

# Strand Lighting

## P R O D U C T D A T A

### A Guide to Microcontrol

Microcontrol is a range of flush mounted slider stations designed to control up to 12 lighting channels via remote dimmers.

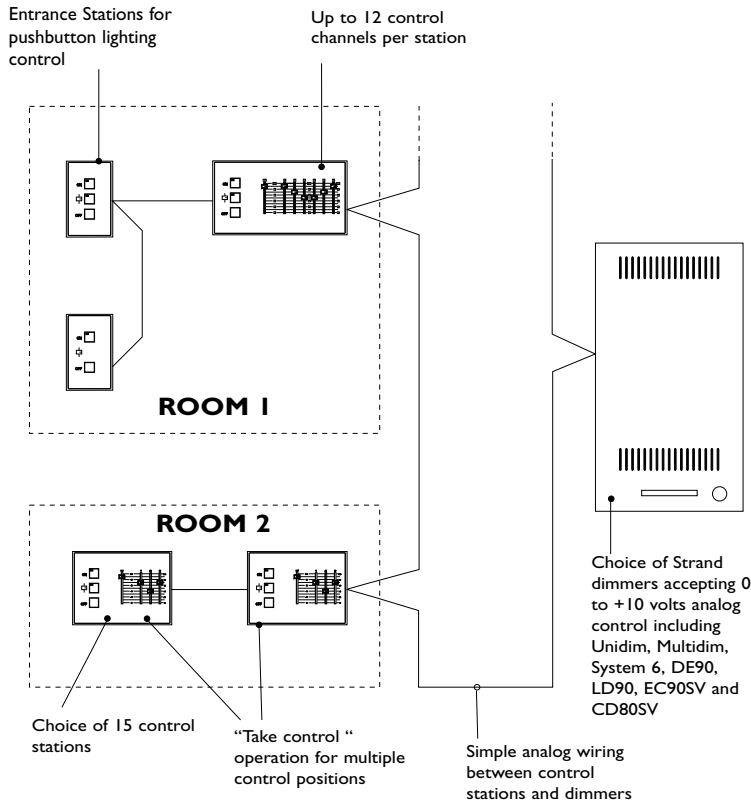
On, Off and Manual pushbuttons take control of the lighting locally, permitting multiple Microcontrol Stations to be used within the same area. On and Off pushbuttons provide Full On (clean-up) and Off lighting scenes respectively. The "Manual" pushbutton activates sliders for local manual adjustment of the lighting levels.

Optional Entrance Stations are available to allow the remote selection of the On/Off, Manual/Off or On/Manual/Off lighting scenes.

The ON/OFF Entrance Station is also available with a relay output which typically may be used for driving independent contactors for switching non-dim leads.

Microcontrol has a 0 to +10 volt dc analog output for each control channel permitting direct connection to remote System 6 and Digital Environ Dimmers via an appropriate multiconductor cable. Data Sheets on Strand Lighting dimmer products are available on request.

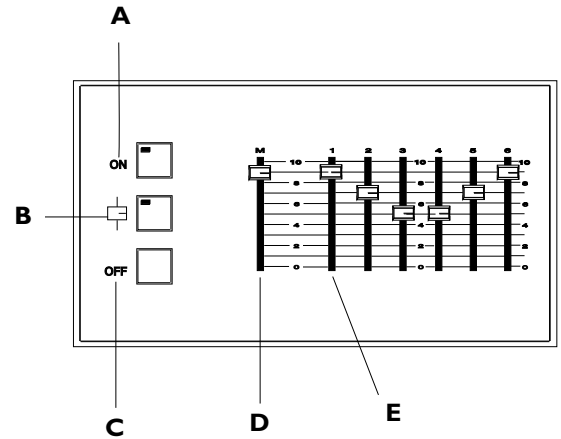
### Microcontrol Typical Schematic



# 6.1.2

## ARCHITECTURAL

# MICROCONTROL™ Manual Lighting Control



- A:** On - Turns all lights full on
- B:** Manual - Activates load sliders taking control away from other stations
- C:** Off - Selects black-out
- D:** Master Slider - Overall control of slider levels
- E:** Channel Sliders - Individual control of lighting levels

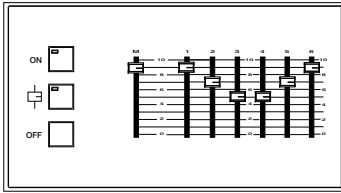
Typical applications include:

Meeting Rooms, Lobbies, Bars, Restaurants and other small or medium sized applications

- Simple to operate range of manual lighting controls for use with remote dimmers
- Up to 12 manual sliders for direct control of individual circuits
- Master slider for overall control (stations with 2 or more channels)
- "Take Control" facility for control from different locations
- On and Off pushbuttons for instant switching control
- A choice of Entrance Stations for remote selection of On, Manual and Off functions
- Entrance station with relay output for switching independent contactors
- Elegant, screwless face plates with concealed fasteners
- Portable station options available
- 0 to +10 volt dc analog output for dimmer control

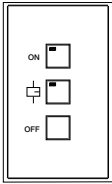
## Microcontrol™ Control Stations

## Microcontrol Slider Stations



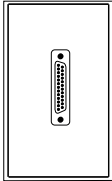
Microcontrol Slider Stations allow manual slider control of between 1 and 12 channels with a Manual or "Take Control" pushbutton to allow control to be switched from one slider station to another within a room. These stations also feature On and Off buttons for switching lights instantly to full or off respectively.

## Entrance Stations



Entrance Stations are available in three pushbutton configurations: On/Off, Manual/Off and On/Manual/Off. The Entrance Stations connect directly to a Microcontrol Slider Station for remote selection of On, Off or the Manual scene currently set on the sliders. A variant on the ON/Off entrance station has a low voltage relay drive output, (2 pole double throw latching output controlled from the station ON and OFF button). This relay may be used to drive the pilot coil of an external contactor for switching non-dim loads independent of Microcontrol control channels operated from the sliders. Typical applications include switching working lights, HID sources or providing a contact closure for emergency systems or dimmer cabinet "panic" functions.

## Receptacle Station



The Receptacle Station allows a Portable Microcontrol Station to be used to control lighting from various positions in a room, particularly useful for meeting rooms and lectern controls. The Receptacle Station has a 25 way D type connector that accepts any Portable Microcontrol Station.

## Dimming Options

Microcontrol is designed for use with remote analog dimmers which have the capability of providing intensity control for tungsten, tungsten halogen, low voltage (transformer fed), fluorescent, neon and cold cathode lighting loads. Dimmers should be selected appropriate to the type of light source, load rating and the installation requirements.

An Electronic Fluorescent Ballast Controller (EFBC) is available to interface Strand Lighting control systems and the Advance® Mark VII Fluorescent Ballast. The EFBC can be connected directly to Microcontrol Slider Stations.

Data Sheets describing Strand Lighting's complete range of dimmers and controls are available on request. Strand Lighting Fact Sheets also available include :  
 " A Guide to Fluorescent Dimming" and  
 " Dimming Transformer Fed Loads".

## Microcontrol™ Specifications

### GENERAL

- 1 Microcontrol shall be a fully integrated control system using analog signals to communicate between control stations, and between control stations and dimmers.
  - 2 The control station face plates shall be free of visible fasteners and shall be of aesthetic appearance.
  - 3 Station faceplates shall be fabricated in aluminum with an aluminum die cast trim frame.
  - 4 Control stations shall be supplied in an off-white finish with legends printed in grey.
  - 5 Control stations shall require US flush-mounted masonry back boxes (Raco Series 690/960 or approved equal) and can be supplied to order.
- Note : Back boxes must be grounded/earthed in accordance with local wiring practice to provide a discharge path to ground for static electricity.
- 6 All control station sliders shall have a 1.75" (45mm) travel with grey knobs.
- Control station pushbuttons shall have grey button caps.
- The On and Manual pushbuttons shall have integral red LED indicators.
- 7 All control cable terminations shall be via screw terminal block.
  - 8 All Microcontrol Stations shall operate from a 10.6 Volt dc supply from a remote power supply.
  - 9 There shall be no limit to the number of Microcontrol Stations that can be interconnected, subject to the capacity of the low voltage power supply feeding the stations.

### MICROCONTROL SLIDER STATIONS

Specific features of the Microcontrol Slider Stations shall be :-

- 1 1 to 12 Channel sliders corresponding to the number of channels for manual control.
- 2 A Proportional Master slider shall be provided (on stations with two or more channel sliders).
- 3 On, Manual and Off pushbuttons where On turns all channels to full on or clean-up, Manual activates the sliders for manual level setting, and Off turns all channels to off or blackout.
- 4 The On, Manual and Off buttons shall all be capable of taking control, to enable multiple Microcontrol Stations to control the same lighting channels on a "last action takes precedence" basis.

