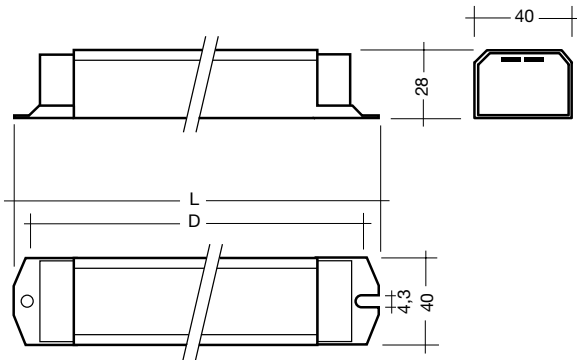
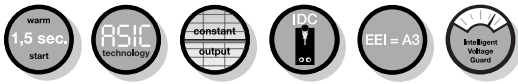


PC T8 PRO 18–70 W 220–240 V 50/60/0 Hz, single lamp and twin lamp



- defined lamp warm start within 1,5 s
- constant light output independent of fluctuations in mains voltage
- AC voltage range 198–254 V
- DC voltage range 176–280 V, for ignition input voltage ≥ 198 V
- power factor > 0.97
- overvoltage protection 320 VAC, 1 h
- overvoltage indication starting at input voltage 267–306 VAC
- undervoltage protection (shut down) below 150 VAC / 176 VDC
- operating frequency ≥ 40 kHz
- suitable for automatic and manual wiring with

- insulation displacement connector (IDC)
- wide operating temperature range from -25°C to $+50^{\circ}\text{C}$
- suitable for use in emergency lighting installations in accordance with VDE 0108
- safe switch off of defective lamps
- automatic re-start after lamp change
- for luminaires with ∇ or ∇ and ∇/∇ in acc. with EN 60598/VDE 0710 and VDE 0711
- suitable for luminaires with protection class SK I and SK II
- Ingress protection IP 20
- thermal protection according to EN 61347-2-3 C5e ∇

Packaging L=234:
25 pieces/carton
30 cartons/pallet
750 pieces/pallet

Packaging L=360:
20 pieces/carton
30 cartons/pallet
600 pieces/pallet

Certified:
EN 55015
EN 55022
EN 61347-2-4
EN 60925
EN 61347-2-3
EN 60929
EN 61000-3-2
EN 61547
in accordance with VDE 0108
IEC 68-2-64 Fh
IEC 68-2-29 Eb
IEC 68-2-30

Lamp		Ballast											
watt- age W	length mm	type	article number	length L mm	fixing centres D mm	weight kg	circuit power W	lamp power W	current at 230V/50Hz mA	λ at 230V/50Hz	tc point $^{\circ}\text{C}$	temperature range $^{\circ}\text{C}$	
18	590	PC 1/18 T8 PRO	220-240V 50/60/0Hz	22087242	234	220	0.28	20.5	16	92	0.97	65	-25 \rightarrow +50
36	1200	PC 1/36 T8 PRO	220-240V 50/60/0Hz	22087582	234	220	0.28	37.4	32	168	0.97	75	-25 \rightarrow +50
58	1500	PC 1/58 T8 PRO	220-240V 50/60/0Hz	22087609	234	220	0.28	57	50	255	0.97	75	-25 \rightarrow +50
70	1800	PC 1/70 T8 PRO	220-240V 50/60/0Hz	22088357	234	220	0.28	70.4	60	315	0.97	75	-25 \rightarrow +50
2x18	590	PC 2/18 T8 PRO	220-240V 50/60/0Hz	22087576	234	220	0.28	41.5	32	186	0.97	70	-25 \rightarrow +50
2x36	1200	PC 2/36 T8 PRO	220-240V 50/60/0Hz	22087598	234	220	0.28	76.5	64	343	0.97	75	-25 \rightarrow +50
2x58	1500	PC 2/58 T8 PRO	220-240V 50/60/0Hz	22087258	234	220	0.28	112	100	502	0.97	75	-25 \rightarrow +50
2x70	1800	PC 2/70 T8 PRO	220-240V 50/60/0Hz	22088341	360	350	0.36	135.5	120	600	0.98	65	-25 \rightarrow +50

Technical data

The PC T8 PRO complies with:

EN 55015
EN 55022
EN 61000-3-2
EN 61347-2-4
EN 60925
EN 61547
EN 61347-2-3
EN 60929
IEC 68-2-64 Fh
IEC 68-2-29 Eb
IEC 68-2-30

CE
ENEC marked
CELMA energy classification EEI = A3

Lamp starting characteristics

Warm start
Starting time 1,5 s with AC and DC operation

AC operation

Mains voltage:
220–240 V 50/60 Hz
198–254 V 50/60 Hz

DC operation

220–240 V 0 Hz
198–280 V 0 Hz certain lamp start
176–280 V 0 Hz operating range
Light output level in DC operation: 100 %

Emergency lighting

Use in emergency lighting installations according to VDE 0108 or for emergency luminaires according to EN 61347-2-3 appendix J.

