VOSSLOH SCHWABE



Look No Further

Your One Stop Fluorescent Shop

FL/CFL PACKAGES

BALLASTS, LAMPHOLDERS, LAMPS



Vossloh-Schwabe is not merely a manufacturer of top-quality components for the lighting industry, but above all makes a competent and innovative contribution to setting market trends.

Featuring a future-proof component structure that already now satisfies both the requirements of energy-efficient lighting and European standards, VS' unique product range in fluorescent applications includes magnetic and electronic ballasts, state-of-the-art control systems (LiCS Indoor and Outdoor), lampholders and related lamps.

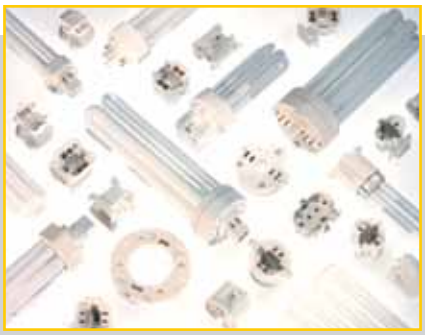
Employing in excess of 1,000 people in more than 20 countries, Vossloh-Schwabe is represented all over the world. As a subsidiary of the Japanese Panasonic Group, VS can draw on extensive resources for R&D as well as for international expansion activities. A highly motivated workforce, comprehensive market knowledge, profound industry expertise as well as eco-awareness and environmental responsibility show Vossloh-Schwabe to be a reliable partner for the provision of optimum and cost-effective lighting solutions.

Vossloh-Schwabe's dedication to delivering superior quality is reflected in its ISO 9001 certification.

Vossloh-Schwabe is ready to embark on a collaborative journey into an economically illuminated future.

RoHS CE





ADVANTAGES OF FULL COMPONENT PACKAGES

- **BETTER COMPATIBILITY**
  Ideally combined and matched components with individual products to form a single functional unit.
- **LONGER SERVICE LIFE**
  Intelligent and versatile solutions tailored to preform efficiently.
- **ONE STOP DELIVERY**
  All under one roof, concerted competence results in exceptional system synergies.
- **GLOBAL PARTNER**
  Compatible lighting solutions with major market brands.
- **ONE AFTER-SALE INTERFACE**
  Customised and dedicated ongoing relationship provided throughout the product life cycle till end of product life.

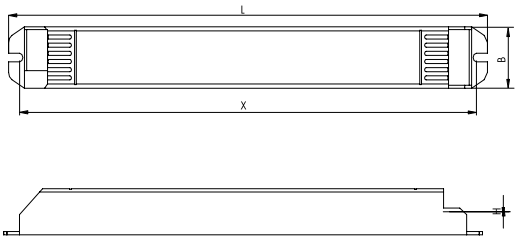


Electronic Ballasts for T5 Linear Fluorescent Lamps



FBC – Rapid Start for T5 Lamps

Electronic built-in ballasts
Casing: heat-resistant polyamide (black)
Power factor: ≥ 0.95
Push-in terminals: 0.5 – 1 mm²
RFI-suppressed
For luminaires of protection class I
Degree of protection: IP20
25,000 hours service life
EOL shut down approved acc.to EN61347

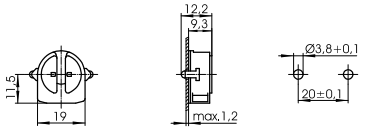


Lamp				Electronic ballast							System	
Output W	Type	Base	Power consumption W	Type	**Ref. No.**	Voltage AC 50, 60 Hz V ±10%	EEI	Ambient temperature t_a (°C)	Casing temperature t_c (°C)	Casing	Output W	Luminous factor %
1x14	T5	G5	1 x 13.0	FBC-114	**540442**	220-230	A3	-5 to 50	max. 75	K63	16.0	> 93
2x14	T5	G5	2 x 14.0	FBC-214	**540430**	220-230	A3	-0 to 50	max. 75	K60	32.0	> 93
1x21	T5	G5	1 x 20.0	FBC-121	**540443**	220-230	A3	-5 to 50	max. 75	K63	22.5	> 93
2x21	T5	G5	2 x 21.0	FBC-221	**540441**	220-230	A3	-5 to 50	max. 75	K62	47.0	> 93
1x28	T5	G5	1 x 27.0	FBC-128	**540444**	220-230	A3	-5 to 50	max. 75	K63	32.0	> 93
2x28	T5	G5	2 x 28.0	FBC-228	**540440**	220-230	A3	-5 to 50	max. 75	K62	62.0	> 93

