



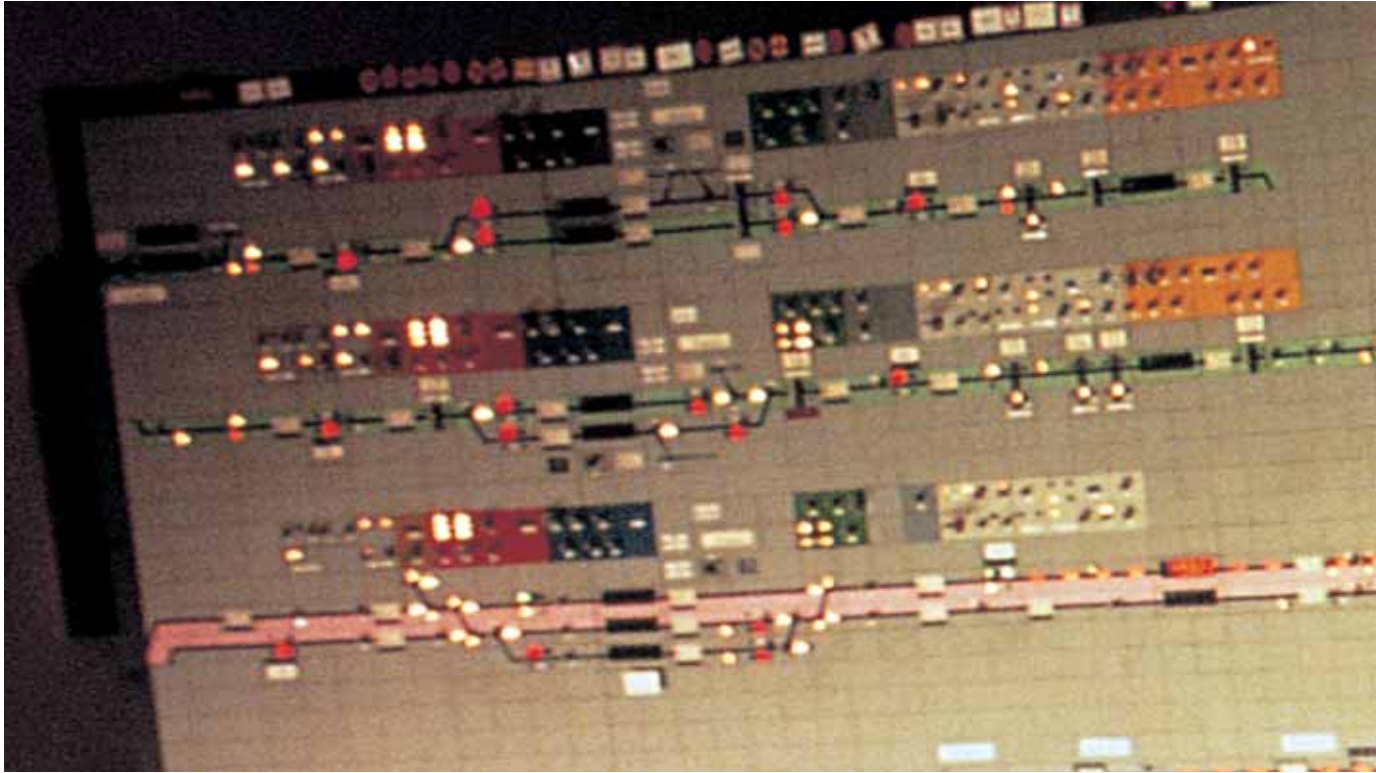
Display and signal lamps Lamps for traffic light installations



Light attracts attention.

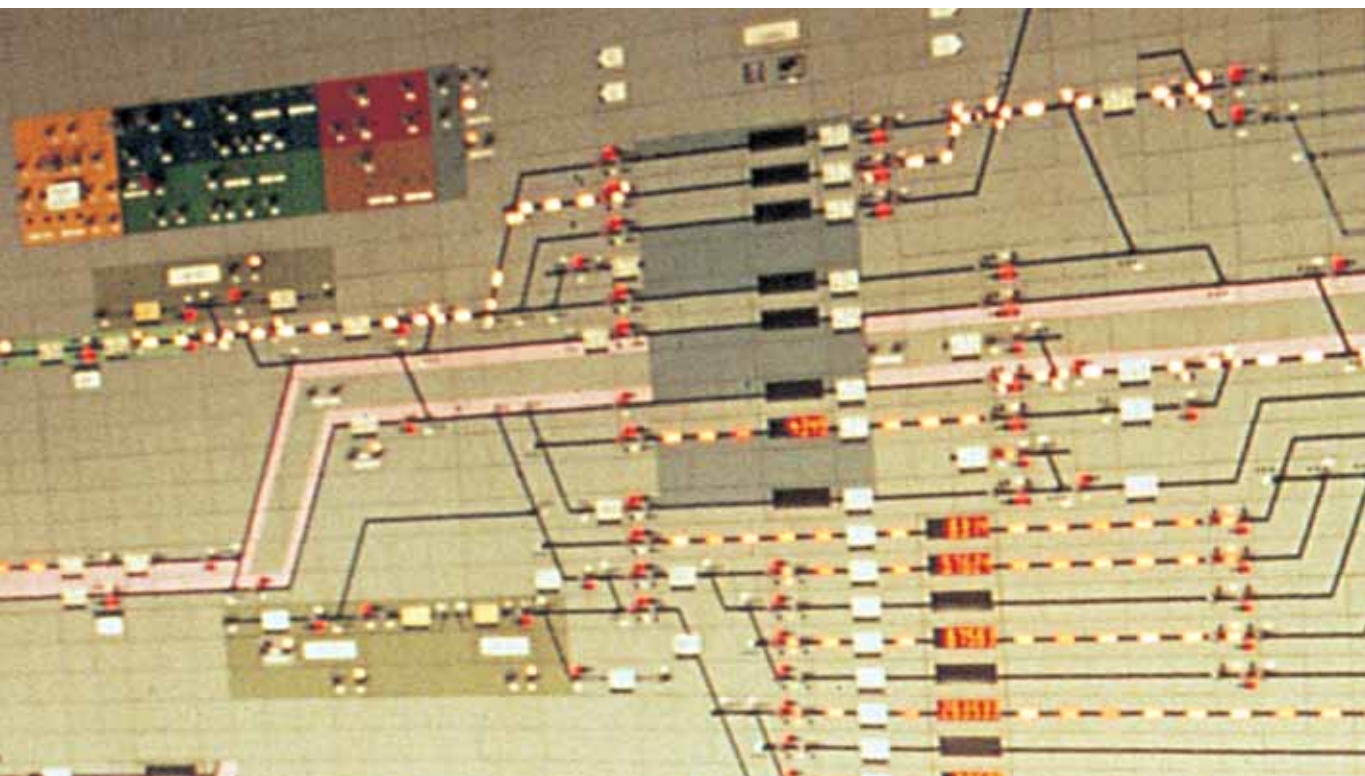
Light is better than any other medium for providing quick and meaningful messages, for giving warnings and for activating. The demands placed on display and signal lamps in terms of reliability and service life are very high indeed.

