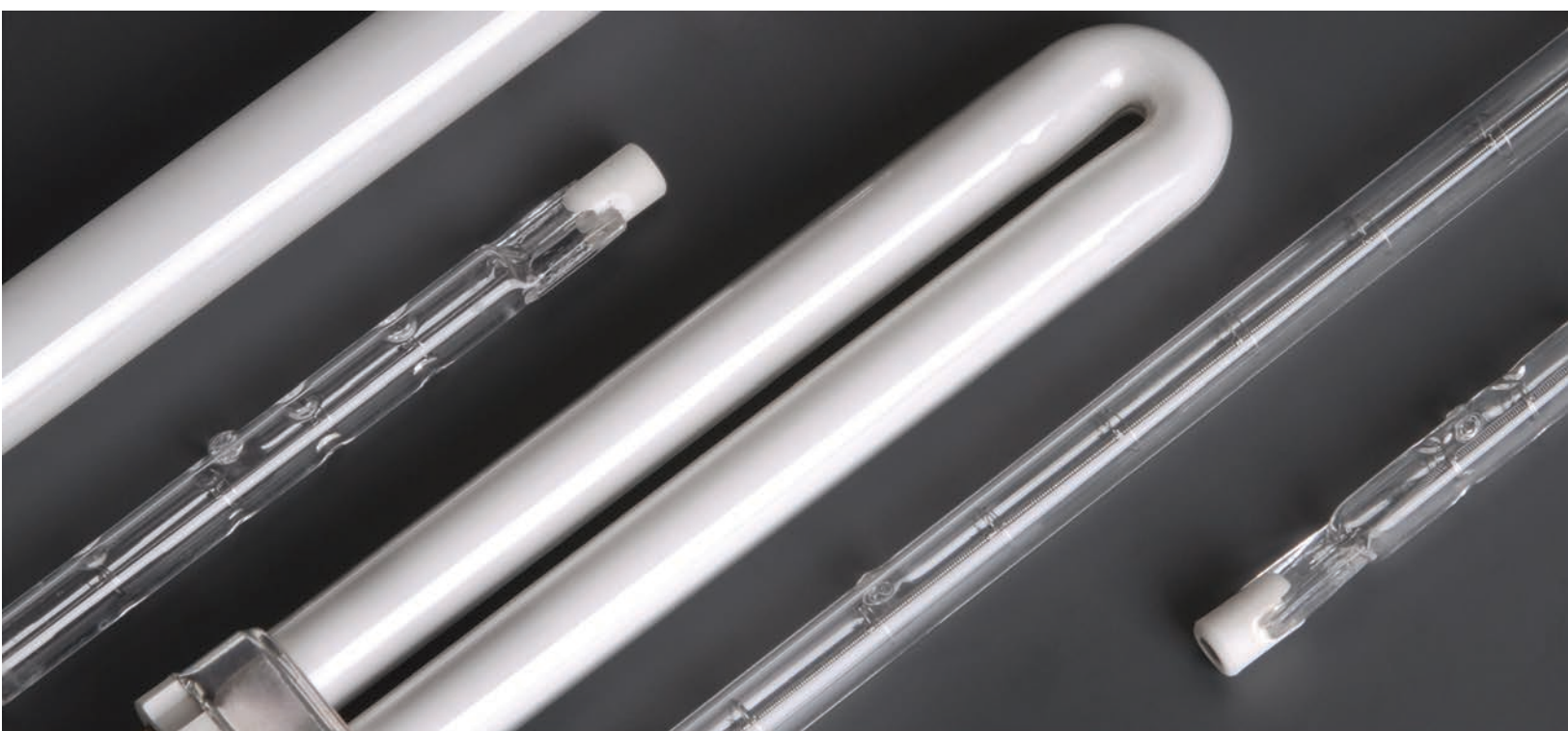




8 Light sources

Fluorescent lamps	454
Halogen lamps	454
Fluorescent energy-saving lamps	456

Fluorescent lamps

Fluorescent lamps are used for mounting in lights for external and internal lighting of industrial, public and household objects.

Fluorescent linear lamps comply with GOST R IEC 60081/99, GOST R IEC 61195/99.
Fluorescent compact lamps comply with GOST R IEC 60901/99, GOST R IEC 61199/99.

Halogen lamps

Halogen lamps are used for mounting in floodlights of external and internal lighting for industrial and household objects, in lights used in cinematography, television, varying technological processes etc.
As compared with common incandescent lamps halogen lamps are advantageous in a more powerful light flux, light flux stability over entire lifetime, small overall dimensions.

Halogen lamps comply with GOST 12.2.007.13/2000.



Advantages of fluorescent lamps

- Energy-saving properties.
- Luminous efficiency is 5 times as high as compared with incandescent lamps.
- Lifetime is 8–15 times as high as compared with incandescent lamps.
- Considerably lower heat liberation.
- Light flux stability over entire lifetime.
- White, natural light.

Technical features

Rated operating voltage, V	~ 230
Rated frequency, Hz	50
Climatic version and lamp location category	MRC3
Ambient temperature	–15÷+50 °C

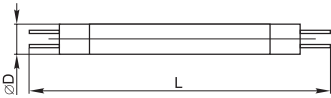
Advantages of halogen lamps

- Higher energy-saving properties.
- Higher light flux as compared with incandescent lamps.
- Bright light over entire lifetime.
- Small overall dimensions and weight.

Technical features

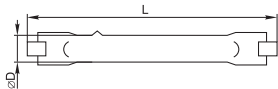
Rated operating voltage, V	~ 230
Rated frequency, Hz	50
Socle	R7s
Bulb configuration	tube-type
Durability, h	1000
Climatic version and lamp location category	MRC3
Ambient temperature	–25÷+50 °C

Range of fluorescent lamps



Description	Lamp power, W	Color temperature*, K	Length L, mm	PCS/Package	PCS/CTN	Article
Diameter (ØD) 12 mm (T4). Sockle G5						
LL-12/6 W	6	6400	219,2	25	100	LSL16-12-G5-06
		4000	219,2	25	100	LSL14-12-G5-06
LL-12/8 W	8	6400	339,4	25	100	LSL16-12-G5-08
		4000	339,4	25	100	LSL14-12-G5-08
LL-12/12 W	12	6400	368,2	25	100	LSL16-12-G5-12
		4000	368,2	25	100	LSL14-12-G5-12
LL-12/16 W	16	6400	468,7	25	100	LSL16-12-G5-16
		4000	468,7	25	100	LSL14-12-G5-16
LL-12/20 W	20	6400	565,2	25	100	LSL16-12-G5-20
		4000	565,2	25	100	LSL14-12-G5-20
LL-12/24 W	24	6400	654,2	25	100	LSL16-12-G5-24
		4000	654,2	25	100	LSL14-12-G5-24
LL-12/28 W	28	6400	765,2	25	100	LSL16-12-G5-28
		4000	765,2	25	100	LSL14-12-G5-28
Diameter (ØD) 16 mm (T5). Sockle G5						
LL-16/6 W	6	6400	226,3	25	500	LSL16-16-G5-06
		4000	226,3	25	500	LSL14-16-G5-06
LL-16/8 W	8	6400	302,5	25	500	LSL16-16-G5-08
		4000	302,5	25	500	LSL14-16-G5-08
LL-16/13 W	13	6400	531,1	25	200	LSL16-16-G5-13
		4000	531,1	25	200	LSL14-16-G5-13
LL-16/14 W	14	6400	563,2	25	100	LSL16-16-G5-14
		4000	563,2	25	100	LSL14-16-G5-14
LL-16/21 W	21	6400	863,2	25	100	LSL16-16-G5-21
		4000	863,2	25	100	LSL14-16-G5-21
LL-16/28 W	28	6400	1163,2	25	100	LSL16-16-G5-28
		4000	1163,2	25	100	LSL14-16-G5-28
Diameter (ØD) 26 mm (T8). Sockle G13						
LL-26/10 W	10	6400	345,5	—	25	LSL16-26-G13-10
		4000	345,5	—	25	LSL14-26-G13-10
LL-26/15 W	15	6400	451,6	—	25	LSL16-26-G13-15
		4000	451,6	—	25	LSL14-26-G13-15
LL-26/18 W	18	6400	604	—	25	LSL16-26-G13-18
		4000	604	—	25	LSL14-26-G13-18
LL-26/30 W	30	6400	908,8	—	25	LSL16-26-G13-30
		4000	908,8	—	25	LSL14-26-G13-30
LL-26/36 W	36	6400	1213,6	—	25	LSL16-26-G13-36
		4000	1213,6	—	25	LSL14-26-G13-36

Range of halogen lamps



Description	Lamp power, W	Rated luminous flux, lm	Length L, mm	PCS/Package	PCS/CTN	Article
LG-150	150	1650	78	100	1000	LSI11-R7S-0150
LG-300	300	3000	118	50	500	LSI10-R7S-0300
LG-500	500	8500	118	50	500	LSI10-R7S-0500
LG-1000	1000	18 500	189	50	250	LSI10-R7S-1000
LG-1500	1500	25 000	254	50	250	LSI10-R7S-1500

* 4000 °K – cold white light; 6400 °K – cold daylight.

Energy-saving fluorescent lamps

SPECIALTY

Compact energy-saving lamps with integrated ballast are used as alternative light sources to incandescent lamps. Energy-saving lamps are intended for use in lights for external and internal lighting of industrial, public and household objects

High-power energy-saving lamps are intended for use in lights for external lighting, as well as for internal lighting of industrial and public buildings. Equivalent incandescent lamps 200-1250 W.

Compact energy-saving lamps series ECOLIGHT are intended for mass replacement of main frame sizes of incandescent lamps 75-100 W in lighting systems in habitable and public premises.

Comply with GOST R IEC 60968, GOST R 51317.3.2, GOST R 513.18/15, GOST R 51514, GOST 51317.3.3.



Advantages

- Lifetime is 8 times higher as compared with incandescent lamps*.
- Power consumption is 5 times less than in incandescent lamps
- Considerably lower heat liberation.
- Comply with electromagnetic compatibility norms.
- High color rendering ($R_a > 80$).
- Light flux stability over entire lifetime.

* Lifetime of ECOLIGHT series energy-saving lamps is 6 times higher.

Technical features

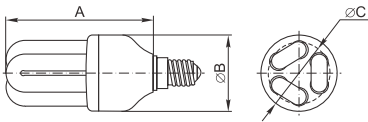
Rated operating voltage, V~	220–230
Rated frequency, Hz	50–60
Climatic version and lamp location category	MRC3
Ambient temperature	$-25 \div +50$ °C

Warning!

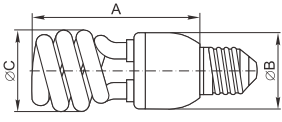
Lamps contain mercury! Reclaiming and disposal of lamps should be effected by services holding permits for such kind of activity.

