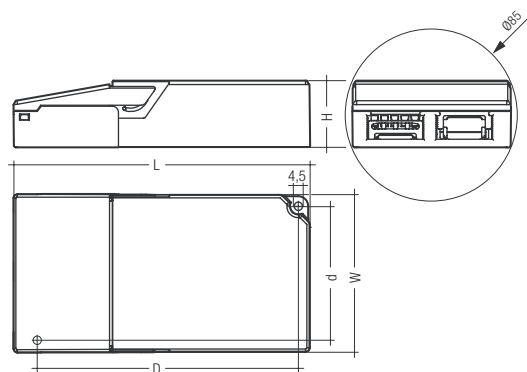




Electronic ballasts for remote mounted applications Compact lamps

PC PRO sr 18–42 W 220–240 V 50/60/0 Hz



- defined lamp warm start in ≤ 1.5 s
- constant light output independent of fluctuations in mains voltage
- Average service life = 50,000 h (at ta max. 50 °C with a failure rate ≤ 0.2 % per 1,000 operating hours)
- AC voltage range 198–264 V
- DC voltage range 176–280 V, for ignition input voltage ≥ 198 V
- overvoltage protection 320 V AC, 1 h
- overvoltage indication ≥ 306 V AC
- undervoltage protection (shut down) below 150 V AC / 176 V DC

- primary and secondary side push terminal
- through-wiring possible
- no tools required for installing the terminal cover and cable clamps
- integrated terminal cover and cable clamp
- safe switch off of defective lamps
- automatic re-start after lamp change
- suitable for luminaires with protection class SK I and SK II
- Ingress protection IP 20
- thermal protection according to EN 61347-2-3 C5e ∇ (PC 2/26/32/42 TCT PRO sr ∇)

Packaging:
15 pieces/carton
36 cartons/pallet
540 pieces/pallet

Approvals:
EN 61347-2-3
EN 60929
EN 61000-3-2
EN 61547
EN 55015 : 2006 +
A1 : 2007
in accordance
with EN 50172

Lamp		Ballast		article number	L x W x H		fixing centres		weight	lamp power W	circuit power W ①	Celma class EEI	current at 50 Hz		λ at 50 Hz		tc point °C	temperature range °C
wattage W	type	type			mm		mm						220 V A	240 V A	220 V	240 V		
2x18	TC-DEL	PC 2/18 TCD PRO sr		22176092	180x79.5x34	157.6	68.6		0.173	33	36.2	A2	0.17	0.16	0.99	0.98	60	-25 → +50
2x18	TC-TEL	PC 2/18 TCD PRO sr		22176092	180x79.5x34	157.6	68.6		0.173	33	36.3	A2	0.17	0.16	0.99	0.98	60	-25 → +50
1x26	TC-DEL	PC 1/26/32/42 TCT PRO sr		22176080	180x79.5x34	157.6	68.6		0.171	24	27.0	A2	0.14	0.13	0.98	0.98	60	-25 → +50
1x26	TC-TEL	PC 1/26/32/42 TCT PRO sr		22176080	180x79.5x34	157.6	68.6		0.171	24	26.9	A2	0.14	0.13	0.98	0.98	60	-25 → +50
2x26	TC-DEL	PC 2/26/32/42 TCT PRO sr		22176076	180x79.5x34	157.6	68.6		0.209	48	53.5	A2	0.27	0.25	0.98	0.97	65	-25 → +50
2x26	TC-TEL	PC 2/26/32/42 TCT PRO sr		22176076	180x79.5x34	157.6	68.6		0.209	48	51.5	A2	0.26	0.24	0.98	0.97	65	-25 → +50
1x32	TC-TEL	PC 1/26/32/42 TCT PRO sr		22176080	180x79.5x34	157.6	68.6		0.171	32	34.7	A2	0.16	0.15	0.99	0.98	60	-25 → +50
2x32	TC-TEL	PC 2/26/32/42 TCT PRO sr		22176076	180x79.5x34	157.6	68.6		0.209	64	67.6	A2	0.31	0.29	0.98	0.98	70	-25 → +50
1x42	TC-TEL	PC 1/26/32/42 TCT PRO sr		22176080	180x79.5x34	157.6	68.6		0.171	42	45.3	A2	0.22	0.20	0.99	0.99	60	-25 → +50
2x42	TC-TEL	PC 2/26/32/42 TCT PRO sr		22176076	180x79.5x34	157.6	68.6		0.209	84	90.2	A2	0.41	0.38	0.99	0.99	80	-25 → +50