Instant start after mains interruption < 0.5 s



Intelligent Voltage Guard

Overvoltage indication (lamp flashes) starting at certain voltage level. Undervoltage protection (ballast shut down) at certain voltage level. Automatic restart of ballast within AC/DC operation voltage.

Mains currents in DC operation

Ballast type	Mains current at	Mains current at
	$U_n = 220$ VDC	$U_n = 240$ VDC
PC 1/18 T8 PRO 220-240V 50/60/0Hz	93 mA	89 mA
PC 1/36 T8 PRO 220-240V 50/60/0Hz	172 mA	159 mA
PC 1/58 T8 PRO 220-240V 50/60/0Hz	261 mA	250 mA
PC 1/70 T8 PRO 220-240V 50/60/0Hz	325 mA	298 mA
PC 2/18 T8 PRO 220-240V 50/60/0Hz	189 mA	173 mA
PC 2/36 T8 PRO 220-240V 50/60/0Hz	350 mA	335 mA
PC 2/58 T8 PRO 220-240V 50/60/0Hz	511 mA	488 mA
PC 2/70 T8 PRO 220-240V 50/60/0Hz	617 mA	565 mA

Harmonic distortion in the mains supply

Ballast type	THD
	at 230 V/50 Hz
PC 1/18 T8 PRO 220-240V 50/60/0Hz	< 10 %
PC 1/36 T8 PRO 220-240V 50/60/0Hz	< 10 %
PC 1/58 T8 PRO 220-240V 50/60/0Hz	< 10 %
PC 1/70 T8 PRO 220-240V 50/60/0Hz	< 10 %
PC 2/18 T8 PRO 220-240V 50/60/0Hz	< 10 %
PC 2/36 T8 PRO 220-240V 50/60/0Hz	< 10 %
PC 2/58 T8 PRO 220-240V 50/60/0Hz	< 10 %
PC 2/70 T8 PRO 220-240V 50/60/0Hz	< 10 %

Output voltage

Ballast type	U_{out}
PC 1/18 T8 PRO 220-240V 50/60/0Hz	250 V
PC 1/36 T8 PRO 220-240V 50/60/0Hz	250 V
PC 1/58 T8 PRO 220-240V 50/60/0Hz	250 V
PC 1/70 T8 PRO 220-240V 50/60/0Hz	250 V
PC 2/18 T8 PRO 220-240V 50/60/0Hz	250 V
PC 2/36 T8 PRO 220-240V 50/60/0Hz	250 V
PC 2/58 T8 PRO 220-240V 50/60/0Hz	250 V
PC 2/70 T8 PRO 220-240V 50/60/0Hz	300 V

Ballast lumen factor

EN 60929 8.1

Ballast type	AC/DC-BLF
	at $U = 198-254$ V, 25 °C and 35 °C
PC 1/18 T8 PRO 220-240V 50/60/0Hz	= 1.00
PC 1/36 T8 PRO 220-240V 50/60/0Hz	= 1.00
PC 1/58 T8 PRO 220-240V 50/60/0Hz	= 1.00
PC 1/70 T8 PRO 220-240V 50/60/0Hz	= 1.00
PC 2/18 T8 PRO 220-240V 50/60/0Hz	= 1.00
PC 2/36 T8 PRO 220-240V 50/60/0Hz	= 1.00
PC 2/58 T8 PRO 220-240V 50/60/0Hz	= 1.00
PC 2/70 T8 PRO 220-240V 50/60/0Hz	= 1.00

ASIC light management

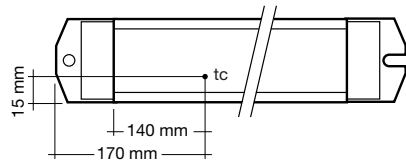
ASIC (Application specific integrated circuit) is the very latest in lighting management design technology. The lamp friendly warm start is delivering maximum T8 lamp life and enables high switching frequency applications.

Energy class CELMA EEI = A3

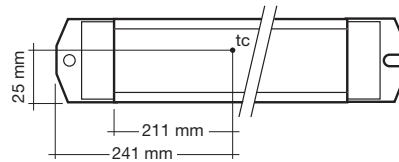
PC T8 PRO complies with Energy Efficiency Index class A3.

Ambient Temperature

-25 °C to +50 °C



L = 234 mm



L = 360 mm

tc point is related to the ballast life duration. PC T8 PRO is designed for an average service life of 50,000 hours under reference conditions and with a failure probability of less than 10%. This corresponds to an average failure rate of 0.2% for every 1,000 hours of operation.

