



Component Systems

for Lighting Applications



January 2018

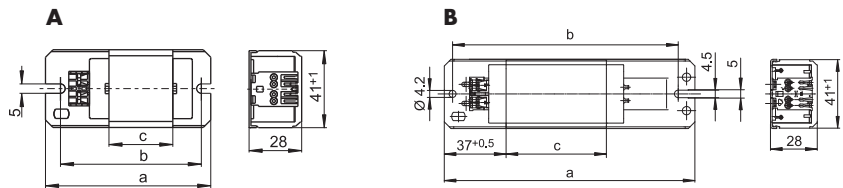
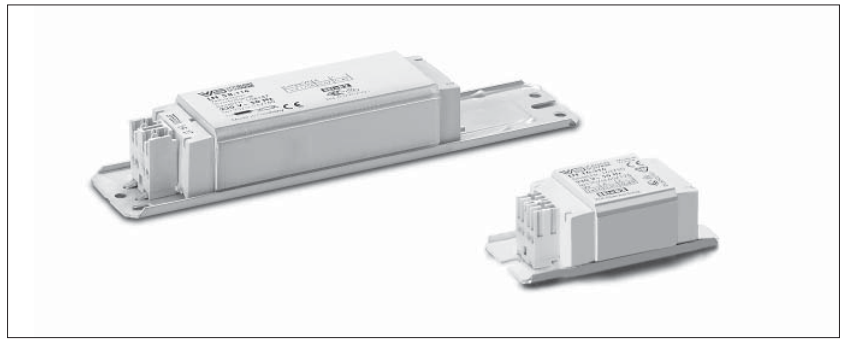
- Magnetic and Electronic Ballasts
- Ignitors
- Capacitors
- Electronic LVH Converters
- Emergency Lighting Modules
- Electronic Fluorescent Ballasts
- Lampholders
- Accessories
- Terminal Blocks
- Starters
- Wires
- Surge Protection Devices

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Low-loss Ballasts 5–65 W, 230 V

For compact fluorescent lamps
and fluorescent lamps
Shape: 28x41 mm

Vacuum-impregnated with polyester resin
Push-in terminal for leads: 0.5–1 mm²
For the automatic luminaire wiring:
IDC terminals for leads H05V-U 0.5
tw 130
Protection class I



Low-loss ballasts for compact fluorescent lamps

Lamp				Ballast										Capacitor		Packaging unit
Output W	Type	Base	Current mA	Type	Ref. No.	V, Hz	Drawing	a mm	b mm	c mm	Weight kg	$\Delta t/\Delta t_{an}$ K	EEI*	C _p μ F	Current mA	Pieces per box/pallet
5/7/9/11	TC-S	G23	180/ 175/170/155	L7/9/11.307*	163694	230, 50	A	85	75	34	0.32	60/85	B2	2.0	50	10/2250
2x5/7/9	TC-S	G23	180/160/140	LN 13.313*	163711	230, 50	A	85	75	34	0.32	55/80	B2	2.0	70	10/2250
10	TC-D	G24d-1	190	LN 13.313*	163711	230, 50	A	85	75	34	0.32	55/80	B2	2.0	70	10/2250
	TC-DD	GR10q	180													
13	TC-D/TC-T	G24d-1/GX24d-1	175	LN 13.313*	163711	230, 50	A	85	75	34	0.32	55/80	B2	2.0	80	10/2250
16	TC-DD	GR8/GR10q	195	LN 16.316*	163730	230, 50	A	85	75	34	0.32	60/125	B1	2.0	100	10/2250
18	TC-D/TC-T	G24d-2/GX24d-2	220	LN 181.319*	163763	230, 50	B	85	75	34	0.32	60/140	B1	2.0	110	10/2250
26	TC-D/TC-T	G24d-3/GX24d-3	325	LN 26.813*	509502	230, 50	B	110	100	45	0.41	55/145	B2	3.5	140	10/2100

* Energy efficiency: Ballasts without CE marking for replacements or markets outside of the EU

Low-loss ballasts for fluorescent lamps

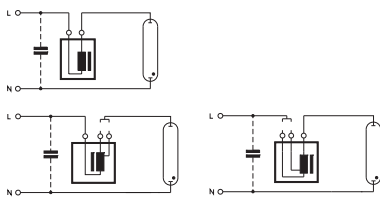
Lamp				Ballast										Capacitor		Packaging unit
Output W	Type	Base	Current mA	Type	Ref. No.	V, Hz	Drawing	a mm	b mm	c mm	Weight kg	$\Delta t/\Delta t_{an}$ K	EEI*	C _p μ F	Current mA	Pieces per box/pallet
18/20	T8 (T26)	G13	370	LN 18.114*	508183	230, 50	B	150	140	60	0.55	55/90	B2	4,5	120	10/1500
30	T8 (T26)	G13	365	LN 30.801*	169645	230, 50	B	150	140	60	0.55	55/110	B2	4.5	180	10/1500
36/40	T8 (T26)/T12 (T38)	G13	430	LN 36.149*	529029	230, 50	B	150	140	60	0.55	55/150	B2	4.5	210	10/1500
58/65	T8 (T26)/T12 (T38)	G13	670	LN 58.116*	508186	230, 50	B	190	180	92	0.80	55/160	B2	7.0	320	10/1200

* Energy efficiency: Ballasts without CE marking for replacements or markets outside of the EU

Ballasts for HM Lamps 80 to 1000 W

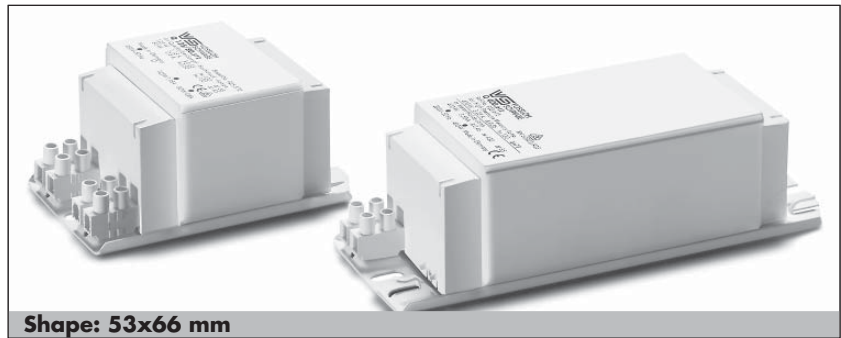
Shape: 53x66 mm
Shape: 92x102 mm

For mercury vapour lamps (HM)
Vacuum-impregnated with polyester resin
Screw terminals: 0.5–2.5 mm²
Protection class I
tw 130



Shape: 53x66 mm

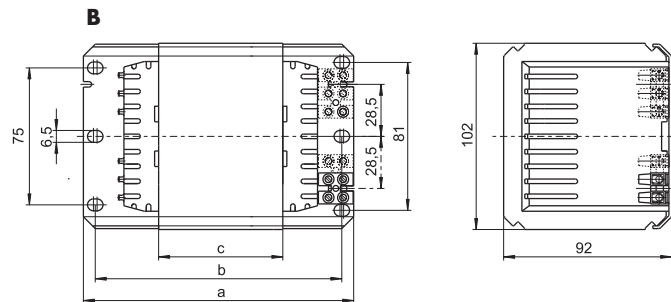
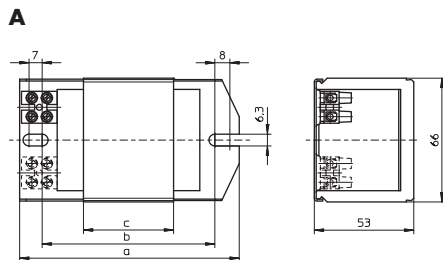
Shape: 92x102 mm



Shape: 53x66 mm



Shape: 92x102 mm



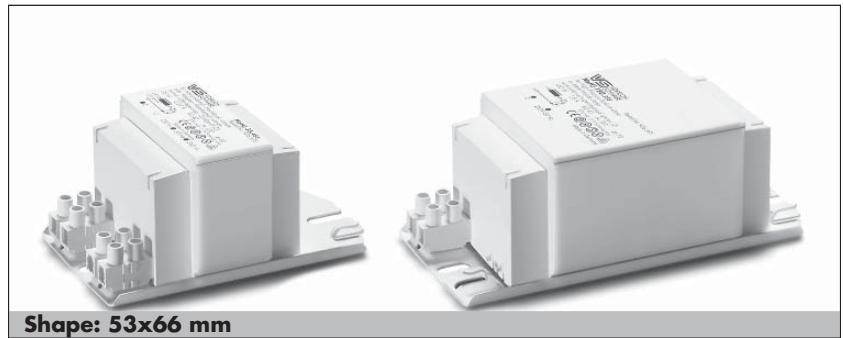
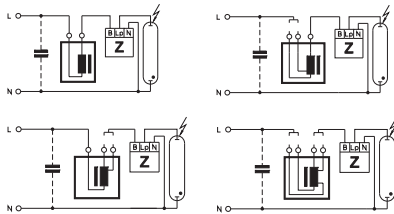
Lamp			Ballast											Capacitor		Packaging
Output	Type	Current	Type	Ref. No.	V, Hz	Drawing	a	b	c	Weight	Δt	Power factor	EEL*	C _p	Current	unit
W		A					mm	mm	mm	kg	K	λ		μF	A	Pieces per box/pallet
80	HM	0.80	Q 80.588*	167304	230, 50	A	108	86	36	1.07	70	0.51	EEL=A3	8	0.41	10/770
125	HM	1.15	Q 125.568*	167263	230, 50	A	108	86	36	1.07	75	0.54	EEL=A3	10	0.60	10/770
250	HM	2.13	Q 250.528	167367	230, 50	A	145	120	75	2.10	75	0.56	A2	18	1.20	6/462
400	HM	3.25	Q 400.612	167330	230, 50	A	180	155	110	2.88	75	0.56	A2	25	1.90	4/330
1000	HM	7.50	Q 1000.096	528761	230, 50	B	173	160	96	6.90	65	0.60	A2	60	4.80	1/126

* Energy efficiency: Ballasts without CE marking for replacements or markets outside of the EU

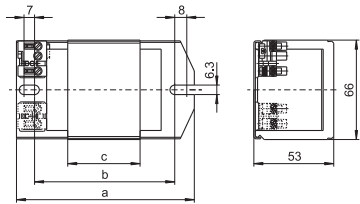
Ballasts for HS and HI Lamps 35 to 250 W

Shape: 53x66 mm
Shape: 92x102 mm

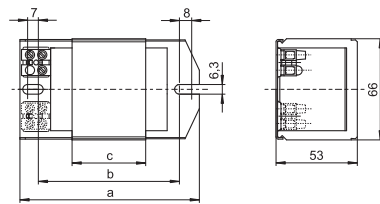
For high pressure sodium lamps (HS), metal halide lamps (HI) and ceramic discharge lamps (C-HI)
Vacuum-impregnated with polyester resin
Protection class I
tw 130



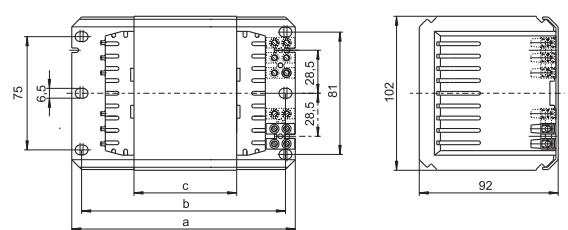
A Push-in terminals: 0.5–1.5 mm²



B Screw terminals: 0.5–2.5 mm²



C Screw terminals: 0.75–2.5 mm²



Lamp			Ballast										Capacitor		Packaging	
Output	Type	Current	Type	Ref. No.	V, Hz	Drawing	a	b	c	Weight	Δt	Power factor	EEl*	C _p	Current	unit
W		A					mm	mm	mm	kg	K	λ		μF	A	Pieces per box/pallet
35	HS, HI	0.53	NaHj 35.485*	161367	230/240, 50	B	108	86	36	1.07	60	0.40	EEl=A3	6	0.22/0.21	10/770
50	HS, HI	0.76	NaH 50.486*	161379	230/240, 50	B	108	86	36	1.07	65	0.37	EEl=A3	8	0.30/0.29	10/770
70	HS, HI	0.98	NaHj 70.128*	539434	230/240, 50	B	108	86	36	1.07	70/75	0.36	EEl=A3	12	0.38/0.37	10/770
100	HS, HI	1.20	NaHj 100.941*	161707	230/240, 50	B	108	86	42	1.24	75/80	0.42	EEl=A3	12	0.55/0.53	10/770
150	HS, HI	1.80	NaHj 150.620	553173	230/240, 50	—	113	90	65	1.8	70/75	0.4	EEl=A3	20	0.76/0.72	10/528
250	HS, HI	3.00	NaHj 250.340*	504109	230/240, 50	B	180	155	110	2.84	80	0.39	EEl=A3	32	1.26/1.21	6/330
250	HS, HI	3.00	NaHj 250.727*	178771	230, 50	C	133	120	44	3.53	70	0.39	EEl=A3	32	1.26	6/168

With temperature cut-out

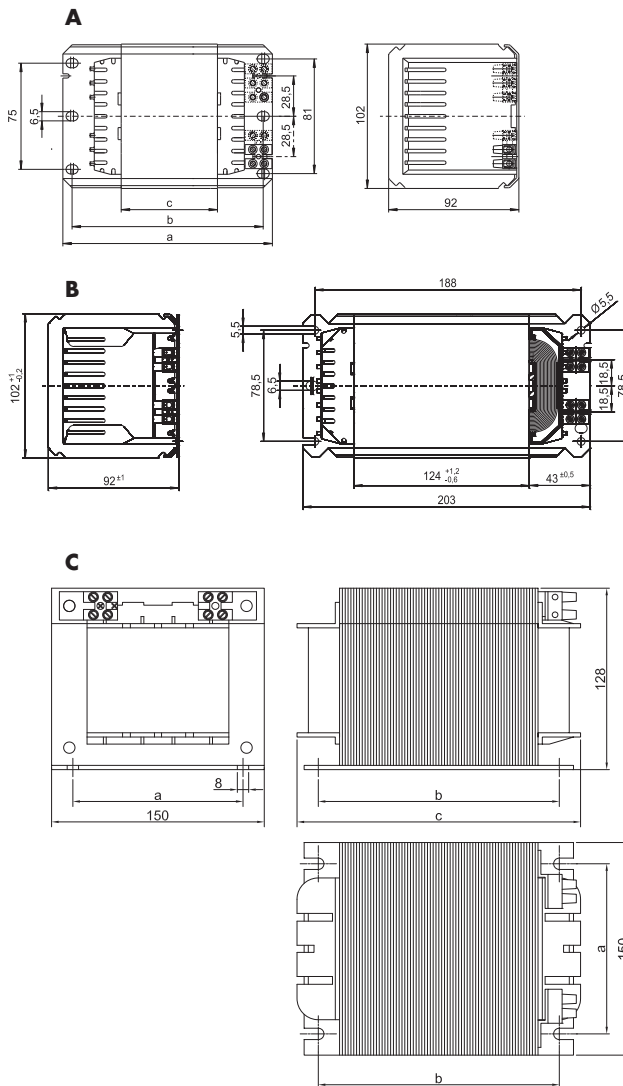
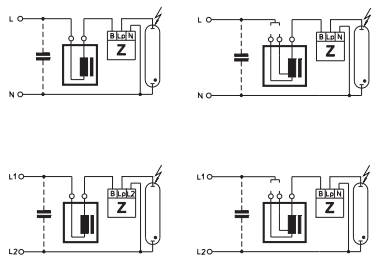
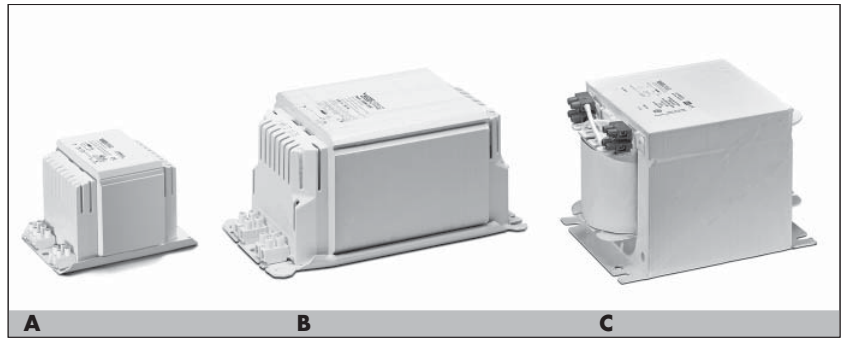
35	HS, HI	0.53	NaHj 35.485*	503010	230/240, 50	B	117	92	48	1.39	70	0.42	EEl=A3	12	0.55/0.53	6/720
70	HS, HI	0.98	NaHj 70.128*	506528	230, 50	A	108	86	36	1.22	70	0.36	EEl=A3	12	0.38	6/720
100	HS, HI	1.20	NaHj 100.670*	506120	230/240, 50	A	108	86	42	1.23	75/80	0.42	EEl=A3	12	0.55/0.53	6/616
150	HS, HI	1.80	NaHj 150.620*	506116	230, 50	A	145	120	75	2.02	70	0.40	EEl=A3	20	0.77	6/396
250	HS, HI	3.00	NaHj 250.915*	505054	230, 50	B	180	155	110	2.84	80	0.40	EEl=A3	32	1.26	4/330

* Energy efficiency: Ballasts without CE marking for replacements or markets outside of the EU

Ballasts for HS and HI Lamps 400 to 2000 W

Shape: 92x102 mm
Shape: 150x155 mm

For high pressure sodium lamps (HS), metal halide lamps (HI) and ceramic discharge lamps (C-HI)
Vacuum-impregnated with polyester resin
Screw terminals: 0.75–2.5 mm²
Protection class I
tw 130



Lamp			Ballast										Capacitor		Packaging	
Output W	Type	Current A	Type	Ref. No.	V, Hz	Drawing	a mm	b mm	c mm	Weight kg	Δt K	Power factor λ	EEL	Cp μF	Current A	unit Pieces per box/pallet
400	HS, HI	4.45	NaHJ 400.737	504114	230/240, 50	A	148	135	68	5.2	70	0.43	A2	50	2.0	4/147
600	HS	6.20	NaH 600.005	533484	230/240, 50	A	173	160	96	6.8	70	0.44	A2	65	2.90/2.85	2/126
1000	HS	10.30	NaHJ 1000.089	528548	230, 50	B	203	188	124	8.9	80	0.45	A2	100	5.1	1/105
	HI	9.50										0.49	A2	85	5.0	
2000	HI	8.8	J 2000.72	554304	380/400/415, 50	C	122	135	160	14	70	0.58	A2	37	6	1/50
2000	HI	10.3/11.3	JD 2000.81	554306	380/400/415, 50	C	122	135	160	14	75	0.52	A2	60	6	1/50

Control Gear Units for HS and HI Lamps 35 to 150 W

Compact plastic casing
Shape: 64x72 mm

For high pressure sodium lamps (HS),
metal halide lamps (HI)
and ceramic discharge lamps (C-HI)
Compact control gear unit with ballast with
patented, intelligent thermal cut-out with
automatic reset (which evaluates the temperature
and current of the ballast), digital timer ignitor with
IPP++ technology and compensation capacitor
with thermal fuse

As individual components no longer need
to be wired, there is a significant reduction
in assembly time and costs.