① measured according to EN 50294

Lamp starting characteristics

Warm start

Starting time ≤ 1.5 secs with AC and DC operation

Cathode heating will be reduced after preheat time

AC operation

Mains voltage:

220–240 V 50/60 Hz

198–264 V 50/60 Hz including safety

tolerance (±10 %)

202–254 V 50/60 Hz including performance

tolerance (+6 % / -8 %)

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 EN 50172 or for emergency luminaires according to EN 61347-2-3 appendix J.

Instant start after mains interruption < 0.5 s



Intelligent Voltage Guard

Intelligent Voltage Guard is the name of the new electronic monitor from TridonicAtco. This innovative feature of the PC PRO family of control gear from TridonicAtco immediately shows if the mains voltage rises above or falls below certain thresholds. Measures can then be taken quickly to prevent damage to the control gear.

- If the mains voltage rises above ≥ 306 V the lamps start flashing on and off.
- This signal “demands” disconnection of the power supply to the lighting system.
- If the mains voltage falls below 150 V the control gear automatically disconnects the lamp circuit to protect the control gear from being irreparably damaged.



Smart Heating

PC PRO ignition technology (smart heating) optimises lamp start and ensures no energy is wasted. After the lamp has struck the filament heating is reduced automatically to a defined minimum value. This reduction in filament heating, saves energy, yet maintains the proper operating conditions for the lamp. The lamp is always operated within specification.

Mains currents in DC operation

type	lamp type W	wattage Un = 220 VDC	mains current in A at	
			Un = 240 VDC	
PC 2/18 TCD PRO sr	TC-DEL	2x18	0.17	0.15
PC 2/18 TCD PRO sr	TC-TEL	2x18	0.17	0.15
PC 1/26/32/42 TCT PRO sr	TC-DEL	1x26	0.13	0.12
PC 1/26/32/42 TCT PRO sr	TC-TEL	1x26	0.14	0.13
PC 2/26/32/42 TCT PRO sr	TC-DEL	2x26	0.26	0.24
PC 2/26/32/42 TCT PRO sr	TC-TEL	2x26	0.26	0.24
PC 1/26/32/42 TCT PRO sr	TC-TEL	1x32	0.16	0.15
PC 2/26/32/42 TCT PRO sr	TC-TEL	2x32	0.31	0.28
PC 1/26/32/42 TCT PRO sr	TC-TEL	1x42	0.22	0.20
PC 2/26/32/42 TCT PRO sr	TC-TEL	2x42	0.41	0.38

Harmonic distortion in the mains supply

type	lamp type W	wattage at 220–240 V / 50/60 Hz	THD
PC 2/18 TCD PRO sr	TC-DEL	2x18	< 10 %
PC 2/18 TCD PRO sr	TC-TEL	2x18	< 10 %
PC 1/26/32/42 TCT PRO sr	TC-DEL	1x26	< 10 %
PC 1/26/32/42 TCT PRO sr	TC-TEL	1x26	< 10 %
PC 2/26/32/42 TCT PRO sr	TC-DEL	2x26	< 10 %
PC 2/26/32/42 TCT PRO sr	TC-TEL	2x26	< 10 %
PC 1/26/32/42 TCT PRO sr	TC-TEL	1x32	< 10 %
PC 2/26/32/42 TCT PRO sr	TC-TEL	2x32	< 10 %
PC 1/26/32/42 TCT PRO sr	TC-TEL	1x42	< 10 %
PC 2/26/32/42 TCT PRO sr	TC-TEL	2x42	< 10 %

