1324-30	HP 35/100-S	Alpha Cure - AC-1605	3,000	455	6.66	100	355	470	23.0	19	140/750	stripped end
UV-1324-00	HP 15/160-S	Alpha Cure - AC-4431	2,000	160	11.00	120	155	275	21.0	19	520/520	straight faston
UV-1329-02	HP 108/160-S	KBA - KBA 105	11,000	1,600	10.00	160	1,080	1,190	25.0	25	NA	N





XOP lamps



Introduction

XOP xenon lamps



XOP xenon lamps are linear lamps equipped with a special cable connection that prevents arcing. Our standard portfolio of linear XOP lamps is using a 12 mm max diameter quartz tube and is available in a range from 240 up to 540 mm overall length, depending on the wattage. The spectrum radiation is like that of all xenon lamps, almost continuous, ranging from

about 200 to 1000 nm. The color temperature is 5600 K. XOP xenon lamps are used either in continuous or pulsed mode (stroboscopy).

Pulsed xenon lamps are operated using a semi-resonant type of driver circuit. In addition, they need an electronic igniter to provide the starting pulse of some 10 kV. They feature instant ignition and re-ignition

and require no warm-up time. The average rated life ranges between 250 and 500 hours at a depreciation of 20% after 250 burning hours.

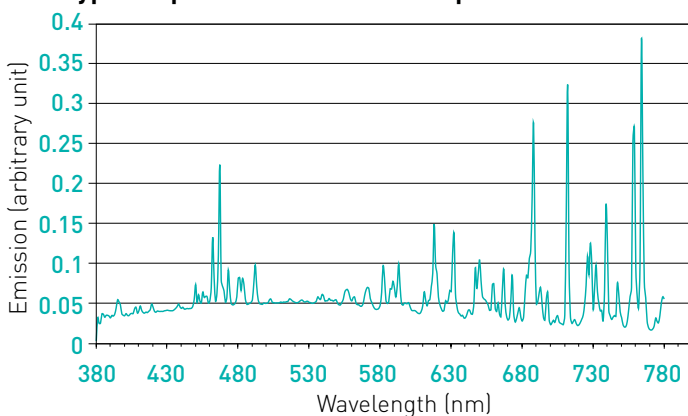
DR. FISCHER XOP xenon lamps are also available with a trigger wire.

Applications	Integration in systems
<ul style="list-style-type: none"> ■ Copyboard lighting Small, horizontal copyboards as well as large vertical ones can be lit very frequently. Owing to their spectral power distribution XOP lamps are eminently suitable for color reproduction, while for black-and-white reproduction these lamps are superior to every other light source. ■ Stop-and-repeat copying machines XOP lamps are extremely useful for this application as no run-up time is necessary ■ Strobe lighting <ul style="list-style-type: none"> • Dance and night clubs: Provide an illusion of slow motion effects • Emergency vehicles and situations • Alarm systems • Theatre lighting • Running lights • Special occasion: Haunted house, outdoor Halloween display 	<ul style="list-style-type: none"> ■ Shielding must be provided to protect eyes and skin from short waves UV light output. <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <ul style="list-style-type: none"> ■ Lampholder and wiring must be insulated from the luminaire because of the high starting voltage ■ Bulb temperature should be kept between 750 and 950°C, with maximum 350°C at the pinches. This might require forced air cooling adapted to power level. ■ DR. FISCHER XOP lamps are made of ozone-free quartz

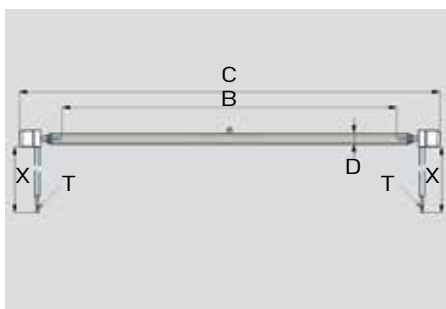
Characteristics of XOP lamps:

Features	Benefits
Xenon filling	Good color performance, reproducing very well sunlight
Hot Restrike	No standby mode needed
Very small diameter	Ideally suited for reflector design
Instant start	Energy saving
Instant light	High arc-stability
Universal burning position	Creative freedom