The best lamps for such applications are signal lamps in modern halogen technology that offer luminous flux that is constant throughout their lives, white light and low power consumption.



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For further information see our brochures entitled “Lamps for torches” and “Lamps for traffic light installations”.



Lamps that signal quality



Reliability counts.

Road and rail traffic light installations are crucial to safety, which is why the lamps used in these installations have to meet such high demands, including the following:

- High luminous flux for good signalling effect and high recognition even in difficult weather conditions
- Precise lamp alignment and shape for correct luminous intensity distribution
- Standardised high-quality bases that enable lamps to be replaced without the need for realignment even after many hours of operation
- Long lamp life and high luminous efficacy for economical operation thanks to low power consumption and low maintenance requirements

Krypton lamps for mains voltage.

Many traffic light installations throughout mainland Europe are still operated on mains voltage of between 220 and 240 V. Right from the start, the rugged construction of the mains voltage signal lamps has proved its worth. The krypton lamp and long-life krypton lamp represent significant improvements in mains voltage signal lamps.

They offer:

- greater luminous efficacy
- greater axial signal luminous intensity thanks to the reduction in the size of the filament cradle
- improved economy
- extremely long life





Low-voltage high-pressure lamps.

The increased gas pressure and the compact filament mean that low-voltage high-pressure signal lamps achieve better performance than the mains voltage signal lamps.

They offer:

- much higher luminous efficacy
- improved economy; because of the higher luminous efficacy, low-voltage high-pressure lamps with much lower power consumption can be used
- exceptionally high resistance to shocks and vibrations

There are now long-life versions.

All these benefits can also be put to use in existing 230 V signalling installations. This is because the mains voltage systems can be converted to 10 V technology. For this, the lamp and reflector have to be replaced and a transformer installed.

Low-voltage halogen lamps.

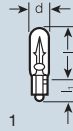
The benefits of halogen technology are now available in 10 V signalling installations. Low voltage halogen lamps have an even higher luminous flux and no loss of luminous flux over their entire life. Longer life and virtually constant luminous flux means much longer relamping intervals – an important factor in reducing maintenance costs.

Lamps for fibre-optic signalling installations.

OSRAM has developed SIRIUS® dichroic reflector lamps specifically for use in fibre-optic matrix displays for variable traffic control. A major benefit of these lamps is the optimum fixed adjustment of the halogen tube with regard to the reflector. This results in very high axial luminous intensity. Other benefits of this series of lamps include long life and a high-quality coating on the reflector.



MINIWATT® lamps



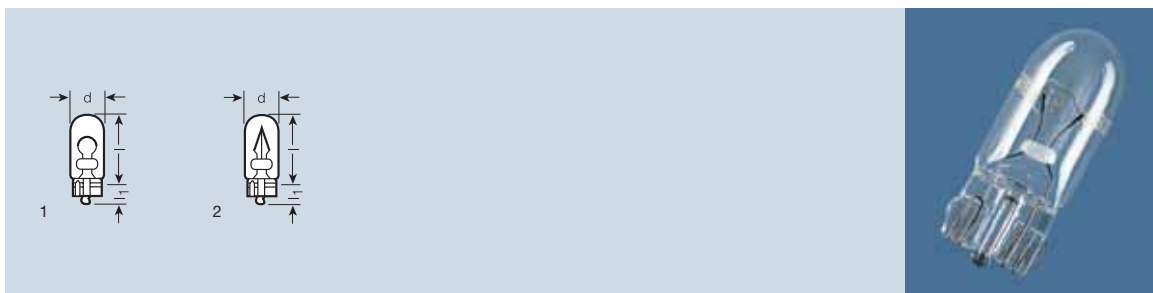
Product reference	Product number Single pack	V	I [mA]	W		d max. [mm]	l max. [mm]	l1 max. [mm]	No.	Product number Standard pack	
MINIWATT® lamps T5 (T1½)											
clear											
2721 ²⁾	4050300838540	12	1.2	W2x4.6d	5	14.5	5.5	1	4008321094797	50	
2721 SCHP ²⁾	4008321015358	12	1.2	W2x4.6d	5	14.5	5.5	1	4008321015372	6000	
2722	4008321094803	12	2	W2x4.6d	5	14.5	5.5	1	4008321094827	50	
2722 SCHP	4008321012845	12	2	W2x4.6d	5	14.5	5.5	1	4008321012869	6000	
2723	4008321094834	12	2.3	W2x4.6d	5	14.5	5.5	1	4008321094858	50	
2723 SCHP	4008321012968	12	2.3	W2x4.6d	5	14.5	5.5	1	4008321012982	6000	
2322 SCHP ¹⁾	4008321013088	12 ... 15 30		W2x4.6d	5	14.5	5.5	1	4008321013101	6000	
2741 ²⁾	4050300838519	24	1.2	W2x4.6d	5	14.5	5.5	1	4008321094889	50	
2741 SCHP ²⁾	4008321012876	24	1.2	W2x4.6d	5	14.5	5.5	1	4008321012890	6000	
2341 SCHP ¹⁾	4008321013200	24 ... 30	1	W2x4.6d	5	14.5	5.5	1	4008321013224	6000	

Order code SCHP indicates a bulk pack.
Standard pack contains 50 lamps; new workshop packaging.

Internationally standardised base and holder dimensions ensure that they can be used as direct replacements for similar lamps.



