

Electronics

Mains voltage for all electrical appliances with relay outputs

Electrical appliances with relay outputs are chiefly roller blind controls, time switches, ARGUS movement detectors and light-sensitive switches, that can be distinguished by their neutral conductor terminals. A capacitor, designed for sinusoidal alternating voltage, provides the power supply for these appliances. This wave form is complied with by nearly all FBCs (facilities-based carriers). The capacitor power units are resistant against momentary deviations from the normal sinusoidal alternating voltage, like e.g.

- power failures, power changeovers
- voltage rises of up to 460 V for 10 milliseconds
- power output spikes up to and exceeding IEC 802
- ripple-control signals

If inverters producing rectangular, triangular or trapezoidal alternating voltages are used for local power networks or emergency

power units, then Merten appliances with capacitors should not be used, because these abnormal voltage curves can destroy the appliances.

Electronic sensor switch/dimmer

The electronic switch, relay switch and memory super dimmer are part of a system module set. Inserts with varying performance characteristics can be combined with sensor covers, TELE sensor covers or sensor covers with radio receivers. The combinations allowed can be found in the functional and device overview table for electronic and relay switches.

Sensor cover:

The sensor cover has a contact area for the manual operation of the connected load.

Press briefly to switch on or off.

Continue to press to gradually turn the dimmer lighting up or down. The sensor cover is snapped onto the frame with the insert.

TELE sensor covers:

TELE sensor covers can be controlled either manually by touching the contact area or by means of an infrared remote control (art. no. 570222 or art. no. 570722).

Press a transmitter button briefly = Switch

Hold a button down = Dim.

A maximum of ten TELE sensor covers can be operated within a room via remote control. The codes for the TELE sensor covers are programmed with a screwdriver on one of the transmission channel numbers.

Sensor covers with radio receiver:

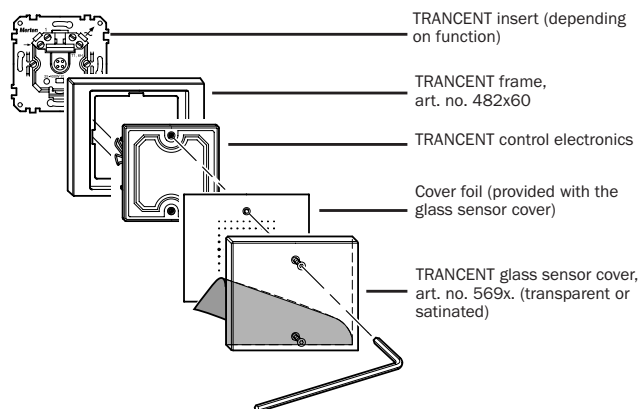
Sensor covers with radio receiver can be operated manually or with a radio transmitter, such as the radio remote control Distance 5010 (art. no. 590722) and the radio push-button (battery-powered).

Press a transmitter button briefly = Switch

Hold a button down = Dim.

TRANCENT control electronics

The TRANCENT control electronics are also elements of the system modules. They are plugged onto the corresponding electronic switches, relay switches and memory super dimmers, together with frame. The glass sensor cover, containing the individually labelled cover foil, is then screwed on.



The combinations allowed can be found in the functional and device overview table for TRANCENT devices.

The inserts can then be operated through the glass cover.

The active cover, which is touched to trigger the switch, is indicated by the dotted area.

The function is triggered by simply touching the active cover - there is no need to apply pressure.

A minimum area of coverage is required when touching the glass (such as the tip of one or two fingers).





The minimum time period for which the cover must be touched is 0.5 seconds.

When installed horizontally, the TRANCENT insert is mounted at a rotated angle of 90°.



Overview of functions and devices

Function	Design cover	Local operation				Local operation and IR remote control	Local operation and remote radio control	Local operation
		Sensor cover	TELE sensor cover	Sensor cover with radio receiver	Sensor cover with radio receiver switch inserts	Control electronics, 1-gang 569090		
	System M	5776... 5701... 5704...	5779... 5703... 5711...	5931..	5932..			
	System Design	5737..	5709..	5930..	5933 ..			
	System Basis	5741..	5748..					
	OCTOCOLOR	5742..	5749..					