Range

KEL-3U



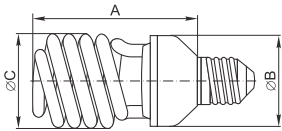
KEL-S



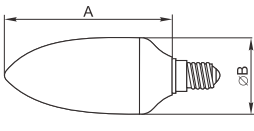
Description	Lamp power, W	Color temperature*, K	Socle	Rated luminous flux, lm	Diameter of tube, mm	Overall dimensions A×B×C	PCS/Package	Article
KEL-3U								
 KEL-3U E14 9 W 2700 K T3	9	2700	E14	450	9	82×42×35	60	LLE10-14-009-2700-T3
KEL-3U E14 9 W 4000 K T3	9	4000	E14	450	9	82×42×35	60	LLE10-14-009-4000-T3
KEL-3U E27 9 W 2700 K T3	9	2700	E27	450	9	82×42×35	60	LLE10-27-009-2700-T3
KEL-3U E27 9 W 4000 K T3	9	4000	E27	450	9	82×42×35	60	LLE10-27-009-4000-T3
KEL-3U E14 11 W 2700 K T3	11	2700	E14	550	9	92×42×35	60	LLE10-14-011-2700-T3
KEL-3U E14 11 W 4000 K T3	11	4000	E14	550	9	92×42×35	60	LLE10-14-011-4000-T3
KEL-3U E27 11 W 2700 K T3	11	2700	E27	550	9	92×42×35	60	LLE10-27-011-2700-T3
KEL-3U E27 11 W 4000 K T3	11	4000	E27	550	9	92×42×35	60	LLE10-27-011-4000-T3
KEL-3U E27 15 W 2700 K T3	15	2700	E27	800	9	117×42×35	60	LLE10-27-015-2700-T3
KEL-3U E27 15 W 4000 K T3	15	4000	E27	800	9	117×42×35	60	LLE10-27-015-4000-T3
KEL-3U E27 20 W 2700 K T4	20	2700	E27	1055	12	135×48,5×42	60	LLE10-27-020-2700-T4
KEL-3U E27 20 W 4000 K T4	20	4000	E27	1055	12	135×48,5×42	60	LLE10-27-020-4000-T4
KEL-3U E27 22 W 2700 K T4	22	2700	E27	1155	12	137×48,5×42	60	LLE10-27-022-2700-T4
KEL-3U E27 22 W 4000 K T4	22	4000	E27	1155	12	137×48,5×2	60	LLE10-27-022-4000-T4
KEL-3U E27 25 W 2700 K T4	25	2700	E27	1350	12	149×48,5×42	60	LLE10-27-025-2700-T4
KEL-3U E27 25 W 4000 K T4	25	4000	E27	1350	12	149×48,5×42	60	LLE10-27-025-4000-T4
KEL-S spiral								
 KEL-S E14 9 W 2700 K T3	9	2700	E14	450	9	91×42×45	60	LLE20-14-009-2700-T3
KEL-S E14 9 W 4000 K T3	9	4000	E14	450	9	91×42×45	60	LLE20-14-009-4000-T3
KEL-S E27 9 W 2700 K T3	9	2700	E27	450	9	91×42×45	60	LLE20-27-009-2700-T3
KEL-S E27 9 W 4000 K T3	9	4000	E27	450	9	91×42×45	60	LLE20-27-009-4000-T3
KEL-S E14 11 W 2700 K T3	11	2700	E14	550	9	101×42×45	60	LLE20-14-011-2700-T3
KEL-S E14 11 W 4000 K T3	11	4000	E14	550	9	101×42×45	60	LLE20-14-011-4000-T3
KEL-S E27 11 W 2700 K T3	11	2700	E27	550	9	101×42×45	60	LLE20-27-011-2700-T3
KEL-S E27 11 W 4000 K T3	11	4000	E27	550	9	101×42×45	60	LLE20-27-011-4000-T3
KEL-S E14 13 W 2700 K T3	13	2700	E14	750	9	98×42×45	60	LLE20-14-013-2700-T3
KEL-S E14 13 W 4000 K T3	13	4000	E14	750	9	98×42×45	60	LLE20-14-013-4000-T3
KEL-S E27 13 W 2700 K T3	13	2700	E27	750	9	98×42×45	60	LLE20-27-013-2700-T3
KEL-S E27 13 W 4000 K T3	13	4000	E27	750	9	98×42×45	60	LLE20-27-013-4000-T3
KEL-S E14 15 W 2700 K T3	15	2700	E14	850	9	102×42×45	60	LLE20-14-015-2700-T3
KEL-S E14 15 W 4000 K T3	15	4000	E14	850	9	102×42×45	60	LLE20-14-015-4000-T3
KEL-S E27 15 W 2700 K T3	15	2700	E27	850	9	102×42×45	60	LLE20-27-015-2700-T3
KEL-S E27 15 W 4000 K T3	15	4000	E27	850	9	102×42×45	60	LLE20-27-015-4000-T3
KEL-S E27 20 W 2700 K T3	20	2700	E27	1150	9	105×48,5×52	60	LLE20-27-020-2700-T3
KEL-S E27 20 W 4000 K T3	20	4000	E27	1150	9	105×48,5×52	60	LLE20-27-020-4000-T3
KEL-S E27 23 W 2700 K T3	23	2700	E27	1350	9	120×48,5×52	60	LLE20-27-023-2700-T3
KEL-S E27 23 W 4000 K T3	23	4000	E27	1350	9	120×48,5×52	60	LLE20-27-023-4000-T3
KEL-S E27 25 W 2700 K T4	25	2700	E27	1350	12	132×54×58	50	LLE20-27-025-2700-T4
KEL-S E27 25 W 4000 K T4	25	4000	E27	1350	12	132×54×58	50	LLE20-27-025-4000-T4
KEL-S E27 45 W 4000 K T4	45	4000	E27	2800	14	201×88×102	20	LLE20-27-045-4000-T4

* 2700 °K – warmlight color; 4000 °K – coldlight color.

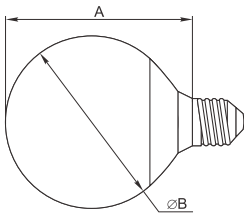
KEL-S T2



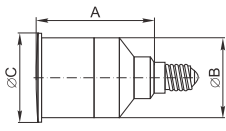
KEL-C



KEL-G



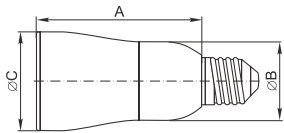
KEL-R20



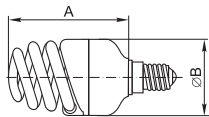
	Description	Lamp power, W	Color temperature*, K	Socle	Rated luminous flux, lm	Diameter of tube, mm	Overall dimensions A×B×C	PCS/Package	Article
KEL-S spiral T2									
	KEL-S E14 9 W 2700 K T2	9	2700	E14	500	7	70×40×45	60	LLE20-14-009-2700-T2
	KEL-S E14 9 W 4000 K T2	9	4000	E14	500	7	70×40×45	60	LLE20-14-009-4000-T2
	KEL-S E27 9 W 2700 K T2	9	2700	E27	500	7	57×40×45	60	LLE20-27-009-2700-T2
	KEL-S E27 9 W 4000 K T2	9	4000	E27	500	7	57×40×45	60	LLE20-27-009-4000-T2
	KEL-S E14 11 W 2700 K T2	11	2700	E14	725	7	78×40×45	60	LLE20-14-011-2700-T2
	KEL-S E14 11 W 4000 K T2	11	4000	E14	725	7	78×40×45	60	LLE20-14-011-4000-T2
	KEL-S E27 11 W 2700 K T2	11	2700	E27	725	7	65×40×45	60	LLE20-27-011-2700-T2
	KEL-S E27 11 W 4000 K T2	11	4000	E27	725	7	65×40×45	60	LLE20-27-011-4000-T2
	KEL-S E14 15 W 2700 K T2	15	2700	E14	800	7	86×40×45	60	LLE20-14-015-2700-T2
	KEL-S E14 15 W 4000 K T2	15	4000	E14	800	7	86×40×45	60	LLE20-14-015-4000-T2
	KEL-S E27 15 W 2700 K T2	15	2700	E27	800	7	79×40×45	60	LLE20-27-015-2700-T2
	KEL-S E27 15 W 4000 K T2	15	4000	E27	800	7	79×40×45	60	LLE20-27-015-4000-T2
	KEL-S E27 20 W 2700 K T2	20	2700	E27	1200	7	80×50×51	50	LLE20-27-020-2700-T2
	KEL-S E27 20 W 4000 K T2	20	4000	E27	1200	7	80×50×51	50	LLE20-27-020-4000-T2
	KEL-S E27 23 W 2700 K T2	23	2700	E27	1500	7	90×50×51	50	LLE20-27-023-2700-T2
	KEL-S E27 23 W 4000 K T2	23	4000	E27	1500	7	90×50×51	50	LLE20-27-023-4000-T2
KEL-C candle									
	KEL-C E14 11 W 2700 K	11	2700	E14	540	9	92×42	50	LLE60-14-011-2700
	KEL-C E14 11 W 4000 K	11	4000	E14	540	9	92×42	50	LLE60-14-011-4000
	KEL-C E27 11 W 2700 K	11	2700	E27	540	9	92×42	50	LLE60-27-011-2700
	KEL-C E27 11 W 4000 K	11	4000	E27	540	9	92×42	50	LLE60-27-011-4000
KEL-G bulb									
	KEL-G E27 9 W 2700 K	9	2700	E27	450	9	72×65	50	LLE70-27-009-2700
	KEL-G E27 9 W 4000 K	9	4000	E27	450	9	72×65	50	LLE70-27-009-4000
	KEL-G E27 20 W 2700 K	20	2700	E27	1100	9	100×95	30	LLE70-27-020-2700
	KEL-G E27 20 W 4000 K	20	4000	E27	1100	9	100×95	30	LLE70-27-020-4000
KEL-R									
	KEL-R20 E14 9 W 2700 K	9	2700	E14	240	7	66×44×48	60	LLE50-14-009-2700
	KEL-R20 E14 9 W 4000 K	9	4000	E14	240	7	66×44×48	60	LLE50-14-009-4000

* 2700 °K – warmlight color; 4000 °K – coldlight color.

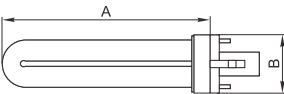
KEL-PAR



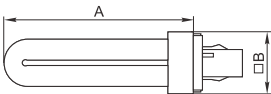
KEL-FS



KL-PL(U)



KL-PLC(2U)



Description	Lamp power, W	Color temperature*, K	Socle	Rated luminous flux, lm	Diameter of tube, mm	Overall dimensions A×B×C	PCS/Package	Article
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KEL-PAR



KEL-PAR63 E27 11 W 2700 K	11	2700	E27	300	7	83×44×64	50	LLE50-27-011-2700
KEL-PAR63 E27 11 W 4000 K	11	4000	E27	300	7	83×44×64	50	LLE50-27-011-4000

KEL-FS



KEL-FS E14 9 W 2700 K T2	9	2700	E14	585	7	64×34	60	LLE25-14-009-2700-T2
KEL-FS E14 9 W 4000 K T2	9	4000	E14	585	7	64×34	60	LLE25-14-009-4000-T2
KEL-FS E27 9 W 2700 K T2	9	2700	E27	585	7	58×34	60	LLE25-27-009-2700-T2
KEL-FS E27 9 W 4000 K T2	9	4000	E27	585	7	58×34	60	LLE25-27-009-4000-T2
KEL-FS E14 11 W 2700 K T2	11	2700	E14	715	7	71×34	60	LLE25-14-011-2700-T2
KEL-FS E14 11 W 4000 K T2	11	4000	E14	715	7	71×34	60	LLE25-14-011-4000-T2
KEL-FS E27 11 W 2700 K T2	11	2700	E27	715	7	64×34	60	LLE25-27-011-2700-T2
KEL-FS E27 11 W 4000 K T2	11	4000	E27	715	7	64×34	60	LLE25-27-011-4000-T2
KEL-FS E14 15 W 2700 K T2	15	2700	E14	975	7	81×40	60	LLE25-14-015-2700-T2
KEL-FS E14 15 W 4000 K T2	15	4000	E14	975	7	81×40	60	LLE25-14-015-4000-T2
KEL-FS E27 15 W 2700 K T2	15	2700	E27	975	7	75×40	60	LLE25-27-015-2700-T2
KEL-FS E27 15 W 4000 K T2	15	4000	E27	975	7	75×40	60	LLE25-27-015-4000-T2
KEL-FS E27 20 W 2700 K T2	20	2700	E27	1300	7	78×40	60	LLE25-27-020-2700-T2
KEL-FS E27 20 W 4000 K T2	20	4000	E27	1300	7	78×40	60	LLE25-27-020-4000-T2
KEL-FS E27 23 W 2700 K T2	23	2700	E27	1495	7	93×45	60	LLE25-27-023-2700-T2
KEL-FS E27 23 W 4000 K T2	23	4000	E27	1495	7	93×45	60	LLE25-27-023-4000-T2
KEL-FS E27 25 W 2700 K T2	25	2700	E27	1625	7	98×50	50	LLE25-27-025-2700-T2
KEL-FS E27 25 W 4000 K T2	25	4000	E27	1625	7	98×50	50	LLE25-27-025-4000-T2

Compact U-type fluorescent lamp



KL-PL(U) G23 9 W 2700 K T3	9	2700	G23	580	12	140×32	100	LLE30-23-009-2700
KL-PL(U) G23 9 W 4000 K T3	9	4000	G23	580	12	140×32	100	LLE30-23-009-4000
KL-PL(U) G23 11 W 2700 K T3	11	2700	G23	880	12	210×42	100	LLE30-23-011-2700
KL-PL(U) G23 11 W 4000 K T3	11	4000	G23	880	12	210×42	100	LLE30-23-011-4000

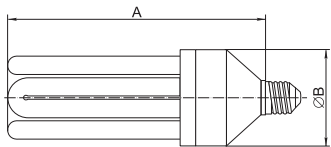
Compact 2U-type fluorescent lamp



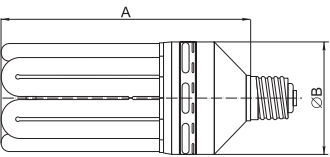
KL-PLC(2U) G24D-1 13 W 4000 K T3	13	4000	G24D-1	890	12	105×34	100	LLE40-24-013-4000
KL-PLC(2U) G24D-2 18 W 4000 K T3	18	4000	G24D-2	1200	12	125×34	100	LLE40-24-018-4000
KL-PLC(2U) G24D-3 26 W 4000 K T3	26	4000	G24D-3	1780	12	145×34	100	LLE40-24-026-4000

* 2700 °K – warmlight color; 4000 °K – coldlight color.