Protection class II

Degree of protection: IP40

Permissible load capacity: 20–1000 pF

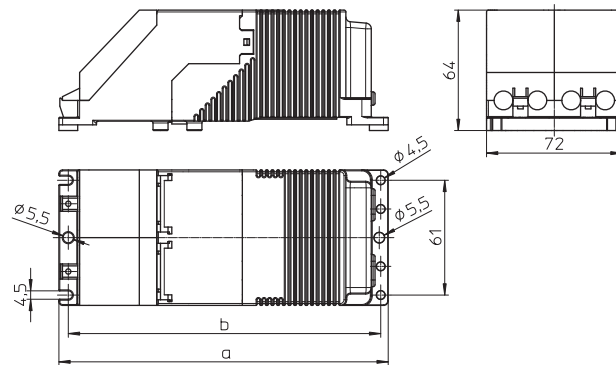
Lead length to the lamp: max. 10 m

tw 130

Push-in terminals: 0.5–2.5 mm²

Cord grips for mains and lamp leads

Further outputs and voltages on request



IPP++ Technology

This technology offers effective protection against installation and wiring errors.

It monitors the temperature switch, especially when a high-pressure discharge lamp displays end-of-life behaviour, and stops additional ignition attempts.

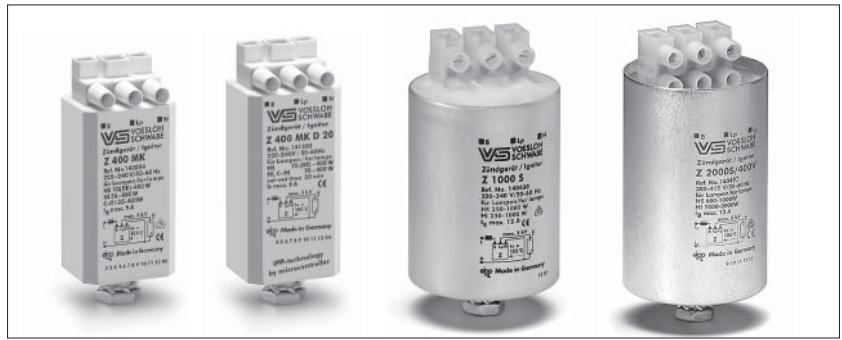
Lamp			Control gear unit										Packaging unit
Output	Type	Current	Type	Ref. No.	Voltage AC	Mains current	a	b	Weight	t_a	Power factor	Energy efficiency*	Pieces per box/pallet
W		A			V, Hz	A	mm	mm	kg	°C	λ		
35	HS, HI	0.53	VNaHJ 35PZTG.568*	536199	230, 50	0.210	175	166	1.32	55	0.92	EEL=A3	2/480
70	HS, HI	0.98	VNaHJ 70PZTG.566*	535657	230, 50	0.380	175	166	1.32	45	0.91	EEL=A3	2/480
150	HS, HI	1.80	VNaHJ 150PZTG.567*	535695	230, 50	0.720	214	205	2.25	45	0.91	EEL=A3	2/400

* Ballasts without CE marking for replacements or markets outside of the EU

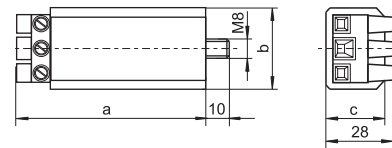
Electronic Superimposed Ignitors for HS and HI Lamps

Standard version

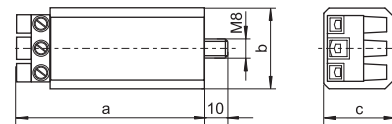
Ignition voltage: 4–5 kV
 Phasing of the ignition voltage:
 60–90 °el and 240–270 °el
 Max. permitted casing temperature: 105 °C
 Screw terminals: 0.75–4 mm²
 (Z 2000: 0.75–2.5 mm²)
 Fastening: male nipple with pre-assembled washer and nut
 For luminaires of protection class I and II



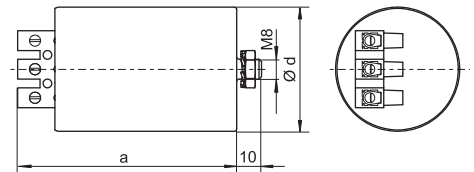
PC casing – K



PC casing – K D20



Al casing



For HS Lamps 70 (DE) to 400 W and HI Lamps 35 to 400 W

For high pressure sodium lamps (HS),
 metal halide lamps (HI) and
 ceramic discharge lamps (C-HI)

Type	Ref. No.	Voltage AC 50–60 Hz V	Max. lamp current A	Internal loss W	Inherent heating K	Ignition voltage kV	Load capacity pF	Switch-off time sec./Hz	Casing			Weight g	Packaging unit Box/pallet	
									d (∅) mm	a mm	b mm			c mm
Plastic casing (PC)														
Z 70 K D20	141580*	220–240	2	< 0.6	< 5	1.8–2.3	20–100	1216/50–60	—	80	34	30	145	48/2880
Z 400 M K	142894	220–240	5	< 3	< 35	4–5	20–50	—	—	78	34	27	130	60/3600
Z 400 M K D20	141582*	220–240	5	< 3	< 35	4–5	20–50	1216/50–60	—	80	34	30	145	48/2880

Recommended for outdoor lighting
 * With IPP technology

For HS and HI Lamps 1000 to 2000 W

For high pressure sodium lamps (HS)
 and metal halide lamps (HI)

Type	Ref. No.	Voltage AC 50–60 Hz V	Max. lamp current A	Internal loss W	Inherent heating K	Ignition voltage kV	Load capacity pF	Switch-off time sec./Hz	Casing			Weight g	Packaging unit Box/pallet	
									d (∅) mm	a mm	b mm			c mm
Aluminium casing (Al)														
Z 1000 S	140430	220–240	12	< 6	< 35	4–5	20–100	—	50	80	—	—	340	10/990
Z 2000 S/400 V	140497	380–415	12.7	< 5	< 32	4–5	20–2000	—	50	88	—	—	340	10/990

Parallel Connected Capacitors with Leads 250 V, 50/60 Hz

Capacitors type A

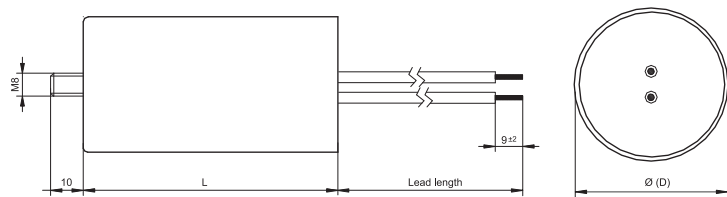
Casing: plastics, white

Fastening: male nipple with nut and washer included

Discharge resistance

Fixing centres: 20 mm

On request with alternative capacities, connection terminals, mounting options, casing materials



Ref. No.	Capacity µF	Temperature range °C	Ø (D) mm	Length (L) mm	Male nipple/ length (mm)	Lead length mm	Weight g	Packaging unit Pieces per box/pallet
Plastic casing								
552774	2.0	-25 to 85	25	57	M8x10	150	22	400/12000
539225	4.0	-25 to 85	30	57	M8x10	150	31	340/10200
526170	6.0	-40 to 85	28	54	M8x10	250	22	150/4500
526171	8.0	-40 to 85	32	67	M8x10	250	24	100/3000
529665	10.0	-40 to 85	32	67	M8x10	200	32	100/3000
536742	12.0	-25 to 85	30	78	M8x10	150	42	120/3600
536741	20.0	-40 to 85	36	92	M8x10	150	85	100/3000
508484	25.0	-25 to 85	40	93	M8x10	250	89	80/2400
528553	30.0	-25 to 85	40	93	M8x10	250	108	80/2400
528554	35.0	-25 to 85	45	94	M8x10	250	173	60/1800
536813	40.0	-25 to 85	45	94	M8x10	400	166	60/1800
528555	45.0	-25 to 85	50	94	M8x10	250	167	50/1500

Parallel Connected Capacitors with Break-action Mechanism

Capacitors type B

Casing: aluminium

Filling material: based on vegetable oil

Fastening: male nipple with nut and washer included

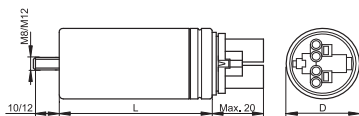
Discharge resistance

Overpressure protection

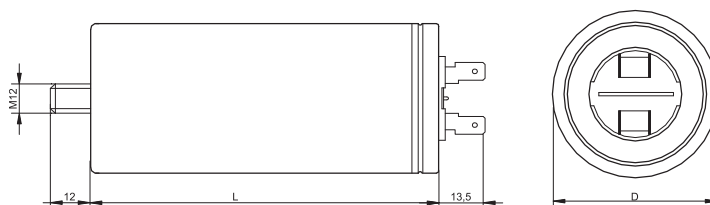
On request further capacities or connectors



A Push-in twin terminals 0.5–1 mm²



B Double spade connector 6.3x0.8 acc. to IEC 61210



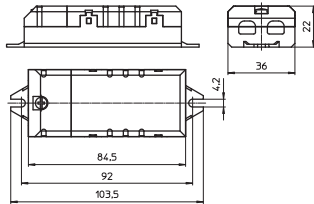
Ref. No.	Capacity μF	Temperature range °C	Drawing	Ø (D) mm	Length (L) mm	Male nipple/ length (mm)	Weight g	Packaging unit Pieces per box/pallet
250 V, 50/60 Hz								
536387	20.0	-40 to 100	A	35	78	M8x10	90	81/3402
536389	30.0	-40 to 100	A	35	103	M8x10	100	81/2430
536390	32.0	-40 to 100	A	35	103	M8x10	120	81/2430
536401	37.0	-40 to 100	A	50	103	M12x12	200	36/1080
380–450 V, 50/60 Hz								
536404	60.0	-40 to 85	B	55	128	M12x12	250	36/1080

Independent Electronic Converters – LiteLine

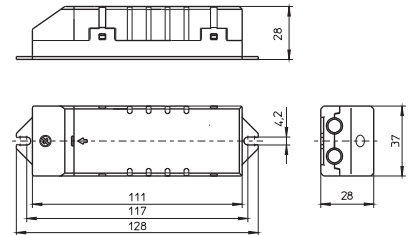
Electronic safety converters for low-voltage halogen incandescent lamps 12 V
 Casing: heat-resistant polyamide
 Mains frequency: 50–60 Hz
 Protection against "no load" operation
 Protection against short-circuit:
 electronically switch-off with automatic restart
 Electronically controlled overload and temperature protection
 Suitable for installation in furniture and on combustible surfaces
 Power factor: > 0.95
 Efficiency: ≥ 94%
 Dimming: optional with phase-cutting leading-edge or phase-cutting trailing-edge dimmer
 Screw terminals: 2.5 mm²
 (EST 60/12.635 primary: 4 mm²)
 Quantity of screw terminals:
 1x2-poles primary
 1x2-poles secondary
 With integrated cord grip
Protection class II
 SELV
 Degree of protection: IP20
 RFI-suppressed



A



B



Type	Ref. No.	Capacity range (W)	Voltage (V)		Nominal current A	Ambient temperature t_a (°C)	Casing temperature t_c (°C)	Drawing	Weight g	Packaging unit Pieces per box
			prim. (±10%)	sec.						
Dimensions: 22x36x103.5 mm										
EST 60/12.635	186173	10–60	220–240	10.2–12	0.258–0.260	–20 to 45	max. 85	A	70	20
Dimensions: 28x37x128 mm										
EST 105/12.381	186077	20–105	230–240	11.2–11.7	0.435–0.445	–20 to 40	max. 85	B	95	36

Emergency Lighting Modules 6 to 80 W with Self-Diagnosis Function

EMXs – Emergency lighting modules

For one-, two-, three- or four-lamp operation with standard and dimmable electronic or magnetic ballasts

EB phase is switched off during emergency operation

Short circuit protection

RoHS-compliant (excluding rechargeable batteries)

5-pin technology and therefore EMC-compliant even during emergency operation

Suitable for protection class I

EN 61347-1, EN 61347-2-7

Suitable for systems in accordance with VDE 0108 or EN 50172

Not suitable for lamps with an integrated starter

Dimensions (LxWxH): 210x31.4x21.5 mm

Fixing hole distance: 205.5 mm

Nominal voltage: 230 V ±10%, 50–60 Hz

Ambient temperature t_a : 0 to 50 °C

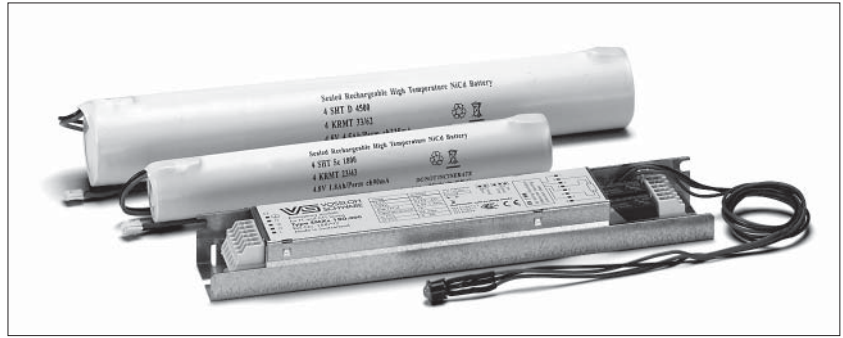
Unit: 25 pcs.

These VS emergency lighting modules include an automatic self-diagnosis feature that performs a two-minute function test of the device, the lamp and the battery every seven days.

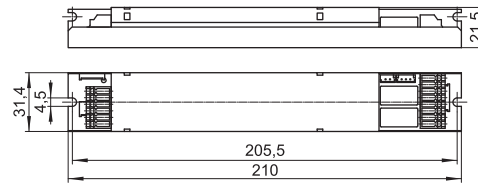
In addition, the operating period is tested every 12 months with subsequent battery reactivation.

Optical status display

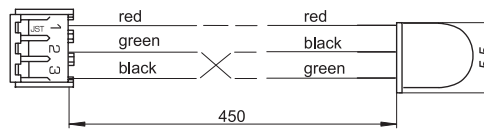
- Red LED, flashing intermittently: defective lamp. The status display will be reset approx. one minute after the fault has been rectified.
- White LED, not illuminated: if connected to the power supply, the LED must turn green after a maximum of five minutes. If not, the device either has no voltage supply or the emergency lighting module is defective.
- Red LED, permanently flashing: battery capacity is too low or the battery supply line has been interrupted.
- Green LED: fully functional.