Electronic switch (2 conductors)

Switching of ohmic loads - Incandescent lamps, 230 V halogen lamps - Neutral conductor not required. - Extension input for push-buttons and extension TELE inserts		Electronic switch insert 575799 (25-400 W) AC 220-230 V, 50-60 Hz	■	■	■	Only toggling functionality	■
Switching of ohmic loads - Incandescent lamps, 230 V halogen lamps - Neutral conductor not required.		Electronic switch insert 576799 (25-300 W)				■	
Timed switching of ohmic loads - Incandescent lamps, 230 V halogen lamps - Fully electronic timer - Neutral conductor not required - Extension input for push-buttons and extension TELE inserts - Time period 5 s - 5 min.		Electronic time switch insert 575697 (25-400 W)	■	■			■
Pulse generator for surge switches or protective circuits - The switching function is determined by the surge switch or protective circuit used. - Neutral conductor not required. - Extension input for push-buttons and extension TELE inserts		Electronic push-button insert 574697 (4-100 VA)	■	■			■

Relay switch (3 conductors)

Switching, timed switching, push-button operation of ohmic, inductive and capacitive loads - Push-button function, time function, switch function - Incandescent lamps, energy-saving lamps, LV halogen lamps with conventional transformer, fluorescent lamps - Neutral conductor required - Extension input for push-buttons and extension TELE inserts		Relay universal insert 575897 AC 220-230 V, 50-60 Hz max. 500 W/VA; 500 VA for LV halogen lamps with conventional transformer; max. 140 µF	■	■			■
Switching of ohmic, inductive or capacitive loads - Incandescent lamps, fluorescent lamps, energy-saving lamps, LV halogen lighting etc. - Neutral conductor required		Relay switch insert 576897 0-1000 VA, max. 140 µF				■	

Dimmer (2 conductors)

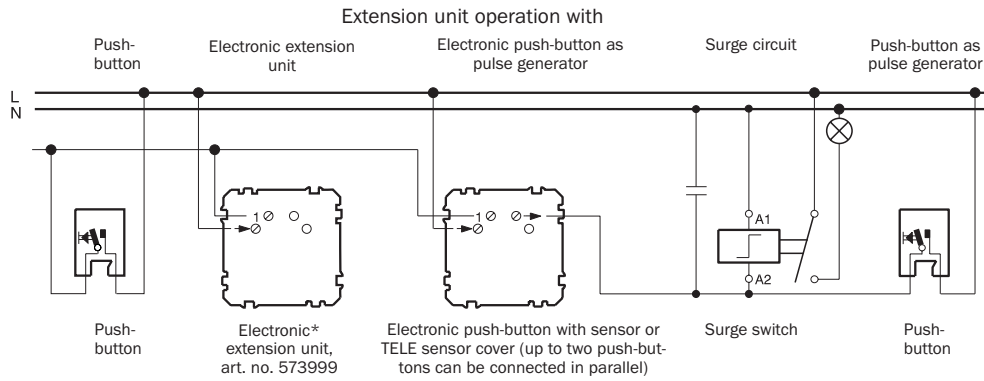
Dimming of ohmic, inductive and capacitive loads - Incandescent lamps, 230 V halogen lamps, dimmable, wound transformers, electronic transformers - Phase control or phase alignment - Extension input for push-buttons and extension TELE inserts - Neutral conductor not required		Universal super dimmer insert 577099 at 50 Hz: 25 - 420 VA at 60 Hz: 25 - 340 W	■	■	■		■
Dimming of ohmic loads - Incandescent lamps, 230 V halogen lamps - Phase control - Extension input for push-buttons and extension TELE inserts		Memory super dimmer insert for ohmic load 573399 (60-400 W) 577299 (60-600 W, halogen 500 W)	■	■			■
Dimming of inductive loads - Dimmable, wound transformers and incandescent lamps - Phase control - Extension input for push-buttons and extension TELE inserts		Memory halogen super dimmer insert for inductive load 573599 (20-500 VA)	■	■			■
Dimming of capacitive loads - Electronic transformers and incandescent lamps - Phase alignment - Extension operation with mechanical push-buttons or universal relay insert (art. no. 5758 97) with configured push-button function.		Memory ET super dimmer insert for capacitive load 577899 (20-315 W)	■	■			■

Extension unit

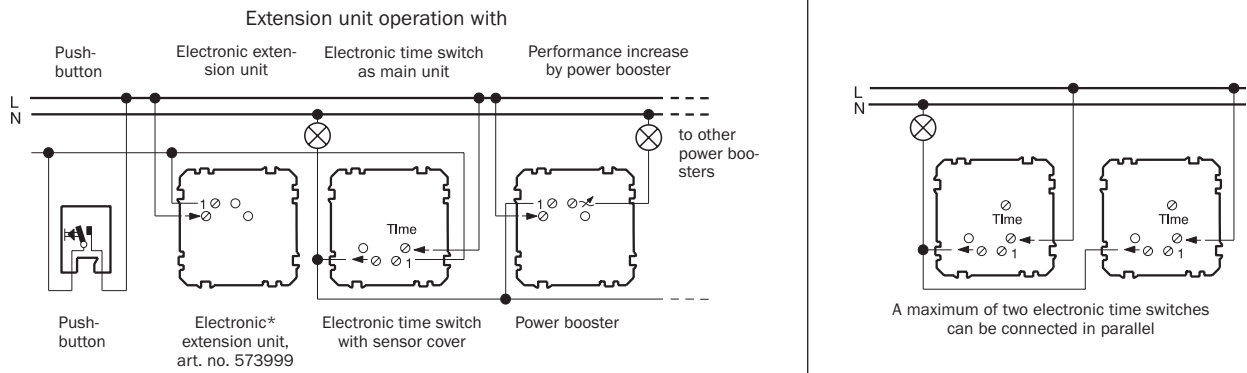
Operator function for extension unit as main unit - Control of the extension input of the main unit		Extension Insert 573999	■				
Operator function for extension unit as main unit - Control of the extension input of the main unit - Neutral conductor required		Extension TELE insert 573998		■			■

