

Control and automation

E 232 staircase lighting time-delay switches

Technical features						
	E 232-230	E 232E-230N	E 232E-8/230N	E 232E-230 Multi 10	E 232E-8/230 Multi 10	E 232E-HLM
Time range (stepless)	1 – 7 min. in 15 sec. increments	0.5 – 20 min. stepless	0.5 – 20 min. stepless	0.5 – 20 min. stepless	0.5 – 20 min. stepless	20 – 60 sec. stepless
Control voltage 230 V AC	■	■	■	■	■	
Universal voltage in addition			8 ... 240 V AC/DC		8 ... 240 V AC/DC	
Glow lamp load	50 mA	150 mA	150 mA	150 mA	150 mA	
3/4 conductor operated	switches	automatically	automatically	automatically	automatically	
Resettable	■	■	■	■	■	
Steady-light switch	■	■	■	■	■	
Advance warning acc. DIN 18015-2				■	■	■
Long-time range of 60 min.				■	■	
Multi-functional (10 functions)				■	■	
Rated voltage	230 V AC 50Hz	240 V AC 50 / 60 Hz	240 V AC 50 / 60 Hz	240 V AC 50 / 60 Hz	240 V AC 50 / 60 Hz	240 V AC 50 / 60 Hz
Control voltage range	0.9 ... 1.1 Un	0.85 ... 1.1 Un	0.85 ... 1.1 Un	0.85 ... 1.1 Un	0.85 ... 1.1 Un	0.9 ... 1.1 Un
Power loss	1 VA	6 VA	6 VA	6 VA	6 VA	6 VA
Rated switching capacity	16 A, 230 V AC	16 A, 230 V AC	16 A, 230 V AC	16 A, 230 V AC	16 A, 230 V AC	10 A, 230 V AC
Filament lamp load	2,300 W	2,300 W	2,300 W	3,600 W	3,600 W	2,300 W
Halogen lamp load	2,300 W	2,300 W	2,300 W	3,600 W	3,600 W	2,300 W
Fluorescent lamps series compensated / uncorrected	2,300 VA	2,300 VA	2,300 VA	3,600 VA *	3,600 VA *	not permitted
Fluorescent lamps inductive or capacitive	2,300 VA	2,300 VA	2,300 VA	3,600 VA *	3,600 VA *	not permitted
Fluorescent lamps shunt compensated	1,300 VA (70 µF)	400 VA (42 µF)	400 VA (42 µF)	1,200 VA (120 µF) *	1,200 VA (120 µF) *	not permitted
Electronic controlgear	9x7 W, 6x11 W 5x15 W, 5x20 W	9x7 W, 7x11 W, 7x20 W, 7x23 W	9x7 W, 7x11 W, 7x20 W, 7x23 W	34x7 W, 27x11 W, 24x15 W, 22x23 W	34x7 W, 27x11 W, 24x15 W, 22x23 W	not permitted
Inductive load (cos j = 0.6/230 V AC)	2,300	2,300	2,300	2,300	2,300	not permitted
Contact material	AgSnO2	AgSnO2	AgSnO2	AgSnO2	AgSnO2	AgSnO2
Contact gap	≥ 3 mm	< 3 mm	< 3 mm	< 3 mm	< 3 mm	< 3 mm
Mech. serviceable life	> 106	> 107	> 107	> 107	> 107	> 107
Serviceable life at rated load, cos φ =1	> 105	> 2x105	> 2x105	> 2x105	> 2x105	> 105
Serviceable life at rated load, cos φ =0.6	> 104	> 4x104	> 4x104	> 4x104	> 4x104	> 104
Terminal capacity	10.7 mm ²	13 mm ²	13 mm ²	13 mm ²	13 mm ²	13.6 mm ²
Max. conductor capacity	6 mm ²	4 mm ²	4 mm ²	4 mm ²	4 mm ²	6 mm ²
ON duration	Resettable after 30 sec.	100 %	100 %	100 %	100 %	100%
Ambient temperature	- 10 °C to + 50 °C	- 25 °C to + 50 °C	- 25 °C to + 50 °C	- 25 °C to + 50 °C	- 25 °C to + 50 °C	- 10 °C to + 50 °C
Housing and insulation material	heat resistant, self-extinguishing thermoplast	heat resistant, self-extinguishing thermoplast	heat resistant, self-extinguishing thermoplast	heat resistant, self-extinguishing thermoplast	heat resistant, self-extinguishing thermoplast	heat resistant, self-extinguishing thermoplast
Control current at 230 V AC	4.5 mA	26 mA	26 mA	26 mA (min. 8 mA at 8 V AC)	26 mA (min. 8 mA at 8 V AC)	
Minimum command duration	10 ms	20 ms	20 ms	20 ms / 50 ms for multi voltage input	20 ms / 50 ms for multi voltage input	