XOP Typical Spectrum of a xenon lamp



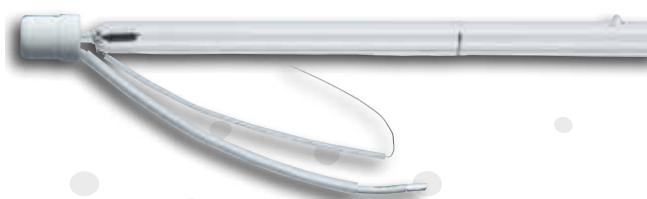
XOP products



Standard lamps

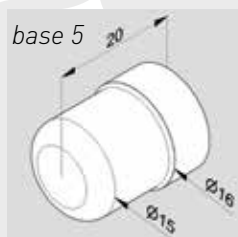
12NC	Type #	Watt W	Volt V	Lamp Current A	Arc length mm (B)	Total ⁽²⁾ length mm (C)	Bulb diameter mm (D)	Base	Cables +/-5 mm (X)	Terminal (T)	Burning pos.	Qty Box pc
9283 768 05102	XOP 7 OF	650	54	12.3	158	241	12	5	115/115	stripped end	Any	4
9283 769 05102	XOP 15 OF	1,000	100	10.7	312	395	12	5	115/115	stripped end	Any	6
9283 775 05102	XOP 25 OF	1,100	207	10.5	457	540	12	5	115/115	stripped end	Any	5

Lamps with a trigger wire



12NC	Type #	Watt W	Volt V	Lamp Current A	Arc length mm (B)	Total ⁽²⁾ length mm (C)	Bulb diameter mm (D)	Base	Cables +/-5 mm (X)	Terminal (T)	Burning pos.	Qty Box pc
9283 001 05156	XOP 15 A	1,000	100	10.7	312	395	12	5	115/115	stripped end	Any	6
9283 002 05155	XOP 25 A	1,100	207	10.5	457	540	12	5	115/115	stripped end	Any	5
9283 003 05154	XOP 7 A	650	54	12.3	158	241	12	5	115/115	stripped end	Any	4

⁽²⁾ For a definition of Overall Length (OAL), see drawing of lamp base dimensions.



