



# Technical Data

## Dimmers Switches - Push On/Off

### Brief product description:

A sleek and slim design with softly rounded corners will compliment any interior décor - suitable for domestic or commercial installations.

### Features:

- Fixed integrated plastic gasket to protect metal edges from moisture
- Stylish modern profile
- Available in 4 metal finishes
- Colour matched fixing screws

### Product Images

#### Black Nickel



NBN81P/ NBN85P



NBN82P



NBN83P



NBN84P

#### Polished Chrome



NPC81P/ NPC85P



NPC82P



NPC83P



NPC84P

#### Polished Brass



NPB81P/ NPB85P



NPB82P



NPB83P



NPB84P

#### Brushed Steel



NBS81P/ NBS85P



NBS82P



NBS83P



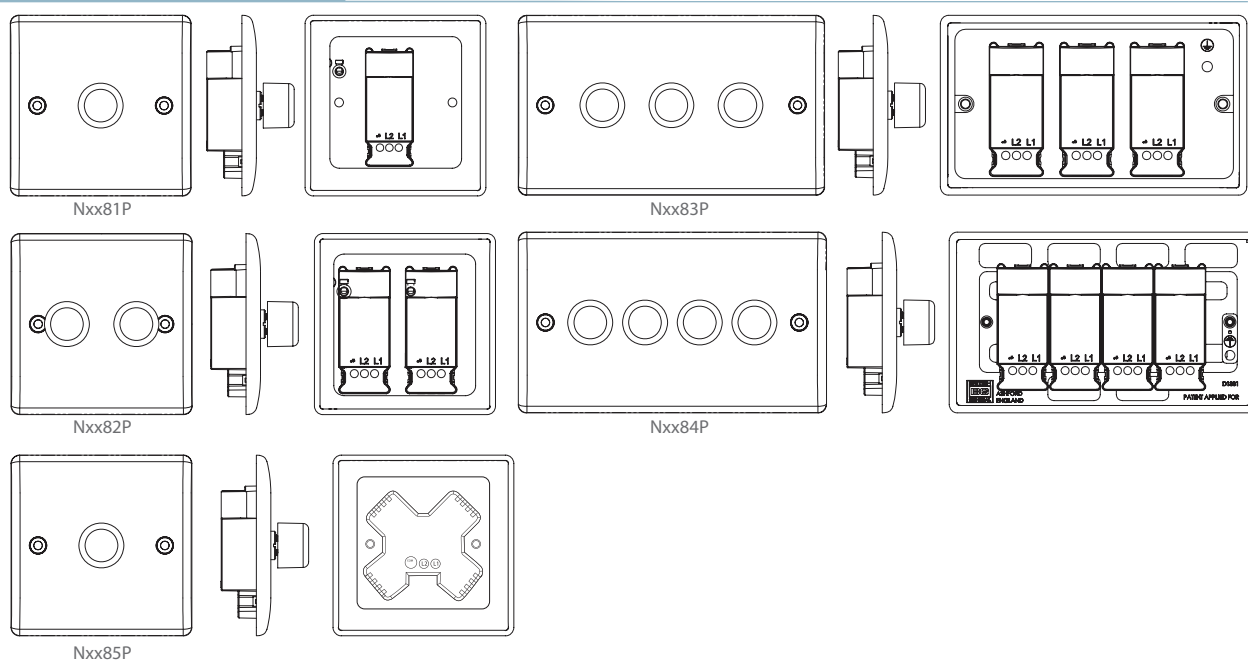
NBS84P

# Dimmers Switches - Push On/Off

## Technical Specifications

Standard(s)	BS EN 60669-2-1
Rating	60 - 400W
Switch type	Push on - Push off - Rotary to adjust level
Terminal Capacity	3 x 1mm <sup>2</sup> 2 x 1.5mm <sup>2</sup> 1 x 2.5mm <sup>2</sup>
RoHS Directive	No
WEEE Directive	No
Mounting Box Depth(Min)	25mm
Fixing Centres	60.3mm (Nxx81P, Nxx82P, Nxx85P products) 120.6mm (Nxx83P, Nxx84P products)
Size	86mm x 86mm x 41.2mm (Nxx81P, Nxx82P, Nxx85P products) 146.5mm x 86mm x 41.2mm (Nxx83P, Nxx84P products)