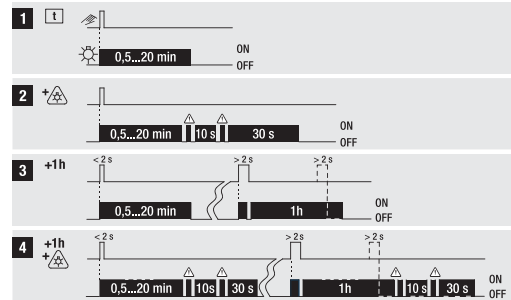
* no disconnection advance warning possible for this application.

Control and automation technical details

E 232 staircase lighting time-delay switches

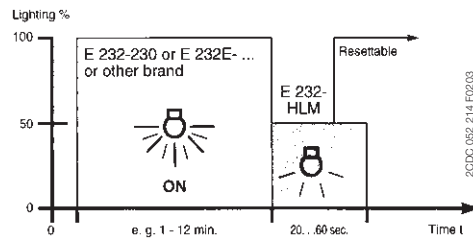
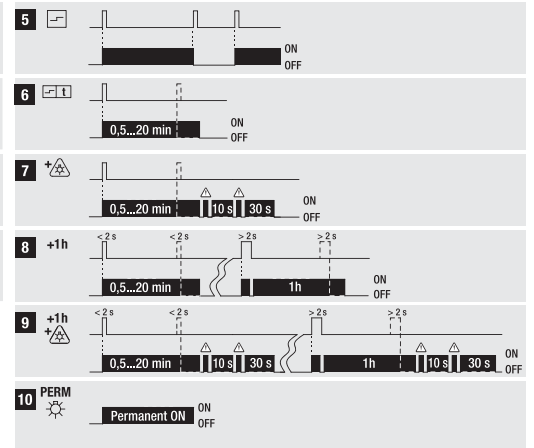
E 232E-230 Multi 10, 8/230 Multi 10

Functions: Staircase lighting time-delay switch

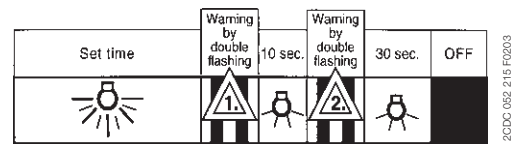


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Function: Latching relay, Latching relay with returning time



timing of a staircase lighting time-delay switch with semi-light module E 232-HLM



warning function of E 232E-8/230 Plus

DIN 18015-2

provides that "that the automatic disconnection of lighting equipment fitted in staircases of apartment buildings must provide for warning signals, e.g. dimming, in order to avoid sudden unexpected darkness".

Operating principle

Activated by a pulse command of a push-button, the E 232 staircase switch turns on the plant's light for a T1 time that can be protracted, with a 50% dimming of the light intensity, by means of the parallel wiring of a HLM half-light module.

Application environments

Installation of E 232 staircase switch, coupled with the HLM half-light module, can be ideal wherever timing of the lighting is requested (staircase and pathways of public places, cellars, garage, etc.).

Example of installation

As illustrated, one among the possible applications concern installation of the E 232 staircase switch, coupled to a HLM half-light module, in the staircase lighting plant of a multistory building. Pushing the push-button, the timer of the E 232 switch turns on the lights for a settable T1 time. At the end of T1 time, the HLM half-light module dims the light by 50% for a T2 time in the while is possible turn on again the full lighting.

