Features

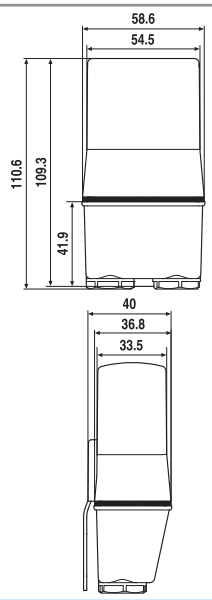
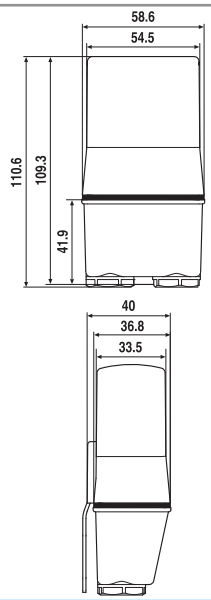
Relays for automatic control of lighting according to the ambient light level

Integral photoelectric sensor

For pole or wall mounting

10.32 - 2 NO 16A output contacts
10.41 - 1 NO 16A output contact

- Double pole Live and Neutral switching possible with the 10.32
- Sensitivity adjustment from 1 to 80 lux
- Cadmium free contact material
- Cadmium free photo sensor (IC photo diode)
- Electronic circuit - transformer isolated
- Patent pending for the innovative principle of "light feedback compensation". Compatible with slow starting gas discharge lamps (up to 10 minutes)
- For the first 3 working cycles the delay time (On and Off) is reduced to zero in order to aid installation
- Available for supply 230 and 120 V AC (50/60 Hz)

	10.32	10.41
		
	• Double output - 2 NO 16A for Live and Neutral switching	• Single output - 1 NO 16A for Live switching
		

Contact specification					
Contact configuration			2 NO (DPST-NO)		1 NO (SPST-NO)
Rated current/Maximum peak current		A	16/30 (120 A - 5 ms)		16/30 (120 A - 5 ms)
Rated voltage/Maximum switching voltage		V AC	120/—	230/—	120/— 230/—
Rated load AC1		VA	1,900	3,700	1,900 3,700
Rated load AC15		VA	400	750	400 750
Nominal lamp rating:	incandescent	W	1,200	2,300	1,000 2,000
	compensated fluorescent	W	450	850	400 750
	uncompensated fluorescent	W	500	1,000	500 1,000
	halogen	W	1,200	2,300	1,000 2,000
Minimum switching load		mW (V/mA)	1,000 (10/10)		1,000 (10/10)
Standard contact material			$AgSnO_2$		$AgSnO_2$
Supply specification					
Nominal voltage (U_N)		V AC (50/60 Hz)	120	230	120 230
		V DC	—		—
Rated power AC/DC		VA (50 Hz)/W	2/—		2/—
Operating range		AC (50 Hz)	(0.8...1.1)U_N		(0.8...1.1)U_N
		DC	—		—
Technical data					
Electrical life at rated load in AC1		cycles	$100 \cdot 10^3$		$100 \cdot 10^3$
Threshold setting		lx	1...80		1...80
Preset threshold		lx	10		10
Delay time: switching ON/OFF		s	15/30		15/30
Ambient temperature range		°C	–30...+70		–30...+70
Protection category			IP 54		IP 54
Approvals (according to type)			CE EAC		

Features

Relays for automatic control of lighting according to the ambient light level

Integral photoelectric sensor

For pole or wall mounting

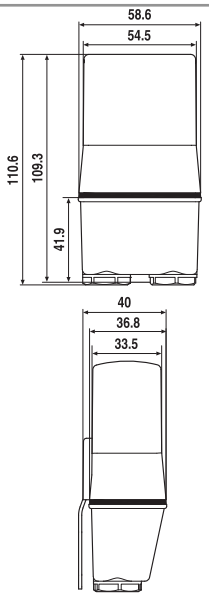
10.42 - Two independent 16A outputs with individual lux setting

10.51 - Miniature single 12A NO output

- Sensitivity adjustment from 1 to 80 lux
- Cadmium free contact material
- Cadmium free photo sensor (IC photo diode)
- Electronic circuit - transformer isolated (10.42 type)
- Patent pending for the innovative principle of "light feedback compensation" (10.51 type)
- For the first 3 working cycles the delay time (On and Off) is reduced to zero in order to aid installation
- Available for supply 230 and 120 V AC (50/60 Hz)