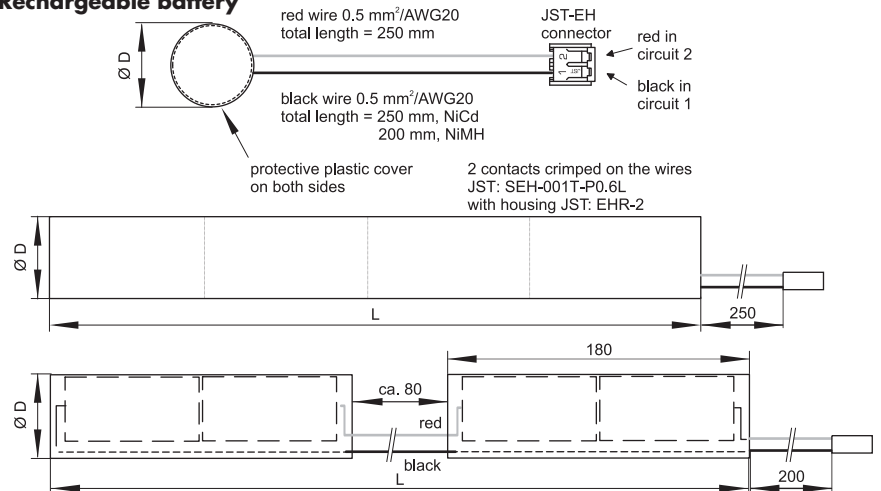
Emergency lighting module



LED



Rechargeable battery



Emergency Lighting Modules 6 to 80 W with Self-Diagnosis Function

EMXs – Emergency lighting modules

Type	Ref. No. Module	Ref. No. Battery	Nominal operating period (hrs.)	Rechargeable battery type	Dimensions LxD (Ø) of battery mm	Test function	Weight module g	Weight battery g	Packaging unit	
									Pieces per box EM Module	Battery
EMXs 180.000	188792	188823	1	4.8V 1.8Ah NiCd	1 / 190 x 23	automatic	160	200	72	36
EMXs 180.001	188793	188824	3	4.8V 4.5Ah NiCd	1 / 240 x 33	automatic	160	490	72	18

Circuit diagrams see page 336–338

HOLDERS for Rechargeable Batteries for Emergency Lighting Modules

Material: PC (188828: PBT)

Type: Rechargeable Battery Holder

Packaging unit per box: 144 pcs.

Ref. No.	For rechargeable battery type	Dimensions (mm)					
		a	b	c	d	e	f
188827	4.8V 1.8Ah NiCd	35	18.0	26.3	26.7	13.0	5.5
188828	4.8V 4.5Ah NiCd	39	23.2	36.2	37.3	12.4	6.0

It is recommended to use two holders per rechargeable battery to ensure optimum hold.

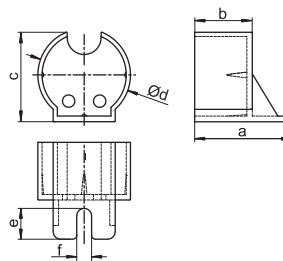


Table of suitable lamp types

Lamp type	Lamp nominal output W
T8	15, 18, 32, 36, 58, 70
T5 HE	14, 21, 28, 35
T5 HO	24, 39, 49, 54, 80
T5	6, 8, 13
T-R5 (T-R16)	22, 40, 55, 60
T-R (T29-R)	22, 32, 40
TC-L/TC-F	18, 24, 36, 40, 55, 80
TC-DEL	10, 13, 18, 26
TC-TEL	13, 18, 26, 32, 42, 57, 70
TC-SEL	7, 9, 11
TC-DD (2D)	10, 16, 21, 28, 38, 55

Luminous flux factor of lamps during emergency operation

Lamp nominal output W	Luminous flux factor* %
6	43.0
8	32.0
18	13.0
28	9.0
32	7.0
35	7.0
36	7.0
49	4.7
54	4.3
55	4.7
58	5.2
70	4.3
80	3.7

* Theoretically defined reference values at 25 °C ambient temperature

Electronic Built-in Ballasts for Compact Fluorescent Lamps

ELXs -Warm Start

Casing: heat-resistant polyamide

Power factor: approx. 0.6

(depending on the lamp output)

DC voltage operation: 198–264 V

Push-in terminals with lever opener: 0.5–1.5 mm²

RFI-suppressed

For luminaires of protection class I and II

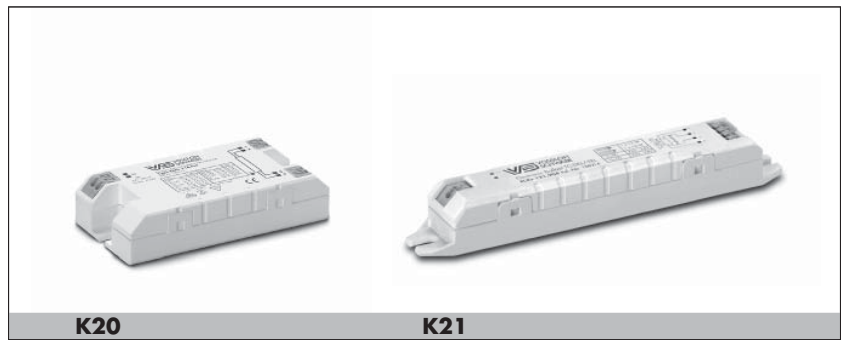
Degree of protection: IP20

Fixing slots for screws M4

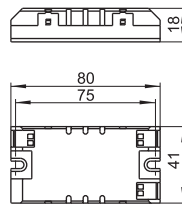
For lighting systems with high switching frequency (> 5/day)

EOL shut down approved

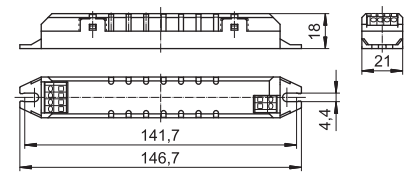
acc. to EN 61347 Test 2



K20



K21



Lamp			Electronic ballast							System	Packaging unit			
Output	Type	Base	Type	Ref. No.	Voltage AC	Energy efficiency	Ambient temperature	Casing temperature	Casing	Output	Pieces per box/pallet			
W					50, 60 Hz		t _a (°C)	t _c (°C)		W				
5/	TC-SEL	2G7	ELXs 116.900	188661	220–240	A3	–15 to 55	max. 75	K20	6.1	66/3960			
7/9/11						A2				7.5/8.8/11.8				
10	TC-DEL	G24q-1				A2	–15 to 55	max. 75	K20	10.2	66/3960			
10/16	TC-DD	GR10q				A2/A3				10.3/15.1				
13	TC-DEL/-TEL	G24q-1/GX24q-1				ELXs 121.901	188663	220–240	A2	–15 to 55	max. 80	K20	15.5	66/3960
18		G24q-2/GX24q-2							16.9					
18/24	TC-F/L	2G10/2G11	ELXs 124.905	188666	220–240	A2	–15 to 55	max. 85	K21	17.9/21.4	66/3960			
22	TR5	2GX13				21.2								
24	TC-F/L	2G10/2G11	ELXs 126.906	188667	220–240	A2	–15 to 55	max. 85	K20	22.9	66/3960			
26	TC-DEL/-TEL	G24q-3/GX24q-3				23.4								

Electronic Built-in Ballasts for Compact Fluorescent Lamps

ELXc – Warm Start

Casing: heat-resistant polyamide (K2, K3)
or heat-resistant polycarbonate (K2.1)

DC voltage

for operation: 176–264 V

for ignition: 198–264 V

(ELXc 242.837: DC voltage cannot be reduced to 176 V)

Second earth terminal to ground the luminaires for example

Power factor: > 0.96 (K2.1: 0.98)

Push-in terminals with lever opener: 0.5–1.5 mm²

RFI-suppressed

Constant power consumption

For luminaires of protection class I

Degree of protection: IP20

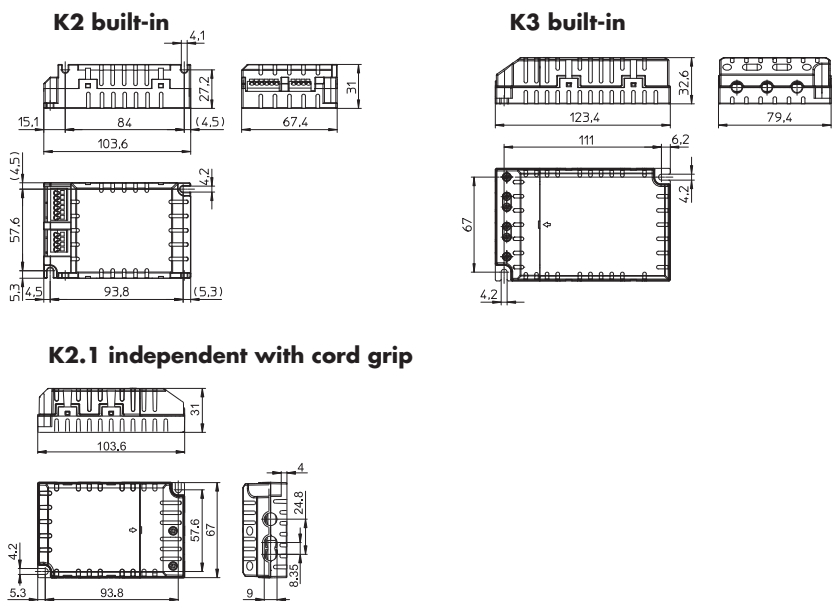
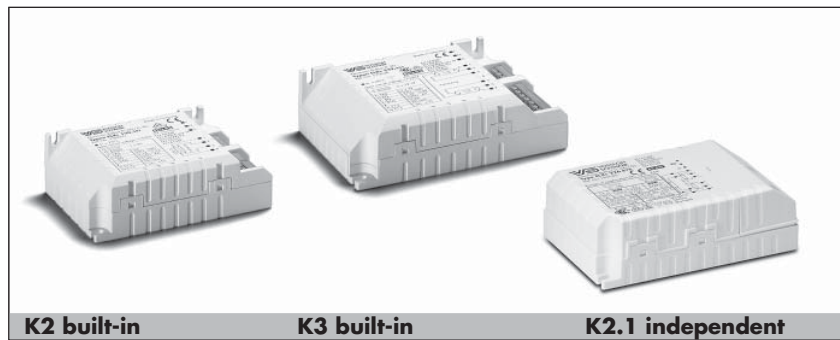
Fixing brackets for screws M4

for lateral or base mounting

For lighting systems with high switching frequency (> 5/day)

EOL shut down approved acc. to

EN 61347 Test 2



Lamp			Electronic ballast							System	Packaging unit
Output	Type	Base	Type	Ref. No.	Voltage AC 50, 60 Hz V±10%	Energie efficiency	Ambient temperature t _a (°C)	Casing temperature t _c (°C)	Casing	Output	Pieces per box/pallet
W										W	
9/11	TC-SEL	2G7	ELXc 213.870	188698	220–240	A2 BAT	–20 to 50	max. 65	K2	10.7/14.7	15/1200
2x9/11										19.4/27.9	
10/13	TC-DEL/-TEL	G24q-1/GX24q-1								10.9/15	
2x10/13										20.5/28.1	
18/2x18	TC-DEL/-TEL	G24q-2/GX24q-2	ELXc 218.871	188699	220–240	A2 BAT	–20 to 50	max. 65	K2	21/38	15/1200
18/24/ 36/40	TC-F/ TC-L	2G10/2G11	ELXc 142.872	188700	220–240	A2 BAT	–20 to 50	max. 65	K2	18/27/ 34/43	15/1200
2x18/24										34/47	
22/40	T-R5	2GX13								26/41	
26/2x26	TC-DEL/-TEL	G24q-3/GX24q-3								26/53	
32/42	TC-TEL	GX24q-3								33/45	
38	TC-DD	GR10q								38	
2x18/24/ 36/40	TC-F/ TC-L	2G10/2G11	ELXc 242.837	188643	220–240	A2 BAT	–20 to 50	max. 65	K3	35/48.5/ 70.5/88	12/900
22+40/ 2x22/40	T-R5	2GX13								68/ 48.5/88	
2x26	TC-DEL/-TEL	G24q-3/GX24q-3								53.0	
2x32/42	TC-TEL	GX24q-3								70.5/94.5	
2x38	TC-DD	GR10q								79.2	
26/2x26	TC-DEL/-TEL	G24q-3/GX24q-3	ELXc 226.878	183040	220–240	A2 BAT	–20 to 55	max. 65	K2.1	28/50	
55/80	TC-L	2G11	ELXc 155.378	188680	220–240	A2 BAT	–20 to 50	max. 70	K3	60/88	12/900
55/60	T-R5	2GX13				A2 BAT/A2				60/66	

Dimmable Electronic Built-in Ballasts for TC-DEL/-TEL Lamps

ELXd – Dimmable with push key or DALI

Complete implementation of the DALI-standard:
addressable, memory store for scenes and
groups, revertive information communi-
cation, physical and RND-selection,
standardized lamp characteristic
Low-power design ensures very
low standby power consumption of ≤ 0.5 W
PUSH: dimmable with usual push key and sensor
DALI: poles are not polarity sensitive (protected if
connected to mains voltage)
for use with DALI compatible
control units

Dimming range: approx. 3–100% of lamp power

Compatible with IEC 62386

Casing: heat-resistant polycarbonate

DC voltage

for operation: 176–264 V

for ignition: 198–264 V

Power factor: > 0.95 at 100% operation

Push-in terminals with lever opener: 0.5–1.5 mm²

RFI-suppressed

Degree of protection: IP20

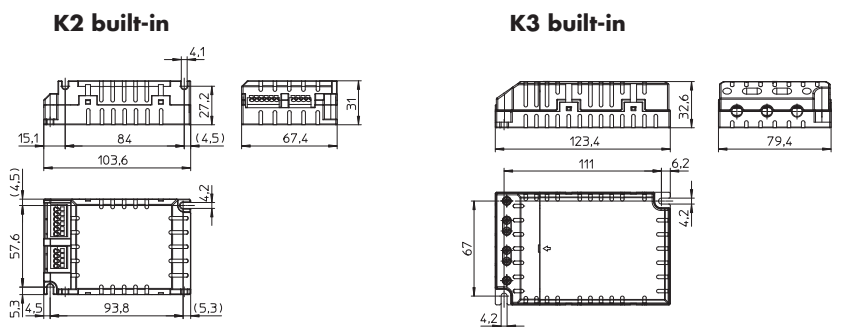
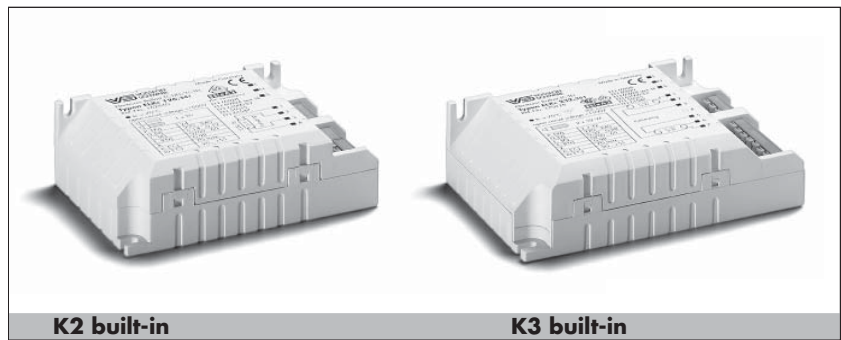
For luminaires of protection class I

Fixing brackets for screws M4 for lateral or base mounting

For lighting systems with high switching frequency (> 5 /day)

EOL shut down approved acc. to EN 61347 Test 2

Automatic restart after lamp has been changed



Lamp			Electronic ballast							System	Packaging
Output W	Type	Base	Type	Ref. No.	Voltage AC 50, 60 Hz V \pm 10%	Energy efficiency	Ambient temperature t _a (°C)	Casing temperature t _c (°C)	Casing	Output W	unit Pieces per box/pallet
2x18	TC-DEL/-TEL	G24q-2/GX24q-2	ELXd 218.707	188954	220–240	A1 BAT	10 to 50	max. 70	K3	40.0	12/900
26	TC-DEL/-TEL	G24q-3/GX24q-3	ELXd 142.709	188923	220–240	A1 BAT	10 to 50	max. 65	K2	27.5	15/1200
32/42	TC-TEL	GX24q-3								34.5/45	
2x26	TC-DEL/-TEL	G24q-3/GX24q-3	ELXd 242.711	188974	220–240	A1 BAT	10 to 50	max. 70	K3	56	12/900
2x32/42	TC-TEL	GX24q-3								69/90	

Electronic Built-in Ballasts for T8 Lamps

ELXc – Warm Start

Casing: metal

DC voltage

for operation: 176–264 V

for ignition: 198–264 V

Power factor: ≥ 0.95

Push-in terminals: 0.5–1 mm²

For the automatic luminaire wiring:

IDC terminals for leads H05V-U 0.5

RFI-suppressed

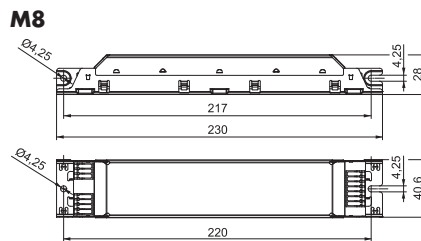
For luminaires of protection class I

Degree of protection: IP20

For lighting systems with

high switching frequency (> 5/day)

EOL shut down (for T8)



Lamp			Electronic ballast							System	Packaging unit
Output W	Type	Base	Type	Ref. No.	Voltage AC 50, 60 Hz V \pm 10%	Energy efficiency	Ambient temperature t _a (°C)	Casing temperature t _c (°C)	Casing	Output W	Pieces per box/pallet
3x18	T8	G13	ELXc 418.204	188744	220–240	A2 BAT	–15 to 55	max. 70	M8	56.0	10/1200
4x18	T8	G13								71.5	
3x36	T8	G13	ELXc 336.214	188595	220–240	A2 BAT	–15 to 50	max. 65	M8	105.0	10/1200