Output voltage

type	lamp type W	wattage V	U _{out}
PC 2/18 TCD PRO sr	TC-DEL	2x18	250
PC 2/18 TCD PRO sr	TC-TEL	2x18	250
PC 1/26/32/42 TCT PRO sr	TC-DEL	1x26	250
PC 1/26/32/42 TCT PRO sr	TC-TEL	1x26	250
PC 2/26/32/42 TCT PRO sr	TC-DEL	2x26	300
PC 2/26/32/42 TCT PRO sr	TC-TEL	2x26	300
PC 1/26/32/42 TCT PRO sr	TC-TEL	1x32	250
PC 2/26/32/42 TCT PRO sr	TC-TEL	2x32	300
PC 1/26/32/42 TCT PRO sr	TC-TEL	1x42	250
PC 2/26/32/42 TCT PRO sr	TC-TEL	2x42	300

Ballast lumen factor

EN 60929 8.1

type	lamp type	wattage	AC/DC-BLF
PC 2/18 TCD PRO sr	TC-DEL	2x18	1
PC 2/18 TCD PRO sr	TC-TEL	2x18	1
PC 1/26/32/42 TCT PRO sr	TC-DEL	1x26	1
PC 1/26/32/42 TCT PRO sr	TC-TEL	1x26	1
PC 2/26/32/42 TCT PRO sr	TC-DEL	2x26	1
PC 2/26/32/42 TCT PRO sr	TC-TEL	2x26	1
PC 1/26/32/42 TCT PRO sr	TC-TEL	1x32	1
PC 2/26/32/42 TCT PRO sr	TC-TEL	2x32	1
PC 1/26/32/42 TCT PRO sr	TC-TEL	1x42	1
PC 2/26/32/42 TCT PRO sr	TC-TEL	2x42	1

ASIC light management

ASIC (Application specific integrated circuit) is the very latest in lighting management design technology. The lamp friendly warm start in 1.5 seconds and a whole series of energy saving measures and light management feature make PC PRO sr a real champion in its class.

Defective lamp

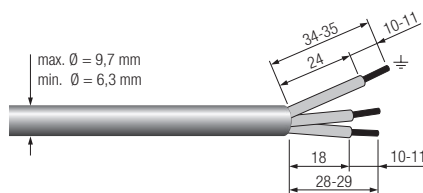
If a lamp is defective, the ballast switches off and goes into standby. There is an automatic restart once the lamp has been changed.

Installation instructions

Wiring type and cross section

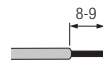
Mains cables:

Stranded wire with end ferrule or solid wire with a cross section of 0.75 – 2.5 mm².



Lamp wires:

Stranded wire with end ferrule or solid wire with a cross section of 0.75 – 1.5 mm².



RFI

- Connection to the lamps of the "hot leads" must be kept as short as possible
- Mains leads should be kept apart from lamp leads
- 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

Detailed mounting instructions can be found on our website www.tridonicatco.com under "Technical Information".

Lead length

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

Ballast type	terminal		maximum capacitance allowed	
	cold	hot	cold	hot
PC 1/xx TCT PRO sr	1, 2	3, 4	200 pF	100 pF
PC 2/xx TCT PRO sr	1, 2, 5, 6	3, 4	200 pF	100 pF
PC 2/18 TCD PRO sr	1, 2, 5, 6	3, 4	200 pF	100 pF

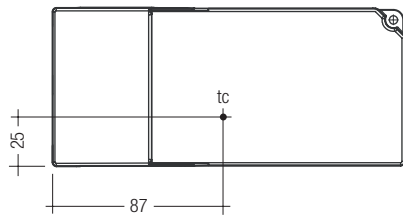
With standard solid wire 0.5/0.75 mm² the capacitance of the lead is 30–80 pF/m. This value is influenced by the way the wiring is made. Lamp connection should be made with symmetrical wiring.