MINIWATT® lamps T10 (T3¹/₄)



Product reference	Product number Single pack	V	W		d max. [mm]	l max. [mm]	l1 max. [mm]	No.	Product number Standard pack	
MINIWATT® lamps T10 (T3¹/₄)										
clear										
2820	4008321 094094	12	2	W2.1x9.5d	10.3	20.7	6.1	2	4008321 094117	50
2820 SCHK	4050300 888125	12	2	W2.1x9.5d	10.3	20.7	6.1	2	4050300 888149	3600
2821 ¹⁾	4050300 838663	12	3	W2.1x9.5d	10.3	20.7	6.1	2	4008321 094438	50
2821 SCHK ¹⁾	4050300 888187	12	3	W2.1x9.5d	10.3	20.7	6.1	2	4050300 888200	3600
2825 ¹⁾	4050300 838632	12	5	W2.1x9.5d	10.3	20.7	6.1	1	4008321 094469	50
2825 SCHK ¹⁾	4050300 556956	12	5	W2.1x9.5d	10.3	20.7	6.1	1	4050300 778839	3600
2886 X	4008321 094667	12	6	W2.1x9.5d	10.3	20.7	6.1	1	4008321 094681	50
2886 X SCHK	4050300 888668	12	6	W2.1x9.5d	10.3	20.7	6.1	1	4050300 888682	3600
2840	4008321 094698	24	2	W2.1x9.5d	10.3	20.7	6.1	2	4008321 094711	50
2840 SCHK	4050300 888910	24	2	W2.1x9.5d	10.3	20.7	6.1	2	4050300 888934	3600
2841 ¹⁾	4008321 094728	24	3	W2.1x9.5d	10.3	20.7	6.1	2	4008321 094742	50
2841 SCHK ¹⁾	4050300 888941	24	3	W2.1x9.5d	10.3	20.7	6.1	2	4050300 888965	3600
2845 ¹⁾	4050300 891552	24	5	W2.1x9.5d	10.3	20.7	6.1	2	4008321 094773	50
2845 SCHK ¹⁾	4050300 889092	24	5	W2.1x9.5d	10.3	20.7	6.1	2	4050300 889115	3600

Order code SCHK indicates a bulk pack. Standard pack contains 50 lamps; mostly in new workshop packaging.
Bulk packs available on request.

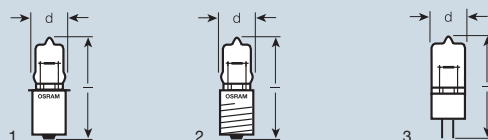
With their larger bulb, they offer the following advantages:

- Good fit in standard holders, good electrical contact
- Close LCL tolerances; important for use in light guide systems
- Long life and high luminous flux




Internationally standardised base and holder dimensions ensure that they can be used as direct replacements for similar lamps.



MINIWATT® tungsten-halogen lamps



NEW
NEW
NEW
NEW
NEW
NEW

Product reference	Product number Single pack	V	I [mA]		d max. [mm]	l max. [mm]	No. 	Product number Standard pack		
XENON MINIWATT® tungsten-halogen lamps for torches										
64090 SCHP ¹⁾	–	2.7	1220	G2.5	5.5	23	3	4050300716558	10000	
64091 SCHP	4008321037558	2.4	500	G2.5	5.5	23	3	4050300716534	10000	
64092 SCHP	4008321037565	2.7	800	G2.5	5.5	23	3	4050300716541	10000	
64095 SCHP	4008321037572	4.0	600	G2.5	5.5	23	3	4050300795454	10000	
64096 SCHP	4008321037589	4.0	830	G2.5	5.5	23	3	4050300795461	10000	
64098 SCHP	4008321051752	5.2	865	G2.5	5.5	23	3	4008321051769	10000	
MINIWATT® tungsten-halogen lamps for torches										
6405210 SCHP	4008321037688	2.8	500	P13.5s	9.3	31	1	4050300559254	2400	
6405310	4050300844916	2.8	850	P13.5s	9.3	31	1	4050300523545	200	
6405310 SCHP	4008321037596	2.8	850	P13.5s	9.3	31	1	4050300235738	2400	
6405710 SCHP	4008321037602	4.0	500	P13.5s	9.3	31	1	4050300233529	2400	
6405730	4050300844176	4.0	500	E10	9.3	31	2	4050300523620	200	
6405910	4050300844947	4.0	850	P13.5s	9.3	31	1	4050300523521	200	
6405910 SCHP	4008321037619	4.0	850	P13.5s	9.3	31	1	4050300235691	2400	
6405930	4050300844091	4.0	850	E10	9.3	31	2	4050300523668	200	
6406110 SCHP	4008321037671	4.8	500	P13.5s	9.3	31	1	4050300278858	2400	
6406310	4050300845432	5.2	500	P13.5s	9.3	31	1	4050300523385	200	
6406310 SCHP	4008321037626	5.2	500	P13.5s	9.3	31	1	4050300233604	2400	
6406330	4050300844138	5.2	500	E10	9.3	31	2	4050300523644	200	
6406330 SCHP	4008321037633	5.2	500	E10	9.3	31	2	4050300235998	2400	
6406510	4050300845364	5.2	850	P13.5s	9.3	31	1	4050300523408	200	
6406510 SCHP	4008321037640	5.2	850	P13.5s	9.3	31	1	4050300234236	2400	
6406530	4050300844213	5.2	850	E10	9.3	31	2	4050300523606	200	
6406530 SCHP	4008321037657	5.2	850	E10	9.3	31	2	4050300234663	2400	
6407370 SCHP	4008321037664	6.5	850	G4	9.3	31	3	4050300301839	4800	
MINIWATT® long-life tungsten-halogen lamps, especially for mine lights²⁾										
6404110 SCHP	4008321037534	4.0	1 A	PX13.5s	9.3	31	1	4050300238685	2400	
6404210 SCHP	4008321037541	4.0	750	PX13.5s	9.3	31	1	4050300250458	2400	

Order code SCHP indicates a bulk pack. Standard pack contains 200 lamps; workshop packaging.

XENON MINIWATT® tungsten-halogen lamps

The new star in the MINIWATT® series. This lamp represents a further improvement in the quality of light:

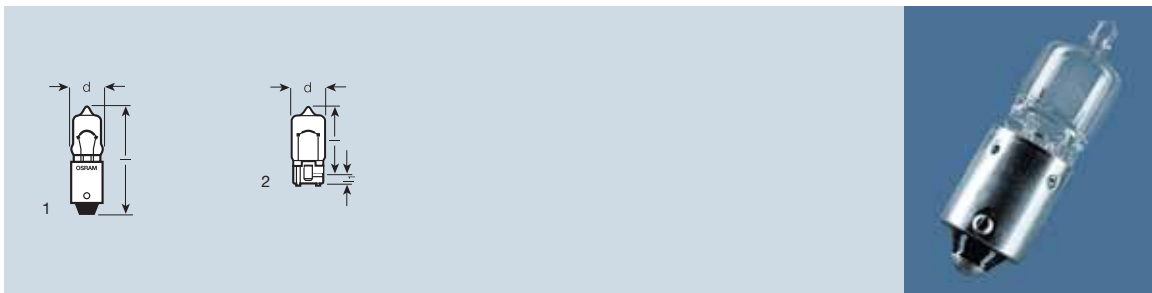
- Brilliant white xenon light
- Colour temperature greater than 3000 K
- Maximum light thanks to xenon gas
- Constant light thanks to added halogens
- Small bulb → optimum reflector adaptation