T5 Lampholders

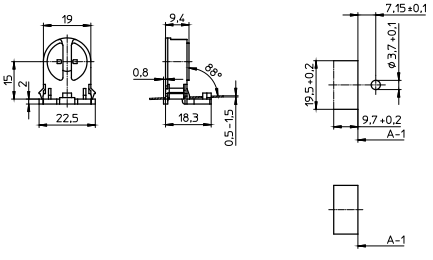
Max. permitted temperature T_m
on the rear side of the lampholder: 110 °C

G5 built-in lampholders
Casing: PBT GF/PC, 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, unit: 1000 pcs.
Type: 09405
Ref. No.: 505733
Type: 09406 with glossy galvanized steel
Ref. No.: 542989





G5 push-through lampholders
Lamp axis: 15 mm
Casing: PBT GF/PC, 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, unit: 1000 pcs.
Type: 09420/09421
Ref. No.: 505737 with stop
Ref. No.: 505739 without stop



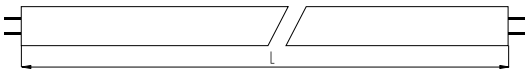


T5 Lamps

T5 HE High Efficiency

Available in amber white, warm white, white and daylight
Wide variety of outputs: 14–35 W
Rated average life: 20,000 hrs.
RoHS compliant
"VS"-branded
Suitable for G5 lampholder
Lamp diameter: 16 mm
Unit: 40 pcs./carton





Lamp								
Output W	Type	**Ref. No.**	Colour temperature K	Voltage V	Current mA	Lumen lm	Length mm	Packaging Qty/Carton
14	T5HE-14-2700	**541000**	2700	82	170	1250	549	40
14	T5HE-14-3000	**541001**	3000	82	170	1250	549	40
14	T5HE-14-4000	**541002**	4000	82	170	1250	549	40
14	T5HE-14-6500	**541003**	6500	82	170	1150	549	40
21	T5HE-21-2700	**541004**	2700	123	170	2000	849	40
21	T5HE-21-3000	**541005**	3000	123	170	2000	849	40
21	T5HE-21-4000	**541006**	4000	123	170	2000	849	40
21	T5HE-21-6500	**541007**	6500	123	170	1900	849	40
28	T5HE-28-2700	**541008**	2700	167	170	2600	1149	40
28	T5HE-28-3000	**541009**	3000	167	170	2600	1149	40
28	T5HE-28-4000	**541010**	4000	167	170	2600	1149	40
28	T5HE-28-6500	**541011**	6500	167	170	2400	1149	40
35	T5HE-35-2700	**541012**	2700	209	170	3300	1449	40
35	T5HE-35-3000	**541013**	3000	209	170	3300	1449	40
35	T5HE-35-4000	**541014**	4000	209	170	3300	1449	40
35	T5HE-35-6500	**541015**	6500	209	170	3000	1449	40

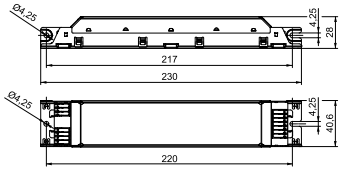
Electronic Ballasts for T5 Linear Fluorescent Lamps



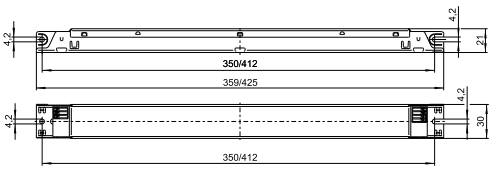
ELXc – Warm Start for T5 Lamps

Electronic built-in ballasts
Casing: metal
Power factor: ≥ 0.95
Push-in terminals: 0.5 – 1 mm²
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