Maximum loading of automatic circuit breakers

Automatic circuit

breaker type	C10	C13	C16	C20	B10	B13	B16	B20
Installation Ø	1.5 mm ²	1.5 mm ²	1.5 mm ²	2.5 mm ²	1.5 mm ²	1.5 mm ²	1.5 mm ²	2.5 mm ²
PC 1/18 T8 PRO	44	62	74	104	22	31	37	52
PC 1/36 T8 PRO	38	52	60	72	19	26	30	36
PC 1/58 T8 PRO	36	50	60	70	18	25	30	35
PC 1/70 T8 PRO	20	26	34	42	10	13	17	21
PC 2/18 T8 PRO	36	50	60	72	18	25	30	36
PC 2/36 T8 PRO	24	32	38	44	12	16	19	22
PC 2/58 T8 PRO	16	22	26	30	8	11	13	15
PC 2/70 T8 PRO	10	14	16	20	5	7	8	10

Wiring advice

The lead length is dependant on the capacitance of the cable.

For safety reasons, the PC T8 PRO must only be earthed in the case of a safety class 1 luminaire. Earthing is not required for the device to operate. Connection to earth reduces radio interference.

With standard solid wire 0,5/0,75 mm² the capacitance of the lead is 30–80 pF/m. This value is influenced by the way the wiring is made. Keep lamp wires short. Lamp connection with twin ballast should be made with symmetrical wiring. Hot leads (9, 10) and cold leads (11, 12, 13, 14) should be separated as much as possible.

Ballast Type	Terminal		Maximum capacitance allowed	
	Cold	Hot	Cold	Hot
PC 1/xx T8 PRO	11, 12	9, 10	300 pF	150 pF
PC 2/xx T8 PRO	11, 12, 13, 14	9, 10	300 pF	150 pF

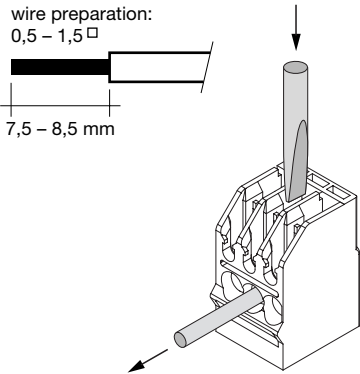
Installation instructions

Wiring type and cross section

Suitable for solid cables from 0.5 to 1.5 mm².

wire preparation:
0,5 – 1,5 □

7,5 – 8,5 mm



RFI

Tridonic ballasts are RFI protected in accordance with EN 55015 and EN 55022. To operate the luminaire correctly and to minimise RFI we recommend the following instructions:

- Connection to the lamps of the "hot leads" must be kept as short as possible
- Mains leads should be kept apart from lamp leads (ideally 5–10 cm distance)
- Do not run mains leads adjacent to the electronic ballast

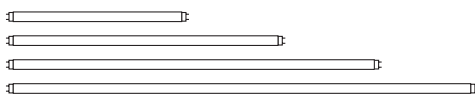
- Twist the lamp leads
- Keep the distance of lamp leads from the metal work as large as possible
- Ballast must be earthed
- Mains wiring to be twisted when through wiring
- Keep the mains leads inside the luminaire as short as possible

Defective lamp

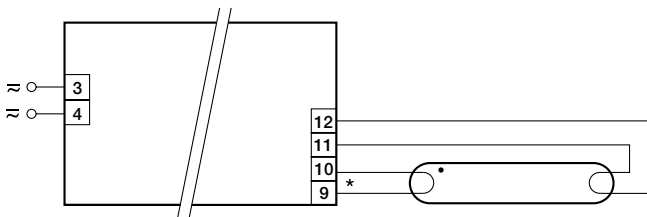
(Broken filament, rectifying effect, gas defect)

If a lamp is defective, the ballast switches off and goes into standby. There is an automatic restart once the lamp has been changed.

T8 lamp information

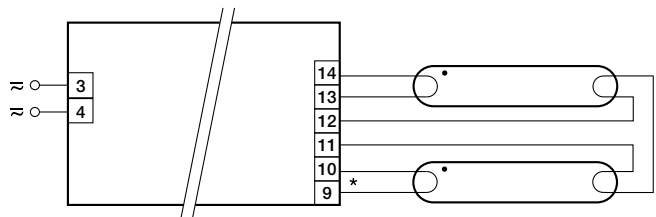


wattage	length
18 W	590 mm
36 W	1200 mm
58 W	1500 mm
70 W	1800 mm



* leads 9, 10 max. 1.0 m (< 150 pF)
leads 11, 12 max. 2.0 m (< 300 pF)
SK I - luminaires: earth of ballast housing required (according to IEC 598)
SK II - luminaires: no earth required

PC 1x18-70 W T8 PRO



* leads 9, 10 max. 1.0 m (< 150 pF)
leads 11, 12, 13, 14 max. 2.0 m (< 300 pF)
SK I - luminaires: earth of ballast housing required (according to IEC 598)
SK II - luminaires: no earth required

PC 2x18-70 W T8 PRO