MINIWATT® tungsten-halogen lamps

in hard-glass technology with added halogens offer the following advantages over conventional lamps:

- Constant light throughout their lives
- More light for the same wattage
- High colour temperature
- Long life





Product reference	Product number Single pack	V	W					No.	Product number Standard pack	
MINIWATT® tungsten-halogen lamps										
for display and signalling purposes										
64111	4008321 095015	12	5	BA9s	9.3	33.0		1	4008321 095039	50
64111 SCHK	4050300 883069	12	5	BA9s	9.3	33.0		1	4050300 883083	2400
64113	4008321 095046	12	10	BA9s	9.3	33.0		1	4008321 095060	50
64113 SCHK	4050300 883090	12	10	BA9s	9.3	33.0		1	4050300 883113	2400
64115	4008321 095077	12	20	BA9s	9.3	33.0		1	4008321 095091	50
64115 SCHK	4050300 883120	12	20	BA9s	9.3	33.0		1	4050300 883144	2400
MINIWATT® tungsten-halogen lamps in wedge base design										
as direct replacements for conventional T10 lamps										
6411150 SCHK	4050300 273792	12	5	W2.1x9.5d	10.0	20.7	4.6	2	4050300 273808	2000
6411350 SCHK	4050300 237008	12	10	W2.1x9.5d	10.0	20.7	4.6	2	4050300 237015	2000
Order code SCHK indicates a bulk pack. Standard pack contains 50 lamps; new workshop packaging.										

MINIWATT® tungsten-halogen lamps

These lamps feature hard-glass technology.

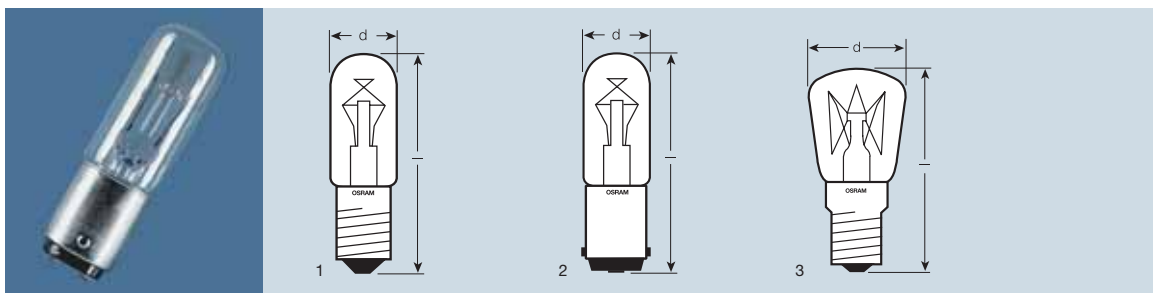
They offer the following advantages:



- High luminous flux, constant throughout the life of the lamp
- Low power consumption
- High colour temperature, i.e. white light
- Stable mounting, close tolerances
- Dimmable

Internationally standardised base and holder dimensions ensure that they can be used as direct replacements for similar lamps.



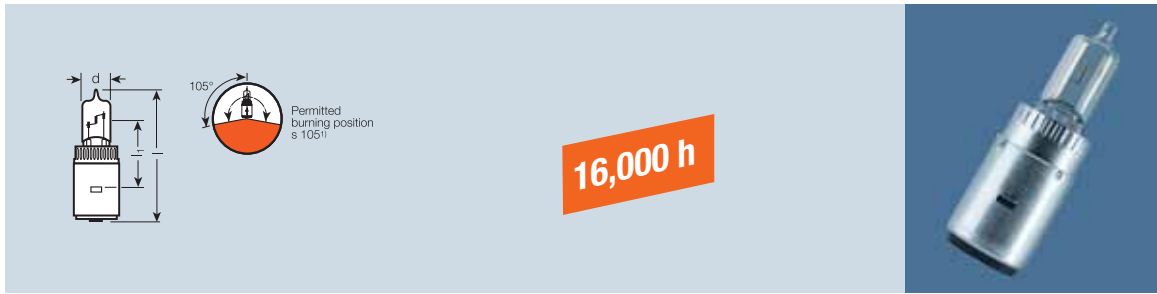
MINIWATT® lamps, T17 tube shape/S25 bulb shape



Product reference	Product number Single pack	V	W		d max. [mm]	l max. [mm]	No.	Product number Standard pack	
MINIWATT® tubular lamps T17									
clear									
6814	4050300837390	30/24	10/6	E14	17	57	1	4050300210902	480
6818	4050300837352	60/48	10/6	E14	17	57	1	4050300210926	480
6824	4050300837208	250/220	10/6	E14	17	57	1	4050300210551	480
6825	4050300837185	250/220	10/6	BA15d	17	57	2	4050300201306	480
MINIWATT® bulb-shape lamps S25									
clear									
6524 ¹⁾	4050300013473	260/220	10/6	E14	26	57	3	4050300201849	100



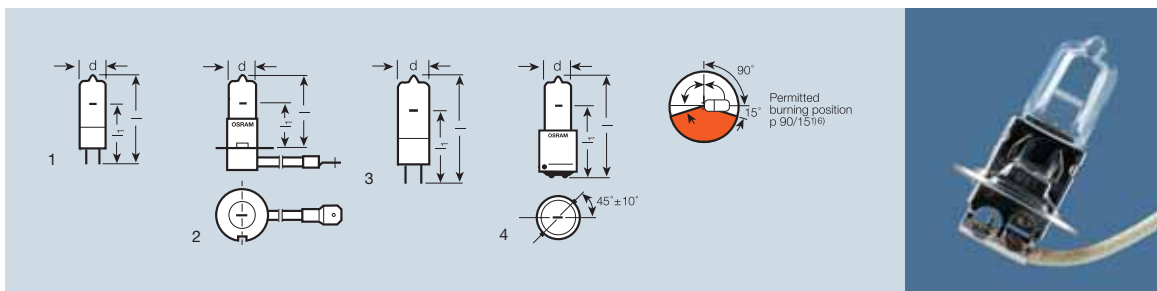
Lamps for road traffic signalling equipment



Product reference	Product number Single pack	V TEST	W	Im		d max. [mm]	l max. [mm]	h [mm]	Product number Standard pack	
LONGLIFE halogen signal lamps for 10 V technology										
SIG 64032	4008321037725	10.5	20	270	BA20s	12.5	65	31	4050300422770	200
SIG 64033	4008321037732	10.5	30	400	BA20s	12.5	65	31	4050300422787	200

Thanks to continual improvements, low-voltage halogen lamps from OSRAM now offer an excellent set of properties. Superior technology and high production quality combine to enable the lamps to be replaced on a two-year cycle (life of around 16,000 hours), for a maximum premature failure rate of 2%³. This contributes greatly to reducing the maintenance costs of the signal installations.