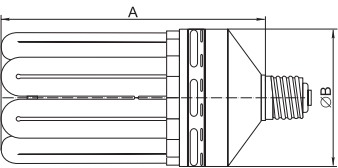
KEL-4U



KEL-6U



KEL-8U



Description	Lamp power, W	Color temperature*, K	Socle	Rated luminous flux, lm	Diameter of tube, mm	Overall dimensions A×B×C	PCS/Package	Article
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High-power lamps



KEL-4U E27 55 W 6500 K	55	6500	E27	3025	17	210×73	25	LLE10-27-055-6500
KEL-4U E27 65 W 6500 K	65	6500	E27	3575	17	220×73	25	LLE10-27-065-6400



KEL-6U E40 85 W 6500 K	85	6500	E40	5100	17	228×105	25	LLE10-40-085-6500
KEL-6U E40 105 W 6500 K	105	6500	E40	6300	17	255×105	25	LLE10-40-105-6500

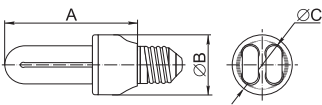


KEL-8U E40 150 W 6500 K	150	6500	E40	9000	17	250×124	6	LLE10-40-150-6500
KEL-8U E40 200 W 6500 K	200	6500	E40	12000	17	300×124	6	LLE10-40-200-6500
KEL-8U E40 250 W 6500 K	250	6500	E40	15000	17	315×124	6	LLE10-40-250-6500

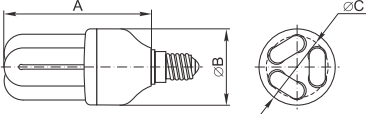
* 6500 °K – daylight color.



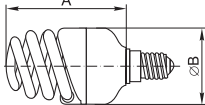
KELR-2U



KELR-3U



KELR-FS



Description	Lamp power, W	Color temperature*, K	Socle	Rated luminous flux, lm	Diameter of tube, mm	Overall dimensions A×B×C	PCS/Package	Article
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ECOLIGHT



KELR-2U E27 15 W 2700 K	15	2700	E27	450	12	123×42×36	50	LLEP10-27-015-2700-T4
KELR-2U E27 15 W 4000 K	15	4000	E27	450	12	123×42×36	50	LLEP10-27-015-4000-T4



KELR-3U E27 20 W 2700 K	20	2700	E27	545	9	115×40×38	50	LLEP10-27-020-2700-T3
KELR-3U E27 20 W 4000 K	20	4000	E27	545	9	115×40×38	50	LLEP10-27-020-4000-T3



KELR-FS E27 15 W 2700 K	15	2700	E27	415	9	78×48	50	LLEP25-27-015-2700-T3
KELR-FS E27 15 W 4000 K	15	4000	E27	415	9	78×48	50	LLEP25-27-015-4000-T3
KELR-FS E27 20 W 2700 K	20	2700	E27	570	9	93×48	50	LLEP25-27-020-2700-T3
KELR-FS E27 20 W 4000 K	20	4000	E27	570	9	93×48	50	LLEP25-27-020-4000-T3

* 2700 °K – warmlight color; 4000 °K – coldlight color.



9 Lighting Products

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Floodlights

Metal-halogen floodlights, IP65

Metal-halogen floodlights with power 70, 150, 250,400 W are designed for outdoor lighting (squares, parkings, construction sites, etc.), highlighting objects (shop windows, expositions, advertising stands and billboards, building facades, etc.), as well as for interior lighting of big premises (halls, sport premises, etc.) in conditions of air convection. Floodlight design and materials used ensure high mechanical strength and full protection against penetration of dust and moisture meeting IP65 standard. Complies with GOST R MEK 60598-1, GOST R MEK 60598-2-5.



Advantages

- Floodlight casing is made of corrosion resistant aluminum alloy.
- Ceramic lamp holder.
- Deflector – aluminum foil with relief embossing.
- Lamp socket design ensures easy lamp installation and extraction.
- Heat-resistant, tempered glass.
- Iron cramp for floodlight installation.
- Organosilicone rubber seal ensures excellent protection against dust and moisture.
- Contact group is made of electrical copper.
- All floodlight metal parts have corrosion-resistant coating.

Technical features

Rated voltage, V~	230
Minimum distance to illuminated object, m	1
IP Class	I
Cables size, mm ²	0,75÷1,5
Type of light source	metal-halogen lamp
Ambient temperature	–45÷+40 °C

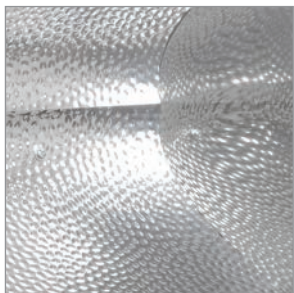
Design features



Floodlight casing is made of corrosion resistant aluminum alloy. High-quality casing coating with grey thermostable paint.



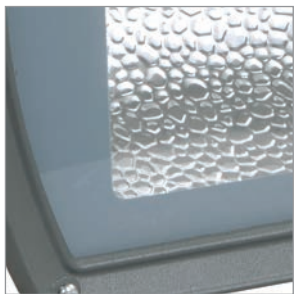
Iron cramp for floodlight installation ensures secure mounting of the floodlight on a support. Holding elements exposed to floodlight downward force are supplied with devices which prevent all floodlight parts from shifting under vibration.



Deflector – aluminum foil with relief embossing.



Floodlights are equipped with ceramic sockets. Contact group is made of copper alloy. Socket design provides for easy lamp installation and removal and excludes unsteady lamp operation in vibration conditions.

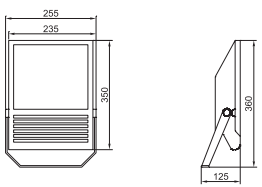
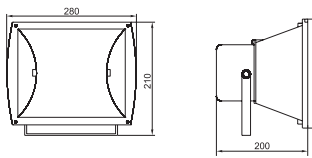
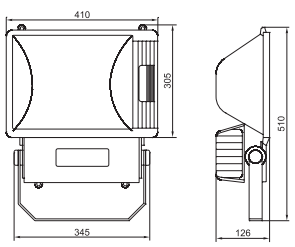
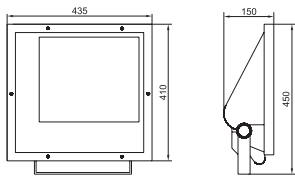


Heat-resistant, tempered glass. Heat-resistant and elastic seal of organosilicone rubber (silicone) ensures protection of the floodlight against dust and moisture according to protection degree IP65



Corrosion-resistant coating of metalware. Deep recesses of mounting screws. All screwed connections are made with lockwashers.

Range

	Dimensional drawing	Description	Lamp power, W	Socle	Light distribution	PCS/Package	Article
		G001-70-02	up to 70	Rx7s	asymmetric	5	LPH001-70-02-K03
		G001-150-02	up to 150	Rx7s	asymmetric	5	LPH001-150-02-K03
		G002-150-01	up to 150	Rx7s	symmetric	4	LPH002-70-02-K03
		G002-70-01	up to 70	Rx7s	symmetric	4	LPH002-70-01-K03
		G002-150-02	up to 150	Rx7s	asymmetric	4	LPH002-150-02-K03
		G002-70-02	up to 70	Rx7s	asymmetric	4	LPH002-150-01-K03
		G003-400-01	up to 400	E40	symmetric	1	LPH003-250-02-K03
		G003-250-01	up to 250	E40	symmetric	1	LPH003-250-01-K03
		G003-400-02	up to 400	E40	asymmetric	1	LPH003-400-02-K03
		G003-250-02	up to 250	E40	asymmetric	1	LPH003-400-01-K03
		G004-400-01	up to 400	E40	symmetric	1	LPH004-250-02-K03
		G004-250-01	up to 250	E40	symmetric	1	LPH004-250-01-K03
		G004-400-02	up to 400	E40	asymmetric	1	LPH004-400-02-K03
		G004-250-02	up to 250	E40	asymmetric	1	LPH004-400-01-K03

Halogen floodlights, IP54

150, 500, 1000, 1500 W floodlights are designed for exterior lighting in general (squares, parkings, construction sites, etc.), highlighting objects (shop windows, expositions, advertising stands and boards, building faces, etc.).

150, 500 W can also be used for interior lighting of large premises (halls, sport premises, parkings, etc.) in conditions of air convection.

Floodlight design and materials used ensure high mechanical strength and full protection against penetration of dust and moisture according to protection degree IP65 (except for IO 300K model).

IO 300K floodlight having protection degree IP33 is designed for interior lighting, however, it may be used for exterior lighting only if it is shed (under entrance canopy, deck, veranda, etc.).

Compliant with GOST R MEK 60598-1-99, GOST R MEK 598-2-5-99.



Advantages

- Floodlight casing is made of corrosion resistant aluminum alloy.
- Ceramic lamp holder.
- Deflector – aluminum foil with relief embossing.
- Heat-resistant, tempered glass.
- Contact group is made of electrical copper.
- Corrosion-resistant coating of metalware.
- Rubber retaining rings, preventing mounting screw drop-out.
- Color – white, black.

Technical features

Rated voltage, V~	230
Minimum distance to illuminated object, m	1
IP class	I
Cross section of connected conductors	
IO 150, 500	0,75 ÷ 1,5 mm ²
IO 1000, 1500	1,0 ÷ 2,5 mm ²
Type of light source	filament halogen lamp
Socle	R7s
Ambient temperature	–45 ÷ +50 °C
for floodlights IO 150D, IO 500D	–20 ÷ +40 °C

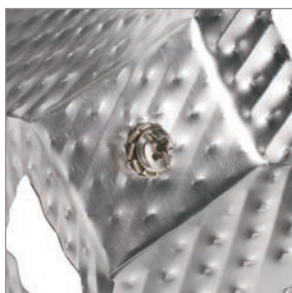
Design features



Floodlight casing is made of corrosion resistant aluminum alloy. High-quality casing coating with thermostable paint.



Terminal block is made of self-extinguishing plastic. Rubber seal ensures reliable protection of current-carrying elements.



Deflector – aluminum foil with relief embossing.



Ceramic lamp holder. Lamp holder support bracket is made of anodized steel.