### MICROCONTROL ENTRANCE STATION

Specific features of the Microcontrol Entrance Stations shall be:-

- 1 The Entrance Stations shall be wired to a Microcontrol Slider Station to provide remote selection of the On, Off or Manual scenes.
- 2 Entrance Stations shall be available in the following configurations:
  - Two pushbutton with On/Off or Manual/Off functions.
  - Three pushbutton with On/Off/Manual functions.
- 3 The Manual pushbutton shall take control from other Microcontrol Stations and activate the sliders on the station to which it is connected.
- 4 The On and Manual pushbuttons shall have integral LED indicators.

### MICROCONTROL ENTRANCE STATION WITH LOW VOLTAGE RELAY OUTPUT

Specific features of the Entrance Station with relay output shall be:-

- 1 The Entrance Station shall be wired to a Microcontrol Slider Station to provide remote selections of the ON and OFF scenes.
- 2 In addition the station shall have a low voltage relay output suitable for driving the pilot coil of an external contactor.
- 3 The relay shall be a 2 pole double throw latching device operated from the stations ON and OFF push buttons.
- 4 The station ON pushbutton shall have an integral LED indicator to show the relay status.

### MICROCONTROL RECEPTACLE STATION

Specific features of the Microcontrol Receptacle Station shall be :-

- 1 The Receptacle Station shall have a female 25 way D type connector to accept a Portable Microcontrol Station.
- 2 It shall be necessary to wire back to the dimmer cabinet(s) or Electronic Fluorescent Ballast Controller(s) only those connector outputs appropriate to the Portable Station being used.
- 3 All Portable Microcontrol Stations shall be supplied complete with 25ft (8m) cable and mating 25 way D connector.

### CABLE SPECIFICATION

Interconnection between all Microcontrol Slider Stations, Entrance Stations and dimmer cabinets shall be by # 18 AWG color-coded cable. The number of conductors shall be as follows:-

Microcontrol Slider to 2 pushbutton Entrance Stations	5
Microcontrol Slider to 3 pushbutton Entrance Stations	7
Between Microcontrol Slider Stations	3, plus 1 per channel
Between a Microcontrol Slider Station and dimmer cabinet	2, plus 1 per channel
Maximum Cable Run:	1000ft (300 m) in total.

### POWER SUPPLY

Microcontrol requires a 10.6 Volt dc external power supply.

Digital Environ Cabinets and System 6 Dimmer Cabinets (with PSU option) can supply power for up to 20 stations.

The Microcontrol/Outlook Supplementary Power Supply listed under "Ordering Information" can support up to 20 Microcontrol Stations, and is supplied in an enclosure for wall mounting in the dimmer /distribution room. It is suitable for 90 - 240 Volts ac 60 or 50 Hz supplies.

### DOCUMENTATION

Operating instructions shall be supplied with each system.

Project installation and connection drawings shall be supplied as specified.

### SAFETY

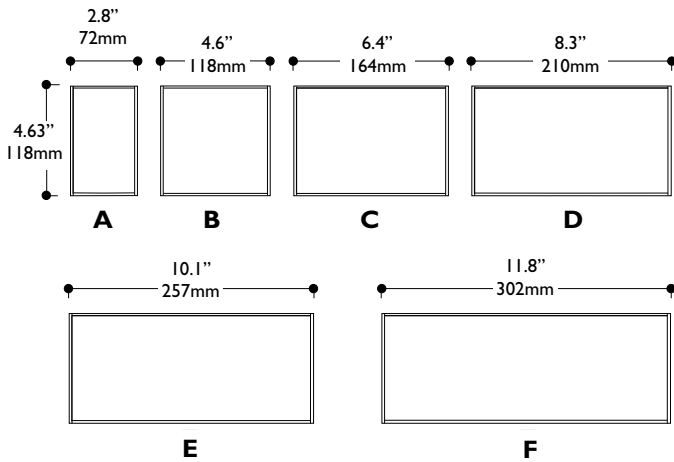
Microcontrol operates on 10.6 Volt safe extra low voltage circuits (SELV), and contains no hazardous voltages.