Their geometry, luminous flux and electrical data comply with existing standards (DIN 49842 Parts 1 and 3 and DIN 67527 Part 1), which means these lamps can be used in existing standard-compliant installations without the need for upgrades or adjustments. Operating instructions (see below)



Product reference	Product number Single pack	V TEST	W	Im	t [h] ⁷⁾		d max. [mm]	l max. [mm]	h [mm]	No. 	Product number Standard pack	
Low-voltage tungsten-halogen lamps												
SIG 64012/1	4008321033260	12	20	320	2000	G4	9.0	31	19.5	1	4008321033277	40
SIG 64014 ⁵⁾	4050300222509	10	50	950	2000	PKX22s	11.5	32	18	2	4050300222523	100
SIG 64015	4050300217543	10	50	750	8000	PKX22s	11.5	32	18	2	4050300217567	100
SIG 64016	4050300837741	12	50	900	4000	GY6.35-15	12.0	44	30	3	4050300345048	100
PA 62165 ⁴⁾	4008321037718	10	50	820	2000	BA15d	11.5	50	26	4	4050300224046	100

The benefits of halogen signal lamps are as follows:

- Particularly high luminous flux
- Almost point-like light source for optimum focusing
- Virtually constant luminous flux throughout the life of the lamp
- Long life

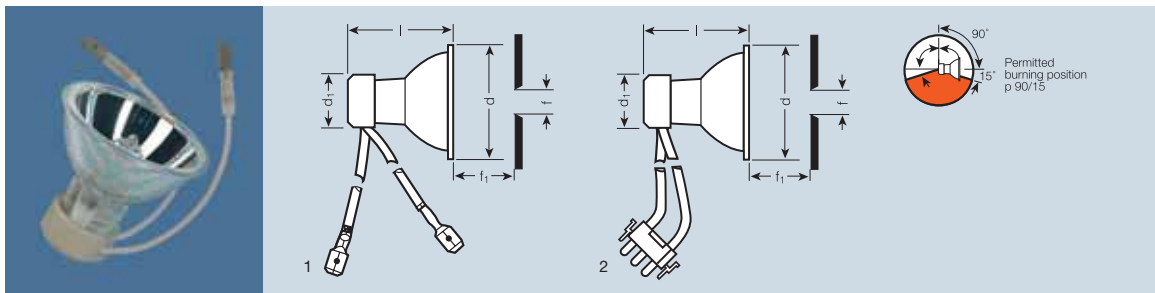
Operating instructions:

All halogen signal lamps operate at high temperature and pressure. They may therefore only be operated in signal equipment/luminaires specially designed for the purpose. Make sure that the lamps are protected against moisture during operation and in particular during relamping. When installing a new lamp, handle it by its protective cardboard sleeve.

1) Only the permissible burning positions may be used otherwise the lamp will fail prematurely.
2) LCL = light centre length (distance from the coil to top of base)
3) The premature failure rate is restricted to cases that are due to lamp faults and not to external influences

4) Supplied on request
5) Particularly suitable for use in fibre-optic traffic signals
6) Lamps with transverse filaments should only be inclined perpendicular to the filament plane
7) Average life

Lamps for road traffic signalling equipment



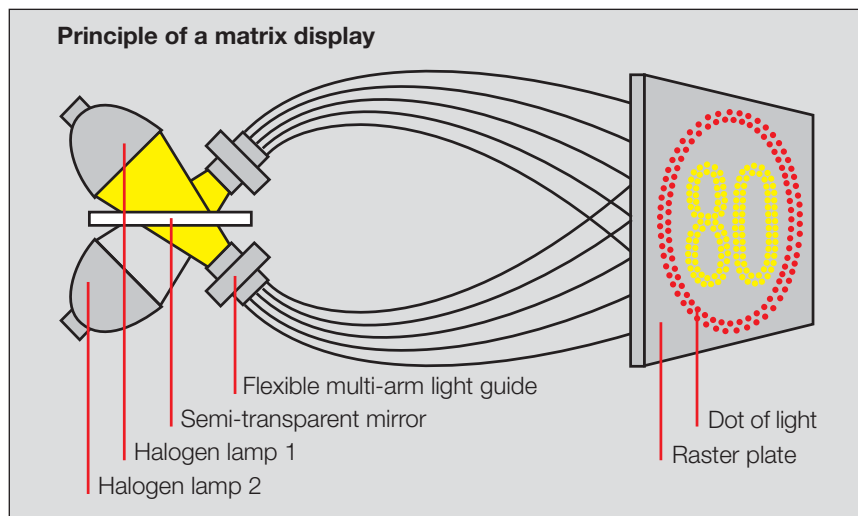
Product reference	Product number Single pack	V TEST	W/A	Im ²⁾	t(h) ³⁾		d [mm]	d1 max. [mm]
Low-voltage tungsten-halogen lamps with SIRIUS® dichroic reflector								
SIG 64004	4050300245225	10	50 W	350	2000	K23d	49.7	24.5
SIG 64005	4050300282060	10	50 W	250	6000	K23d	49.7	24.5
SIG 64002	4050300246505	12	20 W	120	2000	K23d	49.7	24.5
SIG 64002 B ¹⁾	4050300324562	12	1.67A	120	2000	KX23d	49.7	24.5

Product reference	l max. [mm]			No.	Product number Standard pack	
SIG 64004	46.5	10.2	42	1	4050300245232	10
SIG 64005	46.5	10.2	42	1	4050300282077	10
SIG 64002	46.5	10.2	42	1	4050300246512	10
SIG 64002 B ¹⁾	46.5	10.2	42	2	4050300324579	10

A major benefit of the SIRIUS® dichroic reflector lamps is the optimum fixed adjustment of the halogen tube with regard to the reflector. This results in very high axial luminous intensity. Other benefits of this series of lamps include long life and a high-quality coating on the reflector. The connecting cables are equipped with contacts and insulation that are highly resistant to corrosion and heat.

Operating instructions:

All halogen signal lamps operate at high temperature and pressure. They may therefore only be operated in signal equipment/luminaires specially designed for the purpose. Make sure that the lamps are protected against moisture during operation and in particular during relamping.