M8



M10/M11

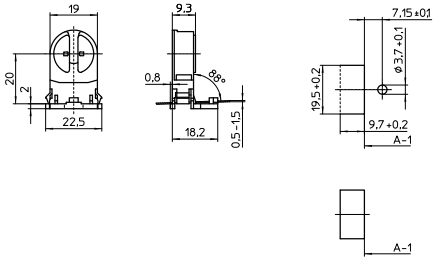


Lamp				Electronic ballast							System	
Output W	Type	Base	Power consumption W	Type	**Ref. No.**	Voltage AC 50, 60 Hz V±10%	Energy efficiency	Ambient temperature t_a (°C)	Casing temperature t_c (°C)	Casing	Output W	Luminous factor %
24	T5	G5	1 x 22.5	ELXc 140.862	**188140**	220-240	A2 BAT	-15 to 55	max. 70	M10	27.0	114.0
2x24	T5	G5	2 x 22.5	ELXc 240.863	**188616**	220-240	A2 BAT	-15 to 55	max. 70	M10	51.0	107.4
3x24	T5	G5	3 x 21.5	ELXc 424.223	**183039**	220-240	A2 BAT	-15 to 55	max. 75	M8	76.0	98.2
4x24	T5	G5	4 x 21.5	ELXc 424.223	**183039**	220-240	A2 BAT	-15 to 50	max. 75	M8	96.5	98.4
39	T5	G5	1 x 38.0	ELXc 140.862	**188140**	220-240	A2 BAT	-15 to 55	max. 70	M10	43.0	107.0
2x39	T5	G5	2 x 38.0	ELXc 240.863	**188616**	220-240	A2 BAT	-15 to 55	max. 70	M10	82.0	97.9
49	T5	G5	1 x 49.0	ELXc 149.858	**188095**	220-240	A2 BAT	-15 to 55	max. 70	M10	54.0	102.5
2x49	T5	G5	2 x 49.0	ELXc 249.859	**188617**	220-240	A2 BAT	-15 to 50	max. 70	M10	113.0	106.6
54	T5	G5	1 x 54.0	ELXc 154.864	**188142**	220-240	A2 BAT	-15 to 55	max. 70	M10	59.0	101.1
2x54	T5	G5	2 x 54.0	ELXc 254.865	**188618**	220-240	A2 BAT	-15 to 50	max. 70	M10	119.0	106.0
80	T5	G5	1 x 80.0	ELXc 180.866	**188144**	220-240	A2 BAT	-15 to 55	max. 70	M10	87.0	97.6
2x80	T5	G5	2 x 80.0	ELXc 280.538	**188619**	220-240	A2 BAT	-15 to 50	max. 70	M11	175.0	97.2

T5 Lampholders

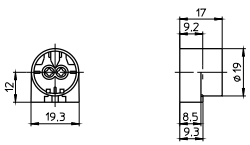
Max. permitted temperature T_m
on the rear side of the lampholder: 110 °C

G5 push-through lampholders
Lamp axis: 20 mm, casing: PBT GF/PC, 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: 3.6 g, unit: 1000 pcs.
Type: 09422/09423
Ref. No.: 505740 with stop
Ref. No.: 505741 without stop





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
Weight: 3.7 g, unit: 1000 pcs.
Type: 09170
Ref. No.: 109686



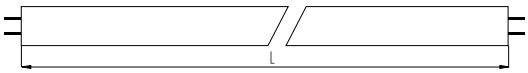


T5 Lamps

T5 HO High Output

Available in amber white, warm white, white and daylight
Wide variety of outputs: 24–80 W
Rated average life: 20,000 hrs.
RoHS compliant, "VS"-branded
Suitable for G5 lampholder
Lamp diameter: 16 mm





Lamp								
Output W	Type	**Ref. No.**	Colour temperature K	Voltage V	Current mA	Lumen lm	Length mm	Packaging Qty/Carton
24	T5HO-24-2700	**541016**	2700	75	300	1750	549	40
24	T5HO-24-3000	**541017**	3000	75	300	1750	549	40
24	T5HO-24-4000	**541018**	4000	75	300	1750	549	40
24	T5HO-24-6000	**541019**	6500	75	300	1650	549	40
39	T5HO-39-2700	**541020**	2700	112	340	3100	849	40
39	T5HO-39-3000	**541021**	3000	112	340	3100	849	40
39	T5HO-39-4000	**541022**	4000	112	340	3100	849	40
39	T5HO-39-6500	**541023**	6500	112	340	2950	849	40
49	T5HO-49-2700	**541024**	2700	191	250	4300	1449	40
49	T5HO-49-3000	**541025**	3000	191	250	4300	1449	40
49	T5HO-49-4000	**541026**	4000	191	250	4300	1449	40
49	T5HO-49-6500	**541027**	6500	191	250	4100	1449	40
54	T5HO-54-2700	**541028**	2700	118	460	4900	1149	40
54	T5HO-54-3000	**541029**	3000	118	460	4900	1149	40
54	T5HO-54-4000	**541030**	4000	118	460	4900	1149	40
54	T5HO-54-6500	**541031**	6500	118	460	4700	1149	40
80	T5HO-80-2700	**541032**	2700	145	555	6250	1449	40
80	T5HO-80-3000	**541033**	3000	145	555	6250	1449	40
80	T5HO-80-4000	**541034**	4000	145	555	6250	1449	40
80	T5HO-80-6500	**541035**	6500	145	555	6000	1449	40

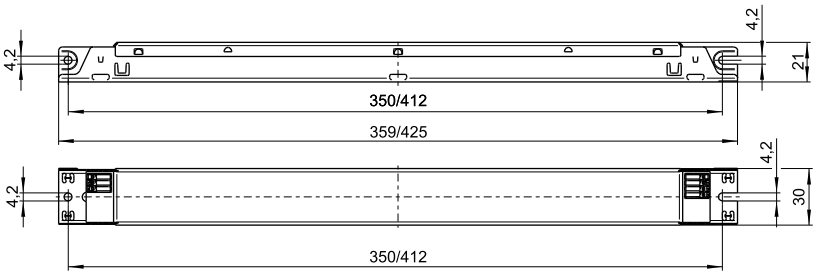
Electronic Ballasts for TC-L Compact Fluorescent Lamps