## Line Diagrams



## Weights & Dimensions

Cat No.	Description	Pack Quantity			Dimension (W x L x H) cm			Weight (g)			CMB (m <sup>3</sup> )
		Each	Inner Box	Outer Box	Product	Inner Box	Outer Box	Each	Inner Box	Outer Box	Outer Box
Nxx81P	1G 2W 400W Push	1	5	50		26 x 23.5 x 12	61 x 47.8 x 27			13000	0.0787266
Nxx82P	2G 2W 400W Push	1	5	50		26 x 23.5 x 12	61 x 47.8 x 27			19000	0.0787266
Nxx83P	3G 2W 400W Push	1	5	50		26 x 24.5 x 12	61 x 49.8 x 27			13500	0.0820206
Nxx84P	4G 2W 400W Push	1	5	50		26 x 24.5 x 12	61 x 49.8 x 27			16000	0.0787266
Nxx85P	1G 1000W (Export)	1	5	50		26 x 23.5 x 12	61 x 47.8 x 27				0.0787266

# Dimmers Switches - Push On/Off

## Packaging Information

Cat No.	Description	Barcode			Cat No.	Description	Barcode		
		Individual	Inner Box	Outer Box			Individual	Inner Box	Outer Box
NBS81P	1G 2W 400W Push	5050765019118	5050765019484	5050765019859	NBS84P	4G 2W 400W Push	5050765019149	5050765019514	5050765019880
NPC81P	1G 2W 400W Push	5050765020220	5050765020596	5050765020961	NPC84P	4G 2W 400W Push	5050765020251	5050765020626	5050765020992
NPB81P	1G 2W 400W Push	5050765021333	5050765021708	5050765022071	NPB84P	4G 2W 400W Push	5050765021364	5050765021739	5050765022101
NBN81P	1G 2W 400W Push	5050765023429	5050765023795	5050765024167	NBN84P	4G 2W 400W Push	5050765023450	5050765023825	5050765024198
NBS82P	2G 2W 400W Push	5050765019125	5050765019491	5050765019866	NBS85P	1G 1000W (Export)	5050765019156	5050765019521	5050765019897
NPC82P	2G 2W 400W Push	5050765020237	5050765020602	5050765020978	NPC85P	1G 1000W (Export)	5050765020268	5050765020633	5050765021005
NPB82P	2G 2W 400W Push	5050765021340	5050765021715	5050765022088	NPB85P	1G 1000W (Export)	5050765021371	5050765021746	5050765022118
NBN82P	2G 2W 400W Push	5050765023436	5050765023801	5050765024174	NBN85P	1G 1000W (Export)	5050765023467	5050765023832	5050765024204
NBS83P	3G 2W 400W Push	5050765019132	5050765019507	5050765019873	NPB83P	3G 2W 400W Push	5050765021357	5050765021722	5050765022095
NPC83P	3G 2W 400W Push	5050765020244	5050765020619	5050765020985	NBN83P	3G 2W 400W Push	5050765023443	5050765023818	5050765024181

## Installation Information

### Safety Warning

Before use please read carefully and use in accordance with these safety wiring instructions.

Before commencing any electrical work ensure the supply **is switched off at the mains**. Either by switching off the consumer unit or by removing the appropriate fuse.

Wiring should be in accordance with the latest edition of the IEE regulations (BS 7671).

### Wire Identification – Twin & Earth Cable

**EARTH** = Green/Yellow Slewing

**NEUTRAL** = Black (pre Apr 04) / Blue (after Apr 04)

**LIVE** = Red (pre Apr 04) / Brown (after Apr 04)



**Technical Helpline: 0845 194 7584**

**If in doubt consult a competent electrician.**

The ends of the individual conductors should have the insulation removed by approx. 12mm. Any bare earth conductors should be sleeved to within 12mm of the ends. (These details are for general information only and conductor lengths may need to be trimmed in certain installations).