ELXc EffectLine – Warm start

Push-in terminals with lever opener: 0.5–1.5 mm²

Lamp			Electronic ballast							System	Packaging unit
Output W	Type	Base	Type	Ref. No.	Voltage AC 50, 60 Hz V \pm 10%	Energy efficiency	Ambient temperature t _a (°C)	Casing temperature t _c (°C)	Casing	Output W	Pieces per box/pallet
18	T8	G13	ELXc 136.207	188704	220–240	A2 BAT	–20 to 55	max. 60	M8	18.4	10/1200
36	T8	G13								35.4	
2x18	T8	G13	ELXc 236.208	188705	220–240	A2 BAT	–20 to 50	max. 60	M8	35.2	10/1200
2x36	T8	G13								69.7	
58	T8	G13	ELXc 158.209	188706	220–240	A2 BAT	–20 to 50	max. 60	M8	52.6	10/1200
2x58	T8	G13	ELXc 258.210	188707	220–240	A2	–20 to 50	max. 65	M8	109.9	10/1200

Electronic Built-in Ballasts for T5 Lamps

ELXc – Warm Start

Casing: metal

DC voltage

for operation: 176–264 V

for ignition: 198–264 V

(ELXc 235.857, 149.858,

154.864, 180.866, 280.538:

DC voltage cannot be reduced to 176 V)

Push-in terminals: 0.5–1 mm²

(M6: push-in terminals with lever opener: 0.5–1.5 mm²)

(M8, M10/M11: for the automatic luminaire wiring: IDC terminals for leads H05V-U 0.5)

Power factor: ≥ 0.95

RFI-suppressed

For luminaires of protection class I

Degree of protection: IP20

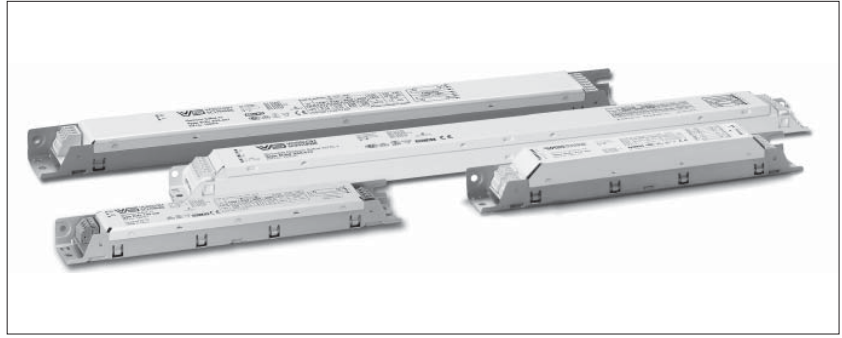
For lighting systems with

high switching frequency (> 5/day)

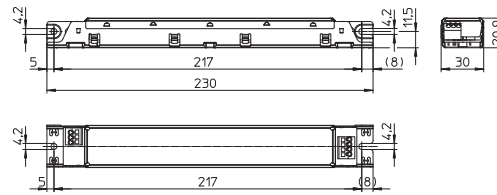
EOL shut down approved

acc. to EN 61347 Test 2 (M7.2: Test 1)

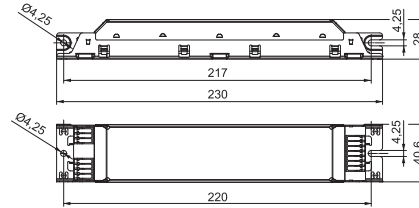
M7.2: suitable for use in luminaires for emergency lighting systems acc. to VDE 0108



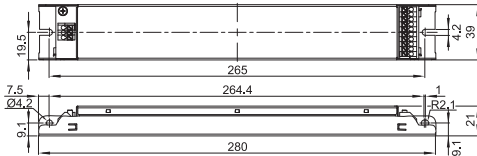
M6



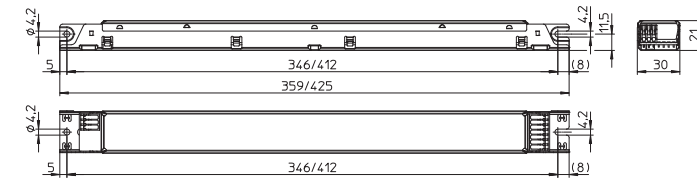
M8



M7.2 – EffectLine T5



M10/M11



Lamp			Electronic ballast							System		Packaging unit
Output W	Type	Base	Type	Ref. No.	Voltage AC 50, 60 Hz V±10%	Energy efficiency	Ambient temperature t _a (°C)	Casing temperature t _c (°C)	Casing	Output W	Pieces per box/pallet	
14/21/28/35	T5	G5	ELXc 135.220	188921	220–240	A2 BAT	–15 to 55	max. 70	M6	17/23.3/29.9/36.5	10/1120	
2x14/21/28/35	T5	G5	ELXc 235.857	188094	220–240	A2 BAT	–15 to 55	max. 70	M10	33.4/50.2/60.6/74.5	10/1120	
3/4x14	T5	G5	ELXc 414.868	188438	220–240	A2 BAT	–15 to 55	max. 70	M8	48/63	10/1200	
24/39	T5	G5	ELXc 140.862	188140	220–240	A2 BAT	–15 to 55	max. 70	M10	27/43	10/1120	
2x24/39	T5	G5	ELXc 240.863	188616	220–240	A2 BAT	–15 to 55	max. 70	M10	51/82	10/1120	
3/4x24	T5	G5	ELXc 424.223	183039	220–240	A2 BAT	–15 to 55	max. 75	M8	78/101.7	10/600	
3x28	T5 HE	G5	ELXc 328.230	183112	220–240	EEL=A2	0 to 50	max. 75	M7.2	94	10/1200	
49	T5	G5	ELXc 149.858	188095	220–240	A2 BAT	–15 to 55	max. 70	M10	54	10/1120	
2x49	T5	G5	ELXc 249.859	188617	220–240	A2 BAT	–15 to 50	max. 70	M10	113	10/1120	
54	T5	G5	ELXc 154.864	188142	220–240	A2 BAT	–15 to 55	max. 65	M10	59	10/1120	
2x54	T5	G5	ELXc 254.865	188618	220–240	A2 BAT	–15 to 55	max. 70	M10	119	10/1120	
80	T5	G5	ELXc 180.866	188144	220–240	A2 BAT	–15 to 50	max. 70	M10	87	10/1120	
2x80	T5	G5	ELXc 280.538	188619	220–240	A2 BAT	–15 to 50	max. 70	M11	175	10/1120	

Electronic Built-in Ballasts for T5 and T8 Lamps

ELXd – Dimmable with push key or DALI

Complete implementation of the DALI-standard
Low-power design ensures very low standby
power consumption of ≤ 0.2 W

Compatible with IEC 62386

PUSH: dimmable with usual push key

DALI: poles are not polarity sensitive
(protected if connected to mains voltage)
for use with DALI compatible control units

Dimming range: approx. 1–100 % of lamp power

Casing: metal

DC voltage for operation: 154–276 V
for ignition: 198–264 V

Power factor: > 0.95 at 100 % operation

Push-in terminals: 0.5–1 mm²

For the automatic luminaire wiring:

IDC terminals for leads H05V-U 0.5

RFI-suppressed

For luminaires of protection class I

Degree of protection: IP20

For lighting systems with
high switching frequency (> 5 /day)

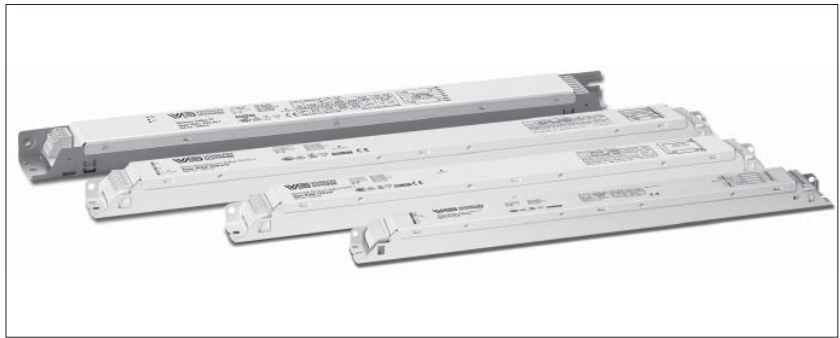
Suitable for use in luminaires for emergency

lighting systems acc. to VDE 0108

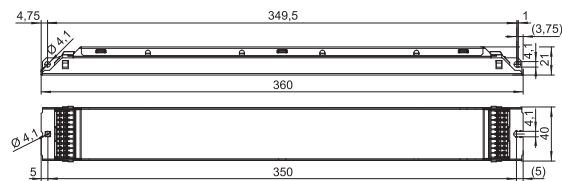
EOL shut down approved

acc. to EN 61347 Test 2 (for T5)

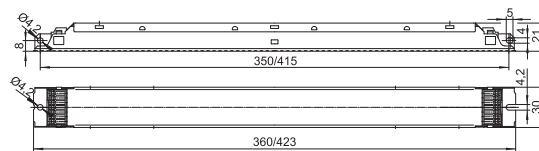
EOL 2 shut down (for T8)



M23



M22/M24



M10/M11



Lamp			Electronic ballast							System		Packaging
Output	Type	Base	Type	Ref. No.	Voltage AC	Energy	Ambient	Casing	Casing	Output	Pieces per	
W					50, 60 Hz	efficiency	temperature	temperature		W	box/pallet	
					V \pm 10%		t _a [°C]	t _c [°C]				
18	T8	G13	ELXd 118.615	188344	220–240	A1	–20 to 50	max. 75	M22	19	10/840	
2x18	T8	G13	ELXd 218.616	188345	220–240	A1	–20 to 50	max. 75	M24	37	10/720	
3x18	T8	G13	ELXd 318.627	188601	220–240	A1	–20 to 50	max. 75	M23	53.6	10/600	
4x18	T8	G13	ELXd 418.629	188603	220–240	A1	–20 to 50	max. 75	M23	69.3	10/600	
36	T8	G13	ELXd 136.617	188346	220–240	A1	–20 to 50	max. 75	M22	36	10/840	
2x36	T8	G13	ELXd 236.618	188347	220–240	A1	–20 to 50	max. 75	M24	69	10/720	
58	T8	G13	ELXd 158.619	188348	220–240	A1	–20 to 50	max. 75	M22	56	10/840	
2x58	T8	G13	ELXd 258.620	188349	220–240	A1	–20 to 50	max. 75	M24	108	10/720	

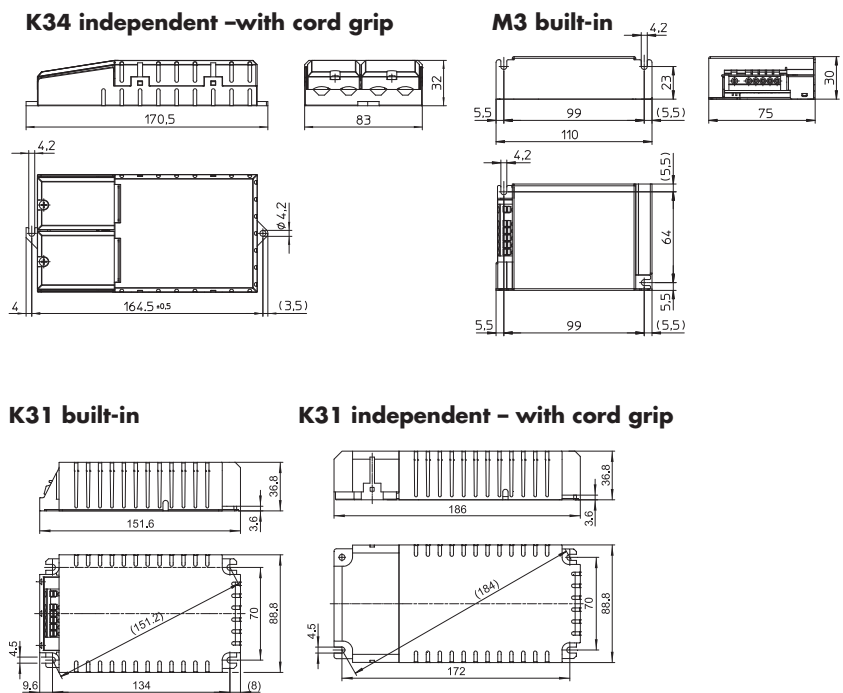
For T5 lamps – with lamp detection

14/21/28/35	T5	G5	ELXd 135.724	188932	220–240	A1 BAT	10 to 50	max. 65	M10	16.4/24.3/32/40	10/720
14/24	T5	G5	ELXd 124.600	188329	220–240	A1 BAT	10 to 50	max. 75	M22	16/26	10/840
2x14/21/28/35	T5	G5	ELXd 235.725	188933	220–240	A1 BAT	10 to 50	max. 70	M11	33.4/47/62.1/76.9	10/504
2x14/24	T5	G5	ELXd 224.601	188330	220–240	A1 BAT	10 to 50	max. 75	M24	31/50	10/720
3x14/24	T5	G5	ELXd 324.626	188600	220–240	A1 BAT	10 to 50	max. 75	M23	45.3/73.4	10/600
4x14/24	T5	G5	ELXd 424.628	188602	220–240	A1 BAT	10 to 50	max. 75	M23	60.4/97.6	10/600
21/39	T5	G5	ELXd 139.602	188331	220–240	A1 BAT	10 to 50	max. 75	M22	23/42	10/840
2x21/39	T5	G5	ELXd 239.621	188350	220–240	A1 BAT	10 to 50	max. 75	M24	45/82	10/720
28/54	T5	G5	ELXd 154.603	188332	220–240	A1 BAT	10 to 50	max. 75	M22	31/59	10/840
2x28/54	T5	G5	ELXd 254.604	188333	220–240	A1 BAT	10 to 50	max. 75	M24	61/115	10/720
35/49/80	T5	G5	ELXd 180.605	188334	220–240	A1 BAT	10 to 50	max. 75	M22	38/54/88	10/840
2x35/49/80	T5	G5	ELXd 280.631	188605	220–240	A1 BAT	10 to 50	max. 75	M24	74/101/165	10/720
2x35/49	T5	G5	ELXd 249.606	188335	220–240	A1 BAT	10 to 50	max. 75	M24	75/104	10/720

Electronic Ballasts for HI Lamps 35, 70 and 150 W

Shape: M3 / K34 / K31

- Casing: aluminium (M3), heat-resistant polycarbonate (K31, K34)
- For ceramic discharge tube lamps (C-HI)
- Power factor: ≥ 0.95 (K31: 0.98)
- Ignition voltage: max. 5 kV
- Operation frequency: 173 Hz (K31: 170 Hz)
- Push-in terminals with lever opener: 0.75–2.5 mm²
- Total harmonic distortion: < 10%
- Temperature protection
- Constant power consumption
- Protection against "no load" operation
- For luminaires of protection class I (metal casing)
- For luminaires of protection class I and II (plastic casing)
- Degree of protection: IP20
- Permissible load capacity: 20–120 pF (K31: 20–240 pF)
- RFI-suppressed
- Fixing brackets for screws M4 for base mounting
- No flickering of defective lamps



Lamp			Electronic ballast								System	Packaging
Output W	Type	Base	Type	Ref. No.	Voltage AC 50, 60 Hz V $\pm 10\%$	Mains current A	Energy efficiency	Ambient temperature t _a (°C)	Casing temperature t _c (°C)	Weight g	Output W	Pieces per box/pallet
M3 – Electronic built-in ballast (with cap)												
35	HI	GU6.5, G8.5, GU8.5, GX8.5, G12, E27	EHXc 35.325	183033	220–240	0.20–0.18	A2	–20 to 65	max. 80	220	43	10/960
70	HI	G8.5, GU8.5, GX8.5, G12, PG12-2, E27, RX7s	EHXc 70.326	183036	220–240	0.36–0.34	A2	–20 to 55	max. 80	220	80	10/960
K34 – Independent electronic ballasts with cord grip												
35	HI	GU6.5, G8.5, GU8.5, GX8.5, G12, E27	EHXc 35.325	183035	220–240	0.20–0.18	A2	–20 to 65	max. 75	260	43	10/480
70	HI	G8.5, GU8.5, GX8.5, G12, PG12-2, E27, RX7s	EHXc 70.326	183038	220–240	0.36–0.34	A2	–20 to 55	max. 75	260	80	10/480
K31 built-in												
1x150	HI	G12, PGX12-2, E27, E40, RX7s	EHXc 150G.334	183046	220–240	0.73–0.67	A2	–25 to 45	max. 85	540	160	6/450
K31 independent – with cord grip												
1x150	HI	G12, PGX12-2, E27, E40, RX7s	EHXc 150G.334	183047	220–240	0.73–0.67	A2	–25 to 45	max. 85	582	160	1/480

R7s Metal Lampholders

For mains voltage halogen incandescent lamps

R7s lampholder

Casing: Al, T300, contact pin: Cu, silver bulb

Nominal rating: 10/250

Lead: Cu nickel-plated, stranded conductors

1 mm², PTFE-insulation, length: 300 mm

Fixing flange

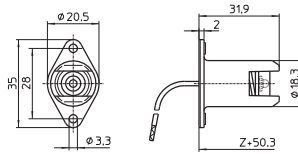
Fixing holes for screws M3

Weight: 15.7 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 30523

Ref. No.: 100710



R7s Ceramic Lampholders

For mains voltage halogen incandescent lamps

The luminaire design must ensure protection from electric shock as well as sufficient creepage distances and clearances from live parts on the back of lampholder.