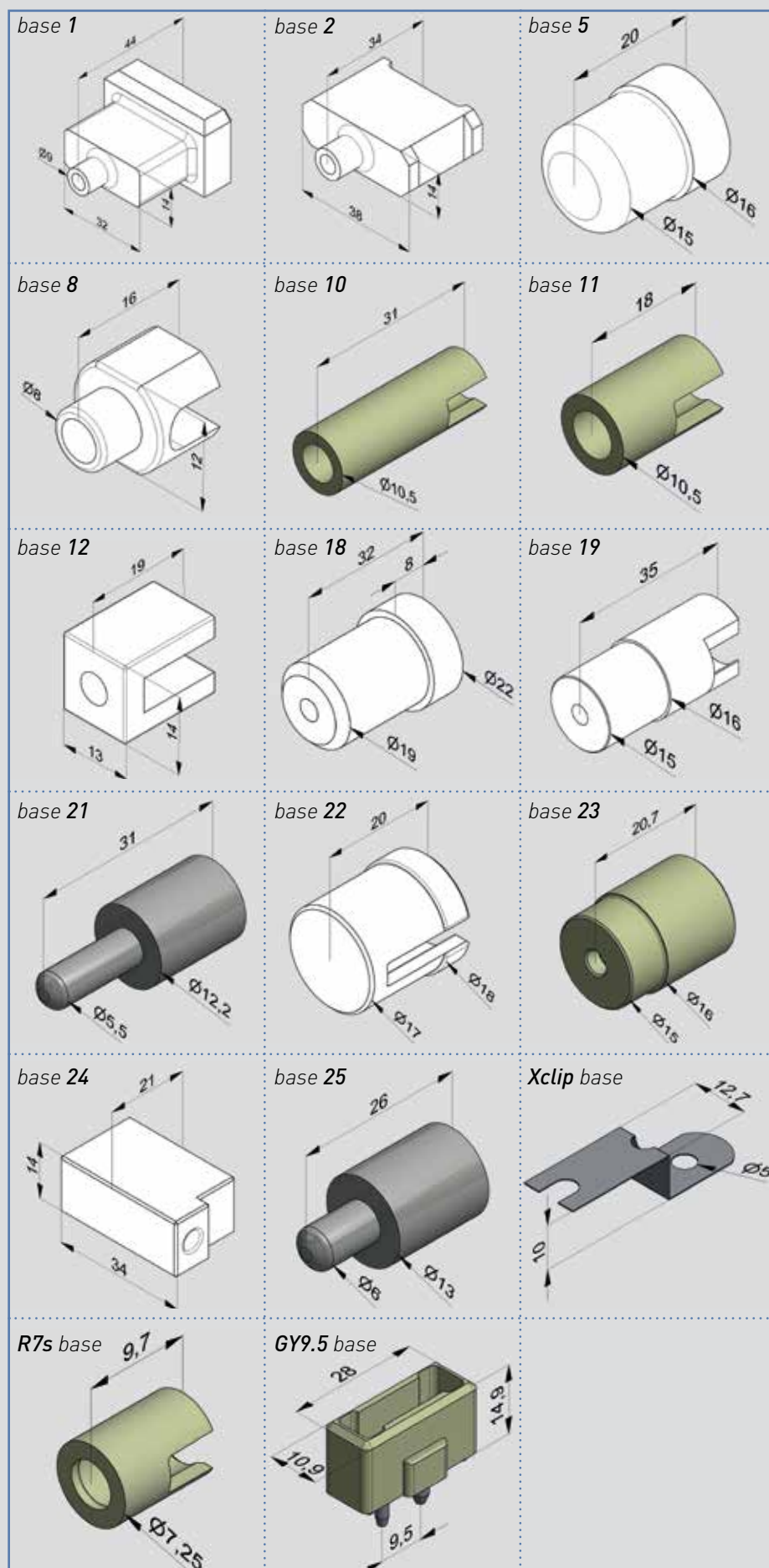
Cross-reference table

12NC	DR. FISCHER	Ushio	Heraeus	Amba	Theimer	Sylvania	Kuhnast	Philips	Other
9280 723 05102	HPM 15	MHL 15	Q 2127 Z11	AM 571 X	TH 2160	M038	JGMHO 2030-0	HPM 15	Beltron 28054
9280 724 05138	HPM 16				TH 5090	M105	JGMHO 5090-0	HPM 16	Beltron MH 5000 E
9280 727 05102	HPM 17	MHL 17	Q 2123 Z11	AM 572 X	TH 2510	M036	JGMHO 2200-0	HPM 17	Beltron 28052
9280 728 05102	HPM 15	MHL 15	Q 2127 Z11	AM 571 X	TH 2160	M038	JGMHO 2030-0	HPM 15	Beltron 28054
9280 729 05102	HPM 12	MHL 12	Q 408 Z11	AM 580 X	TH 530	M001	JGMH 530-0	HPM 12	
9280 744 05102	HPM 13	MHL 13			TH 2120	M111	JGMHO 2120-0	HPM 13	
9280 756 06002	HPA 1000/20R				THO 1027 A		JGMHO 1050-7	HPA 1000/20R	
9280 788 05100	HPA 2000 R							HPA 2000 R	Olec L1261
9280 792 06002	HPM 25/C	MHL 5000	Q 5846 Z1	AM 637 X	THO 5250	M030	JGMHO 5031-0	HPM 25/C	
9280 794 06002	HPM 4010 (HPM30)	MHL 30			TH 4080	M022	JGMH 4110-0	HPM 4010 (HPM30)	
9280 805 06054	HPA 1200			AM 622 X	TH 1207	M067	JGMHO 1200-7	HPA 1200	
9280 807 06002	HPM 4020		RQ 6138 Z1 KC	AM 614 X	TH 5020		JGMH 5020-0	HPM 4020	Primarc 45000802 Sack 200 216 OZ
9280 810 06002	HPA 1001R		RQ 1148 Z4 KC	AM 576 X	TH 1007	M057	JGMH 1000-7	HPA 1001R	Primarc 56066110
9280 813 06002	HPM 3000		RQ 4128 Z4 KC	AM 612 X	TH 5007	M025	JGMH 5000-7	HPM 3000	Primarc 56070313 Sack 200 215 OZ
9283 001 05156	XOP 15 A								Martin Atomic MAX-15
9283 002 05155	XOP 25A								
9283 003 05154	XOP 7 A								
9283 768 05102	XOP 7 OF	PXA44		AM 633 X	KX 7	X202		XOP 7 OF	
9283 769 05102	XOP 15 OF	PXA45		AM 634 X	KX 10	X275		XOP 15 OF	
9283 775 05102	XOP 25 OF	PXA46		AM 635 X	KX 22	X102		XOP 25 OF	
9285 500 05156	HP 20/120							HOK 20/120	
9285 569 05154	HP 70/60							HTK 70/60	
9285 875 05154	HP 70/30							HTK 70/30	
9285 882 05156	HP 20/100		DQ 2022		TQ 026 510		JGQ 027 015	HOK 20/100	Beltron 28029
9285 883 05154	HP 35/120				TQ 042 044		JGQ 042 044	HOK 35/120	
9285 884 05154	HP 50/120				TQ 053041		JGQ 059 060	HOK 50/120	
9285 886 05154	HP 65/80				TQ 072020		JGQ 074 050	HOK 65/80	Beltron 28087
9285 888 05154	HP 140/80		DQ 14022		TQ 148 012		JGQ 150 110	HOK 140/80	Beltron 28032
9285 892 05154	HP 65/120				TQ 072 020		JGQ 074 051	HOK 65/120	Beltron 28115
9285 893 05154	HP 80/120				TQ 088 110		JGQ 089 061	HOK 80/120	Beltron 28113
9285 896 05154	HP 105/120		DQ 10522		TQ 09 085		JGQ 113 126	HOK 105/120	
9285 898 05154	HP 140/120		DQ 14022		TQ 148 012		JGQ 150 110	HOK 140/120	