Maximum loading of automatic circuit breakers

Automatic circuit breaker type		C10	C13	C16	B10	B13	B16
Installation Ø		1.5 mm ²	1.5 mm ²	2.5 mm ²	1.5 mm ²	1.5 mm ²	2.5 mm ²
Type	Wattage W	max. number of ballasts	max. number of ballasts	max. number of ballasts	max. number of ballasts	max. number of ballasts	max. number of ballasts
PC 2/18 TCD PRO sr	2x18	48	72	80	24	36	40
PC 1/26/32/42 TCT PRO sr	1x26	34	46	74	17	23	37
PC 2/26/32/42 TCT PRO sr	2x26	14	18	22	7	9	11
PC 1/26/32/42 TCT PRO sr	1x32	34	46	74	17	23	37
PC 2/26/32/42 TCT PRO sr	2x32	14	18	22	7	9	11
PC 1/26/32/42 TCT PRO sr	1x42	34	46	74	17	23	37
PC 2/26/32/42 TCT PRO sr	2x42	14	18	22	7	9	11

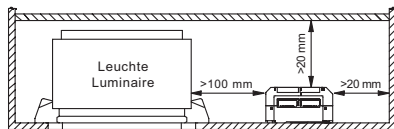
Max. current load of through wiring: 16 A

Temperature range



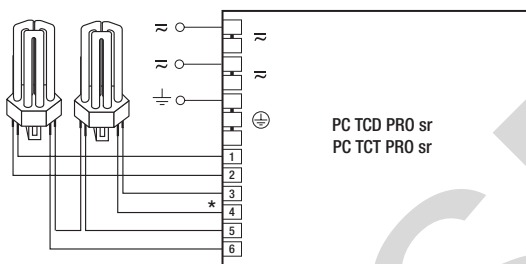
tc point is related to the ballast life duration. PC PRO sr is designed for an average service life of 50,000 hours under reference conditions and with a failure probability of less than 10 %. This corresponds to an average failure rate of 0.2 % for every 1,000 hours of operation.

Fixing conditions

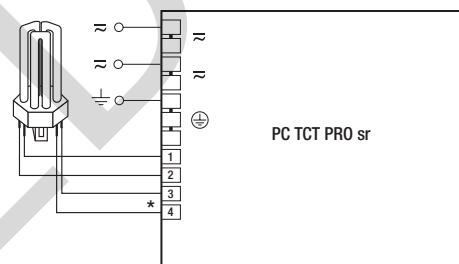


Dry, acidfree, oilfree, fatfree. It is not allowed to exceed the maximum ambient temperature (ta...) stated on the device. Minimum distances stated on the left are recommendations and depend on the actual luminaire. Is not suitable for fixing in corner.

Circuit diagrams



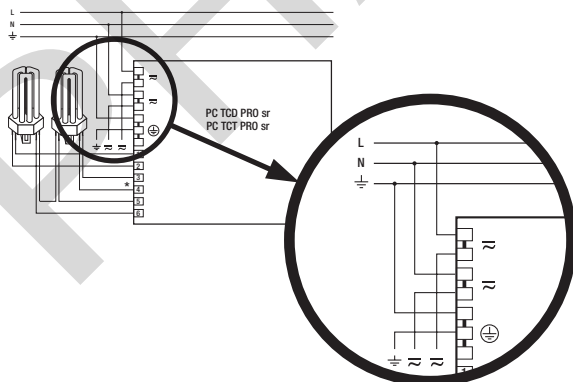
PC 2/18 TCD PRO sr, PC 2/xx TCT PRO sr



PC 1/xx TCT PRO sr



Through wiring



Wiring advice

Class 1 luminaires: connection to safety earth required
Class 2 luminaires: connection to safety earth not required