If the central hole on the bracket is used for fixing there must be a support within the luminaire to ensure that the bracket cannot be deformed.

Partly enclosed R7s lampholder

Casing: ceramic, T350

Contact pin: Cu, silver bulb

Nominal rating: 8/250

Leads: Cu nickel-plated, stranded conductors

0.75 mm², PTFE-insulation, length: 200 mm

With fixing screw M4

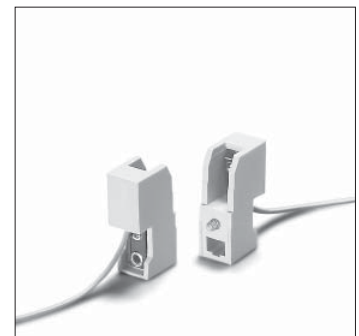
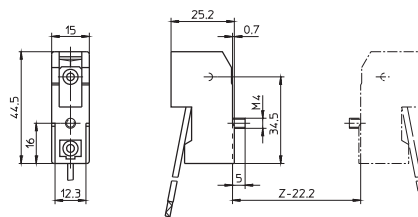
Weight: 25.4 g

Packaging unit per box/pallet: 50/400 pcs.

Type: 32300

Ref. No.: 100912

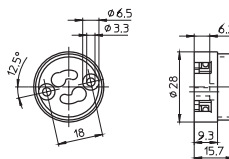
Lampholders with brackets on request



GU10, GZ10 Lampholders, Accessories

For mains voltage halogen incandescent lamps

GU10, GZ10 lampholders
Casing: LCP, natural, T270, nominal rating: 2/250
Push-in twin terminals for stranded conductors
with ferrule on bare end of core \varnothing 1.4–1.8 mm
Fixing holes for screws M3
Weight: 7 g
Packaging unit per box/pallet: 50/1000 pcs.
Type: 31000
Ref. No.: 108979



E14 Thermoplastic Lampholders, One-piece, and Cover Caps

For incandescent lamps with base E14

E14 lampholders, for cover caps

Plain casing

Casing: PET GF, T210, nominal rating: 2/250

Push-in twin terminals: 0.5–1.5 mm²

Rear fixing holes for self-tapping screws
acc. to ISO 1481/7049-ST2.9-C/F

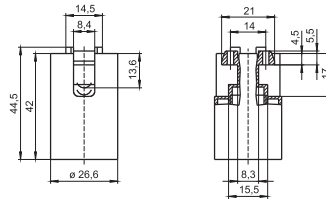
Weight: 11.3 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 64001

Ref. No.: 109384 white

Ref. No.: 109383 black



E14 lampholders, for cover caps

External thread 28x2 IEC 60399

Casing: PET GF, T210, nominal rating: 2/250

Push-in twin terminals: 0.5–1.5 mm²

Rear fixing holes for self-tapping screws
acc. to ISO 1481/7049-ST2.9-C/F

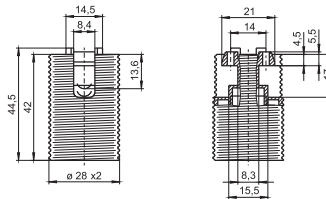
Weight: 12.2 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 64101

Ref. No.: 109387 white

Ref. No.: 109386 black



Cover caps

Material: PA GF

Female nipple: M10x1

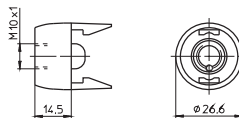
Weight: 7.6 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 85075

Ref. No.: 109110 white

Ref. No.: 109112 black



Plastic screw rings

For E14 lampholders

with external thread 28x2 IEC 60399

Weight: 3.2/1.6 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 03210 Ø 43 mm, height: 15 mm

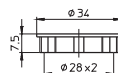
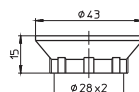
Ref. No.: 100125 PET GF, white

Ref. No.: 109162 PA GF, black

Type: 05202 Ø 34 mm, height: 7.5 mm

Ref. No.: 107154 PET GF, white

Ref. No.: 109166 PA GF, black



E14 Thermoplastic Lampholders, Three-piece

For incandescent lamps with base E14

Nominal rating: 2/250
Temperature marking: T190

Plain casings

Material: PET GF

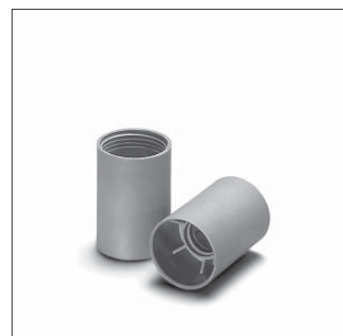
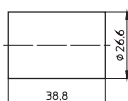
Weight: 8.5 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 81093

Ref. No.: 103415 white

Ref. No.: 103414 black



Threaded casings 28x2 IEC 60399

Material: PET GF

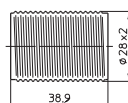
Weight: 9.8/9.6 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 81109

Ref. No.: 103431 white

Ref. No.: 103430 black



Inserts

Material: PET GF, black

Casing lock

Weight: 3.9 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 81095 screw terminals: 0.5–2.5 mm²

Ref. No.: 103424



Caps

Material: PA GF

Female nipple: M10x1

Height: 13.7 mm

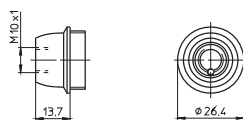
Weight: 7.2 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 81002

Ref. No.: 109102 white

Ref. No.: 109103 black



E27 Thermoplastic Lampholders, One-piece, and Cover Caps

For incandescent lamps with base E27

E27 lampholders, for cover caps

Plain casing

Casing: PET GF, T210

Nominal rating: 4/250

Push-in twin terminals: 0.5–2.5 mm²

Fixing holes for screws M4

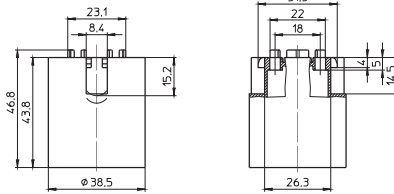
Weight: 17.4 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 64401

Ref. No.: 108936 white

Ref. No.: 500810 black



E27 lampholders, for cover caps

External thread 40x2.5 IEC 60399

Casing: PET GF, T210

Nominal rating: 4/250

Push-in twin terminals: 0.5–2.5 mm²

Fixing holes for screws M4

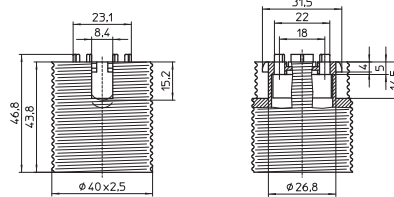
Weight: 19.1/18.8 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 64501

Ref. No.: 108965 white

Ref. No.: 109429 black



E27 lampholders, for cover caps

External thread 40x2.5 IEC 60399, with flange

Casing: PET GF, T210

Nominal rating: 4/250

Push-in twin terminals: 0.5–2.5 mm²

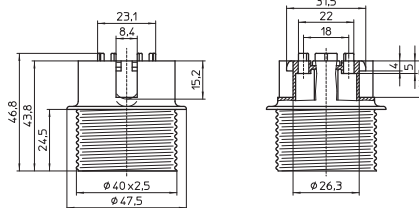
Fixing holes for screws M4

Weight: 21.4 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 64601

Ref. No.: 501358 white



E27 lampholder, profiled shape,

external thread 40x2.5 IEC 60399

Casing: PET GF, T210, nominal rating: 4/250

Push-in twin terminals: 0.5–2.5 mm²

Fixing holes for screws M3

Rear fixing holes for self-tapping screws

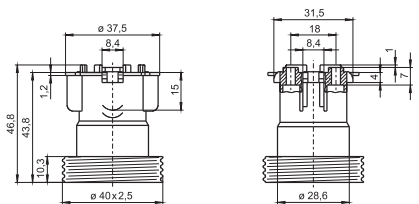
acc. to ISO 1481/7049-ST3.9-C/F

Weight: 20.1 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 64719

Ref. No.: 549559 black



Lampholders for incandescent lamps with base E27

Cover caps

Material: PA GF

Female nipple: M10x1

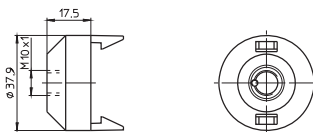
Weight: 9.6/9.9 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 85070

Ref. No.: 109077 white

Ref. No.: 109092 black



Cover caps

Material: PA GF

Moulded thread: M10x1

Cross groove for rotation stop: external

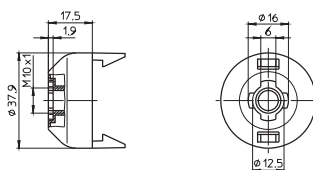
Weight: 4.4/4.6 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 97665

Ref. No.: 109679 white

Ref. No.: 109680 black



Plastic screw rings

For E27 and B22d lampholders

Weight: 4.9/4.4/3.3/3 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 08610 Ø 55 mm, height: 15 mm

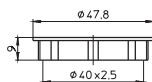
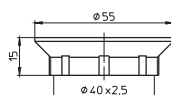
Ref. No.: 100270 PET GF, white

Ref. No.: 109285 PA GF, black

Type: 08701 Ø 47.8 mm, height: 9 mm

Ref. No.: 100273 PET GF, white

Ref. No.: 109291 PA GF, black



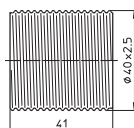
E27 Thermoplastic Lampholders, Three-piece

For incandescent lamps with base E27

Nominal rating: 4/250
Temperature marking: T190

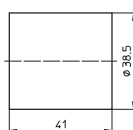
Threaded casings 40x2.5 IEC 60399
Material: PET GF
Weight: 17/16.1 g
Packaging unit per box/pallet: 50/500 pcs.
Type: 83002

Ref. No.: 103484 white
Ref. No.: 103483 black



Plain casings
Material: PET GF
Weight: 14.5/14.3 g, unit: 500 pcs.
Type: 83000

Ref. No.: 103468 white
Ref. No.: 103467 black



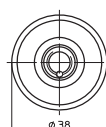
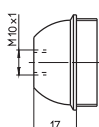
Inserts
Material: PET GF, black
Casing lock
Weight: 5.7/6.1 g
Packaging unit per box/pallet: 50/500 pcs.
Type: 83285 push-in terminals: 0.5–1.5 mm²

Ref. No.: 103643
Type: 83011 screw terminals: 0.5–2.5 mm²
Ref. No.: 103520



Caps
Material: PA GF
Female nipple: M10x1
Height: 17 mm
Weight: 9.8 g
Packaging unit per box/pallet: 50/500 pcs.
Type: 83007

Ref. No.: 109052 white
Ref. No.: 109039 black



G24, GX24 Lampholders

For single-ended compact fluorescent lamps TC-D, TC-T, TC-DEL, TC-TEL

The drawings and photos contained in this chapter only show lampholders for lamps with base G24q-1.

When mounting the lampholder it has to be considered that the TC-T and TC-TEL lamp is wider than the lampholder. When using the central hole for mounting additional depressions for anti-rotation pips have to be provided.

G24, GX24 lampholders

External thread 40x2.5 IEC 60399

Casing: PBT GF, white, T140

Nominal rating: 2/500

Push-in twin terminals: 0.5–1 mm² (lamp circuit)

In addition for G24q, GX24q lampholders:

push-in terminals: 0.5–1 mm² (starter circuit)

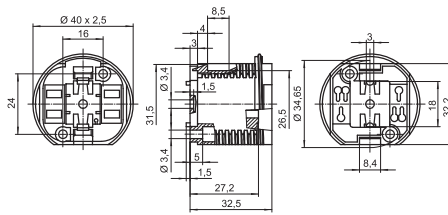
Rear fixing holes for self-tapping screws

acc. to ISO 1481/7049-ST4.2-C/F

Front fixing holes for screws M3

Central fixing hole for screw M3

Rotation stop



Type	Ref. No.	Base	Lamp	Output (W)	Weight (g)	Packaging unit per box/pallet (pcs.)
71001	527502	G24d-1/GX24d-1	TC-D/TC-T	10, 13 / 13	12.7	50/500
71002	527503	G24d-2/GX24d-2	TC-D/TC-T	18 / 18	12.7	50/500
71003	527504	G24d-3/GX24d-3	TC-D/TC-T	26 / 26	12.7	50/500
71011	527506	G24q-1/GX24q-1	TC-DEL/TC-TEL	10, 13 / 13	15.2	50/500
71012	527507	G24q-2/GX24q-2	TC-DEL/TC-TEL	18 / 18	15.2	50/500
71019	527512	GX24q-3/-4*	TC-TEL	26, 32 / 42	15.2	50/500
71014	527509	GX24q-4	TC-TEL	42	15.2	50/500
71015	527510	GX24q-5	TC-TEL	57	15.8	50/500

* Lampholder 527512 may only be used in luminaires that are operated with electronic ballasts that have been certified according to the applicable standards and that cover the luminaire performance range of 26, 32 and 42 W.

G24, GX24 surface-mounted lampholders

Casing: PBT GF, white, T140, Nominal rating: 2/500

Push-in twin terminals: 0.5–1 mm² (lamp circuit)

In addition for G24q, GX24q lampholders:

push-in terminals: 0.5–1 mm² (starter circuit)

Base fixing holes for self-tapping screws

acc. to ISO 1481/7049-ST4.2-C/F

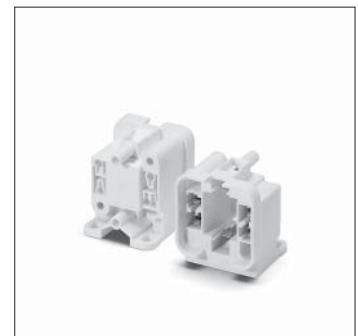
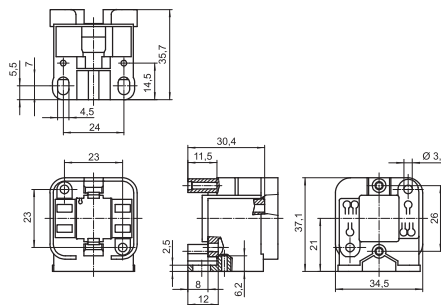
Base oblong holes for screws M4

Rear fixing holes for self-tapping screws

acc. to ISO 1481/7049-ST2.9-C/F

and ST4.2-C/F

Front fixing holes for screws M3



Type	Ref. No.	Base	Lamp	Output (W)	Weight (g)	Packaging unit per box/pallet (pcs.)
71701	527790	G24d-1/GX24d-1	TC-D/TC-T	10, 13 / 13	13.2	50/500
71702	527791	G24d-2/GX24d-2	TC-D/TC-T	18 / 18	13.2	50/500
71703	527792	G24d-3/GX24d-3	TC-D/TC-T	26 / 26	13.2	50/500
71711	527794	G24q-1/GX24q-1	TC-DEL/TC-TEL	10, 13 / 13	15.2	50/500
71712	527795	G24q-2/GX24q-2	TC-DEL/TC-TEL	18 / 18	15.2	50/500
71719	527800	GX24q-3/-4*	TC-TEL	26, 32 / 42	15.2	50/500

* Lampholder 527800 may only be used in luminaires that are operated with electronic ballasts that have been certified according to the applicable standards and that cover the luminaire performance range of 26, 32 and 42 W. G24, GX24 surface-mounted lampholders

Lampholders for single-ended compact fluorescent lamps

G24, GX24 push-fit lampholders

Casing: PBT GF, white, T140

Nominal rating: 2/500

Push-in twin terminals: 0.5–1 mm² (lamp circuit)

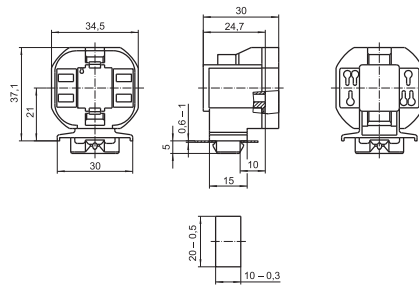
In addition for G24q, GX24q lampholders:

push-in terminals: 0.5–1 mm² (starter circuit)

Push-fit foot for cut-out 10x20 mm

for wall thickness 0.6–1 mm

Foot with facility for cable routing



Type	Ref. No.	Base	Lamp	Output (W)	Weight (g)	Packaging unit per box/pallet (pcs.)
71802	528030	G24d-2/GX24d-2	TC-D/TC-T	18 / 18	10.2	50/500
71813	528035	G24q-3/GX24q-3	TC-DEL/TC-TEL	26 / 26, 32	12.1	50/500

2G7 Lampholders

For single-ended compact fluorescent lamps TC-SEL

2G7 surface-mounted lampholder

Casing: PBT GF, white, T140, nominal rating: 2/250

Push-in twin terminals: 0.5–1 mm² (lamp circuit)

Push-in terminals: 0.5–1 mm² (starter circuit)

Fixing holes for screws M4

Lateral and rear fixing holes for self-tapping screws acc. to ISO 1481/7049-ST4.2-C/F

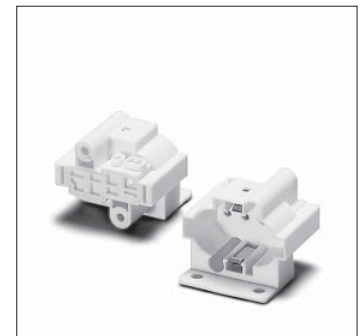
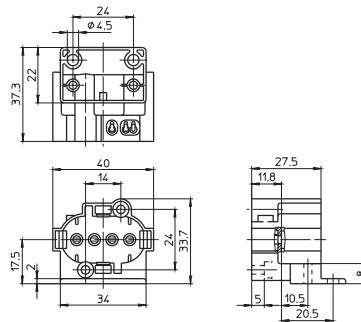
Front fixing holes for screws M3

Weight: 18.1 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 35611

Ref. No.: 109238



2G7 surface-mounted lampholder

Casing: PBT GF, white, T140

Nominal rating: 2/250

Push-in twin terminals: 0.5–1 mm² (lamp circuit)

Push-in terminals: 0.5–1 mm² (starter circuit)

Rear fixing holes for self-tapping screws

acc. to ISO 1481/7049-ST4.2-C/F

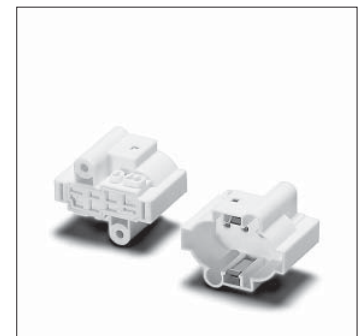
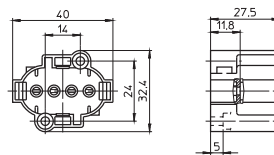
Front fixing holes for screws M3

Weight: 14 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 35612

Ref. No.: 109240



G23 Lampholders

For single-ended compact fluorescent lamps TC-S

If the central hole is used for mounting, make sure there is no risk of rotation.