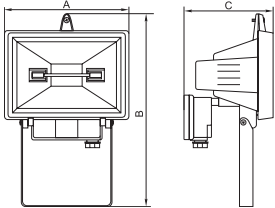
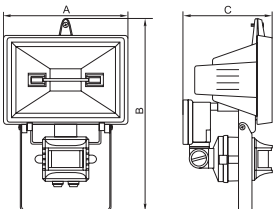
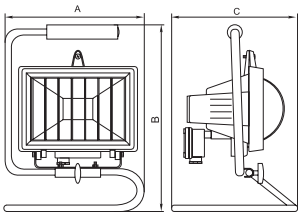
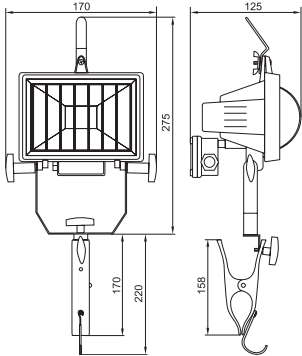
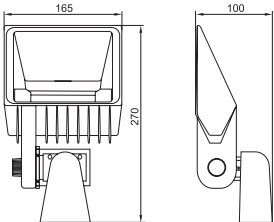


Heat-resistant, tempered glass. Polyurethane seal between glass and floodlight casing protects the floodlight against dust and moisture according to IP class IP54.



Corrosion-resistant coating of metalware. Deep recesses of mounting screws. Rubber retaining rings, preventing mounting screw drop-out.

Range

	Dimensional drawing		Description	Lamp power, W	Overall dimensions, A×B×C, mm	PCS/ package	Article
			IO 150	150	140×190×110	24	LPI01-1-0150-K01 LPI01-1-0150-K02
			IO 500	500	185×255×135	16	LPI01-1-0500-K01 LPI01-1-0500-K02
			IO 1000	1000	275×300×155	6	LPI01-1-1000-K01 LPI01-1-1000-K02
			IO 1500	1500	345×370×190	6	LPI01-1-1500-K01 LPI01-1-1500-K02
			IO 150D	150	140×210×110	18	LPI02-1-0150-K01 LPI02-1-0150-K02
			IO 500D	500	185×285×128	12	LPI02-1-0500-K01 LPI02-1-0500-K02
			IO 150P	150	180×240×160	12	LPI03-1-0150-K02
			IO 500P	500	235×300×205	8	LPI03-1-0500-K02
			IO 150KL	150		16	LPI04-1-0150-K02
			IO 300K	300	165×270×100	20	LPI05-1-0300-K02

NPP series lights, IP54

Aluminum alloy case lights

Lights are intended for internal lighting of public and industrial premises and for external lighting. The design of a luminary and used materials ensure high mechanical strength and dust-and-moisture control as per class IP54.

Comply with standards GOST R MEC 60598-1-2003.



Advantages	
• Case and wire guard of a luminary are made of corrosion-resistant aluminum alloy. • Dome light of a luminary is made of heat-resistant glass; model 3006 – dome light is made of polycarbonate; model 9101 – dome light is made of plastic. • Corrosion-resistant coating of metal specialties and metal parts. • Rubber retaining rings to preclude drop-out of fastening screws. • Method of mounting – wall type/laid-on ceiling type. • Color – white, black, grey (model 3006)	
Technical features	
Rated voltage, V~	230
Minimal distance to illuminated object, m	0,5
Climatic version and lamp location category	MRC2
IP class	I
Protection degree	IP54
for model 9101	IP33
Cross section of connected conductors	0,75÷1,5 mm ²
Type of light source	incandescent lamp or compact Fluorescent lamp
Socle	E27

Design features



Case of a luminary is made of corrosion-resistant aluminum alloy. Quality coating of the case with a heat-resistant paint.



Ceramic holder E27. Plastic cover on a holder – is an in-addition-to protection against electric shock.



The wire guard of a luminary is made of corrosion-resistant aluminum alloy.

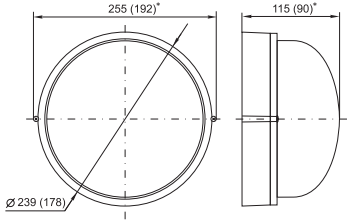
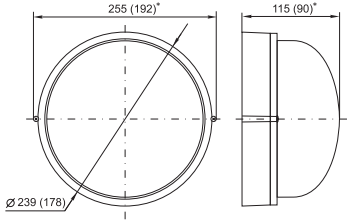
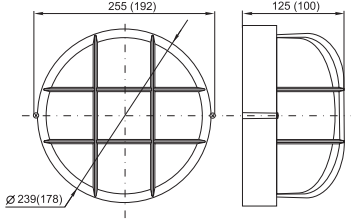
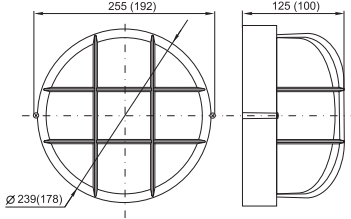
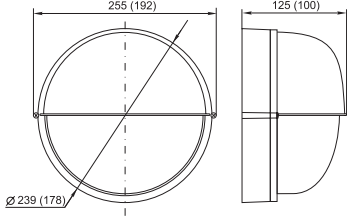
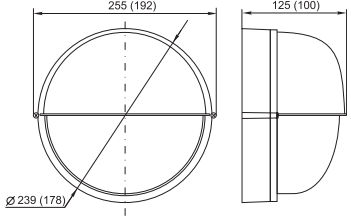
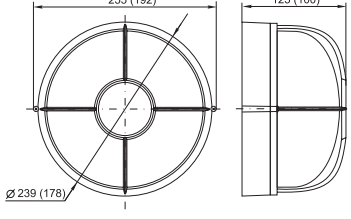
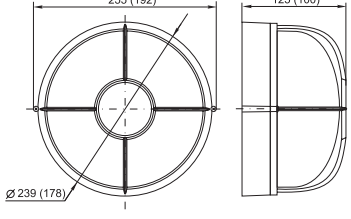
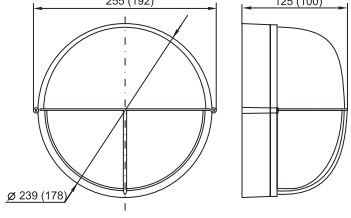
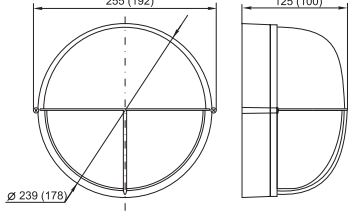
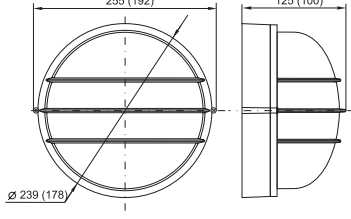
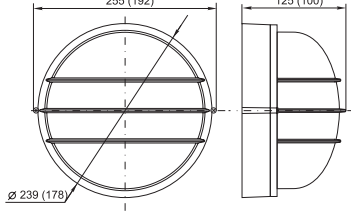


Corrosion-resistant coating of metal specialties and metal parts; rubber retaining rings to preclude drop-out of fastening screws.

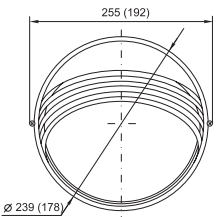
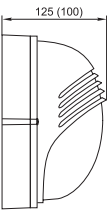
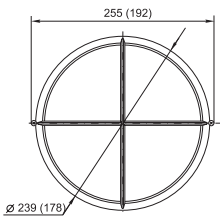
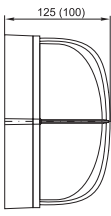
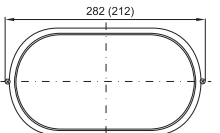
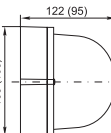
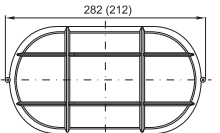
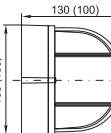
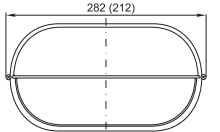
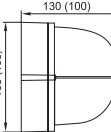
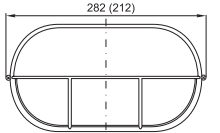
Admissible dimensions of fluorescent lamps for mounting in lights

Version type of a luminary	Overall dimensions of lamps, mm	
	Maximal length	Maximal diameter
1101÷1108	140	65
1301÷1308	90	65
1201÷1208	180	80
1401÷1408	110	65
2501	110	65
3006	140	80
9101	100	70

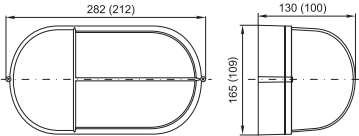
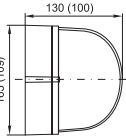
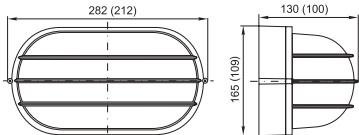
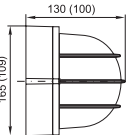
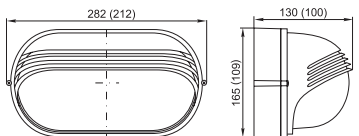
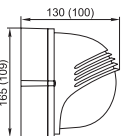
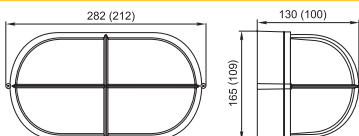
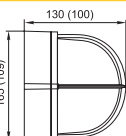
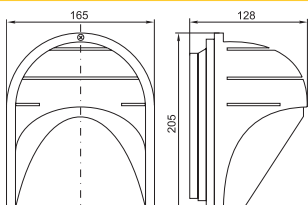
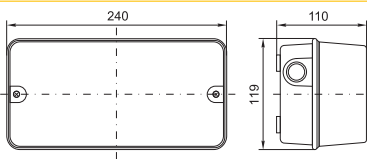
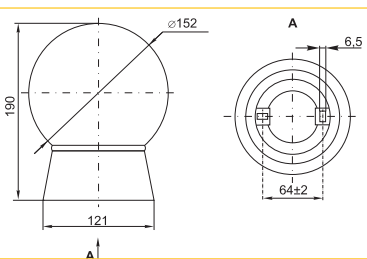
Range

Overall dimensions*			Description	Lamp power, W	Color	PCS/ package	Article
			NPP 1301	60	white	12	LNPP0-1301-1-060-K01
					black		LNPP0-1301-1-060-K02
			NPP 1101	100	white	8	LNPP0-1101-1-100-K01
					black		LNPP0-1101-1-100-K02
			NPP 1302	60	white	12	LNPP0-1302-1-060-K01
					black		LNPP0-1302-1-060-K02
			NPP 1102	100	white	8	LNPP0-1102-1-100-K01
					black		LNPP0-1102-1-100-K02
			NPP 1303	60	white	12	LNPP0-1303-1-060-K01
					black		LNPP0-1303-1-060-K02
			NPP 1103	100	white	8	LNPP0-1103-1-100-K01
					black		LNPP0-1103-1-100-K02
			NPP 1304	60	white	12	LNPP0-1304-1-060-K01
					black		LNPP0-1304-1-060-K02
			NPP 1104	100	white	8	LNPP0-1104-1-100-K01
					black		LNPP0-1104-1-100-K02
			NPP 1305	60	black	12	LNPP0-1305-1-060-K02
			NPP 1105	100	white	8	LNPP0-1105-1-100-K01
					black		LNPP0-1105-1-100-K02
			NPP 1306	60	white	12	LNPP0-1306-1-060-K01
					black		LNPP0-1306-1-060-K02
			NPP 1106	100	white	8	LNPP0-1106-1-100-K01
					black		LNPP0-1106-1-100-K02

* Size of 60 W lighting fixture are given in parentheses.

Overall dimensions*			Description	Lamp power, W	Color	PCS/ package	Article
			NPP 1307	60	white	12	LNPP0-1307-1-060-K01
					black		LNPP0-1307-1-060-K02
			NPP 1107	100	white	8	LNPP0-1107-1-100-K01
					black		LNPP0-1107-1-100-K02
			NPP 1308	60	white	12	LNPP0-1308-1-060-K01
					black		LNPP0-1308-1-060-K02
			NPP 1108	100	white	8	LNPP0-1108-1-100-K01
					black		LNPP0-1108-1-100-K02
			NPP 1401	60	white	12	LNPP0-1401-1-060-K01
					black		LNPP0-1401-1-060-K02
			NPP 1201	100	white	8	LNPP0-1201-1-100-K01
					black		LNPP0-1201-1-100-K02
			NPP 1402	60	white	12	LNPP0-1402-1-060-K01
					black		LNPP0-1402-1-060-K02
			NPP 1202	100	white	8	LNPP0-1202-1-100-K01
					black		LNPP0-1202-1-100-K02
			NPP1403	60	white	12	LNPP0-1403-1-060-K01
					black		LNPP0-1403-1-060-K02
			NPP 1203	100	white	8	LNPP0-1203-1-100-K01
					black		LNPP0-1203-1-100-K02
			NPP 1404	60	white	12	LNPP0-1404-1-060-K01
					black		LNPP0-1404-1-060-K02
			NPP 1204	100	black	8	LNPP0-1204-1-100-K02

* Size of 60 W lighting fixture are given in parentheses.