### General Installation Instructions

- 1) If using the new product to replace an old one, note the cable connections and wire up new product in the same way as the old one, with Earthing as stated in these instructions.
- 2) Ensure the mounting box (metal or plastic) for either flush or surface mounting is the appropriate size for the product.
- 3) Route the cable through the most suitable entry point of the mounting box. If a metal box is used, a protective cable grommet should be used.
- 4) Cables should be prepared so a sufficient conductor length reaches the terminals. Strip the ends of the individual conductors so that an adequate length enters the terminals.
- 5) Carefully arrange the wiring to lie along the edges of the product or box, keeping the central area clear.
- 6) To assist with the correct installation please consult the appropriate wiring diagram on this leaflet.
- 7) When connecting the new accessory ensure that only the bare end of the wire enters the terminal, and no bare wires are visible. Always tighten the terminal screws securely, but do not over-tighten. An earth connection should always be made between the mounting box earth terminal, and the accessory earth terminal, where fitted. If this earth wire is bare, it is essential that it is sheathed with a length of green/yellow sleeving.
- 8) Carefully position the accessory into the wall box, ensuring that no wires are trapped between the plate and the wall. Do not over-tighten the screws. (Fit screw covers + clip-on)
- 9) Once work has been completed correctly, replace the fuse for the circuit, switch the power back on, and test.

The product is now ready for use.

\* Note - If your installation uses a four lug metal mounting box, remove the top and bottom lugs or bend fully back.

### Decorative Front Plate Fixing

Fixing method varies depending on which product range is supplied. Always ensure wall surface is reasonably flat and smooth, with no bumps or projections.

Metal Front plates WITH screw fixing holes. These products comprise main unit with integral front plate and rear gasket. Fix unit to back box using two fixing screws supplied.

Front plates WITHOUT screw fixing holes. These products comprise main unit with integral gasket, and front plate as separate item. Fix unit to back box using two fixing screws supplied.

Clip front plate onto main assembly, ensuring screwdriver notch is located bottom right hand corner. To remove plate, place medium size flat bladed screwdriver in notch and lever off against gasket.

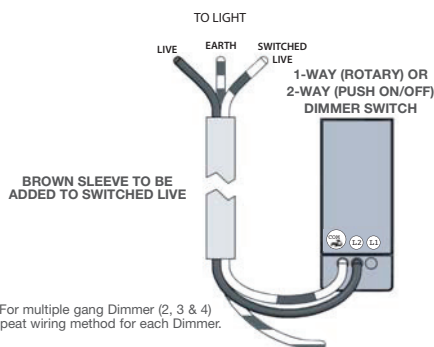
For all Decorative Plates - It is essential the gasket is fitted between product and wall, to reduce possibility of discolouration of front plate edges due to natural moisture in some wall finishes.

To keep the finish of this product, wipe over with soft cloth periodically.

All Decorative products MUST have an earth connection between the front-plate and back box

### One Way Switching

One way switching is used in installations where the lights are switched from just one position. Connect the dimmer unit as shown in the diagram.

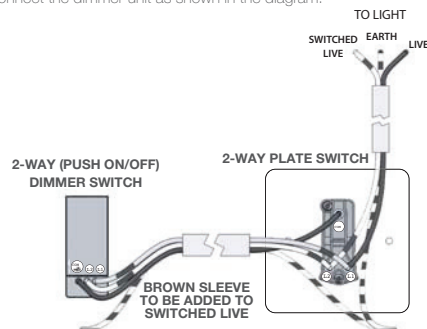


For multiple gang Dimmer (2, 3 & 4) repeat wiring method for each Dimmer.

All earth wires must be sleeved and terminated to the back box

### Two Way Switching

Two way switching is used in installations where a light is controlled from two separate positions. The dimmer may replace only one of these switches, and may be fitted in either position. Connect the dimmer unit as shown in the diagram.