Technical support



Overview of bases



Overview of terminals



Customer request form

You have to develop a UV project for your application? Give us the following information and we will help you to give the best UV solution to your system.



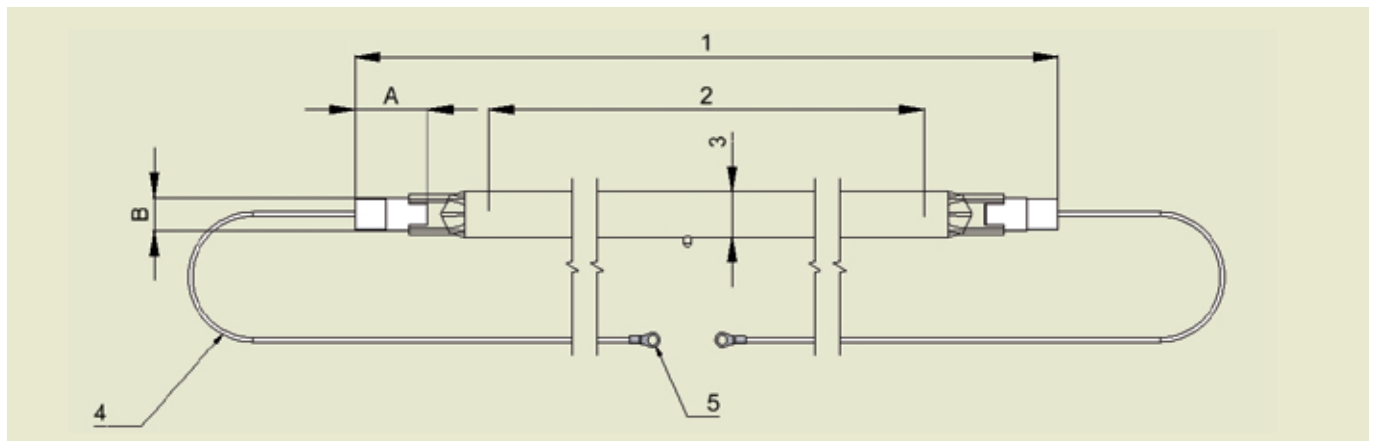
Customer

Company:.....
 Contact person:.....
 Function:.....
 E-mail address:.....