Overall dimensions			Description	Lamp power, W	Color	PCS/ package	Article
			NPP 1405	60	black	12	LNPP0-1405-1-060-K02
			NPP 1205	100	white black	8	LNPP0-1205-1-100-K01 LNPP0-1205-1-100-K02
			NPP 1406	60	white black	12	LNPP0-1406-1-060-K01 LNPP0-1406-1-060-K02
			NPP 1206	100	white black	8	LNPP0-1206-1-100-K01 LNPP0-1206-1-100-K02
			NPP 1407	60	white black	12	LNPP0-1407-1-060-K01 LNPP0-1407-1-060-K02
			NPP 1207	100	white black	8	LNPP0-1207-1-100-K01 LNPP0-1207-1-100-K02
			NPP 1408	60	white black	12	LNPP0-1408-1-060-K01 LNPP0-1408-1-060-K02
			NPP 1208	100	white black	8	LNPP0-1208-1-100-K01 LNPP0-1208-1-100-K02
			NPP 2501	60	white black	12	LNPP0-2501-1-060-K01 LNPP0-2501-1-060-K02
			NPP 3006	60	серый	18	LNPP0-3006-1-060-K01
			NPP 9101	60	black	12	LNPP0-9101-1-060-K01

* Size of 60 W lighting fixture are given in parentheses.



Built-in type aluminum alloy case lights

Lights are intended for internal lighting of public and industrial premises; for external lighting .
The design of a luminary and use materials ensure high mechanical strength and dust-and-moisture control as per class IP54.

Comply with GOST R MEC 60598-1-99, GOST R MEC 598-2-5-99.



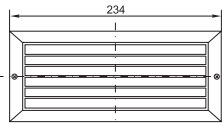
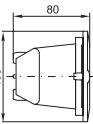
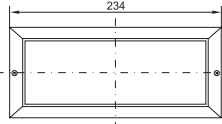
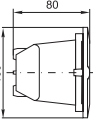
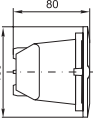
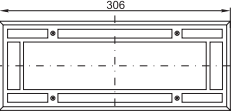
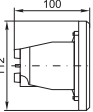
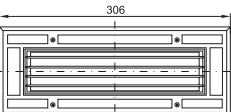
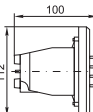
Advantages

- The case and wire guard of a luminary are made of corrosion-resistant aluminum alloy.
- A luminary dome light is made of heat-resistant glass.
- Corrosion-resistant coating of metal specialties and metal parts.
- Rubber retaining rings to preclude drop-out of fastening screws.
- Method of mounting – built-in type
- Color – white, black.

Technical features

Rated voltage, V~	230
Minimal distance to illuminated object, m	0,5
Climatic version and lamp location category	U3
IP class	I
Protection degree	IP54
Cross section of connected conductors	0,75 ÷ 1,5 mm ²
Type of light source	incandescent lamp or compact fluorescent lamp
Socle	E27

Range

Overall dimensions			Description	Lamp power, W	Color	PCS/ package	Article
			NPP 3101	60	white	18	LNPP0-3101-1-060-K01
					black		LNPP0-3101-1-060-K02
			NPP 3102	60	white	18	LNPP0-3102-1-060-K01
					black		LNPP0-3102-1-060-K02
			NPP 3103	60	white	18	LNPP0-3103-1-060-K01
					black		LNPP0-3103-1-060-K02
			NPP 3114	60	white	12	LNPP0-3114-1-060-K01
					black		LNPP0-3114-1-060-K02
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					black		LNPP0-3118-1-060-K02

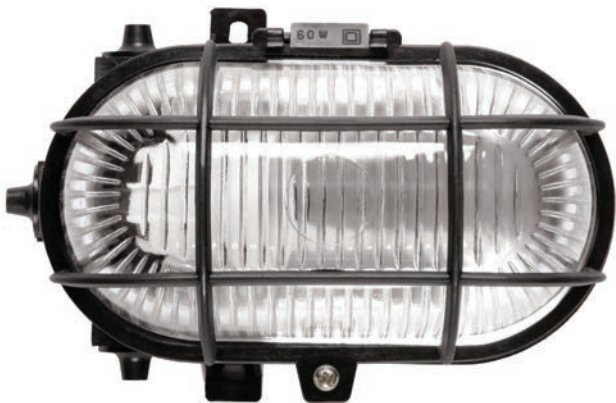
Size of fluorescent lamps installed in lights

Luminary form factor	Overall dimensions of lamps, mm	
	max. length	max. diameter
3101÷3103	125	65
3114÷3118	180	75

Lights with a plastic case

Lights are intended for internal lighting of public and industrial premises with a higher dust and moisture content. For external lighting.

Comply with GOST R MEC 60598-1-99, GOST R MEC 598-2-5-99.



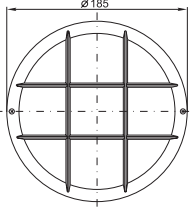
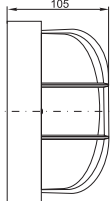
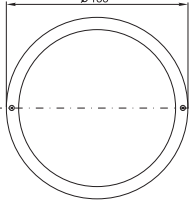
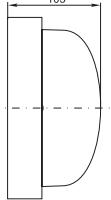
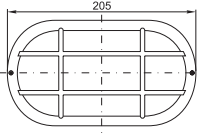
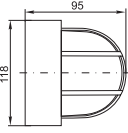
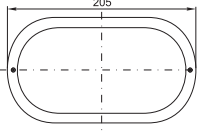
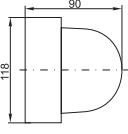
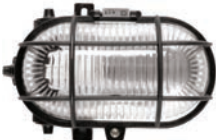
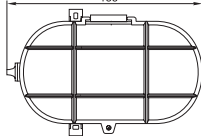
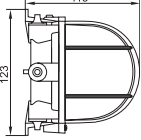
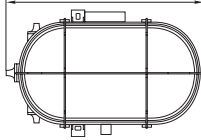
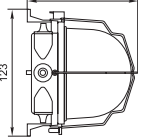
Advantages

- The luminary case and wire guard are made of plastic. Model 2604a – provision of wire guard from steel.
- A luminary dome light is made of heat-resistant rippled glass.
- All models are equipped with a light reflector from aluminum foil.
- Corrosion-resistant coating of metal specialties and metal parts.
- Rubber retaining rings to preclude drop-out of fastening screws.
- Mounting method – laid-on wall type/ceiling type.
- Color – white, black.

Technical features

Rated voltage	230 B~
Minimal distance to illuminated object, m	0,5
Climatic version and lamp location category	U3
IP class	II
Protection degree	IP54
Cross section of connected conductors	0,75÷1,5 mm ²
Type of light source	incandescent lamp or compact fluorescent lamp
Socle	E27

Range

Overall dimensions			Description	Lamp power, W	Color	PCS/ package	Article
			NPP 2602	60	white	18	LNPP0-2602-1-060-K01
					black		LNPP0-2602-1-060-K02
			NPP 2602A	60	white	18	LNPP0-2602A-1-060-K01
					black		LNPP0-2602A-1-060-K02
			NPP 2603	60	white	18	LNPP0-2603-1-060-K01
					black		LNPP0-2603-1-060-K02
			NPP 2603A	60	white	18	LNPP0-2603A-1-060-K01
					black		LNPP0-2603A-1-060-K02
			NPP 2604	60	white	24	LNPP0-2604-1-060-K01
					black		LNPP0-2604-1-060-K02
			NPP 2604A	60	white	24	LNPP0-2604A-1-060-K01
					black		LNPP0-2604A-1-060-K02

Size of fluorescent lamps installed in lights

Luminary form factor	Overall dimensions of lamps, mm	
	max. length	max. diameter
2602(a)	80	65
2603(a)	110	65
2604(a)	85	65

NPO series lights with a motion sensor

Lights are intended for internal lighting of habitable and public premises (corridors, entrance places, utility rooms etc.). Lights are fitted with an infrared motion sensor. The sensor automatically throws in and out at a preset time interval dependant on presence of moving objects in the sensor detection zone and the intensity of illumination.

Comply with GOST R MEC 60598-1-2003, GOST R 51324.2.1.



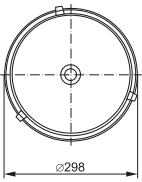
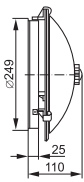
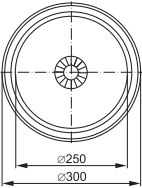
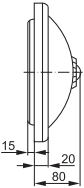
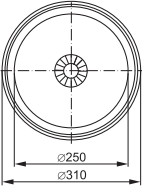
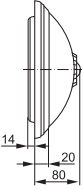
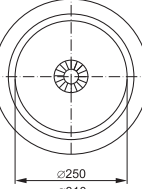
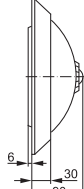
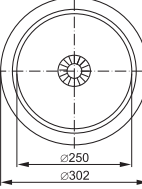
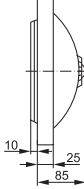
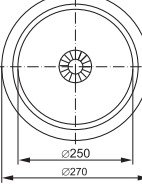
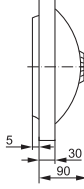
Advantages

- The luminary case is made of steel.
- Light diffuser is made of a mat glass.
- Ceramic holder.
- Corrosion-resistant coating of metal specialties and metal parts.
- Mounting type – laid-on wall type/ceiling type.

Technical features

Rated voltage	230 V~
IP class	I
Protection degree	IP20
Cable size	0,75÷1,5 mm ²
Type of light source	two incandescent lamps or compact fluorescent lamp
Holder type	E27
Climatic version and application category	UZ.1

Range

	Overall dimensions		Description	Lamp power, W	Color	PCS/ package	Article
			HP0 3231Д	2×25	white	4	LNP00-3231D-2-025-K01
			HP0 3233Д	2×25	white	6	LNP00-3233D-2-025-K01
			HP0 3234Д	2×25	white	6	LNP00-3234D-2-025-K01
			HP0 3235Д	2×25	white	6	LNP00-3235D-2-025-K01
			HP0 3236Д	2×25	white	6	LNP00-3236D-2-025-K01
			HP0 3237Д	2×25	white	6	LNP00-3237D-2-025-K01

Technical features of built-in IR motion sensor

Minimum distance to illuminated object, m	0,5
Minimum illumination level for sensor actuation, lx	5
Motion sensor actuation time setting range, s	5÷480
Maximum object detection range, m	6
Sensor look-out angle	120°×360°

LPO series lights with fluorescent lamps

Lights with linear fluorescent lamps

Lights are intended for general and local lighting of habitable and public premises (shopping malls, schools, hotels, restaurants); for local lighting of functional living areas (backlight of mirrors, pictures, working surfaces at kitchen).

Comply with GOST R MEC 60598-1-2003, GOST R MEC 60598-2-4-99, GOST R MEC 598-2-1-97.