For multiple gang Dimmer (2, 3 & 4) repeat wiring method for each Dimmer.

All earth wires must be sleeved and terminated to the back box

# Dimmers Switches - Push On/Off

## Installation Information

### 1000W Dimmer (Export Only)

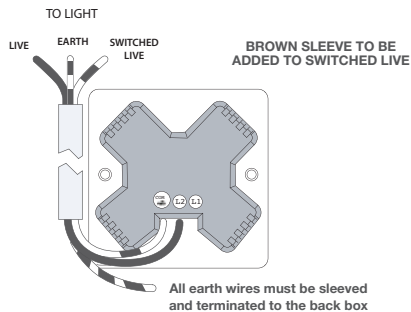


Plate Size	No. of Dimmers	Max. each Dimmers	Min. each Dimmers	Max. total per plate
Square plates 86mm x 86mm	1	250W	40W	250W
	1	400W	60W	400W
	1	630W	60W	630W
	2	250W	40W	250W
	2	400W	60W	630W*
<b>*Maximum load of 630W for the plate should not be exceeded.</b>				
Plate Size	No. of Dimmers	Max. each Dimmers	Min. each Dimmers	Max. total per plate
Rectangular plates 86mm X 146mm	1	1000W	150W	1000W
	2	630W	60W	1000W*
	3	250W	40W	750W
	3	400W	60W	1000W*
	4	250W	40W	1000W*
	4	400W	60W	1000W*
<b>*Maximum load of 630W for the plate should not be exceeded.</b>				

#### Please Note:

The dimmer is a LEADING EDGE type.

The dimmer unit will emit a faint buzz and may become warm while in operation, this is quite normal and no cause for concern.

#### Tungsten Lighting

Tungsten dimmers are not suitable for dimming any transformer, low voltage, fluorescent or motor loads.

Mains voltage tungsten halogen lamps may be dimmed, but the maximum rating of the dimmer must be de-rated by 50% (i.e., a 40-250W dimmer must be treated as 40-125W, a 60-400W dimmer as 60-200W, etc.)

#### Low Voltage Lighting

2-Way (Push ON/OFF) low voltage dimmers are only suitable for dimming wire wound laminated and some dimmable electronic transformers.

They are not suitable for dimming toroidal transformers, Fluorescent or Tungsten Lamps. Many electronic transformers are not dimmable and many which claim to be dimmable may not be compatible. Most UK dimmers, use a 'leading edge' principle, therefore, transformers which require a 'trailing edge', 'falling edge', 'phase lagging' or 'transistor' dimmer, must not be used. To dim any compatible transformer, a low-voltage (inductive) dimmer must always be used.

These are not 'inductive only' dimmers.

The dimmer VA rating refers to the total circuit load, not lamp load. Allow for transformer losses. Typically 20% (or 15% for electronic transformers). Therefore, maximum load for 400VA dimmer becomes 330W (350W electronic), and 250VA becomes 210W (215W for electronic).

Low voltage dimmers should be connected on the 'mains side' of the transformer.

Load resistors are not required.

Transformers should be installed in accordance with the manufacturer's instructions. If setup with laminated transformer either buzzes excessively or lights flicker, it may be necessary to install a snubber circuit across the transformer primary. (one per dimmer circuit).

To maintain the high quality appearance of decorative finish switches and sockets, BG Electricals recommend the use of a soft cloth periodically to clean the front face. When installing a decorative product please ensure that the wall is decorated, finished and free of moisture prior to installation. Please note that it can take several weeks for the chemicals in paint or wallpaper paste to become inert. Before this time there is a danger that they will react with the product if it has a metal faceplate.

BG recommends avoiding using, but not restricted to, the substances from becoming in contact with the decorative metal front-plates when cleaning or decorating;

- Adhesive tape, including masking tape
- Solvents
- White spirit
- Multi surface cleaners
- Industrial multipurpose cleaning wipes
- Wet wipes

Using these items like those listed above may cause a degrading effect to the front-plates lacquer/plated finish, although the function will remain unaffected.