Application:.....

Used solution currently:.....

Lamp description:



1 > Total Length:..... mm
 2 > Arc length: mm
 3 > Bulb Diameter: mm
 4 > Cable length: mm
 5 > Terminal (see p.24).....

Specific base # (see p.24):
 A > Base length: mm
 B > Base diameter:..... mm

Lamp Wattage (W):.....
 Lamp Voltage (V):
 Lamp current (A):
 Power density (W/cm):.....
 Lifetime:..... hours

Ballast used:
 electronic
 magnetic
 pulsed

Seals:
 pinch
 shrink

Quartz type:
 ozone free
 standard

Doping:
 Hg
 Fe
 Ga
 In
 Pb
 Xe

Special characteristics:

If possible, please provide us with a used or new lamp for an appropriate quote and development.

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 Zone industrielle de Montrichard - BP 80149
 54700 Pont-à-Mousson
 Tel: +33 (0)3 83 80 30 60 / Fax: +33 (0)3 83 80 30 48

You can download this request form on our website: www.dr-fischer-group.com

DR. FISCHER & You: an efficient partnership for improving your performance

We, DR. FISCHER, want to be more than just a supplier of high-quality UV lamps. We are committed to offering you a world class service in every aspect of our business. One of our key advantages is our innovative Research & Development Department. We do not only develop lamps or make measurements but also improve existing systems and even offer our demanding customers complete brand new solutions. DR. FISCHER can become your closest partner for your Ultraviolet applications.

At DR. FISCHER we are experts in improvements of current systems and we show customers 3D simulations of systems which can easily ("Plug&Play") be installed into their machines for increasing their performance.

In fact, on request, we can evaluate the performance of our customers' systems.

- Based on the needs of our demanding customers, we are able to provide advice on specific matters such as a reflector geometry optimization. The accuracy of the

results is given by the use of specific measurement control systems.

- Measurements are conducted in a dark room to eliminate any disturbances. Lamp voltage, fluxmeter and temperature are under constant control during measurements.

We at DR. FISCHER know, that reducing time to market in the development of new systems is essential. The specific PH3D optical modeling software, based on an efficient 3D ray tracing method, is used to optimize our customers' high-performance UV systems and solutions.

Using these tools, our UV modeling support activities can address two main topics:

- Improvement or upgrading of existing reflectors or systems
- System configuration issues, such as lamp specifications and arrangement, installed power, sizing etc.

Our DR. FISCHER UV modeling support allows our customers to predict system

irradiance by simulation without the need for any tooling or prototyping. This enables predictive, quantitative results to be achieved at reasonable cost. The validity of modeling outputs is assured by regular calibration. Our UV R&D team always provides accurate quotations for each project you have.

Customers working with us will decrease their time-to-market, increase their system's efficiency and lifetime.

For more information about our systems and technical support, please contact us!

info.europe@dr-fischer-group.com



"Innovation drives our future"

Pictograms description



Preferably do not touch quartz with bare hands. If grease or chemical compound has been deposited on quartz, simply clean with an alcohol-soaked tissue before lighting.



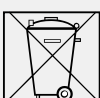
Disconnect installation from power supply before removing or installing a lamp.



Prolonged looking at the lamp during operation may result in damage to the eye.



Exposure to UV can result in severe damage to the skin.



Mercury contents: recycling is needed

Recommendations

WARNING

Risk of electrical shock: turn off power before inspection, installation or removal. Use only in luminaire equipped with a safety cut-out switch.