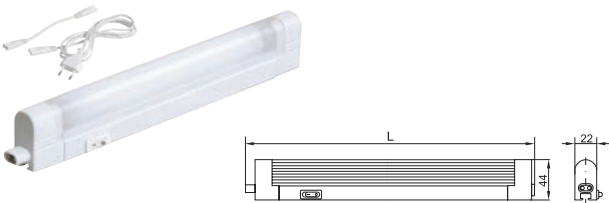
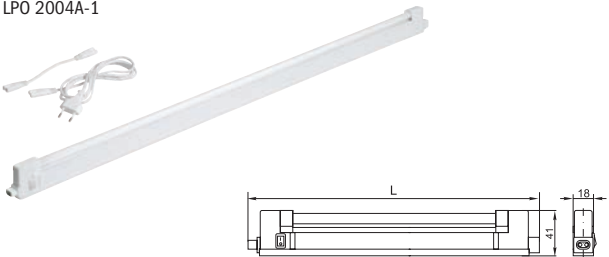
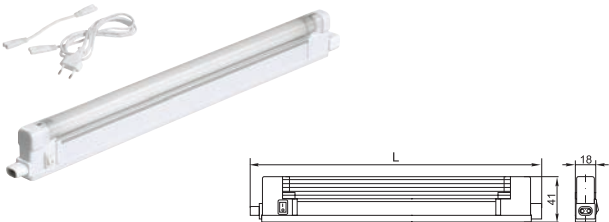
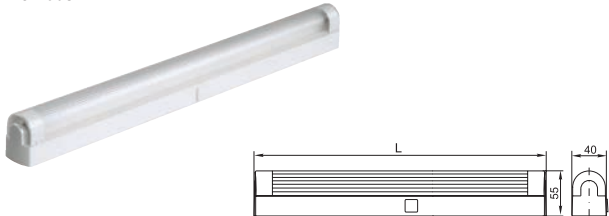
Advantages

- The case is made of metal or plastic.
- All lights are fitted with an electronic start-control device (SCD).
- Lights depending on a modified version are packaged with linear fluorescent lamps:
 - Lamp diameter 12 mm (T4), lamp socle G5;
 - lamp diameter 16 mm (T5), lamp socle G5;
 - lamp diameter 26 mm (T8), lamp socle G13.
- Lights LPO 2001, 2004A/1, 2004A/2, 2004B are equipped with mains cords 1,8 m and stub connection adapters 0,15 m, a luminary LPO 2018B – with a mains cord 1,7 m with a switch, LPO 2018C –with a cord 0,75 m, LPO 3016 – with a cord 0,22 m.

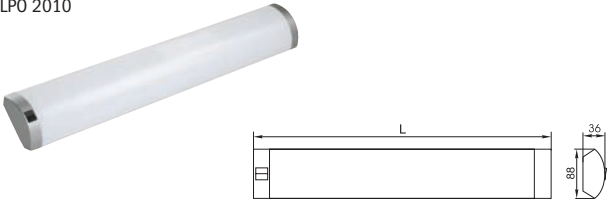
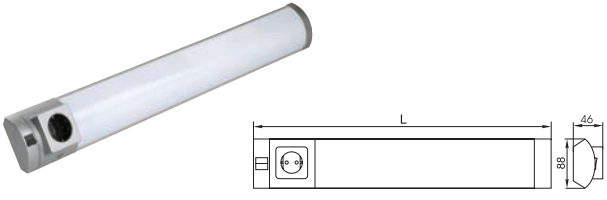
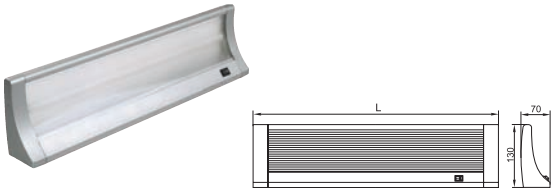
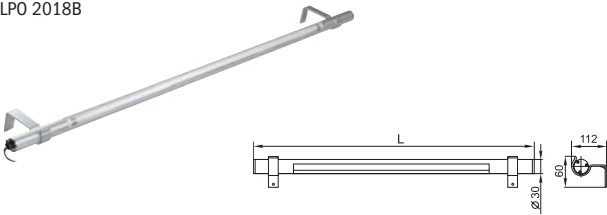
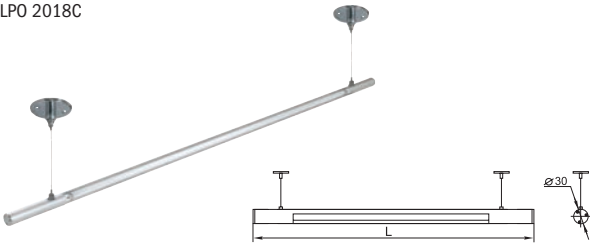
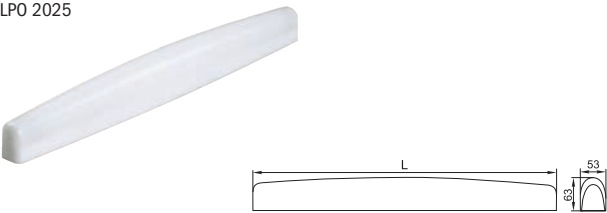
Technical features

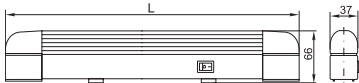
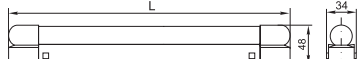
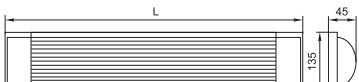
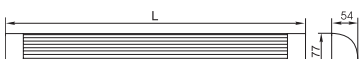
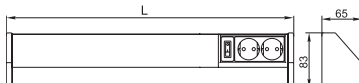
Rated voltage, V~	230
Minimal distance to illuminated object, m	0,5
Climatic version and lamp location category	MRC4
Protection degree	IP20
Cross section of connected conductors	0,75÷1,5 mm ²
Color temperature	6400 K
Type of light source	Fluorescent lamp
Ambient temperature	–10÷+40 °C

Range

Name	Overall dimensions	Length L, mm	Lamp power, W	Description	PCS/ package	Article
LPO 2001		279	6	Plastic casing (plug and socket are built in the casing for daisy chain*).	30	LLP00-2001-1-06-K01
		356	8	Diffuser – corrugated organic glass.	30	LLP00-2001-1-08-K01
		583	13	IP class – II	30	LLP00-2001-1-13-K01
		916	21	Fluorescent lamp T5.	20	LLP00-2001-1-21-K01
		1216	28	Socle G5. Color – white. Cord – 1.8 m. Adapter – 0.15 m	20	LLP00-2001-1-28-K01
LPO 2004A-1		277	6	Plastic casing (plug and socket are built in the casing for daisy chain*).	30	LLP00-2004A1-1-06-K01
		397	8	Without diffuser.	30	LLP00-2004A1-1-08-K01
		427	12	Protection class – II.	30	LLP00-2004A1-1-12-K01
		525	16	Fluorescent lamp T4.	30	LLP00-2004A1-1-16-K01
		622	20	Socle G5.	30	LLP00-2004A1-1-20-K01
		711	24	Color – white.	20	LLP00-2004A1-1-24-K01
		823	30	Cord – 1.8 m. Adapter – 0.15 m	20	LLP00-2004A1-1-30-K01
LPO 2004B		277	6	Plastic casing (plug and socket are built in the casing for daisy chain*).	30	LLP00-2004B-1-06-K01
		397	8	Diffuser – corrugated organic glass.	30	LLP00-2004B-1-08-K01
		427	12	IP class II.	30	LLP00-2004B-1-12-K01
		525	16	Fluorescent lamp T4.	30	LLP00-2004B-1-16-K01
		622	20	Socle G5.	30	LLP00-2004B-1-20-K01
		711	24	Color – white.	20	LLP00-2004B-1-24-K01
		823	30	Cord – 1.8 m. Adapter – 0.15 m	20	LLP00-2004B-1-30-K01
LPO 2003		310	8	Plastic casing.	30	LLP00-2003-1-08-K01
		540	13	Diffuser – corrugated organic glass. IP class II. Fluorescent lamp T5. Socle G5. Color – white	30	LLP00-2003-1-13-K01

* It is possible to connect in one line not more than 90 lamps(total power should not exceed 550 Watt).

Name	Overall dimensions	Длина L, мм	Lamp power, W	Описание	Кол-во в упа- ковке, шт.	Article
LPO 2010		604	13	Metal casing. Diffuser from clouded organic glass. IP class I. Fluorescent lamp T5. Socle G5. Color – white	20	LLP00-2010-1-13-K01
LPO 2011		679	13	Metal casing. Diffuser from clouded organic glass. IP class I. Fluorescent lamp T5. Socle G5. Color – white	20	LLP00-2011-1-13-K01
LPO 2014		558	13	Metal casing. Diffuser from clouded organic glass. IP class I. Fluorescent lamp T5. Socle G5. Color – grey	12	LLP00-2014-1-13-K03
LPO 2018B		500 576 805 1137	6 8 13 21	Metal casing. Diffuser – corrugated organic glass. IP class I. Fluorescent lamp T5. Socle G5. Color – grey. Cord – 1.7 m with switch	30 30 30 30	LLP00-2018B-1-06-K03 LLP00-2018B-1-08-K03 LLP00-2018B-1-13-K03 LLP00-2018B-1-21-K03
LPO 2018C		826 1126 1477	14 21 28	Metal casing. Diffuser – corrugated organic glass. IP class I. Fluorescent lamp T5. Socle G5. Color – grey. Cord – 0,75 m	20 20 20	LLP00-2018C-1-14-K03 LLP00-2018C-1-21-K03 LLP00-2018C-1-28-K03
LPO 2025		550	13	Cast plastic casing. Diffuser from clouded organic glass. IP class II. Fluorescent lamp T5. Socle G5. Color – white	20	LLP00-2025-1-13-K01

Name	Overall dimensions	Length L, mm	Lamp power, W	Description	PCS/ package	Article
LPO 3011	 	411	10	Metal casing.	20	LLP00-3011-1-10-K01
		520	15	Diffuser from corrugated organic glass.	20	LLP00-3011-1-15-K01
		669	18	IP class I.	20	LLP00-3011-1-18-K01
		974	30	Fluorescent lamp T8.	12	LLP00-3011-1-30-K01
		1279	36	Socle G13. Color – white	12	LLP00-3011-1-36-K01
LPO 3016	 	377	10	Metal casing.	30	LLP00-3016-1-10-K01
		482	15	Without diffuser.	30	LLP00-3016-1-15-K01
		634	18	IP class - II	30	LLP00-3016-1-18-K01
		940	30	Fluorescent lamp T8	30	LLP00-3016-1-30-K01
		1243	36	Socle G13. Color – white. Cord – 0.22 m	20	LLP00-3016-1-36-K01
LPO 3017	 	637	2×18	Metal casing.	12	LLP00-3017-2-18-K01
		941	2×30	Diffuser from corrugated organic glass.	12	LLP00-3017-2-30-K01
		1246	2×36	IP class I. Fluorescent lamp T8. Socle G13. Color – white	12	LLP00-3017-2-36-K01
LPO 3017 с решеткой	 	637	2×18	Metal casing.	12	LLP01-3017-2-18-K01
		941	2×30	Protective grid.	12	LLP01-3017-2-30-K01
		1246	2×36	IP class I. Fluorescent lamp T8 Socle G13. Color – white	12	LLP01-3017-2-36-K01
LPO 3018	 	502	15	Metal casing.	20	LLP00-3018-1-15-K01
		654	18	Diffuser from corrugated organic glass.	20	LLP00-3018-1-18-K01
		958	30	IP class I.	12	LLP00-3018-1-30-K01
		1263	36	Fluorescent lamp T8. Socle G13. Color – white	12	LLP00-3018-1-36-K01
LPO 3020	 	499	10	Metal casing.	12	LLP00-3020-1-10-K01
		604	15	Diffuser from corrugated organic glass.	12	LLP00-3020-1-15-K01
		757	18	IP class I.	12	LLP00-3020-1-18-K01
		1060	30	Fluorescent lamp T8.	12	LLP00-3020-1-30-K01
		1365	36	Socle G13. Color – white	12	LLP00-3020-1-36-K01



Lights with compact fluorescent lamps

Lights are intended for general and local lighting of habitable and public premises.
Lights with protection degree IP44, IP54 – for industrial premises with a higher dust and moisture content;
for external lighting.

Comply with GOST R IEC 60598/1/2003.