ELXc – Warm Start for TC-L Lamps

Electronic built-in ballasts
Casing: metal
Power factor: > 0.96
DC voltage
for operation: 176–264 V
for ignition: 198–264 V
(ELXc 180.866, 280.538: DC voltage cannot be reduced to 176 V)
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 approved
acc. to EN 61347 Test 2

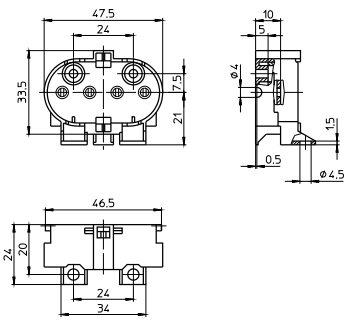
M10/M11



Lamp				Electronic ballast							System	
Output W	Type	Base	Power consumption W	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	Luminous factor %
18	TC-L	2G11	1 x 16.0	ELXc 140.862	**188140**	220-240	A2	-15 to 55	max. 70	M10	19.0	109.0
2x18	TC-L	2G11	2 x 16.0	ELXc 240.863	**188616**	220-240	A2 BAT	-15 to 55	max. 70	M10	35.0	105.3
24	TC-L	2G11	1 x 22.0	ELXc 140.862	**188140**	220-240	A2 BAT	-15 to 55	max. 70	M10	27.0	109.0
2x24	TC-L	2G11	2 x 22.0	ELXc 240.863	**188616**	220-240	A2 BAT	-15 to 55	max. 70	M10	51.0	106.8
36	TC-L	2G11	1 x 32.0	ELXc 140.862	**188140**	220-240	A2	-15 to 55	max. 70	M10	35.0	101.0
2x36	TC-L	2G11	2 x 32.0	ELXc 240.863	**188616**	220-240	A2 BAT	-15 to 55	max. 70	M10	71.0	98.7
40	TC-L	2G11	1 x 40.0	ELXc 140.862	**188140**	220-240	A2	-15 to 55	max. 70	M10	46.0	104.0
2x40	TC-L	2G11	2 x 40.0	ELXc 240.863	**188616**	220-240	A2 BAT	-15 to 55	max. 70	M10	89.0	103.6
55	TC-L	2G11	1 x 55.0	ELXc 180.866	**188144**	220-240	A2 BAT	-15 to 55	max. 70	M10	62.0	107.3
2x55	TC-L	2G11	2 x 50.0	ELXc 254.865	**188618**	220-240	A2 BAT	-15 to 50	max. 70	M10	112.0	92.9
			2 x 55.0	ELXc 280.538	**188619**	220-240	A2 BAT	-15 to 50	max. 70	M11	120.0	100.0

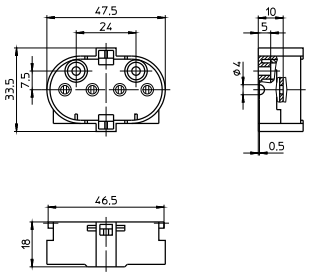
TC-L Lampholders

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)
Lateral pivots for bracket 105824
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, unit: 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)
Lateral pivots for bracket 105824
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, unit: 500 pcs.
Type: 36051
Ref. No.: 101489



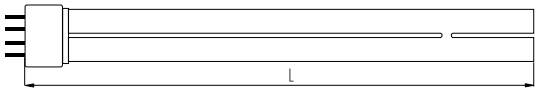


Compact Fluorescent Lamps TC-L

TC-L Single Tube

Available in amber white, warm white and white
Wide variety of outputs: 18–55 W
Rated average life: 12,000 hrs.
RoHS compliant
"VS"-branded
Suitable for 2G11 lampholder
Lamp diameter: 17 mm





Lamp								
Output W	Type	**Ref. No.**	Colour temperature K	Voltage V	Current mA	Lumen lm	Length mm	Packaging Qty/Carton
18	TCL-18-2700	**541036**	2700	58	375	1300	221	50
18	TCL-18-3000	**541037**	3000	58	375	1300	221	50
18	TCL-18-4000	**541038**	4000	58	375	1300	221	50
24	TCL-24-2700	**541039**	2700	87	345	1800	316	50
24	TCL-24-3000	**541040**	3000	87	345	1800	316	50
24	TCL-24-4000	**541041**	4000	87	345	1800	316	50
36	TCL-36-2700	**541042**	2700	106	435	2920	411	50
36	TCL-36-3000	**541043**	3000	106	435	2920	411	50
36	TCL-36-4000	**541044**	4000	106	435	2920	411	50
40	TCL-40-2700	**541045**	2700	126	320	3320	531	50
40	TCL-40-3000	**541046**	3000	126	320	3320	531	50
40	TCL-40-4000	**541047**	4000	126	320	3320	531	50
55	TCL-55-2700	**541051**	2700	101	550	4700	531	50
55	TCL-55-3000	**541052**	3000	101	550	4700	531	50
55	TCL-55-4000	**541053**	4000	101	550	4700	531	50