### ENVIRONMENTAL SPECIFICATION

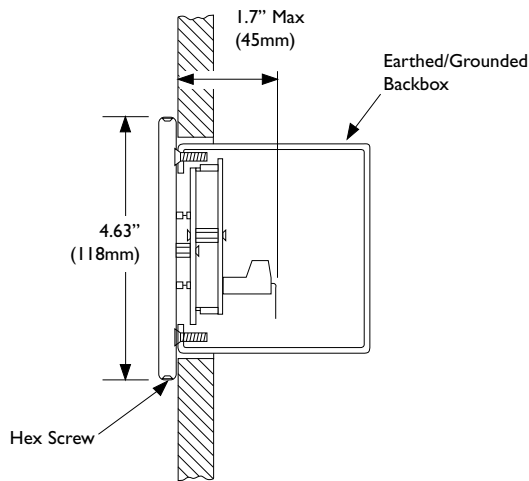
For all Microcontrol Stations and associated equipment, including dimmers and power supply units, the following recommendations shall apply:

Ambient temperature extremes	32° - 104° F (0° - 40° C)
Relative humidity	10% - 90% non-condensing
General conditions	Office level cleanliness - Interior use only

**Faceplate Sizes**



**Faceplate Side Detail**



- Stations can be supplied complete with back box to special order
- Stations can be supplied as a portable unit complete with 25ft (8m) cable and mating connector for a Receptacle Station.
- Bronze tinted Plexiglass locking covers are available to order for all Microcontrol Stations.



**Strand Lighting**

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- Rome:** Strand Lighting Srl, Via delle Gardenie 33, Pontina Vecchia Km 33,400, 00040 Pomezia-Roma, Italy. Tel: +39 (0) 6 914 7123 Fax: +39 (0) 6 914 7136
- Brussels:** Strand Lighting Ltd, Chaussée de Haecht 1801, 1130 Bruxelles, Belgium. Tel: +32 (0) 2 245 8686 Fax: +32 (0) 2 245 2235
- Stockholm:** Strand Lighting Ltd, Box 20105, Tappvägen 24, 161 02 Bromma, Sweden. Tel: +46 (0) 8 799 6950 Fax: +46 (0) 8 799 6954

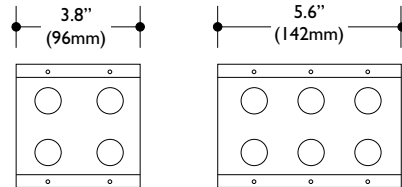
ALSO FACILITIES IN: **LOS ANGELES • NEW YORK • HONG KONG • MILANO • MUNICH • BERLIN**

**Ordering Information**

Cat. No.	Faceplate/Back Box	Description
61001	B	Microcontrol On/Off/Manual – 1 Channel Station
61002	C	Microcontrol On/Off/Manual – 2 Channel Station + Master
61003	C	Microcontrol On/Off/Manual – 3 Channel Station + Master
61004	D	Microcontrol On/Off/Manual – 4 Channel Station + Master
61005	D	Microcontrol On/Off/Manual – 5 Channel Station + Master
61006	D	Microcontrol On/Off/Manual – 6 Channel Station + Master
61007	E	Microcontrol On/Off/Manual – 7 Channel Station + Master
61008	E	Microcontrol On/Off/Manual – 8 Channel Station + Master
61009	E	Microcontrol On/Off/Manual – 9 Channel Station + Master
61010	F	Microcontrol On/Off/Manual – 10 Channel Station + Master
61011	F	Microcontrol On/Off/Manual – 11 Channel Station + Master
61012	F	Microcontrol On/Off/Manual – 12 Channel Station + Master
61020	A	Microcontrol Entrance On/Off
61021	A	Microcontrol Entrance Manual/Off
61022	A	Microcontrol Entrance On/Manual/Off
61023	A	Microcontrol Entrance On/Off with relay output
63024	A	Receptacle Station
66100	-	Microcontrol/Outlook Supplementary Power Supply with Enclosure

**Back Box Sizes**

All masonry back boxes are 3.5" (89mm) deep and all are 3.75" (95.3mm) high.



- A\*** 1-Gang 1.97" (50mm)
- B** 2-Gang 3.78" (96mm)
- C** 3-Gang 5.59" (96mm)
- D** 4-Gang 7.40" (188mm)
- E** 5-Gang 9.22" (234mm)
- F** 6-Gang 11.03" (280mm)

\* Note: Backboxes are subject to regional supply variations. Dimensions given are for guidance only and refer to Raco 690/960 series. Refer to your local Strand Representative for further details.