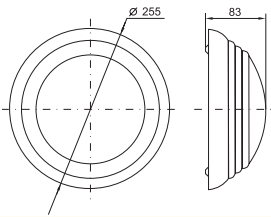
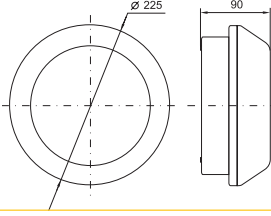
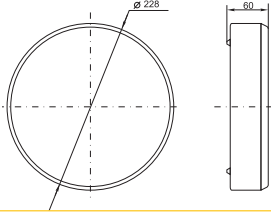
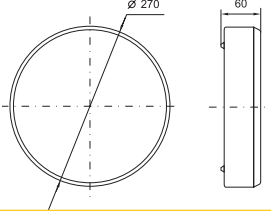
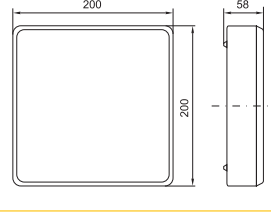
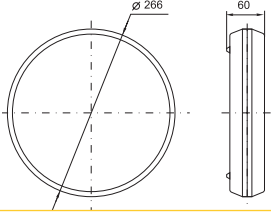
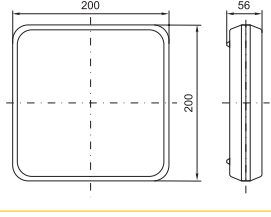
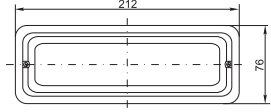
Advantages

- The case is made of plastic.
- Lights are completed with compact U-type fluorescent lamps.
- All modified versions except for LPO 3053, are fitted with an electronic start-control device.
- Lights LPO 3053 are fitted with start-control device with a starter.

Technical features

Rated voltage, V~	230
Minimal distance to illuminated object, m	0,5 m
IP class	II
Cross section of connected conductors	0,75÷1,5 mm ²
Color temperature	6400 K
Type of light source	compact fluorescent lamp
Socle	G23
Ambient temperature	–20÷+40 °C

Range

Overall dimensions		Name	Lamp power, W	Description	PCS/ package	Article
		LPO 3019	2×9	Diffuser – semi-transparent polycarbonate. Reflector – corrugated aluminum foil. Protection degree IP44. EPRA	10	LLP00-3019-2-09-K01
		LPO 3041	2×9	Diffuser – clouded organic glass. Protection degree IP44. EPRA	10	LLP00-3041-2-09-K01
		LPO 3024	9	Diffuser – clouded organic glass. Protection degree IP20. EPRA	10	LLP00-3024-1-09-K01
		LPO 3025	2×9	Diffuser – clouded organic glass. Protection degree IP20. EPRA	10	LLP00-3025-2-09-K01
		LPO 3026	9	Diffuser – clouded organic glass. Protection degree IP20. EPRA	10	LLP00-3026-1-09-K01
		LPO 3051	2×9	Diffuser – clouded organic glass. Protection degree IP54. EPRA	10	LLP00-3051-2-09-K01
		LPO 3052	2×9	Diffuser – clouded organic glass. Protection degree IP54. EPRA	10	LLP00-3052-2-09-K01
		LPO 3053	9	Diffuser – polycarbonate. Protection degree IP54. PRA with starter	12	LLP00-3053-1-09-K01

Light-emitting diode lights

Light-emitting diode lights series DPO, IP54

Lights are intended for internal lighting of household, public and industrial premises with a higher dust and moisture content.
The design of a luminary and used materials ensure high mechanical strength and dust-and-moisture control as per class IP54.
They comply with GOST R MEC 60598-1, GOST R MEC 60598-2-4-99.



Advantages

- The luminary case is made of corrosion-resistant aluminum alloy, providing tamper-proof properties of a luminary and the required heat sinking.
- Lights are fitted with the LED matrix with six superbright light emitting diodes 1 W each with lenses of special configuration.
- Dome light of a luminary is made of mat glass ensuring optimal diffusion of a light flux.
- High-frequency current converters are used for power supply.
- Corrosion-resistant coating of metal specialties and metal parts.
- Mounting method – wall type / ceiling , laid-on type.

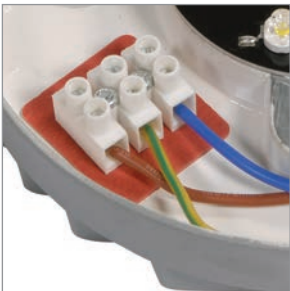
Technical features

Rated voltage	100÷250 V~
Number of LEDs in a matrix/wattage of each LED	6 pce/1 W
Consumed power, not exceeding	7,5 W
Color temperature	6500 K
Light flux, not less than	370 lm
Cable size	0,5÷1,5 mm ²
Rated remaining lighted duration period, not less than	50 000 h
IP class	I
Color	grey

Design features



The luminaire case is made of corrosion-resistant aluminum alloy. Quality coating of the case with a heat-resistant paint.



A terminal box for external conductor connection is made of non-combustible material and is designed for a wire cross section of not less than 0.75 mm². Presence of an insulating distance piece between the terminal box and the case.



The LED matrix with six super-bright light-emitting diodes 1 W each.



Corrosion-resistant coating of metal specialties and metal parts of a luminaire.

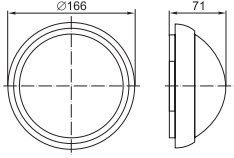
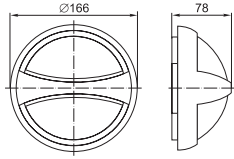
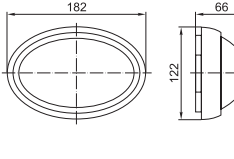
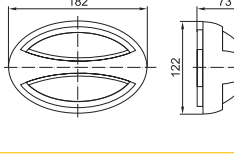


The luminaire design ensures a laid-on wall type/ceiling type mounting.



Light diffuser of a luminaire is made of mat shock-resistant organic glass.

Range

Overall dimensions		Description	Weight, kg	PCS/package	Article
		DPO 1301	0,4	12	LDP00-1301-6-6K03
		DPO 1303	0,43	12	LDP00-1303-6-6K03
		DPO 1401	0,36	12	LDP00-1401-6-6K03
		DPO 1403	0,4	12	LDP00-1403-6-6K03

Portable lights

Designed for temporary local lighting of the working area when conducting works in a situation with distant light sources.

Portable LPO (LRO) series lights with fluorescent lamps



Advantages

- Light casing is made of plastic.
- Diffuser is made of transparent organic glass.
- Lights are equipped with SCD.
- Lights are completed with a 5 m cord with a plug 2,5 A/250 V.
- Lights are equipped with lamps.

Technical features

Rated voltage	230 V~
Minimum distance to illuminated object	0,5 m
IP class	II
Cables size	2÷0,75 mm ²
Color temperature	6400 K
Ambient temperature	-10÷+40 °C

Portable UP series lights adapted to filament lamp



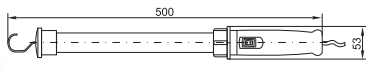
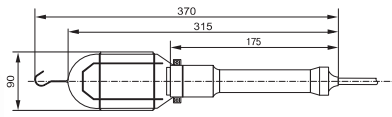
Advantages

- Light casing is made of plastic.
- Reflector – metal one with corrosion resistant coating.
- Lights are completed with a 5 m cord with a plug 2,5 A/250 V.
- Equipped with a switch and a hook for hanging.

Technical features

Rated voltage	230 V~
Max. power of installed lamp	60 W
Protection degree	IP20
IP class	II
Cables size	2÷0,75 mm ²
Type of light source	filament lamp or compact fluorescent lamp
Type of light source socle	E27 ceramic

Range

	Overall dimensions	Name	Lamp power, W	Description	PCS/ package	Article
		LPO (LR0) 2006	8	Linear fluorescent lamp d16 mm T5. Socle G5. Color – black	8	LLP02-2006-1-08-K02
		LPO (LR0) 2030	36	Compact fluorescent lamp d16 mm T5. Socle 2G11. Color – black	20	LLP02-2030-1-36-K02
		UP-1R 5 m	60*	Cord length – 5 m. Color – orange	30	WSP20-05-K09
		UP-1R 10 m	60*	Cord length – 10 m. Color – orange	25	WSP20-10-K09

LSP series lights for fluorescent tubes, IP65

These lights are designed for general lightning of public, industrial and ancillary facilities with increased dust and moister content (such as laundry rooms, green houses, manufacturing work-shops, garages, basements, etc.).

These lights can be used for outdoor installations in open construction and manufacturing sites.

The fixtures comply with GOST R MEC 60598-1-2003, GOST R MEC 598-2-1-97.



Advantages

- The fixture's casing is made of non-flammable ABS plastic.
- Diffuser material – polystyrene.
- Equipped with starter-controlled ballasts or electronic control gear depending on modification.
- Each model equipped with a started-controlled ballast features an equalizing capacitor.
- Mounting options: bolt-on wall- or ceiling-mounted, suspended fixing.

Technical features

Rated voltage	230 V
Protection degree	IP65
IP class	I
Cables size	0,75 ÷ 1,5 mm ²
Climatic version and lamp location category	MRC3.1
Lighting source	straight fluorescent tubes
Ambient temperature	–25 ÷ +50 °C
Color	grey

Design features



Metal socle assembled with electromagnetic or electronic control gear.



Each model equipped with a started-controlled ballast features an equalizing capacitor.



Wall and ceiling mounting or suspended mounting options.

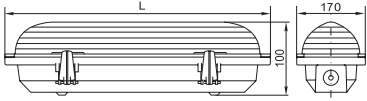
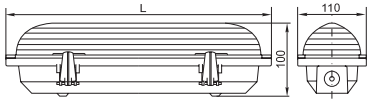
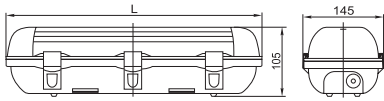
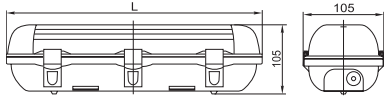
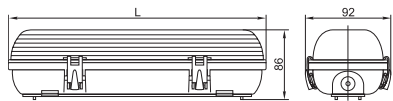
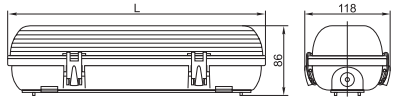


A plastic clamp for fixing of suspended metal assembly socles for easy maintenance of the luminary.

Assembly parts

Item	3901	3901A	3902	3902A	3903	3903A	3904	3904A	3905	3905A	3907	3907A	3908	3908A
Metal braket							•	•	•	•	•	•	•	•
Metal plate		•		•		•								
Rubber gland	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PG gland	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Plastic clamp	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Lifting screw	•		•		•									
Gear type	ECG with ballast		ECG with ballast		ECG with ballast		ECG with ballast		ECG with ballast		SCD		SCD	
Equalizing capacitor	•	•	•	•	•	•	•	•	•	•				
Fixing hardware	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Range

Name	Overall dimensions	Length L, mm	Tube power, W	Tube type/ socle	Gear type	PCS/ package	Article
LSP 3901A	 	675	2×18	T8/G13	starter-controlled ballast	8	LLSP2-3901A-2-18-K03
LSP 3902A		1275	2×36	T8/G13	starter-controlled ballast	4	LLSP2-3902A-2-36-K03
LSP 3903A		1580	2×58	T8/G13	starter-controlled ballast	4	LLSP2-3903A-2-58-K03
LSP 3901	 	675	18	T8/G13	starter-controlled ballast	10	LLSP2-3901-1-18-K03
LSP 3902		1275	36	T8/G13	starter-controlled ballast	6	LLSP2-3902-1-36-K03
LSP 3903		1580	58	T8/G13	starter-controlled ballast	6	LLSP2-3903-1-58-K03
LSP 3904A	 	660	2×18	T8/G13	starter-controlled ballast	8	LLSP1-3904A-2-18-K03
LSP 3905A		1270	2×36	T8/G13	starter-controlled ballast	4	LLSP1-3905A-2-36-K03
LSP 3904	 	660	18	T8/G13	starter-controlled ballast	10	LLSP1-3904-1-18-K03
LSP 3905		1270	36	T8/G13	starter-controlled ballast	6	LLSP1-3905-1-36-K03
LSP 3907	 	647	1×18	T8/G13	Electronic gear	10	LLSP3-3907-1-18-K03
LSP 3908		1260	1×36	T8/G13	Electronic gear	10	LLSP3-3908-1-36-K03
LSP 3907A	 	647	2×18	T8/G13	Electronic gear	10	LLSP3-3907A-2-18-K03
LSP 3908A		1260	2×36	T8/G13	Electronic gear	6	LLSP3-3908A-2-36-K03

LBA series lights with emergency power supply

The LBA series lights are designed for:

- temporary localized workplace lighting;
- illumination of escape routes, corridors, passages, emergency exits;
- use as portable lights.

