

Electronic superimposed pulse ignitors



Without timer 220-240 V, 50-60 Hz

- Fully electronic
- Super-imposed pulse type
- Compact design
- Solid metal fixing screw
- Low inherent heating
- High thermal resistance
- Low power losses
- ENEC approved*



	L-70	L-150	HI-400M	HI-400S	L-600	L-1000S ²⁾
High pressure sodium (W)	35-70	70(DE) ³⁾ -150	70(DE) ³⁾ -400	70(DE) ³⁾ -400	70(DE) ³⁾ -600	70(DE) ³⁾ -1000
Metal halide ¹⁾ (W)	-	35-150	35-400	35-400	35-400	35-1000
Ceramic metal halide ¹⁾ (W)	-	35-150	35-400	35-400	35-400	35-400
Max. contin. lamp current (A)	1	1.8	4.6	4.6	6.5	12
Operating voltage (V)	198-264	198-264	198-264	198-264	198-264	198-264
Cut-out voltage (V)	≤ 170	≤ 170	≤ 170	≤ 170	≤ 170	≤ 170
Ignition voltage (kV)	1.9 ... 2.3	4.0 ... 4.5	4.0 ... 4.5	4.0 ... 4.5	4.0 ... 4.5	4.0 ... 4.5
Impulse width (μs)	2 (1.5 kV)	1.4 (2.0 kV)	1.0 (2.0 kV)	1.0 (2.0 kV)	1.2 (2.0 kV)	1.5 (2.0 kV)
Phasing (°el)	60-90 / 240-270	60-90 / 240-270	60-90 / 240-270	60-90 / 240-270	60-90 / 240-270	60-90 / 240-270
Pulses per half cycle	2	3	3	3	3	3
Max. load capacitance (pF)	200	100	100	100	100	100
Internal losses (W)	< 1.0 (25 °C; 1 A)	< 1.0 (25 °C; 1.8 A)	< 3.4 (25 °C; 4.6 A)	< 3.3 (25 °C; 4.6 A)	< 4.0 (25 °C; 6.5 A)	< 6.0 (25 °C; 12 A)
Max. housing temperature (°C)	105	105	105	105	105	105
Min. ambient temperature (°C)	-30	-30	-30	-30	-30	-30
Weight (g)	130	130	130	160	230	430
Dimensions AxBxC (mm)	88x34x28	88x34x28	92x34x28	92x38x32	92x43x36	108x55x43

Note: Suitability for lamps refers to most common lamps acc. to EN standards. Check also lamp manufacturer information of proper ignitor selection. Not suitable for lamps with low ignition voltage (~1 kV)

1) See also recommended combinations, dimensions and connection on page 68

2) L-1000S is not ENEC approved

3) DE means double ended lamp

Minimum delivery amount 50 pcs.

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	LSI-70T1	LSI-150T20	LHI-400ST10	LSI-400ST20	LSI-600T20	LSI-1000T10 ²⁾
High pressure sodium (W)	35-70	70(DE) ³⁾ -150	70(DE) ³⁾ -400	70(DE) ³⁾ -400	70(DE) ³⁾ -600	70(DE) ³⁾ -1000
Metal halide ¹⁾ (W)	-	35-150	35-400	35-400	35-400	35-1000
Ceramic metal halide ¹⁾ (W)	-	35-150	35-400	35-400	35-400	35-400
Max. contin. lamp current (A)	1	1.8	4.6	4.6	6.5	12
Cut out time (min)	2	20	18	DIGITAL ¹⁾	DIGITAL ¹⁾	18
Operating voltage (V)	198-264	198-264	198-264	198-264	198-264	198-264
Cut-out voltage (V)	≤ 170	≤ 170	≤ 170	< 170	< 170	≤ 170
Ignition voltage (kV)	1.9 ... 2.3	4.0 ... 4.5	3.5 ... 4.5	4.0 ... 4.5	4.0 ... 4.5	4.0 ... 4.5
Impulse width (μs)	2 (1.5 kV)	1.4 (2.0 kV)	1.0 (2.0 kV)	0.9 (2.0 kV)	1.2 (2.0 kV)	1.7 (2.0 kV)
Phasing (°el)	60-90 / 240-270	60-90 / 240-270	60-90 / 240-270	60-90 / 240-270	60-90 / 240-270	60-90 / 240-270
Pulses per half cycle	2	3	3	3	3	3
Max. load capacitance (pF)	200	100	100	100	100	100
Internal losses (W)	<1.0 (25 °C; 1A)	<1.0 (25 °C; 1.8 A)	<3.0 (25 °C; 4.6 A)	<3.3 (25 °C; 4.6 A)	<4.0 (25 °C; 6.5 A)	<6.0 (25 °C; 12 A)
Max. housing temp. (°C)	105	105	105	105	105	105
Min. ambient temp. (°C)	-30	-30	-30	-30	-30	-30
Weight (g)	130	130	160	160	230	460
Dimensions AxBxC (mm)	88x34x28	88x34x28	92x38x32	92x38x32	92x43x36	108x55x43