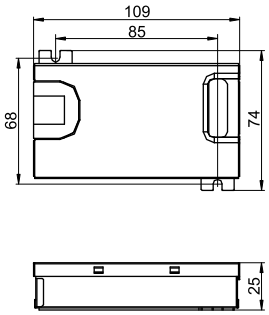
Electronic Ballasts for TC-DEL/TC-TEL Compact Fluorescent Lamps

CBC – Rapid Start for Compact

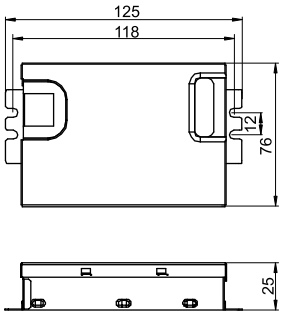
Electronic built-in ballasts
Casing: metal, grey and white lacquered
Power factor: ≥ 0.95
Push-in terminals: 0.5 – 1 mm²
RFI-suppressed
THD: 17%
For luminaires of protection class I
Degree of protection: IP20
25,000 hours service life
EOL shut down approved acc. to
EN 61347



M70



M71



Lamp				Electronic ballast							System	
Output W	Type	Base	Power consumption W	Type	**Ref. No.**	Voltage AC 50, 60 Hz V±10%	Energy efficiency	Ambient temperature t_a (°C)	Casing temp. t_c (°C)	Casing	Output W	Luminous factor %
13	TC-DEL/-TEL	G24q-1/GX24q-1	1 x 13.0	CBC-113	**540420**	220-230	A3	-10 to 50	max. 75	M70	16.0	> 93
2x13	TC-DEL/-TEL	G24q-1/GX24q-1	2 x 13.0	CBC-213	**540424**	220-230	A3	-10 to 50	max. 75	M70	30.0	> 93
18	TC-DEL/-TEL	G24q-2/GX24q-2	1 x 17.0	CBC-118	**540421**	220-230	A3	-10 to 50	max. 75	M70	20.0	> 93
2x18	TC-DEL/-TEL	G24q-2/GX24q-2	2 x 16.5	CBC-218	**540425**	220-230	A3	-10 to 50	max. 75	M70	40.0	> 93
26	TC-DEL/-TEL	G24q-3/GX24q-3	1 x 24.0	CBC-126	**540422**	220-230	A3	-10 to 50	max. 75	M70	27.0	> 93
2x26	TC-DEL/-TEL	G24q-3/GX24q-3	2 x 24.0	CBC-226-142	**540426**	220-230	A3	-10 to 50	max. 75	M71	55.0	> 93
32	TC-DEL/-TEL	G24q-3/GX24q-3	1 x 32.0	CBC-132	**540423**	220-230	A3	-10 to 50	max. 75	M70	35.0	> 93
42	TC-DEL/-TEL	G24q-4/GX24q-4	1 x 42.0	CBC-226-142	**540426**	220-230	A3	-10 to 50	max. 75	M71	48.0	> 93

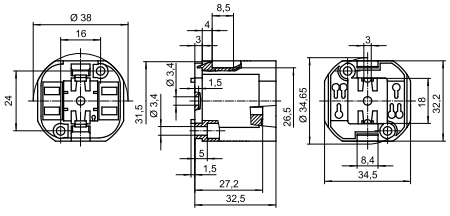
TC-DEL/-TEL Lampholders with Base G24q/GX24q

Plain Casing – Keyless Version

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.