Casing: PBT GF, white, T140

Nominal rating: 2/250

Push-in twin terminals: 0.5–1 mm²

G23 surface-mounted lampholder

Fixing holes for screws M4

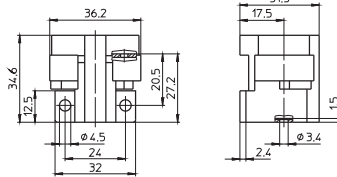
Central fixing hole for screw M3

Weight: 12.4 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 35006

Ref. No.: 101306



G23 surface-mounted lampholder

Front fixing holes for screws M3

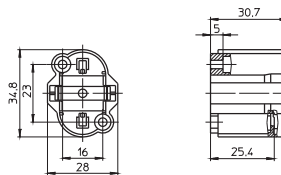
Rear fixing holes for self-tapping screws acc. to ISO 1481/7049-ST4.2-C/F

Weight: 11.9 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 35012

Ref. No.: 108898



G23 push-fit lampholder

Split pins for wall thickness up to 1.2 mm

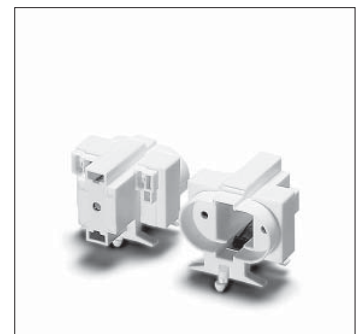
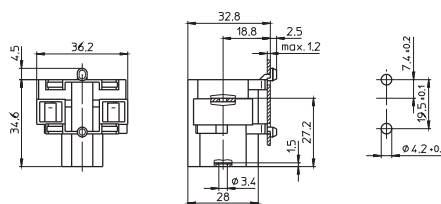
Central fixing hole for screw M3

Weight: 12 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 35004

Ref. No.: 101298



G23 push-fit lampholder

Push-fit foot for wall thickness 0.8–1.3 mm

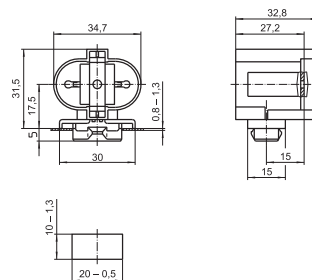
Central fixing hole for screw M3

Weight: 11 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 35051

Ref. No.: 101344



Lampholders for single-ended compact fluorescent lamps

G23 lampholder, for cover caps

External thread 40x2.5 IEC 60399

Central fixing hole for screw M3

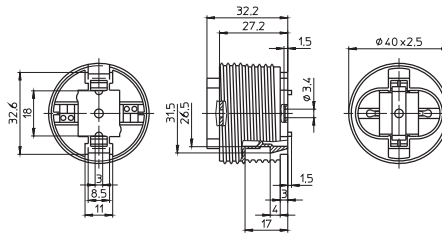
When using the central hole for mounting additional depressions for anti-rotation pips have to be provided.

Weight: 16.3 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 35010

Ref. No.: 101320



2G11 Lampholders

For single-ended compact fluorescent lamps TC-L

2G11 surface-mounted lampholder

Casing: PBT GF, white, T140, nominal rating: 2/500

Push-in twin terminals: 0.5–1 mm² (lamp circuit)

Push-in terminals: 0.5–1 mm² (starter circuit)

Base fixing holes for screws M4

Rear fixing holes for self-tapping screws

acc. to ISO 1481/7049-ST4.2-C/F

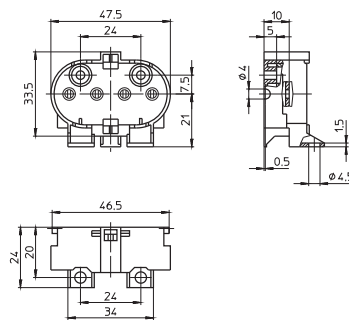
Front fixing holes for screws M3

Weight: 13.7 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 36050

Ref. No.: 101485



2G11 surface-mounted lampholder

Casing: PBT GF, white, T140, nominal rating: 2/500

Push-in twin terminals: 0.5–1 mm² (lamp circuit)

Push-in terminals: 0.5–1 mm² (starter circuit)

Rear fixing holes for self-tapping screws

acc. to ISO 1481/7049-ST4.2-C/F

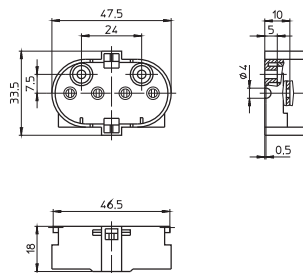
Front fixing holes for screws M3

Weight: 12.7 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 36051

Ref. No.: 101489



2G11 push-fit lampholder

Casing: PBT GF, white, T140, nominal rating: 2/500

Push-in twin terminals: 0.5–1 mm² (lamp circuit)

Push-in terminals: 0.5–1 mm² (starter circuit)

Lamp position: vertical

Rear fixing holes for self-tapping screws

acc. to ISO 1481/7049-ST4.2-C/F

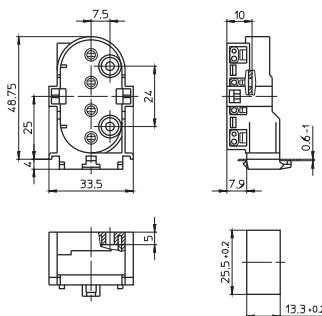
Front fixing holes for screws M3

Weight: 14.3 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 36052

Ref. No.: 101491



2G11 push-fit lampholder

Casing: PBT GF, white, T140, nominal rating: 2/500

Push-in twin terminals: 0.5–1 mm² (lamp circuit)

Push-in terminals: 0.5–1 mm² (starter circuit)

Rear fixing holes for self-tapping screws

acc. to ISO 1481/7049-ST4.2-C/F

Front fixing holes for screws M3

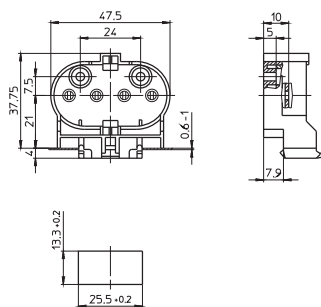
Option for base wiring

Weight: 14.1 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 36053

Ref. No.: 101493



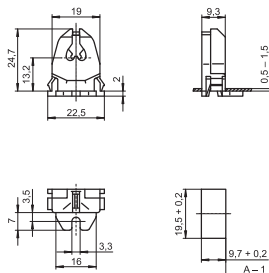
G5 Lampholders, Accessories

For fluorescent lamps T5 (T16)

Max. permitted temperature T_m
on the rear side of the lampholder: 110 °C

G5 push-through/surface-mounted lampholder
Lamp axis push-through lampholder: 13.2 mm
Lamp axis surface-mounted lampholder: 15.2 mm
Casing: PC, white, T110
Nominal rating: 2/500
Push-in terminals: 0.5–1 mm²
Lateral fixing clips for wall thickness 0.5–1.5 mm
Fixing slot for screw M3
Weight: 3.2 g, packaging unit
per box/pallet: 50/1000 pcs., type: 09105

Ref. No.: 100305

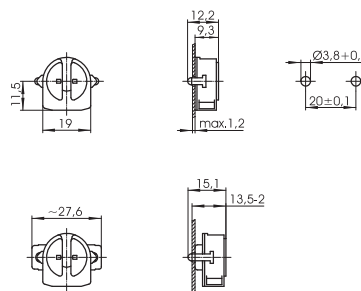


G5 built-in lampholders
Casing: PBT GF, white, rotor: PBT GF, white
T140, nominal rating: 2/500
Push-in twin terminals: 0.5–1 mm²
Rear split pins for wall thickness up to 1.2 mm
Weight: 2.9/3.3 g
Packaging unit per box/pallet: 50/1000 pcs.
Type: 09405

Ref. No.: 505733

Type: 09406 with spring adjustment

Ref. No.: 505734

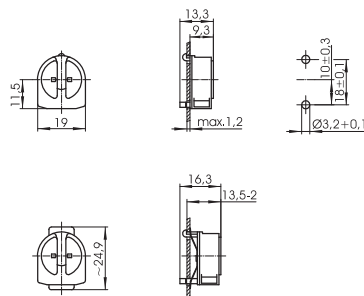


G5 built-in lampholders
Casing: PBT GF, white, rotor: PBT GF, white
T140, nominal rating: 2/500
Push-in twin terminals: 0.5–1 mm²
Rear split pins for wall thickness up to 1.2 mm
Weight: 2.9/3.2 g
Packaging unit per box/pallet: 50/1000 pcs.
Type: 09415

Ref. No.: 505735

Type: 09416 with spring adjustment

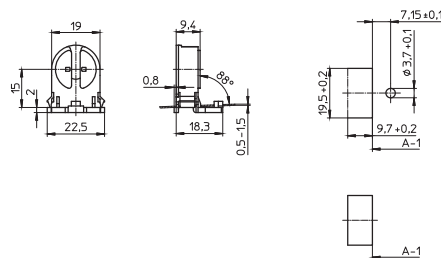
Ref. No.: 505736



G5 push-through lampholders
Lamp axis: 15 mm
Casing: PBT GF, white, rotor: PBT GF, white
T140, nominal rating: 2/500
Push-in twin terminals: 0.5–1 mm²
Lateral fixing clips for wall thickness 0.5–1.5 mm
Weight: 3.5/3.4 g
Packaging unit per box/pallet: 50/1000 pcs.
Type: 09420/09421

Ref. No.: 505737 with stop

Ref. No.: 505739 without stop



Lampholders for tubular fluorescent lamps

G5 push-through lampholders

Lamp axis: 20 mm

Casing: PBT GF, white, rotor: PBT GF, white

T140, nominal rating: 2/500

Push-in twin terminals: 0.5–1 mm²

Lateral fixing clips for wall thickness 0.5–1.5 mm

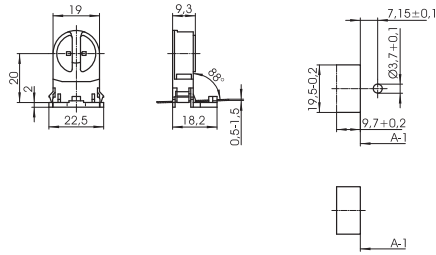
Weight: 3.7 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 09422/09423

Ref. No.: 505740 with stop

Ref. No.: 505741 without stop



G5 push-through lampholders

Lamp axis: 35 mm

Casing: PBT GF, white, rotor: PBT GF, white

T140, nominal rating: 2/500

Push-in twin terminals: 0.5–1 mm²

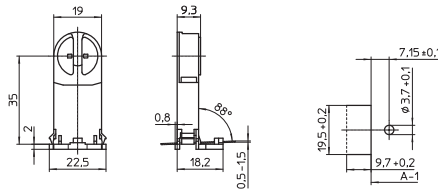
Lateral fixing clips for wall thickness 0.5–1.5 mm

Weight: 4.6 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 09426

Ref. No.: 505745 with stop



G5 push-fit lampholder

Lamp axis: 14 mm

Casing: PBT GF, white, rotor: PBT GF, white

T140, nominal rating: 2/500

Push-in twin terminals: 0.5–1 mm²

Rear fixing clips for wall thickness 0.6–1 mm

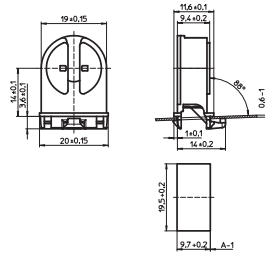
Base or lateral wiring

Weight: 3.3 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 09440

Ref. No.: 505747



G5 push-fit lampholder

Lamp axis: 18 mm

Casing: PBT GF, white, rotor: PBT GF, white

T140, nominal rating: 2/500

Push-in twin terminals: 0.5–1 mm²

Rear fixing clips for wall thickness 0.6–1 mm

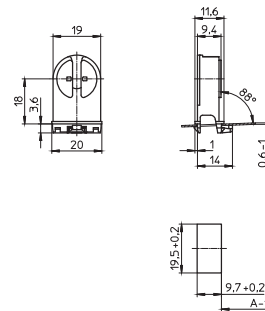
Base or lateral wiring

Weight: 3.9 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 09446

Ref. No.: 545894



G5 push-fit lampholder

Lamp axis: 23 mm

Casing: PBT GF, white, rotor: PBT GF, white

T140, nominal rating: 2/500

Push-in twin terminals: 0.5–1 mm²

Rear fixing clips for wall thickness 0.6–1 mm

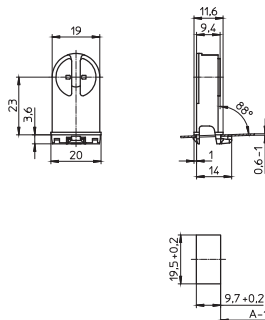
Base or lateral wiring

Weight: 4.2 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 09447

Ref. No.: 545896



Lampholders for tubular fluorescent lamps

G5 push-fit lampholder

Lamp axis: 15 mm

Casing: PBT GF, white, rotor: PBT GF, white

T140, nominal rating: 2/500

Push-in twin terminals: 0.5–1 mm²

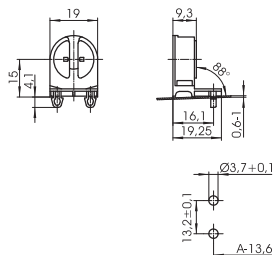
Base split pins for wall thickness 0.6–1 mm

Weight: 3.4 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 09450

Ref. No.: 505750



G5 push-fit lampholder

Lamp axis: 11.8 mm

Casing: PBT GF, white, rotor: PBT GF, white

T140, nominal rating: 2/500

Push-in twin terminals: 0.5–1 mm²

Base split pins for wall thickness up to 1 mm

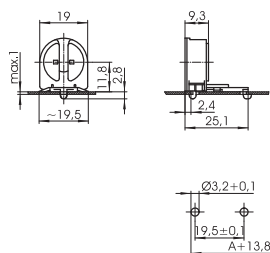
Lateral wiring

Weight: 3.1 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 09460

Ref. No.: 505751



G5 lampholder

For push-fit onto the lamp

Casing: PBT GF, white, T130

Nominal rating: 2/500

Push-in twin terminals: 0.5–1 mm²

Pin support for reliable contact

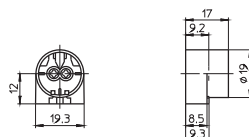
Lamp support 109685 (see page 44)

Weight: 3.7 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 09170

Ref. No.: 109686



G5 Twin Lampholder

For fluorescent lamps T5 (T16)

Max. permitted temperature T_m
on the rear side of the lampholder: 110 °C

G5 built-in lampholder

Casing: PBT GF, white, rotor: PBT GF, white

T140, nominal rating: 2/500

Push-in twin terminals: 0.5–1 mm²

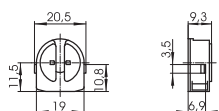
Lateral fixing clips

Weight: 2.8 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 09404

Ref. No.: 505732



Push-fit bracket

For two G5 built-in lampholders 505732

Material: PC, white

Lamp axis: 20 mm

Distance between two lamp axes: 24 mm

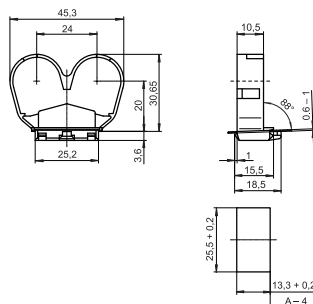
Push-fit foot for wall thickness 0.5–1 mm

Weight: 3.5 g

Packaging unit per box/pallet: 50/500 pcs.