Comply with GOST R MEC 60598-1-2003 and GOST R MEC 598-2-1-97.



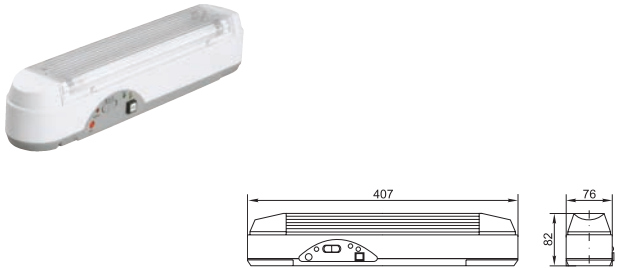
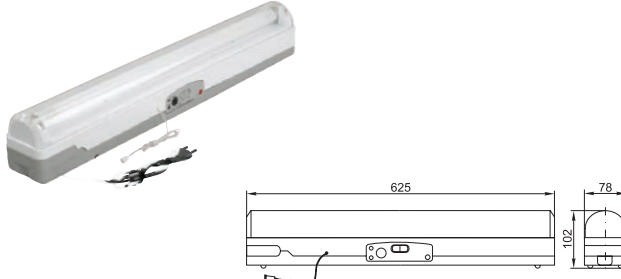
Advantages

- Continuously and variably operated luminary.
- The fixture's casing is made of non-flammable ABS-polymers.
- Diffuser material – polystyrene.
- The lights are equipped with straight fluorescent tubes.
- Electronic control gear.
- Lights are equipped with overcharge protection.

Technical features

Rated voltage	230 V~
Protection degree	IP20
IP class	II
Overcurrent protection – fuse, gG	2 A
Color temperature	6400 K
Light control	automatic or manual
Minimum emergency lighting time:	
LBA 3923	180 min (2 tubes) 360 min (1 tube)
LBA 3924	240 min
Ambient temperature	0 ÷ +25 °C

Range

Name	Overall dimensions	Lamp power, W	Description	PCS/ package	Article
LBA 3923, LBA 3923A		2×8	Fluorescent tube d16 mm (T5). Socle G5	12	LLBA0-3923-2-08-K01 LLBA1-3923a-2-08-K01
LBA 3924, LBA 3924A		20	Fluorescent tube d26 mm (T8). Socle G13	6	LLBA0-3924-1-20-K01 LLBA1-3924a-2-08-K01

Battery specifications

Battery type	Lead/acid
Rated voltage, V	6
Capacity, A·h	4
Maximum battery charging time, h	24

Luminary type and mode of operation

Modifications	LBA 3923	LBA 3923A	LBA 3924	LBA 3924A
luminary power supply	battery	Mains 230 V AC; battery	battery	Mains 230 V AC; battery
luminary charging	Mains 230 V	Mains 230 V	External power supply 12 V and 230 V	External power supply 12 V and 230 V

SSA series lights

emergency escape LED lighting

These lights are designed for emergency exit and escape route indication, can be used as directional and information signs.

Comply with GOST R MEC 60598-1, GOST R IEC 60598-2-22.



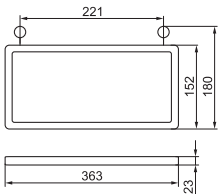
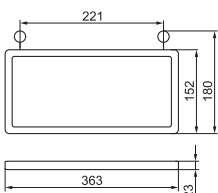
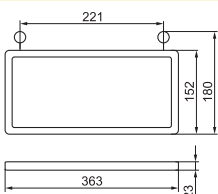
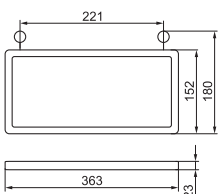
Advantages

- Linear LEDs are used as the light source.
- The fixture's casing is made of an aluminum alloy.
- Diffuser material – glass.
- Continuously operated lights.
- Working lighting mode – mains powered, 230 V AC.
- Emergency lighting mode – battery powered.

Technical features

Nominal operating voltage	230 V
Protection degree	IP20
IP class	I
Built-in battery life	1.5 h
Cables size	3×0,75 mm ²
Climate type	MRC4
Ambient temperature	–10÷+40 °C

Range

Overall dimensions		Name	Option	Mounting type	PCS/ package	Article
		SSA 1001	Single side	Wall-mounted, suspended	20	LSSA0-1001-003-K03
		SSA 1002	Single side	Wall-mounted, suspended	20	LSSA0-1002-003-K03
		SSA 1003	Double side	Suspended	20	LSSA0-1003-003-K03
		SSA 1004	Double side	Suspended	20	LSSA0-1004-003-K03

Battery specifications

Battery type	Ni-Cd
Rated voltage , V	3,6
Capacity, A · h	0,4
Maximum battery charging time, h	8

Light control

IR motion sensors

The motion sensors are designed for automatic switching of the power within a predefined time interval depending on presence of moving objects within the sensor detection area and illumination level.

Comply with GOST R 51324.2.1-99.



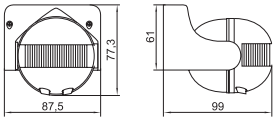
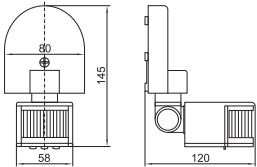
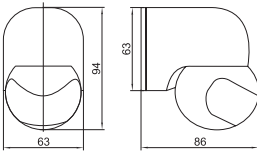
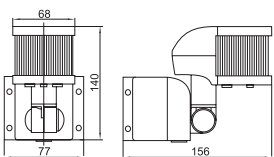
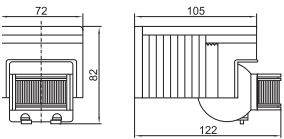
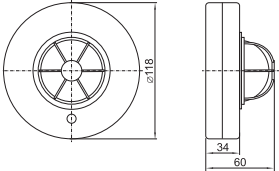
Advantages

- The sensor's casing is made of non-flammable polymer (polycarbonate).
- An electrical-mechanical relay is used for load switching (except for the DD035 model equipped with an electronic switch).

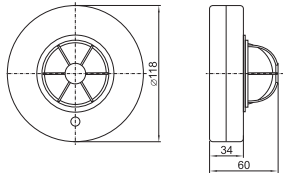
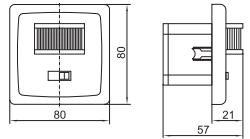
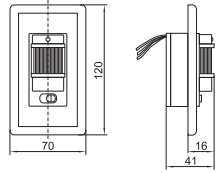
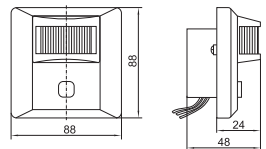
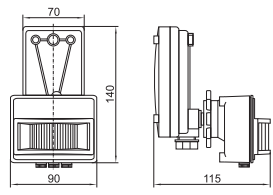
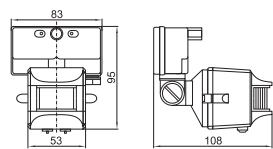
Technical features

Nominal operating voltage	230 V~
Sensor switching time (adjustable)	5 ÷ 480 s
Tripping threshold depending on the illumination level (adjustable)	from 5 lx to daylight levels
IR sensitivity levels (object-emitted IR light)	
DD/035, DD/008, DD/018, DD/017	adjustable
Sound sensitivity levels	
DD/035 (adjustable)	30 ÷ 90 dB
Power consumption in operation	0,45 W
Connector section, mm ²	0,75 ÷ 1,5
Ambient temperature	–20 ÷ +45 °C

Range

	Overall dimensions	Name	Lamp power, W	Description	PCS/ package	PCS/CTN	Article
		DD 009	1100* 600**	Viewing angle 180°. Range 12 m. IP44. Mounting — Wall, ceiling	12	48	LDD10-009-1100-001 LDD10-009-1100-002
		DD 008	1100* 600**	Viewing angle 180°. Range 12 m. IP44. Mounting options — Wall and ceiling	12	48	LDD10-008-1100-001 LDD10-008-1100-002
		DD 010	1100* 600**	Viewing angle 180°. Range 10 m. IP44. Mounting options — wall and ceiling mounting	12	48	LDD10-010-1100-001 LDD10-010-1100-002
		DD 018B	1100* 600**	Viewing angle 270°. Range 12 m. IP44. Mounting option — Corner mounting	12	48	LDD10-018B-1100-001 LDD10-018B-1100-002
		DD 012	1100* 600**	Viewing angle 180°. Range 12 m. IP44. Mounting options — wall and ceiling mounting	10	60	LDD10-012-1100-001 LDD10-012-1100-002
		DD 024	1100* 600**	Viewing angle Horizontal 120°, Vertical 360°. Range 6 m, IP33. Mounting options — ceiling	10	60	LDD11-024-1100-001

* Maximum load of incandescent lamps, W.
** Maximum load of fluorescent starter-free tubes, V · A.

Overall dimensions		Name	Lamp power, W	Description	PCS/ package	PCS/CTN	Article
		DD 024B	1100* 600**	Viewing angle Horizontal 180°, Vertical 360°. Range 6 m. IP33. Mounting options – ceiling	10	80	LDD11-024B-1100-001
		DD 035	500***	Viewing angle 140°. Range 12 m. IP20. Mounting options – concealed mounting inside the assembly box	20	120	LDD12-035-500-001
		DD 028	1200* 200**	Viewing angle 140°. Range 9 m. IP20. Mounting options – concealed mounting inside the assembly box	20	120	LDD12-028-1200-001
		DD 029	600* 200**	Viewing angle 140°. Range 9 m. IP20. Mounting options – concealed mounting inside the assembly box	20	120	LDD12-029-600-001
		DD 017	1100* 600**	Viewing angle 120°. Range 12 m. IP44. Mounting options – on the floodlight housing	12	48	LDD13-017-1100-001 LDD13-017-1100-002
		DD 019	1100* 600**	Viewing angle 120°. Range 12 m. IP44. Mounting options – on the floodlight housing	12	48	LDD13-019-1100-001 LDD13-019-1100-002

* Maximum load of incandescent lamps, W.
** Maximum load of fluorescent starter-free tubes, V·A.
*** Minimum load capacity 40 W.



Photoelectric switch

Photoelectric switches are designed for automatic switching of outdoor and indoor lights (showcase lights, illuminated advertising boards, etc.) depending on the illumination level.

Comply with GOST R 51324.2.1/99.



Advantages

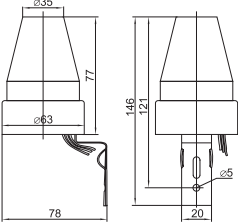
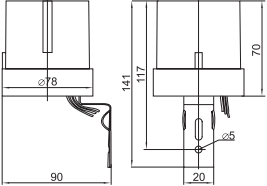
- The switch's casing is made of non-flammable polymer (polycarbonate).
- The housing contains a socle with an electronic circuit, a protective plastic cover and a built-in photocell.
- An electrical-mechanical relay is used for load switching.
- The tripping threshold is adjusted by means of a LUX-regulator. The tripping threshold of the photocell is set by rotating the regulator (+, – adjustment).

Technical features

Nominal operating voltage	230 V~
Switching threshold limit for switching (adjustable)	5 ÷ 50 lx
Power consumption in operation	6,6 W
Power consumption in the stand-by mode	0,25 W
Protection degree	IP44
Ambient temperature	–25 ÷ +40 °C



Range

Overall dimensions		Name	Nominal Load Current, A	Description	PCS/ package	PCS/CTN	Article
		FR 601	10* 6**	Max. load 2200 W IP44	20	120	LFR20-601-2200-003
		FR 602	20* 16**	Max. load 4400 W IP44	20	120	LFR20-602-4400-003

* At cosφ=1.
** At cosφ=0,6.