1) For rail signals
 2) Measured behind the aperture of 10.2 mm $\varnothing \approx W$ fibre bundle
 3) Average life at test voltage/current

Lamps for road traffic signalling equipment



Product reference	Product number Single pack	V TEST	W	lm		d max. [mm]	l max. [mm]	l ₁ max. ⁴⁾ [mm]	Product number Standard pack	
Low-voltage high-pressure lamps for 10 V systems										
SIG 1227 Ü	4008321 903990	10.5	22	270	BA20s 36	67	31.6	4050300 235028	200	
SIG 1238 Ü	4008321 904003	10.5	30	400	BA20s 36	67	31.6	4050300 253091	200	
SIG 1259 Ü	4050300 831770	10.5	45	600	BA20s 36	67	31.6	4050300 253633	100	

Low-voltage high-pressure signal lamps have a much higher luminous efficacy than high-voltage signal lamps. This is due to the higher gas pressure and the inert filler gas. The larger diameter of the tungsten wire of the low-voltage filament also helps increase efficiency. This means that low-voltage high-pressure lamps with significantly lower wattages can often be used, with a resultant reduction in the power consumption of the signalling equipment. The filament wire is more stable than in the HV lamp,

which means that resistance to shocks and vibration is particularly high. The failure rate for standard 10 V low-voltage high-pressure lamps is less than 2% within the first 4400 hours of operation¹⁾. These benefits can also be put to use in existing 230 V signalling installations as it is possible to convert mains voltage installations to 10 V technology. The lamp and reflector have to be replaced and a transformer installed.



Product reference	Product number Single pack	V TEST	W	lm		d max. [mm]	l max. [mm]	l ₁ max. ⁴⁾ [mm]	Product number Standard pack	
Low-voltage LONGLIFE technology for 10 V systems										
SIG 1227 Ü LL	4008321 037695	10.5	22	270	BA20s 36	67	31.6	4050300 900179	200	
SIG 1238 Ü LL	4008321 037701	10.5	30	400	BA20s 36	67	31.6	4050300 790503	200	

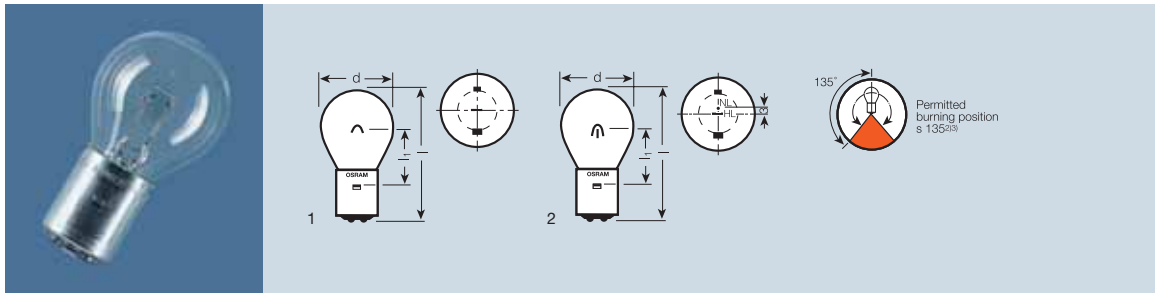
The old low-voltage high-pressure signal lamp has been further developed into a LONGLIFE lamp. For these LONGLIFE versions (LL) the 2% premature failure threshold¹⁾ has been raised to 8000 hours. Maintenance intervals of up to one year are therefore possible (depending on the system).

These lamps can of course be used as direct replacements for low-voltage high-pressure lamps with no need for any adjustments. The same procedure as for low-voltage high-pressure lamps is also used for upgrading high-voltage systems.

1) The premature failure rate is restricted to cases that are due to lamp faults and not to external influences
2) Lamps with transverse filaments should only be inclined perpendicular to the filament plane

3) Only the permissible burning positions may be used otherwise the lamp will fail prematurely
4) LCL = light centre length (distance from the coil to top of base)

Lamps for road traffic signalling equipment



Product reference	Product number Single pack	V TEST	W	Im		d max. [mm]	I max. [mm]	h [mm]	⁴⁾	No.	Product number Standard pack	
Low-voltage high-pressure lamps for 40 V systems, single-coil lamps												
SIG 1455 Ü	4050300832364	40	25	250	BA20d 36	67	31	1		4050300218328	100	
SIG 1462 Ü	4050300832326	40	40	500	BA20d 36	67	31	1		4050300218366	100	
SIG 1470 Ü	4050300832289	40	60	800	BA20d 36	67	31	1		4050300218403	100	
Dual-coil lamps												
SIG 1456 Ü	4050300832340	40	25/25	250	BA20d 36	67	31	2		4050300218342	100	
SIG 1463 Ü	4050300832302	40	40/40	500	BA20d 36	67	31	2		4050300218380	100	
SIG 1471 Ü	4050300832265	40	60/60	800	BA20d 36	67	31	2		4050300218427	100	

Low-voltage signal lamps for 40 V systems are used in signalling equipment in France and Benelux. They are available as single-coil and dual-coil lamps. The operational reliability of dual-coil lamps is much higher than that of single-coil lamps. If the main filament fails, it is possible to switch to the secondary filament. Availability of the installation is therefore significantly increased. For safety reasons, however, it is recommended that the lamp be replaced as soon as possible.

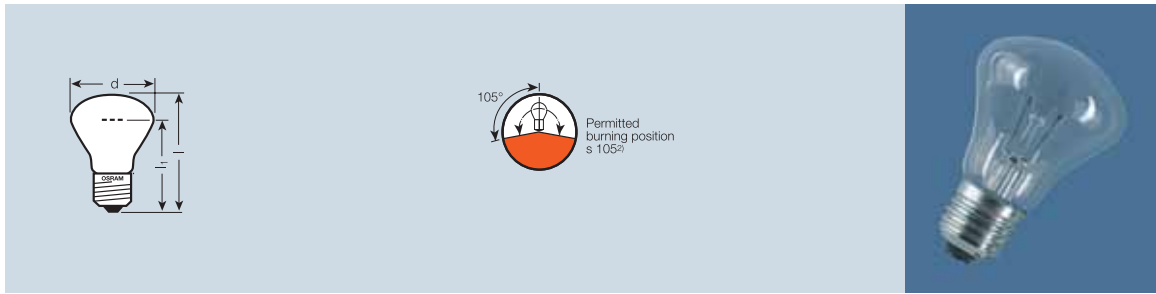
The average life of these lamps is 8000 hours (for dual-coil lamps this applies only to the main coil). The failure rate is less than 2% within the first 3000 hours of operation¹⁾. In other words, maintenance intervals of around four months are possible (depending on the installation). The lamps comply with DIN 49842 Parts 1 and 3.