ELECTRONIC/RELAY SWITCHES

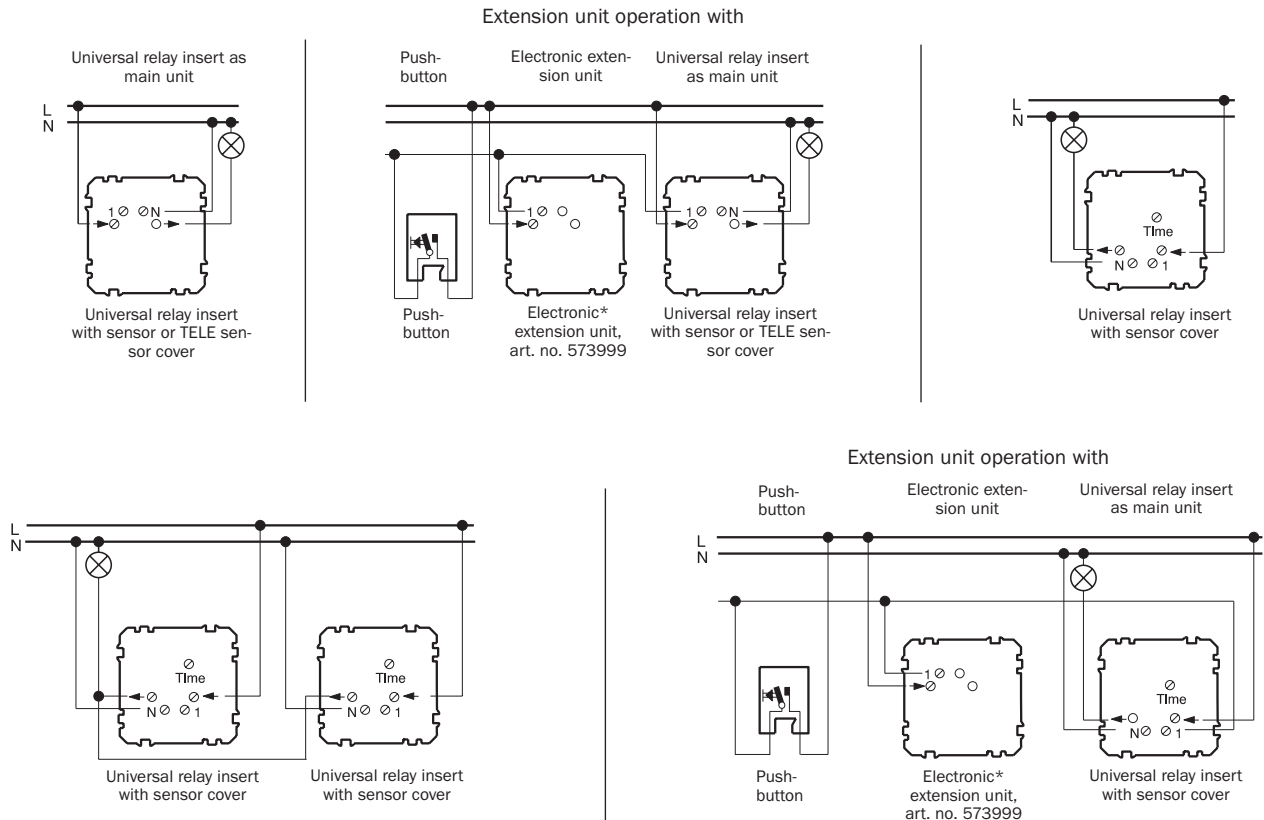
Circuit diagrams for electronic push-button, art. no. 574697



Circuit diagrams for electronic time switch, art. no. 575697



Circuit diagrams for universal relay insert, art. no. 575897



You can connect any number of universal relay inserts in parallel.

* can be controlled remotely with TELE extension insert, art. no. 573998, neutral conductor required