Note: Suitability for lamps refers to most common lamps acc. to EN standards. Check also lamp manufacturer information of proper ignitor selection. Not suitable for lamps with low ignition voltage (~1 kV)

1) See also recommended combinations, dimensions and connection on page 68

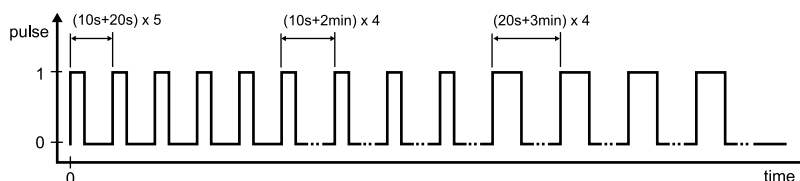
2) LSI-1000T10 is not ENEC approved.

3) DE means double ended lamp

Minimum delivery amount 50 pcs.

Additional specifications and cut-out sequence for LSI-400ST20 & LSI-600T20

- Intelligent timer with μC for light source protection and energy saving operation
- Protective against power-line overvoltage
- Lamp protection during ignition
- Continous lamp-state check
- Stable ignition over a wide temperature range
- Radio-frequency interference level 10 % to standard timed version
- Long life performance
- Approval to EN 61347, EN 60927, EN 55014



Helvar ignitors for high pressure sodium- and metal halide lamps

Ignitor	HIGH PRESSURE SODIUM									CERAMIC METAL HALIDE						METAL HALIDE ¹⁾							
Watt	35	50	70	100	150	250	400	600	1000	35	70	100	150	250	400	35	70	100	150	250	400	1000	
L-70																							
LSI-70T1																							
L-150																							
LSI-150T20																							
HI-400M										2)	2)					2)	2)						
HI-400S										2)	2)					2)	2)						
LHI-400ST10										2)	2)					2)	2)						
LSI-400ST20										2)	2)					2)	2)						
L-600				2)	2)					2)	2)					2)	2)	2)	2)				
LSI-600T20				2)	2)					2)	2)					2)	2)	2)	2)				
L-1000S				2)	2)					2)	2)	2)	2)			2)	2)	2)	2)				
LSI-1000T10				2)	2)					2)	2)	2)	2)			2)	2)	2)	2)				



Recommended combination

T1 Automatic cut-out 2 min

T10 Automatic cut-out 18 min

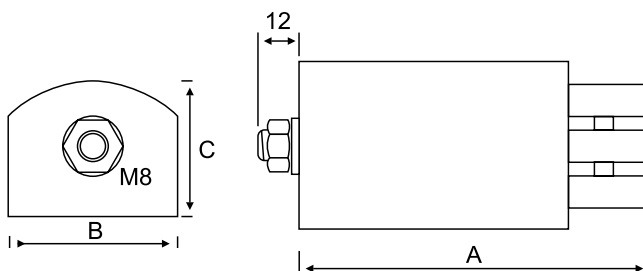
T20 Automatic cut-out 20 min

Note: Suitability for lamps refers to most common lamps acc. to EN standards. Check also lamp manufacturer information of proper ignitor selection.

1) Not suitable for lamps with low ignition voltage (~1 kV)

2) Used combination

Dimensions



Ignitor	A X B X C (mm)
L-70	88x34x28
L-150	88x34x28
HI-400M	92x34x28
HI-400S	92x38x32
L-600	92x43x36
L-1000 / L-1000S	108x55x43
LSI-70T1	88x34x28
LSI-150T20	88x34x28
LHI-400ST10	92x38x32
LSI-400ST20	92x38x32
LSI-600T20	92x43x36
LSI-1000T10	108x55x43

Connection

Terminals: 3-pole D-L-N 2.5 mm² max