The compact coil guarantees a high level of optical efficiency and a high axial luminous intensity; the inert gas filling guarantees impressive economy.

1) The premature failure rate is restricted to cases that are due to lamp faults and not to external influences
2) Lamps with transverse filaments should only be inclined perpendicular to the filament plane

3) Only the permissible burning position may be used otherwise the lamp will fail prematurely
4) LCL = light centre length (distance from the coil to top of base)



Product reference	Product number Single pack	V TEST	W	lm		d max. [mm]	I max. [mm]	h [mm]	³⁾ Product number Standard pack	
High-voltage krypton lamps for systems to DIN 67527, Part 1										
SIG 1541 CL	4008321044273	235	60	420	E27	62	91	69	4050300405070	100
SIG 1543 CL	4008321044365	235	75	600	E27	62	91	69	4050300032443	100
SIG 1546 CL	4008321044372	235	100	840	E27	62	101	79	4050300284101	100

Many traffic light installations throughout mainland Europe are still operated on mains voltage of between 220 and 240 V. Right from the start, the rugged construction of the mains voltage signal lamps has proved its worth. These lamps also meet the high photometric requirements demanded by the signal optics used. High-voltage signal lamps are designed for an average life of 8000 hours. For meaningful economic and safety comparisons and for working out maintenance intervals the “individual lamp life” or premature failure rate is a better yardstick. In the case of these high-voltage signal lamps, the failure rate in the first 3000 hours of operation is no more than 2%. This premature failure rate¹⁾ allows maintenance intervals of around 4 months (depending on the system).

The advantages of high-voltage krypton lamps are as follows:

- Excellent optical efficiency thanks to a small cradle diameter
- High luminous efficacy from krypton as the filler gas
- High resistance to shock and vibrations thanks to the nine supports for the filament
- Corrosion-resistant bases

The krypton inert-gas lamps conform to the specifications of DIN 49 842, Parts 2 and 3. This means that in modern signal lights the luminous intensity values laid down in DIN 67 527 Part 1 and EN 12 368 are met.

Product reference	Product number Single pack	V TEST	W	lm		d max. [mm]	I max. [mm]	h [mm]	³⁾ Product number Standard pack	
High-voltage krypton lamps, Longlife for systems to DIN 67527, Part 1										
SIG 1541 LL	4008321044327	235	60	380	E27	62	91	69	4050300613642	100
SIG 1543 LL	4008321044389	235	75	540	E27	62	91	69	4050300613666	100
SIG 1546 LL	4008321044358	235	100	780	E27	62	101	79	4050300613680	100

OSRAM has managed to improve the tried and trusted high-voltage lamp technology even further. Maintenance cycles are longer with the new Longlife signal lamps. Depending on the system, these cycles may be up to one year. Average life is 14,000 hours. Within the first 6000 hours of operation there are no more than 2% lamp failures¹⁾. The rated luminous intensities defined in EN 12 368 are achieved

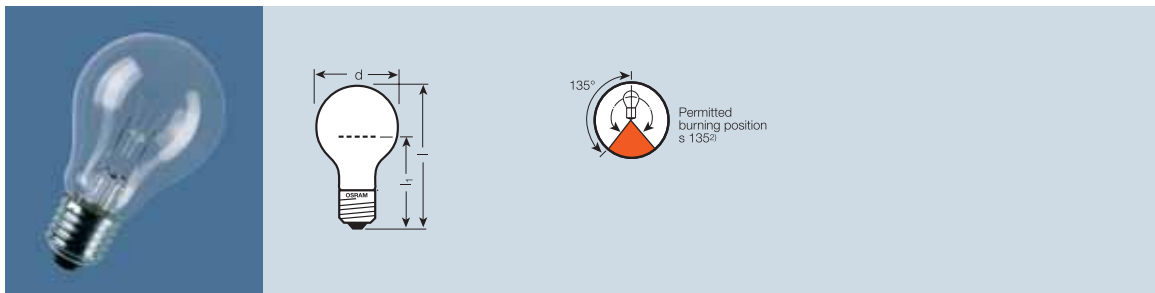
at all wattage levels. Longlife lamps correspond completely to the successful standard series in their technical design, E27 base and unchanged light centre length. They can therefore be used in existing high-voltage signals without the need for upgrades or adjustments.

1) The premature failure rate is restricted to cases that are due to lamp faults and not to external influences

2) Only the permissible burning position may be used otherwise the lamp will fail prematurely.
3) LCL = light centre length



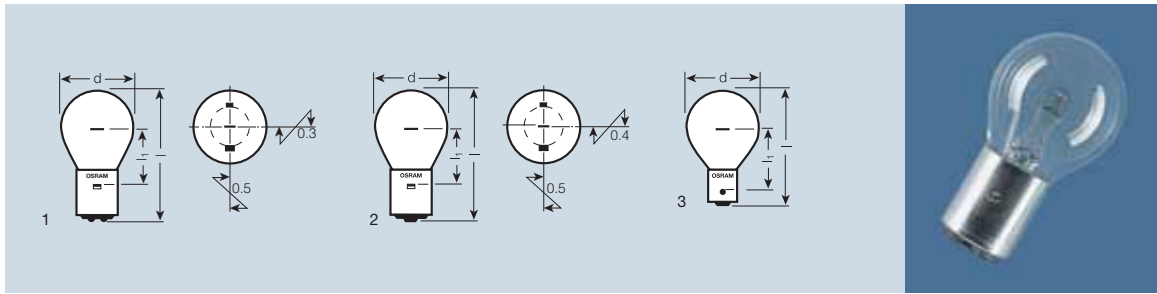
Lamps for road traffic signalling equipment



Product reference	Product number Single pack	V TEST	W	lm		d max. [mm]	l max. [mm]	h [mm]	Product number Standard pack	
Standard mains voltage lamps										
SIG 1534 ¹⁾	4050300984339	235	40	230	E27	62	110	69	4050300032474	100
Standard high-voltage lamps, Longlife										
SIG 1534 LL ¹⁾	4008321044396	235	40	200	E27	62	110	69	4050300613703	100



OSRAM quality combines reliability with long life – the essential ingredients for safe control of road traffic.