Type: 97677

Ref. No.: 507562



G13 Push-through Lampholders

For fluorescent lamps T8 (T26), T12 (T38)

Lampholders with integrated starter holder have push-in twin terminals for the lamp circuit and push-in terminals for the the starter circuit.

Pin support for reliable contact
Max. permitted temperature T_m
on the rear side of the lampholder: 110 °C

G13 push-through lampholders for lamps T8 and T12

Casing: PC, white, rotor: PBT GF, white

T130, nominal rating: 2/500

Push-in terminals: 0.5–1 mm²

Lateral fixing clips for wall thickness 0.6–2 mm

Weight: 7.5/7.4/9.6/9.6 g

Packaging unit per box/pallet: 50/500 pcs.

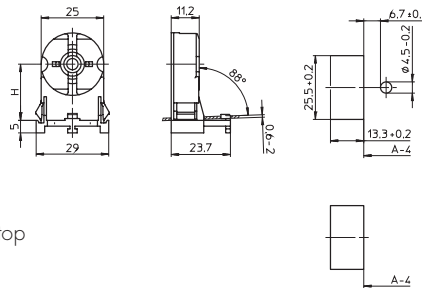
Type: 27700/27701/28740/28741

Ref. No.: 100562 lamp axis H: 22.5 mm, with stop

Ref. No.: 100564 lamp axis H: 22.5 mm, without stop

Ref. No.: 542983 lamp axis H: 31 mm, with stop

Ref. No.: 542984 lamp axis H: 31 mm, without stop



G13 Rotoclic push-through lampholders for lamps T8 and T12

Lamp axis: 23 mm

Casing: PC, white, frontplate: PBT GF, white

T140, nominal rating: 2/500

Push-in terminals: 0.5–1 mm²

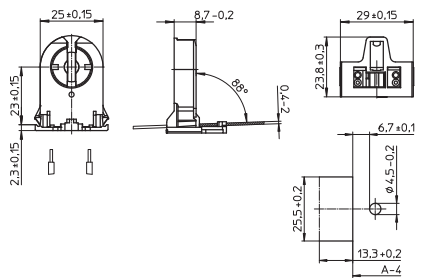
Lateral fixing clips for wall thickness 0.4–2 mm

Weight: 6.8 g, packaging unit per

box/pallet: 50/1000 pcs., type: 27700/27701

Ref. No.: 546641 with stop

Ref. No.: 546642 without stop



G13 Rotoclic push-through lampholders for lamps T8, with starter attachment

Lamp axis: 23 mm

Casing: PC, white, frontplate: PBT GF, white

T140, nominal rating: 2/500

Push-in terminals: 0.5–1 mm²

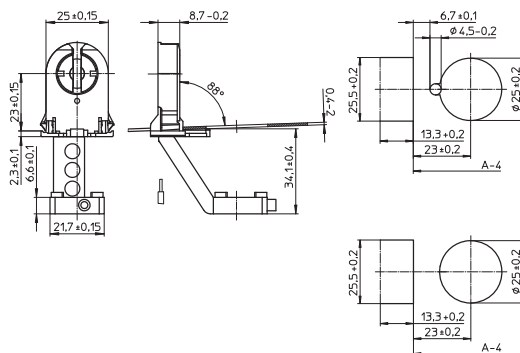
Lateral fixing clips for wall thickness 0.4–2 mm

Weight: 10.4 g, packaging unit per

box/pallet: 50/500 pcs., type: 27800/27801

Ref. No.: 546647 with stop

Ref. No.: 546648 without stop



G13 push-through lampholders for lamps T8 and T12

Lamp axis: 22.5 mm

Casing: PC, white, rotor: PBT GF, white

T130, nominal rating: 2/500

Push-in terminals: 0.5–1 mm²

Lateral fixing clips for wall thickness 0.4–2 mm

Right or left side entry

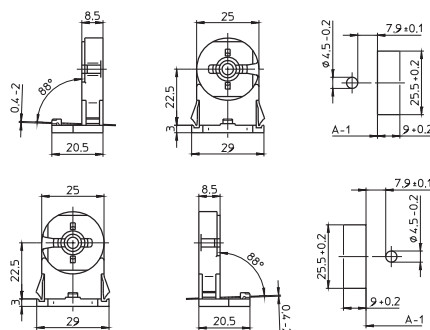
Ideal use for display and undercabinet application

Weight: 6 g, packaging unit per box/pallet: 50/500 pcs.

Type: 29000/29010 with stop

Ref. No.: 108328 side entry right

Ref. No.: 108331 side entry left



G13 Push-fit Lampholders

For fluorescent lamps T8 (T26), T12 (T38)

Lampholders with integrated starter holder are equipped with big rotor and have push-in twin terminals for the lamp circuit and push-in terminals for the starter circuit. Pin support for reliable contact

Casing: PC, white, frontplate/rotor: PBT GF, white
 Max. permitted temperature T_m on the rear side of the lampholder: 110 °C
 T-Marking acc. to IEC
 IP50 version: push-fit foot with gasket

G13 Rotoclic push-fit lampholders for lamps T8 and T12

T140, nominal rating: 2/500, suitable for Top Test

Lateral push-in terminals: 0.5–1 mm²

Push-fit foot for luminaire cut-out 13.3x25.5 mm with wall thickness 0.6–1 mm

Lampholder foot/luminaire: IP40 (537135: IP50)

Weight: 5.9/5.9/6/6 g

Packaging unit per box/pallet: 50/1000 pcs.

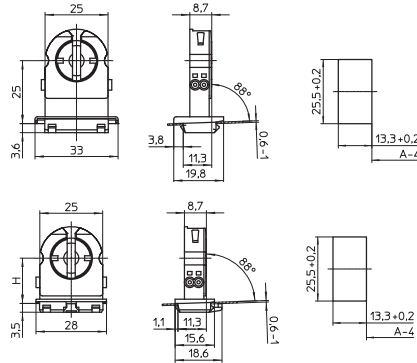
Type: 24100/24110/24170/24150

Ref. No.: 537132 lamp axis H: 25 mm

Ref. No.: 537135 lamp axis H: 25 mm, IP50

Ref. No.: 537150 lamp axis H: 21 mm

Ref. No.: 537144 lamp axis H: 18 mm



G13 Rotoclic push-fit lampholders for lamps T8

T140, nominal rating: 2/500

Suitable for Top Test

Lateral push-in terminals: 0.5–1 mm²

Base split pins for wall thickness up to 1.2 mm

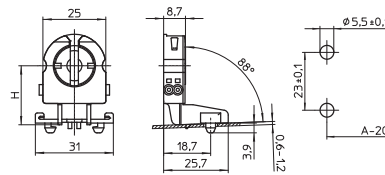
Lampholder foot/luminaire: IP40

Weight: 6/5.8/5.3 g, packaging unit per box/pallet: 50/1000 pcs., type: 23360/23350/23370

Ref. No.: 537160 lamp axis H: 30 mm

Ref. No.: 537157 lamp axis H: 23.5 mm

Ref. No.: 539128 lamp axis H: 18 mm



G13 push-fit lampholders with starter attachment for lamps T8

T130, nominal rating: 2/250

Base push-in terminals: 0.5–1 mm²

Base split pins for wall thickness up to 1.2 mm

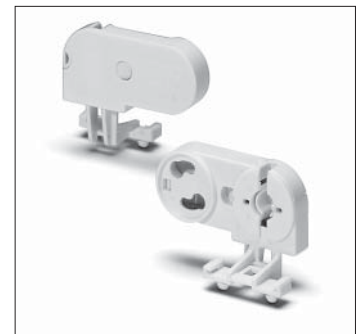
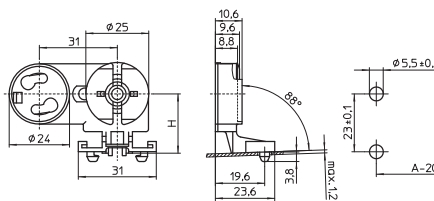
Lampholder foot/luminaire: IP40

Weight: 9.7/9.5 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 27460/27450

Ref. No.: 100557 lamp axis H: 23.5 mm



G13 Push-fit Twin Lampholders, Accessories

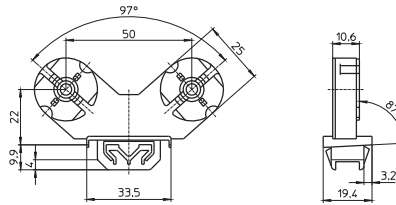
For fluorescent lamps T8 (T26), T12 (T38)

Casing: PC, white, rotor: PBT GF, white
 Pin support for reliable contact
 Max. permitted temperature T_m
 on the rear side of the lampholder: 110 °C

G13 twin lampholder for lamps T8

Lamp axis: 22 mm
 Distance between two lamp axes: 50 mm
 T130, nominal rating: 2/500
 Base wiring
 Push-in terminals: 0.5–1 mm²
 Push-fit foot for wall thickness 1 mm
 Weight: 14 g
 Packaging unit per box/pallet: 400/32000 pcs.
 Type: 22900

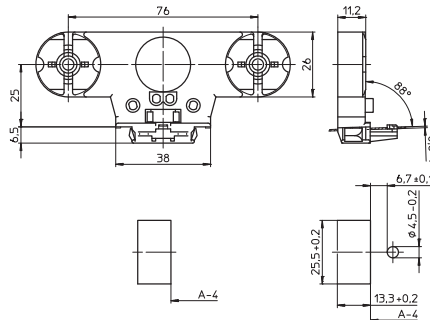
Ref. No.: 108984



G13 twin lampholders for lamps T8 and T12

Lamp axis: 25 mm
 Distance between two lamp axes: 76 mm
 T130, nominal rating: 2/500
 Base push-in twin terminals: 0.5–1 mm² (lamp circuit)
 Base push-in terminals: 0.5–1 mm² (starter circuit)
 Push-fit foot for wall thickness 0.6–1 mm
 Weight: 21 g
 Packaging unit per box: 200 pcs.
 Type: 22604 without starter attachment

Ref. No.: 108816 with stop



G13 Built-in Lampholders

For fluorescent lamps T8 (T26), T12 (T38)

Lampholders with integrated starter holder
 are equipped with big rotor and have
 push-in twin terminals for the lamp circuit and
 push-in terminals for the the starter circuit.
 Pin support for reliable contact

Casing: PC, white, frontplate/rotor: PBT GF, white
 Max. permitted temperature T_m
 on the rear side of the lampholder: 110 °C
 T-Marking acc. to IEC

G13 Rotoclic built-in lampholders for lamps T8 and T12

T140, nominal rating: 2/500
 Base push-in terminals: 0.5–1 mm²
 Rear split pins for wall thickness up to 1.2 mm
 Weight: 5.1/5.9/5/5.5 g
 Packaging unit per box/pallet: 50/1000 pcs.
 Type: 49105/49106 lampholder thickness: 13 mm

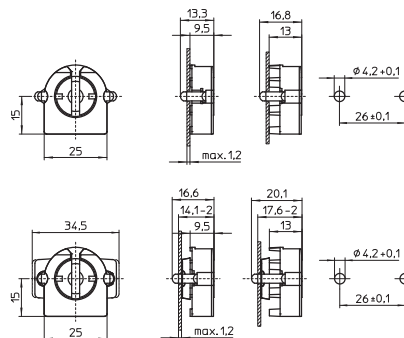
Ref. No.: 537166

Ref. No.: 537167 with spring adjustment

Type: 49505/49506 lampholder thickness: 9.5 mm

Ref. No.: 537174

Ref. No.: 537175 with spring adjustment



Lampholders for tubular fluorescent lamps

G13 lampholder

For push-fitting onto lamps T8

Lampholder thickness: 9.5 mm

Casing: PC, white, T110

Front cover plate: PBT GF, white

Nominal rating: 2/500

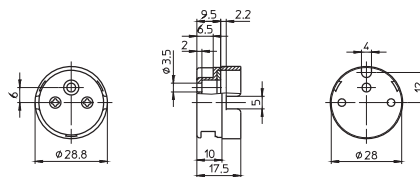
Push-in terminals: 0.5–1 mm²

Fixing hole for screw M3

Weight: 5.3 g, packaging unit per

box/pallet: 50/1000 pcs., type: 47900

Ref. No.: 101784



G13 lampholder with starter attachment

For push-fitting onto lamps T8

Lampholder thickness: 9.5 mm

Casing: PC, white, T110

Front cover plate: PBT GF, white

Nominal rating: 2/250

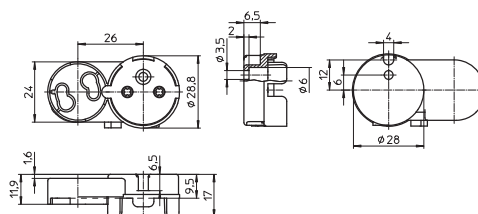
Push-in terminals: 0.5–1 mm²

Fixing hole for screw M3

Weight: 8.1 g, packaging unit per

box/pallet: 50/500 pcs., type: 47920

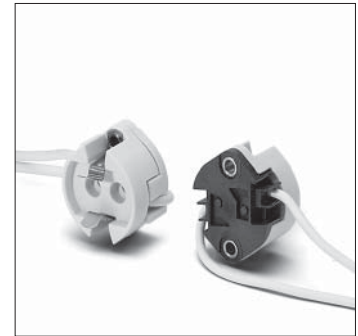
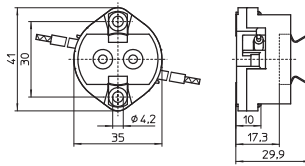
Ref. No.: 101785



G12 Lampholders

For discharge lamps with base G12

G12 lampholders
 Casing: ceramic
 T250, nominal rating: 5/500/5 kV
 Contacts: CrNi
 Welded leads: Cu tinned, stranded conductors 1 mm²
 Si-insulation, white, length: 300 mm
 Weight: 43 g
 Packaging unit per box: 25 pcs.
 Type: 42222
Ref. No.: 535755 cover plate: LCP

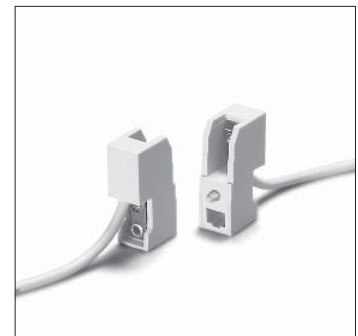
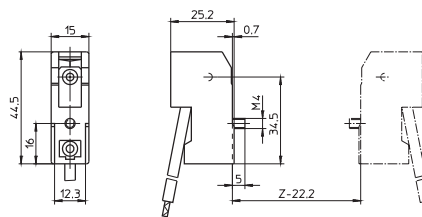


RX7s Lampholders

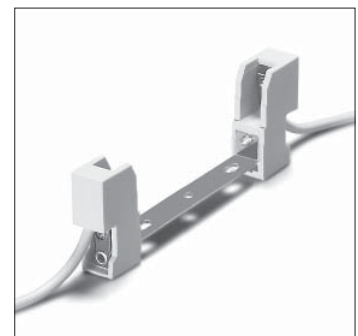
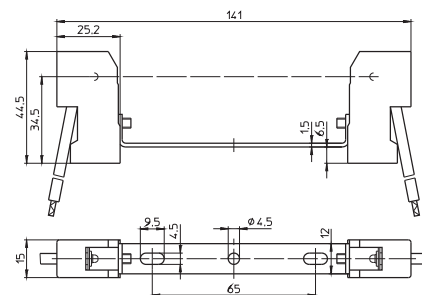
If the central hole on the bracket is used for fixing it has to be ensured by an additional support within the luminaire that the bracket cannot be deformed. If the lampholders are used for lamps with ignition voltage max. 20 kV the luminaire manufacturer is responsible for sufficient creepage distances and clearances.

Remark on lampholders type 323:
 The luminaire design must ensure protection from electric shock as well as sufficient creepage distances and clearances from live parts on the back of lampholder.