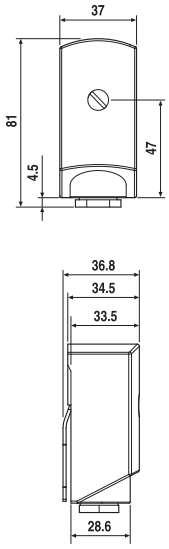
10.42

- Two independent outputs - 2 NO 16A



10.51

- Single output - 1 NO 12A
- Miniature size



Contact specification					
Contact configuration		2 NO (DPST-NO)		1 NO (SPST-NO)	
Rated current/Maximum peak current	A	16/30 (120 A - 5 ms)		12/25 (80 A - 5 ms)	
Rated voltage/Maximum switching voltage	V AC	120/—	230/—	120/—	230/—
Rated load AC1	VA	1,900	3,700	1,400	2,760
Rated load AC15	VA	400	750	300	600
Nominal lamp rating: incandescent	W	1,000	2,000	600	1,200
compensated fluorescent	W	400	750	200	400
uncompensated fluorescent	W	500	1,000	300	600
halogen	W	1,000	2,000	600	1,200
Minimum switching load	mW (V/mA)	1,000 (10/10)		1,000 (10/10)	
Standard contact material		$AgSnO_2$		$AgSnO_2$	
Supply specification					
Nominal voltage (U_N)	V AC (50/60 Hz)	120	230	120	230
	V DC	—		—	
Rated power AC/DC	VA (50 Hz)/W	2/—		1.5/—	
Operating range	AC (50 Hz)	$(0.8...1.1)U_N$		$(0.8...1.1)U_N$	
	DC	—		—	
Technical data					
Electrical life at rated load in AC1	cycles	$100 \cdot 10^3$		$100 \cdot 10^3$	
Threshold setting	lx	1...80		1...80	
Preset threshold	lx	10		10	
Delay time: switching ON/OFF	s	15/30		15/30	
Ambient temperature range	°C	–30...+70		–30...+70	
Protection category		IP 54		IP 54	
Approvals (according to type)		CE EAC			

Ordering information

Example: 10 series light dependent relay, 2 NO (DPST-NO) 16 A contact, screw terminal connections, 230 V AC supply.

1 0	.	3	2	.	8	.	2 3 0	.	0	0	0	0
Series		Type					Supply voltage		Supply version			

Series

Type
32 = Double output - 2 NO 16 A
41 = Single output - 1 NO 16 A
42 = Two independent outputs - 2 NO 16A
51 = Single output - 1 NO 12A

Supply voltage
120 = 120 V
230 = 230 V

Supply version
8 = AC (50/60 Hz)

Technical data

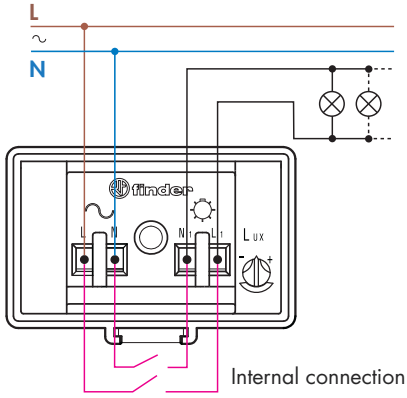
Insulation		**10.32 / 41 / 42**		**10.51**	
Dielectric strength between open contacts V AC		1,000		1,000	
Other data					
Cable grip	Ø mm	(8.9...12)		(7.5...9)	
Screw torque	Nm	0.8		0.8	
Max. wire size		solid cable	stranded cable	solid cable	stranded cable
	mm^2	1x6 / 2x4	1x6 / 2x2.5	1x6 / 2x4	1x4 / 2x2.5
	AWG	1x10 / 2x12	1x10 / 2x14	1x10 / 2x12	1x12 / 2x14

Functions

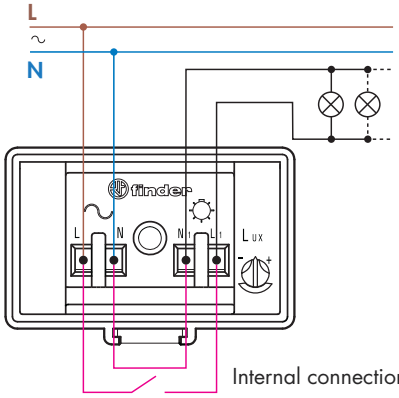
LED*	**10.32 / 10.41 / 10.42**		**10.51**	
	Supply voltage	NO output contact	Supply voltage	NO output contact
	OFF	Open	OFF or ON	Open
	ON	Open	ON	Closed
	ON	Open (Timing in Progress)	ON	Open (Timing in Progress)
	ON	Closed	–	–

The LED is located under the terminal cover, close to the Lux adjustment knob. It indicates the contact status and assists in the test and setting of the correct light threshold level.