G24q, GX24q lampholder
Nominal lamp output: 10, 13, 18, 26, 32, 42 W
Plain casing, casing: PBT GF, white, T140
Nominal rating: 2/500
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, for cover caps
Weight: 16.5 g, unit: 500 pcs.
Type: 71510
Ref. No. 527738

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)



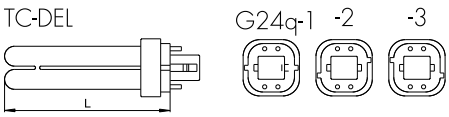


Compact Fluorescent Lamps TC-DEL and TC-TEL



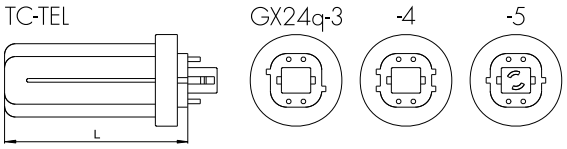
TC-DEL – Double Tube

Available in amber white, warm white and white
Wide variety of outputs: 13–26 W
Rated average life: 12,000 hrs.
RoHS compliant
"VS"-branded
Suitable for G24q lampholder
Lamp diameter: 12 mm



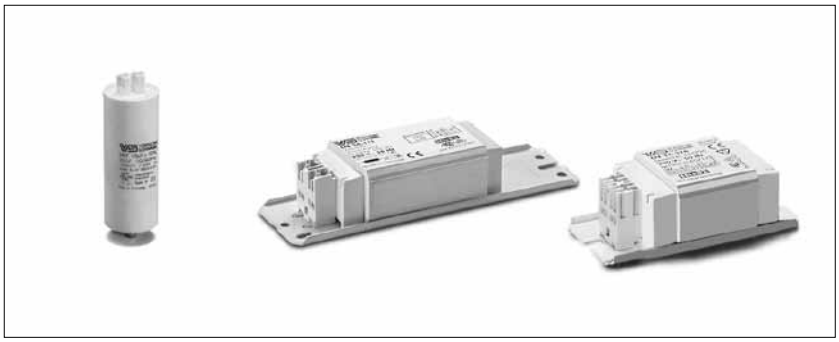
TC-TEL – Triple Tube

Available in amber white, warm white and white
Wide variety of outputs: 26–57 W
Rated average life: 12,000 hrs.
RoHS compliant
"VS"-branded
Suitable for GX24q lampholder
Lamp diameter: 12 mm



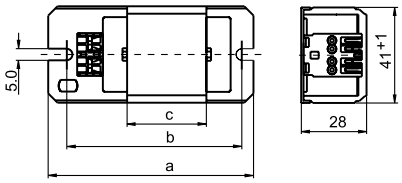
Lamp									
Output W	Base	Type	**Ref. No.**	Colour temperature K	Voltage V	Current mA	Lumen lm	Length mm	Packaging Qty./Carton
13	G24q-1	TCDEL-13-2700	**541054**	2700	91	175	900	112	50
13	G24q-1	TCDEL-13-3000	**541055**	3000	91	175	900	112	50
13	G24q-1	TCDEL-13-4000	**541056**	4000	91	175	900	112	50
18	G24q-2	TCDEL-18-2700	**541057**	2700	100	220	1200	127.5	50
18	G24q-2	TCDEL-18-3000	**541058**	3000	100	220	1200	127.5	50
18	G24q-2	TCDEL-18-4000	**541059**	4000	100	220	1200	127.5	50
26	G24q-3	TCDEL-26-2700	**541060**	2700	105	325	1780	147.5	50
26	G24q-3	TCDEL-26-3000	**541061**	3000	105	325	1780	147.5	50
26	G24q-3	TCDEL-26-4000	**541062**	4000	105	325	1780	147.5	50
26	GX24q-3	TCTEL-26-2700	**541063**	2700	105	325	1790	112	50
26	GX24q-3	TCTEL-26-3000	**541064**	3000	105	325	1790	112	50
26	GX24q-3	TCTEL-26-4000	**541065**	4000	105	325	1790	112	50
32	GX24q-3	TCTEL-32-2700	**541066**	2700	100	320	2400	125	50
32	GX24q-3	TCTEL-32-3000	**541067**	3000	100	320	2400	125	50
32	GX24q-3	TCTEL-32-4000	**541068**	4000	100	320	2400	125	50
42	GX24q-4	TCTEL-42-2700	**541069**	2700	135	320	3200	148	50
42	GX24q-4	TCTEL-42-3000	**541070**	3000	135	320	3200	148	50
42	GX24q-4	TCTEL-42-4000	**541071**	4000	135	320	3200	148	50
57	GX24q-5	TCTEL-57-2700	**541072**	2700	182	320	4250	179	50
57	GX24q-5	TCTEL-57-3000	**541073**	3000	182	320	4250	179	50
57	GX24q-5	TCTEL-57-4000	**541074**	4000	182	320	4250	179	50

Magnetic Packages for Compact Fluorescent Lamps 13–26 W

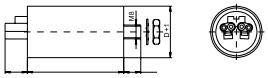


Standard Ballasts 28x41 mm

Vacuum-impregnated with polyester resin
Push-in terminals for leads: 0.5–1 mm²
For the automatic luminaire wiring:
IDC terminals for leads H05V-U 0.5
tw 130, Protection class I
EN 61347 (Safety), EN 60921 (Performance)
Parallel connected capacitors
for 250 V, 50/60 Hz