Product reference	Product number Single pack	V TEST	W	Im	t [h] ⁴⁾		d max. [mm]
Low-voltage high-pressure single-coil lamps							
SIG 1206 Ü ¹⁾³⁾	4050300832869	12	6	55	600	BA20d ²⁾	36
SIG 1220 Ü ¹⁾³⁾	4050300831596	12	20	290	2000	BA20d	36
SIG 1226 Ü ¹⁾	4050300831534	12	20	230	6000	BA20s	36
SIG 1260 Ü ¹⁾³⁾	4050300832036	10	20	240	6000	BA15s	36

Product reference					Product number Standard pack	
SIG 1206 Ü ¹⁾³⁾	67	29.6	universal	1	4050300203065	100
SIG 1220 Ü ¹⁾³⁾	65	30.0	universal	1	4050300440064	100
SIG 1226 Ü ¹⁾	66	30.0	universal	2	4050300453583	100
SIG 1260 Ü ¹⁾³⁾	62	33.5	universal	3	4050300233086	100

Note: Lamps with transverse filaments should only be inclined perpendicular to the filament plane.

Single-coil lamps

Safety on the railways calls for reliable signalling equipment. Defective lamps pose a serious risk, cause expensive delays to train schedules and lead to costly and time-consuming maintenance work because of the large distances between signals. OSRAM has played a major role over many years in ensuring that railways have operated at high levels of safety and efficiency. The advantages of OSRAM lamps are as follows:

- Narrow tolerances
- Exact light centre
- Long life
- High reliability

Extremely strict quality controls ensure compliance with tight geometrical tolerances, photometric values and specified life. The various wattages of the high-pressure types (= reference "Ü") are matched to the specific needs of the relevant optical systems.

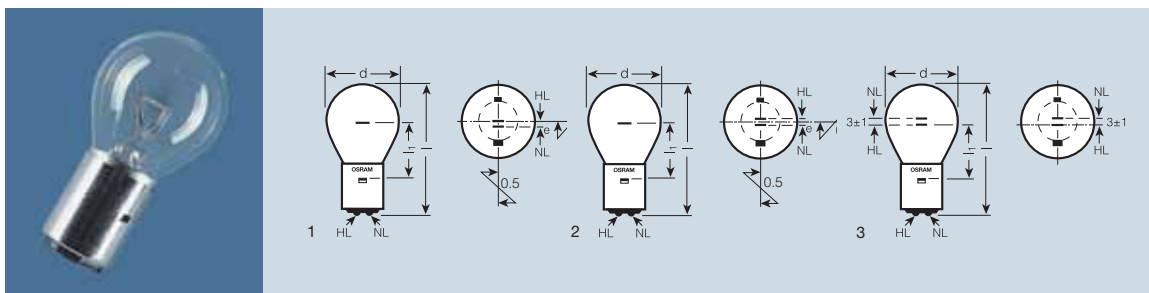



Extremely strict quality controls ensure absolute reliability, close tolerances, a precise light centre length and long life.







1) Supplied on request
2) One base contact is a blind contact
3) Not for new designs

4) Average life at test voltage/current
5) LCL = light centre length (distance from the coil to top of base)

Lamps for rail traffic signalling equipment



Product reference	Product number Single pack	V TEST	W	Im	t[h] ³⁾	
Low-voltage high-pressure dual-coil lamps						
SIG 1810 Ü ¹⁾²⁾	4050300832142	12	10/10	137	600	BA20d
SIG 1210 Ü ¹⁾²⁾	4050300832173	12	10/10	137	600	BA20d
SIG 1820 Ü ¹⁾	4050300832234	12	20/20	350	600	BA20d
SIG 1230 Ü ¹⁾	4050300832203	12	30/30	520	600	BA20d
SIG 1235 Ü ¹⁾	4050300831817	12	35/35	570	600	BA20d
SIG 2460 Ü ¹⁾²⁾	4050300831756	24	60/60	700	8000	BA20d
SIG 3015 Ü ¹⁾	4050300832111	30	15/15	213	600	BA20d

Product reference	 d max. [mm]	 l max. [mm]	 l1 max. ⁴⁾ [mm]		 No.	Product number Standard pack	
SIG 1810 Ü ¹⁾²⁾	36	67	29.6	universal	2	4050300219608	100
SIG 1210 Ü ¹⁾²⁾	36	67	29.6	universal	1	4050300218182	100
SIG 1820 Ü ¹⁾	36	67	29.6	universal	1	4050300221014	100
SIG 1230 Ü ¹⁾	36	67	29.6	universal	1	4050300218205	100
SIG 1235 Ü ¹⁾	36	67	29.6	universal	1	4050300278513	100
SIG 2460 Ü ¹⁾²⁾	36	67	31	s135	3	4050300278346	100
SIG 3015 Ü ¹⁾	36	67	29.6	universal	1	4050300218229	100

Note: Lamps with transverse filaments should only be inclined perpendicular to the filament plane.



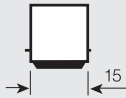
Doubly safe: the second coil takes over from the main coil if the main coil fails.

Dual-coil lamps are the intelligent way to increase the availability and reliability of rail signalling systems significantly. The second filament takes over from the main filament if the main filament fails. Change-over to the second lamp may be manual or automatic. The safety of rail traffic is ensured until the lamp is next changed but it is recommended that the lamp be replaced as soon as possible. These low-voltage signal lamps are now only manufactured as high-pressure lamps as this technology is much more efficient. The various wattages are matched to the specific needs of the relevant optical systems.



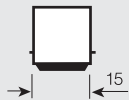
BA9s
Sheet 7004-14

Holder standard:
Sheet 7005-12



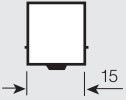
B15d
Sheet 7004-11

Sheet 7005-16



BA15d
Sheet 7004-11A

Holder standard:
Sheet 7005-13



BA15s
Sheet 7004-11A

Sheet 7005-13



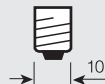
BA20d
Sheet 7004-12

Sheet 7005-14



BA20s
Sheet 7004-12

Sheet 7005-14



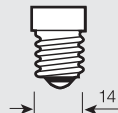
E10
Sheet 7004-22

Holder standard:
Sheet 7005-20



EP10
Sheet 7004-30

Sheet 7005-30



E14
Sheet 7004-23

Sheet 7005-20



E27
Sheet 7004-21

Sheet 7005-20



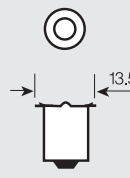
G4
Sheet 7004-72

Holder standard:
Sheet 7005-72



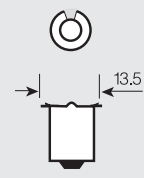
GY6.35-15
Sheet 7004-59

Sheet 7005-59



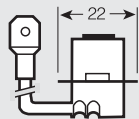
P13.5s
Sheet 7004-40

Sheet 7005-35



PX13.5s
Sheet 7004-35

Sheet 7005-35



PK22s
Sheet 7004-47

Holder standard:
Sheet 7005-47



W2x4.6d
Sheet 7004-94

Sheet 7005-94



W2.1x9.5d
Sheet 7004-91

Sheet 7005-91

