

The iSmooth is a device that converts a standard biased switch (often called retractive or momentary push button switch) into a high quality 0-10V dimmer switch. It can be easily mounted behind the switch plate and is connected with a flat data cable to the nearest iClip in the Isotera system. All SELV, no mains power anywhere.

iSmooth gives you complete freedom of choice of switch plates from all brands, and can be used with both single throw and double throw retractive switches.

## How it Works

### With double throw switch plates:

- ON / Up Pole
  - If pressed for longer than 10msec but shorter than 0.5 second the connected LED fixtures are switched ON at the last recorded dimming level.
  - If pressed for longer than 0.5 second the LED fixtures start to fade up until released, holding at max (also switches on if the fixtures were off).
- OFF / Down Pole
  - If pressed for longer than 10msec but shorter than 0.5 second, the connected LED fixtures switch OFF.
  - If pressed for longer than 0.5 second, a fade down is initiated until released, holding at min (if the fixtures were initially on).

From maximum to minimum brightness takes approximately 4 seconds with 0.5 second dwell at each extreme.

### With single throw switch plates:

Timings for making the difference between ON/OFF and dimming are the same as above.

By holding the push switch down the iSmooth will fade from max to min and min to max cyclically, until the switch is released. With 0.5 second dwell at each extreme.

By releasing the push button during dimming and pushing the button down again, the direction of the fading is inverted.

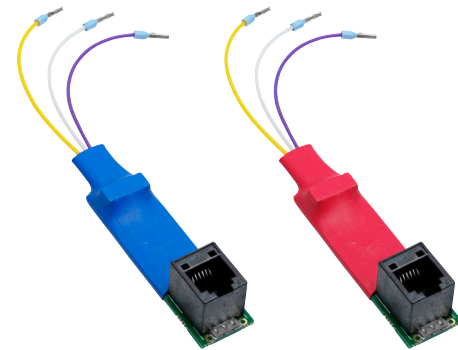


## Master & Slave Versions

iSmooth comes in 2 versions:

- A Blue one (acting as Master)
- A Red one (acting as Slave)

Which version to use depends on your control configuration, see table to the right.



Control Configuration	iSmooth Selection
One-way switching	Blue
Multi-way switching	1 Blue (master), all other must be Red (slaves)
Switches combined with multi-sensor	All Red, use Blue connection wire from iSense (see iSense datasheet)

One Blue and multiple Red's can be simply connected in any sequence via the iClips in the system with flat data cables and RJ11 T-pieces to switch and dim groups of up to 40 LED fixtures. The iSmooth can also be combined with iSense multisensors in a master-slave arrangement.

SELV power for these control devices is derived from the iClips, so no need for additional wiring or containment.

## Wiring Instructions

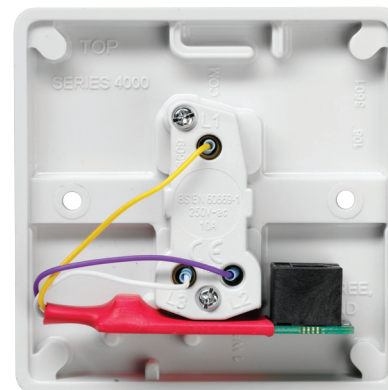
The Blue and Red iSmooth are wired to retractive switches in identical ways. However, wiring varies between single throw and double throw switch plates.

### For single throw switch plates:

- Connect YELLOW wire to COMMON terminal (COM)
- Connect VIOLET wire to L1 terminal
- Plug data cable into RJ11 socket

### For double throw switch plates:

- Connect YELLOW wire to COMMON terminal (COM)
- Connect VIOLET wire to ON/Up terminal (L1)
- Connect WHITE wire to OFF/Down terminal (L2)
- Plug data cable into RJ11 socket



Double throw switch with Red iSmooth

NOTE: In the UK the WHITE wire should be assigned to 'lower' side of a two pole retractive switch since this is generally regarded as the ON switch, likewise the VIOLET wire should be assigned to the 'upper' side of a two way retractive switch since this is regarded as the OFF switch, but this choice depends on natural preferences. With the single throw switch it would be good practice to insulate the unused WHITE wire.

## Compliance

### EMC

- EN55015:2006+A1:2007+A2:2009
- EN61547:2009
- EN61000-3-2:2006+A2:2009
- EN61000-3-3:2008

### Safety

- EN 61347-2-11
- EN 61347-1
- EN 62384

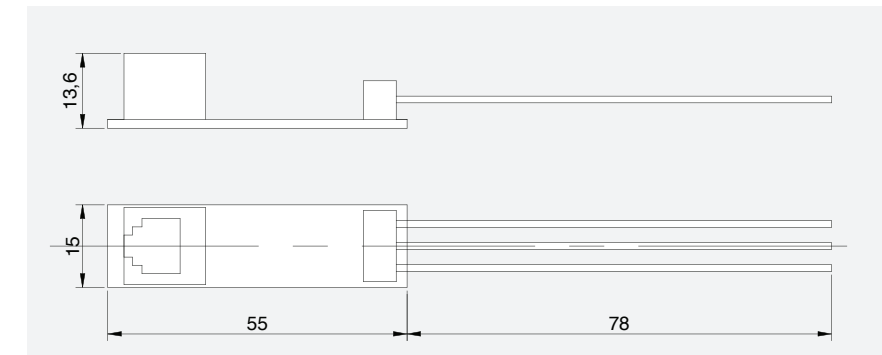
## Environmental

Parameter	Description	Min	Nom	Max
Operating Temperature	Thermal Environment	-10°C	25°C	40°C
Non Operating Temperature	Thermal Environment	-40°C		70°C
Storage temperature		-40°C	100°C	100°C
Non Operating humidity	Non Condensing <sup>1</sup>	0%	95%	95%
Operating humidity	Non Condensing	0%	85%	85%
IP rating	Indoor use only, IP 40	0.97 / 5.8	0.984 / 5.9	0.992 / 6.0
Mechanical Shock Non Operating	15 g, trapezoidal input; velocity change $\geq 4.3\text{m/s}$ .	178	180	182
Random Vibration Non Operating	0.005 g <sup>2</sup> /Hz at 5 Hz, sloping to 0.01 g <sup>2</sup> /Hz at 20 Hz, and maintaining 0.01 g <sup>2</sup> /Hz from 20 Hz to 500 Hz.			

1: 95% RH achieved with a dry bulb temperature of 55 °C and a wet bulb temperature of 54 °C.

## Mechanical Data

Dimensions: 55mm x 15mm x 13.6mm  
Weight: 9 grams



## Part Numbers

Isotera Part Number	Description
Int-Blue	Switch Interface Blue
Int-Red	Switch Interface Red
3mtr RJ11	iLink 3mtr Cable
2 way 50mm	2 way T-piece with 50mm lead
3 way 50mm	3 way T-piece with 50mm lead
Extender	Inverted coupler

The specifications contained herein are believed to be correct at the time of publication and are subject to change without notice.