PC



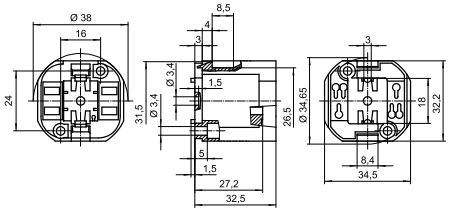
Lamp				Ballast / Capacitor									Capacitor	
Output W	Type	Base	Current mA	Type	**Ref. No.**	V, Hz	a mm	b mm	c mm	Weight kg	Δt K	EEI	C_P µF	Current mA
Electromagnetic ballasts														
13	TC-D/-T	G24d-1/GX24d-1	175	LN 13.103	**175921**	220, 50	85	75	27	0.29	50		2.0	80
18	TC-D/-T	G24d-2/GX24d-2	220	LN 18I.105	**175925**	220, 50	85	75	27	0.29	55		2.0	110
26	TC-D/-T	G24d-3/GX24d-3	325	L 18/20.933	**535428**	220, 50	150	140	45	0.49	70		3.5	140
13	TC-D/-T	G24d-1/GX24d-1	175	L 13.849	**503868**	230, 50	85	75	27	0.29	65	B2	2.0	80
18	TC-D/-T	G24d-2/GX24d-2	220	LN 18I.850	**503871**	230, 50	85	75	27	0.29	65	B2	2.0	110
26	TC-D/-T	G24d-3/GX24d-3	325	LN 26.813	**509502**	230, 50	110	100	45	0.42	55	B2	3.5	140
13	TC-D/-T	G24d-1/GX24d-1	175	LN 13.413	**164342**	240, 50	85	75	34	0.32	60	B1	2.0	80
18	TC-D/-T	G24d-2/GX24d-2	220	LN 18I.418	**538572**	240, 50	85	75	27	0.32	65	B2	2.0	110
26	TC-D/-T	G24d-3/GX24d-3	325	LN 18.102	**534549**	240, 50	155	130	60	0.54	60	B2	3.5	140
13	TC-D/-T	G24d-1/GX24d-1	175	L 13.235	**538576**	220, 60	85	75	27	0.28	50		2.0	110
18	TC-D/-T	G24d-2/GX24d-2	220	L 18I.236	**538577**	220, 60	85	75	27	0.28	50		2.0	110
26	TC-D/-T	G24d-3/GX24d-3	325	L 18.249	**538801**	220, 60	150	140	34	0.32	75		3.0	160

Capacity µF	**Ref. No.**	Temperature range °C	Ø (D) mm	Length (L) mm	Male nipple/ length (mm)	Push-in twin terminals	Weight kg	Unit pcs.
Parallel connected capacitors								
2.0	**500296**	-40 to 85	25	57	M8x10	0.5–1 mm²	22	530
3.0	**500300**	-40 to 85	25	57	M8x10	0.5–1 mm²	22	530
3.5	**500301**	-40 to 85	25	57	M8x10	0.5–1 mm²	22	530

TD-D/TC-T Lampholders with Base G24d/GX24d

Plain Casing – Keyless Version

G24d, GX24d lampholder
Nominal lamp output: 10, 13, 18, 26, 32, 42 W
Plain casing, casing: PBT GF, white, T140
Nominal rating: 2/500
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, for cover caps
Weight: 13.2 g, unit: 500 pcs.
Type: 71500
Ref. No. 534289



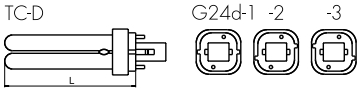


Compact Fluorescent Lamps TC-D and TC-T



TC-D – Double Tube

Available in amber white, warm white and white
Wide variety of outputs: 13–26 W
Rated average life: 12,000 hrs.
RoHS compliant
"VS"-branded
Suitable for G24d lampholder
Lamp diameter: 12 mm



Lamp									
Output W	Base	Type	**Ref. No.**	Colour temperature K	Voltage V	Current mA	Lumen lm	Length mm	Packaging Qty./Carton
13	G24d-1	TCD-13-2700	**541075**	2700	91	175	900	112	50
13	G24d-1	TCD-13-3000	**541076**	3000	91	175	900	112	50
13	G24d-1	TCD-13-4000	**541077**	4000	91	175	900	112	50
18	G24d-2	TCD-18-2700	**541078**	2700	100	220	1200	127.5	50
18	G24d-2	TCD-18-3000	**541079**	3000	100	220	1200	127.5	50
18	G24d-2	TCD-18-4000	**541080**	4000	100	220	1200	127.5	50
26	G24d-3	TCD-26-2700	**541081**	2700	105	325	1780	147.5	50
26	G24d-3	TCD-26-3000	**541082**	3000	105	325	1780	147.5	50
26	G24d-3	TCD-26-4000	**541083**	4000	105	325	1780	147.5	50

LIGHTING TECHNOLOGY PRODUCTS



D-Cube City, Korea



D-CUBE CITY

The brand-new D-Cube City Mall in Seoul, Korea, opened its doors at the end of August 2011. With its exceptional size and spectacular design, the latest landmark in the south-west of Seoul stands out from all other buildings in the proximity.