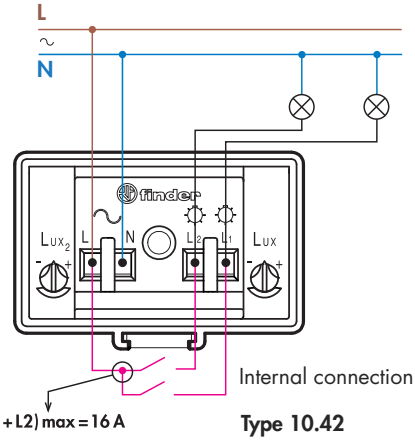
Wiring diagrams



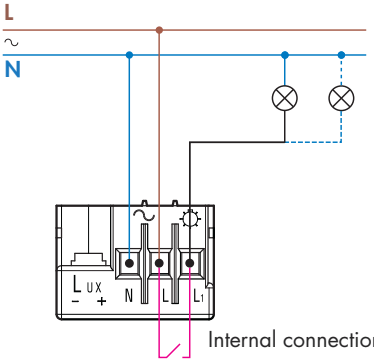
Type 10.32



Type 10.41



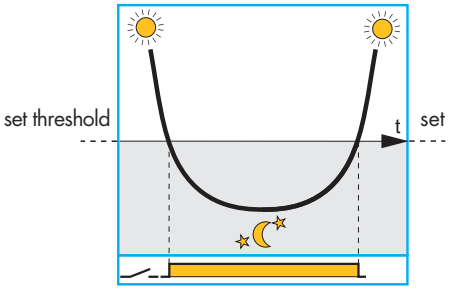
Type 10.42



Type 10.51

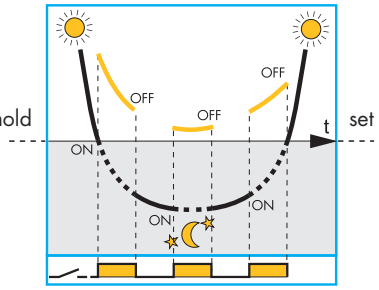
Advantage of the "light feedback compensation" principle

Light dependent relay where the lighting being controlled does not influence the light level seen by the sensor



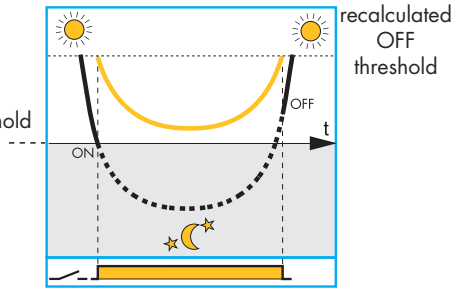
Correct functioning - provided the sensor can be shielded from the effects of the controlled lighting switching On and Off

Traditional light dependent relay where the lighting being controlled influences the light level seen by the sensor



Incorrect functioning where the lamps cycle between On and Off, because their effect is being detected by the sensor

Type 10.32, 10.41 and 10.51 light dependent relay with "light feedback compensation"



The innovative principle of "light feedback compensation" avoids the annoying and damaging effects of the lamps repeatedly "hunting" between On and Off, due to poor installation

Ambient light level as measured by the light dependent relay's integral sensor.

Ambient light + controlled light level as measured by the light dependent relay's integral sensor.

Notes

1. It is good practice to try to achieve a correct installation where the light emitted from the lamp(s) does not influence the light level seen by the sensor, although the "light feedback compensation" principle will help when this is not fully achievable. In this case it should be appreciated that the "light feedback compensation" principle may delay slightly the time of Switch Off - beyond the ideal.
2. The compensation principle is not effective where the combined effect of the ambient light and the controlled lighting exceeds 120 lux.
3. The 10.32 and 10.41 types are compatible with gas discharge lamps that attain full output within 10 minutes, since the electronic circuit monitors lamps' light output over a 10 minutes period to achieve a true assessment of its contribution to the overall lighting level.