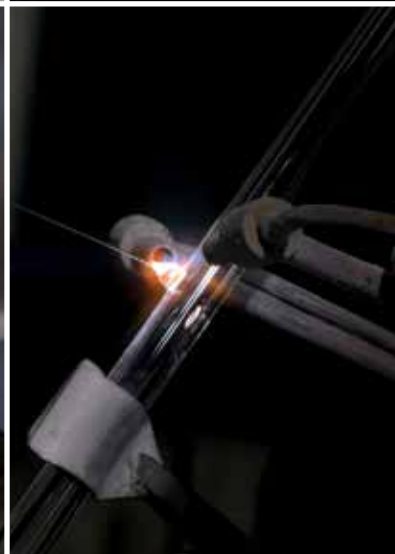
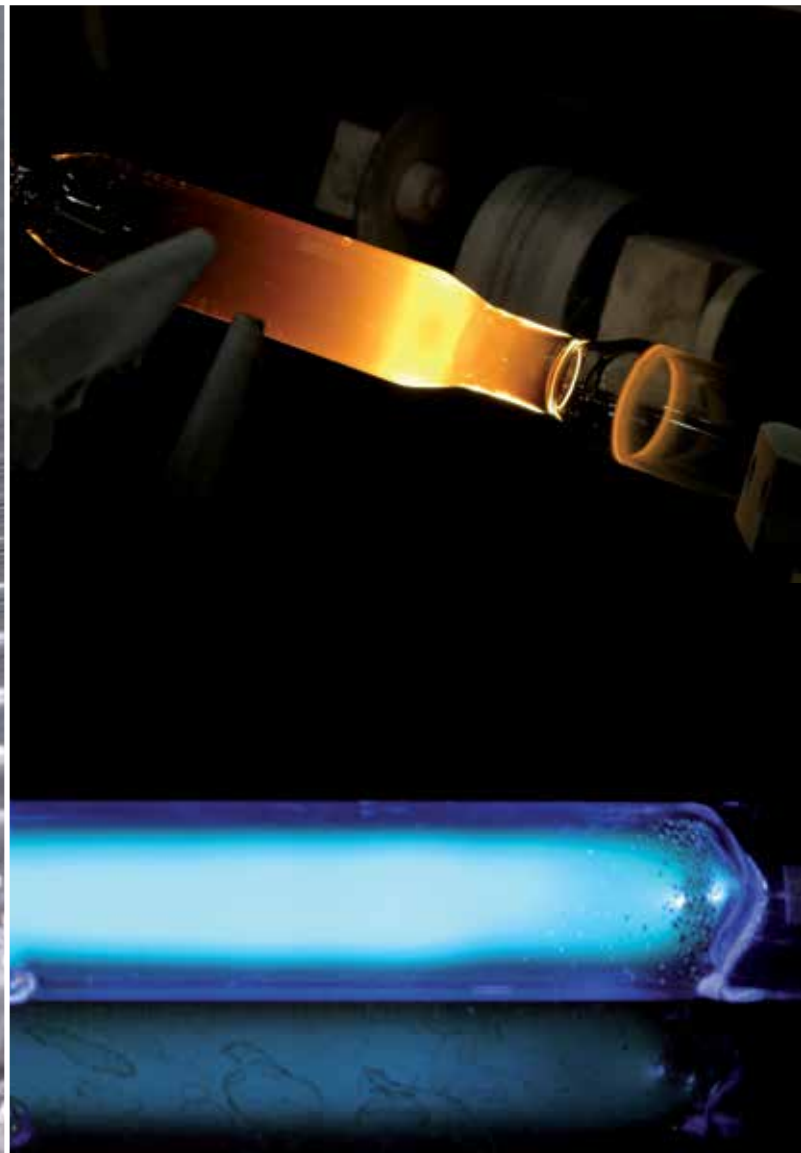
Risk of fire: use only with control gear and luminaire designed for this product. Risk of UV/optical/IR radiation which may cause eye/skin injury (IEC 62471 Risk group 3). If glass bulb is broken turn power off and remove lamp. Use appropriate shielding or eye protection. Do not look at operating lamp. Use only in an enclosed luminaire able to contain hot lamp parts, even during testing. High ozone-concentrations are harmful to humans and animals. Assure good air ventilation.

CAUTION

Risk of burn: Allow lamp to cool down before handling. Do not use lamp if glass bulb is scratched or broken. Wear gloves when handling broken lamps. Replace lamp quickly at end of life (marked change in color, flickering, failure to start). Do not handle the bulb with bare hands, otherwise clean with special tissue. Avoid skin contact with broken lamp parts.

INFORMATION

Dispose of used lamps according to local regulations. DR. FISCHER can handle the recycling of lamps you send back. The manufacturer accepts no liability for injury or damage resulting from incorrect use. Keep for future reference.



Contacts



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Sales partners