Partly enclosed RX7s lampholder
 Casing: ceramic, T350
 Contact pin: Cu, silver bulb
 Nominal rating: 4/500/5 kV
 Lead: Cu tinned, stranded conductors 1 mm²,
 Si-insulation max. Ø 3.6 mm, length: 200 mm
 Fixing screw M4
 Weight: 26.2 g
 Packaging unit per box/pallet: 50/300 pcs.
 Type: 32301
Ref. No.: 100913



Partly enclosed RX7s lampholder
 Casing: ceramic, T350
 Contact pin: Cu, silver bulb
 Nominal rating: 4/500/5 kV
 Leads: Cu tinned, stranded conductors 1 mm²,
 Si-insulation max. Ø 3.6 mm, length: 200 mm
 Oblong holes for screws M4
 Central hole for screw M4
 Weight: 74 g
 Packaging unit per box/pallet: 50/200 pcs.
 Type: 32341 contact distance: 114.2 mm
Ref. No.: 100932



Lampholders for tubular fluorescent lamps

Partly enclosed RX7s lampholder

Casing: ceramic, T350

Contact pin: Cu, silver bulb

Nominal rating: 4/500/5 kV

Leads: Cu tinned, stranded conductors 1 mm²,

Si-insulation max. Ø 3.6 mm, length: 200 mm

Oblong holes for screws M4

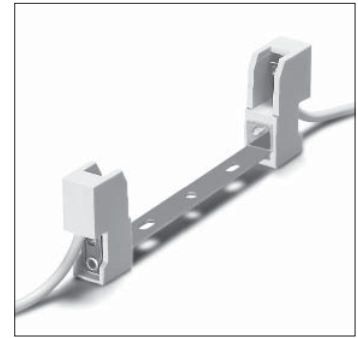
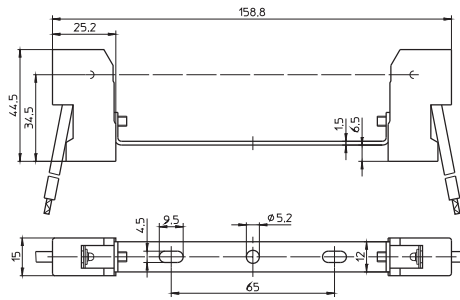
Central hole for screw M5

Weight: 75.7 g

Packaging unit per box/pallet: 50/200 pcs.

Type: 32336 contact distance: 132 mm

Ref. No.: 100931



RX7s lampholder

Casing: ceramic, T250

Contact pin: Ni

Nominal rating: 10/500/5 kV

Lead: Cu tinned, stranded conductors 1 mm²,

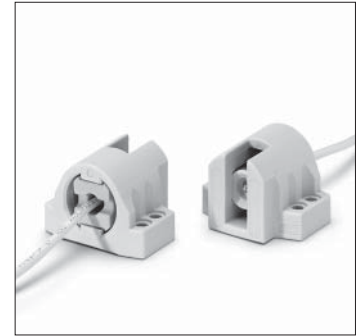
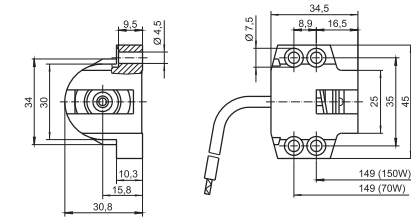
Si-insulation max. Ø 3.6 mm, length: 300 mm

Fixing holes for screws M4

Weight: 72 g, packaging unit per box: 25 pcs.

Type: 30602

Ref. No.: 100723



Fc2 Lampholders

For discharge lamps with base Fc2

If the lampholders are used for lamps with ignition voltage max. 20 kV the luminaire manufacturer is responsible for sufficient creepage distances and clearances.

Fc2 lampholder

Casing: ceramic, T250

Nominal rating: 10/500/5 kV, contacts: Ni

Lead: Cu tinned, stranded conductors 1 mm²,

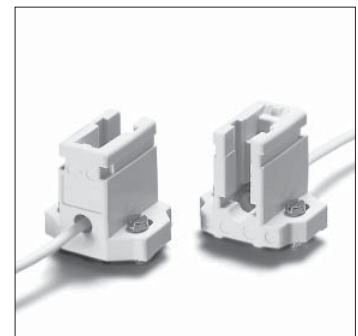
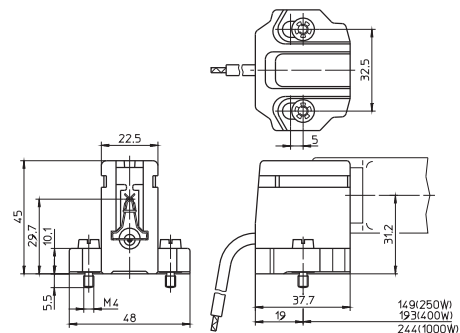
Si-insulation max. Ø 3.6 mm, length: 300 mm

Fixing screws M4, captive

Weight: 102 g, packaging unit per box: 25 pcs.

Type: 02574 rigid fixing

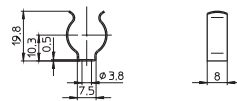
Ref. No.: 100096



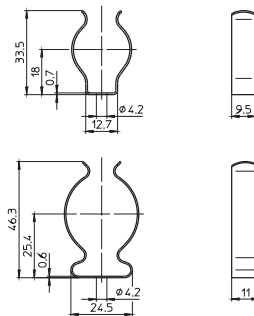
Accessories

The luminaire manufacturer is responsible for the right choice of accessories.

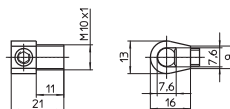
Lamp support for lamps \varnothing 16 mm
 Material: zinc-coated polished steel
 Fixing hole for screw M3.5
 Weight: 1.3 g
 Packaging unit per box/pallet: 50/1000 pcs.
 Type: 94088
Ref. No.: 109685



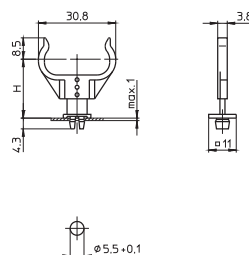
Lamp supports
 Fixing hole for screw M4
 Weight: 4.3/6.8 g
 Packaging unit per box/pallet: 50/500 pcs.
 Type: 20400 for lamps T8
Ref. No.: 100442 material: zinc-coated polished steel
 Type: 20401 for lamps T12
Ref. No.: 100444 material: CrNi-steel



Cable grips
 For leads H03VV-F and H03VVH2-F 2X0.5 or 2X0.75
 Material: PA
 Male nipple: M10x1, length: 11 mm
 With locking screw
 Weight: 1.6/1.5 g
 Packaging unit per box: 1000 pcs.
 Type: 09701
Ref. No.: 109248 white
Ref. No.: 109253 black



Lamp supports for TC-S, TC-SEL lamps
 Height adjustable H: 17.5/20.5/23.5 mm
 Push-fit foot for cut-out \varnothing 5.5 mm for wall thickness up to 1 mm
 Weight: 0.4/0.8/0.8 g
 Packaging unit per box: 500 pcs.
 Type: 35060
Ref. No.: 105775 foot, PC, white
Ref. No.: 105776 bracket, PC, crystal-clear, UV-stabilised



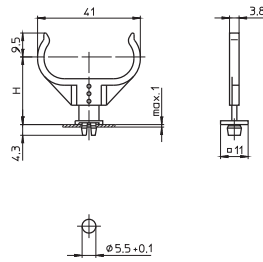
Lamp supports for TC-L lamps
 Height adjustable H: 21/24/27 mm

Push-fit foot for cut-out Ø 5.5 mm
 for wall thickness up to 1 mm

Weight: 0.4/1.3/1.1 g, packaging unit
 per box: 500 pcs., type: 35760

Ref. No.: 105775 foot, PC, white

Ref. No.: 105777 bracket, PC, crystal-clear,
 UV-stabilised



Wires

The luminaire manufacturer is responsible for
 the right choice of accessories.

Ref. No.	Material	Cross section	Ignition voltage	Max. temperature	Colour	Length
Wire 1000	SIF	1 mm ²	5 kV	180 °C	black	3000 m
Wire 3000	SIF	3x1 mm ²	5 kV Cab Tyre	105 °C	red	500 m
Wire 2000	PVC	0.5 mm ²	—	180 °C	white	12000 m
Wire 4000	SIF	0.5 mm ²	—	180 °C	pale blue	8000 m
Wire 5000	SIF	0.5 mm ²	—	180 °C	grey	8000 m
Wire 6000	SIF	0.5 mm ²	—	180 °C	pink	8000 m
Wire 7000	SIF	0.5 mm ²	—	180 °C	white	8000 m
Wire 8000	SIF	0.5 mm ²	—	180 °C	yellow-green	8000 m

Starter and Starter Holders

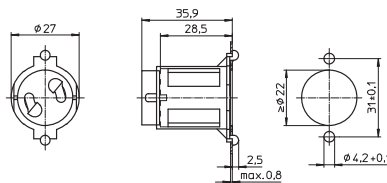
For starters acc. to DIN VDE 0712 part 101, IEC 60155

Starter holders with central studs, suitable for luminaires of protection class II, are available on request.

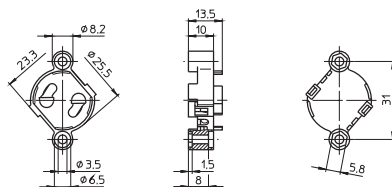
Single starter 4–65 W
Mains voltage: 220–240 V, 50 Hz
Packaging unit per box: 250 pcs.
Ref. No.: GE42760

Tandem starter 2–8/15–22 W
Mains voltage: 220–240 V, 50 Hz
Packaging unit per box: 250 pcs.
Ref. No.: GE36714

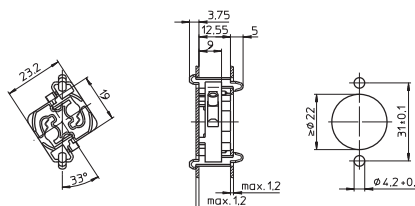
Starter holder with integrated extension piece
Material: PC, white
T110, nominal rating: 2/250
Push-in terminals: 0.5–1 mm²
Front split pins for wall thickness up to 0.8 mm
Weight: 5.4 g
Packaging unit per box/pallet: 50/1000 pcs.
Type: 43300
Ref. No.: 101636



Starter holder
Material: PC, white
T110, nominal rating: 2/250
Push-in terminals: 0.5–1 mm²
Fixing holes for screws M3
Weight: 3.8 g
Packaging unit per box/pallet: 50/1000 pcs.
Type: 02150
Ref. No.: 100069



Starter holder
Material: PC, white
T110, nominal rating: 2/250
Push-in terminals: 0.5–1 mm², single-core
Front and rear split pins for wall thickness up to 1.2 mm
Rear of starter holder/luminaire: IP40
Weight: 2.8 g
Packaging unit per box/pallet: 50/1000 pcs.
Type: 02110
Ref. No.: 109784



Starter holders and terminal blocks

Starter holder

Material: PC, white

T110, nominal rating: 2/250

Push-in terminals: 0.5–1 mm², single-core

Rear split pins for wall thickness up to 1.2 mm

Lateral split pins for wall thickness up to 1 mm

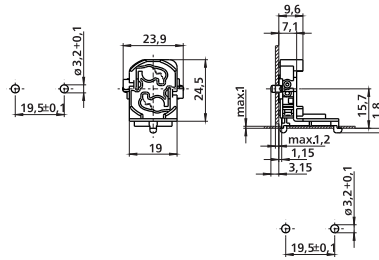
Rear of starter holder/luminaire: IP40

Weight: 3.7 g

Packaging unit per box/pallet: 50/1000 pcs.

Type: 43210

Ref. No.: 109792



Terminal Blocks, Accessories

Terminal blocks

Casing: PA, white

Primary and secondary connection:

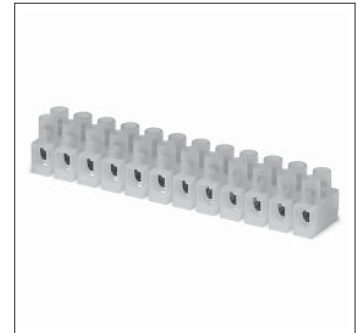
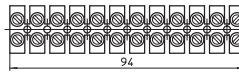
screw terminals

Packaging unit per box: 100 pcs.

Ref. No.: 542501 3-poles, 2.5 mm², 24 A

Ref. No.: 550057 12-poles, 2.5 mm², 24 A

Ref. No.: 556201 12-poles, 6 mm², 41 A



Terminal blocks with fuse holder

3 poles, earth strap M4

Suitable only for solid conductors

on the secondary connection

Material: PC, white, T70

Nominal rating: 250 V

Primary connection: screw terminals 2.5 mm²

Secondary connection:

push-in twin terminals 1.5 mm²

push-in terminal 0.5 mm²

With retaining clip for fuses 5x20 mm

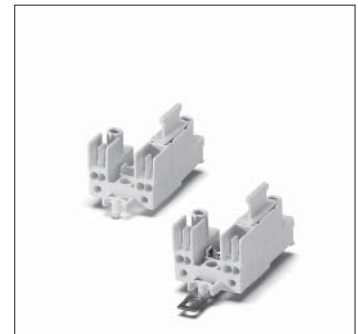
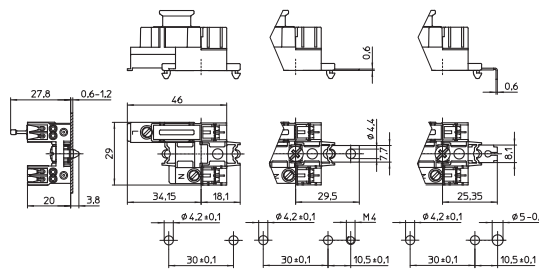
With integrated fuse on request

Base split pins for wall thickness 0.6–1.2 mm

Weight: 11.5 g, packaging unit per

box/pallet: 100/1000 pcs., type: 40672

Ref. No.: 543805



Luminaire Protection Devices – Type 3

For electronic devices

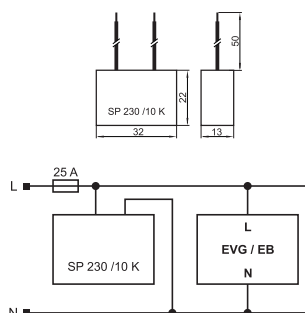
When electronic components form part of lighting systems, it is often necessary to protect such components against power-supply interruptions and electric overloads (power surges).

These can be caused by switching inductive loads or by atmospheric discharges such as lightning striking the mains or the ground. A further cause can be induced voltages from neighbouring cables when working with leading-edge phase-cutting controls.

The protection unit reduces over-voltages at the connection terminals of electronic components. The remaining residual voltage is then reduced to a respective protective level, based on the discharge current.

SP 230/10 K

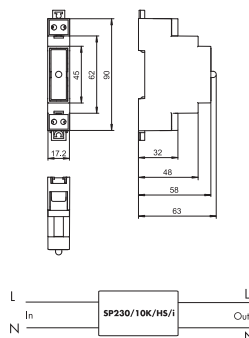
With integrated thermal fuse
Suitable for luminaires of protection class II
Dimensions (LxWxH): 32x22x13 mm
Connecting: solid wire, length: 50 mm
Weight: 20 g
Ref. No.: 147230



SP 230/10 K

SP 230/10 K/HS/i

The green LED indicator will go out if the protective function fails and the protective component has to be replaced
Dimensions (LxWxH): 90x17.2x63 mm
Screw terminals: 0.5–2.5 mm²
Fixation on DIN installation rail
Weight: 45 g
Ref. No.: 147240

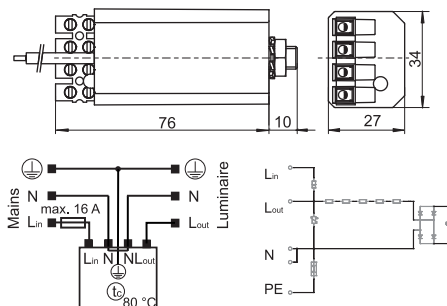


SP 230/10 K/HS/i

SPC 3/230/10 K/i

Once the end of the component's life has been reached, the green LED indicator goes out and the protective component has to be replaced.
Screw terminals: 0.75–2.5 mm²
Lead ground terminal: stranded conductors, 2.5 mm², silicone insulation, length: 150 mm
Degree of protection: IP20

Ref. No.: 142738



SPC 3/230/10 K/i

Type	Ref. No.	Voltage 50/60 Hz V ± 10 %	Max. load current A	Max. impulse voltage U _{OC} (V)	Discharge current* (8/20 μs) I _N (A) I _{max.} (A)	Protection level at discharge current of 1000 A LN (V) LPE (V)	Safety fuse max. A	Max. permitted casing temperature (°C)	Packaging unit (pieces) per box/pallet
SP 230/10 K	147230	220–240	—	10000	5000 10000	≤ 850 V	25	–35 to 80	232/13920
SP230/10 K/HS/i	147240	220–240	16	10000	5000 10000	≤ 1000 V	16	–35 to 80	42/2520
SPC 3/230/10 K/i	142738	100–277	16	10000	5000 10000	< 1500 < 1800	16	–35 to 80	38/2280

* Discharge current: at 5000 A min. 10 strikes; at 10,000 A min. 1 strike

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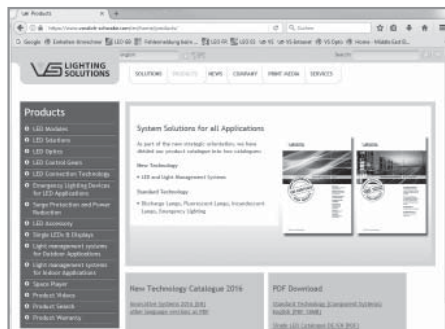
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Whether cost-effective standard components or tailor-made product developments are needed, Vossloh-Schwabe can satisfy even the most diverse market and customer requirements. Vossloh-Schwabe's extensive product portfolio covers all lighting components: LED systems with matching control gear units and state-of-the-art control systems (LiCS) as well as electronic and magnetic ballasts and lampholders.



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