The complex consists of a 51-storey apartment building as well as a 42-storey mega-mall, which is home to a hotel, office space, department stores, an arts and culture centre, restaurants, relaxing green spaces, a theatre as well as a theme park for children.
A park-like outdoor area, designed with much attention to detail, is available for everyone to enjoy. The challenge of harmoniously blending traditional, Korean elements with a modern ambience was readily accepted by the architecture firm, The Jerde Partnership. The architects succeeded in creating something that really stands out from the crowd: a 6-storey indoor waterfall. The mall's "nature and culture" theme is reflected throughout the entire huge complex. Far from being another conventional shopping centre, the D-Cube City Mall is an experience in itself for young and old.

Without doubt, the lighting concept inside the mall also adds to the experience. The possibility of blending two white tones (2700 K and 4500 K) to create numerous different colour temperatures was decisive for using Vossloh-Schwabe's DualWhite AluLED modules. Warm white begins the day in the mornings, cool white takes over around midday and warm white finishes the day in the evenings. The lighting system in the complex thus mimics natural light, which mall visitors find particularly pleasant and natural.

Customer: Daesung Industrial co., LTD.
Architects: Jerde Partnership, Samwoo Architects & Engineers
Light planning: Design Luna
VS distributor: JK Lighting
Photos: Daesung Industrial co., LTD and Design Luna

SAGRADA FAMÍLIA, BARCELONA

As different as each of the façades of the Sagrada Família are, they do have something in common: each is supremely symbolic. Rather than merely enclose space with walls, Gaudi intended his buildings to tell stories and be an experience in themselves. Gaudi's vision is now slowly being put into practice along with a number of additional modern elements, for instance the decision to use innovative lighting technology in the form of LED spots to perfectly set off the basilica's sacral symbolism.

The interior of the basilica, which has already been completed, soars up



Sagrada Família, Spain



Warehouse, Germany

to an enormous vault supported by stone columns that branch off at the ceiling to form a lace-like canopy. At present these columns are fitted with a total of 40 luminaires, which in turn are equipped with daylight-white LED modules and matching control gear made by Vossloh-Schwabe.

Interior photos: José Tió
Consulting and luminaire design: Anoche Iluminación Arquitectónica
Glass artist: D. Fita

LIGHT MANAGEMENT SYSTEM FOR A WAREHOUSE

More than ever before, present-day light management is expected to be flexible, save energy and be convenient to operate. The new all-round system made by Vossloh-Schwabe, consisting of a light controller, sensor, extender and push buttons, can be programmed without needing a PC or overriding bus system. Instead, the entire lighting system is configured using the controller's integrated display screen and rotary push key.

The DALI-based system can be used to control a max. of 64 luminaires, or luminaire groups, 6 independently configurable standard buttons and up to 16 MultiSensors using a single controller. By connecting an extender, the lighting system can then be extended by up to 64 luminaires per extender. The controller can be mounted on a 35-mm mounting rail. The wireless version of the controller (LW) substantially reduces the installation work required during refurbishment and with that also reduces installation costs. Up to 16 wireless modules can be connected, each with 4 independently configurable radio buttons.

Thanks to the VS LiCS system, the energy consumed by a warehouse (1,320 m², ceiling height of 7 m) can be almost halved from approx. 20,500 kWh p.a. down to 11,500 kWh p.a. by installing 169 luminaires 1x 49 W, a DALI-compliant electronic ballast and MultiSensors. Creating luminaire groups as well as positioning light- and motion-activated MultiSensors additionally provide the comfort and convenience of optimum light –any time you need it. If the sensor fails to register any movement, LiCS will switch the lighting system off, either in its entirety or only in certain sections, or dim it down to the specified minimum value. This removes the need to switch the lighting system on and off manually.

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Whenever an electric light goes on around the world, Vossloh-Schwabe is likely to have made a key contribution to ensuring that everything works at the flick of a switch.

Headquartered in Germany, Vossloh-Schwabe has been a member of the global Panasonic group since 2002 and counts as a technology leader within the lighting sector. Top-quality, high-performance products form the basis of the company's success.

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: electronic and magnetic ballasts, lampholders, state-of-the-art control systems (LiCS), LED systems with matching control gear units as well as OLEDs.



A member of the Panasonic group Panasonic

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