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**FSL Electronics Ltd**

**Data Sheet Ref : UBG 02**

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**Ultrabeam Transmitter**

**Technical Data**

**Supply Voltage**

1 by 9 Alkaline battery, type 6AM6, 6F22, PP3

**Power Consumption**

Activated : max 45mA

De-activated : max 10mA

**Range**

Dependant on ambient light

Typical 35m upwards

**Light Source**

3 by CQW13 emitters with mirror reflectors each giving high radiation intensity  
( 720 m W/SR typ.)

**Operating Temperature**

-20 c to 60 c

**Housing**

Dark brown ABS

**Switch Type**

Tactile membrane keypad

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## **FSL Electronics Ltd**

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### **Ultrabeam Receiver**

#### **Technical Data**

##### **Supply Voltage**

- (i) 12 V DC ( 10V - 15 V )
- (ii) 5 V DC - 30 V DC
- (iii) 220 / 240 V AC
- (iv) 110 V AC available on request )

##### **Operating Temp**

-20 c to 60 c

##### **Relay Switching Current**

8 amps constant DC  
10 amps constant AC

##### **Housing /Proofness**

Grey ABS IP55

##### **Power Consumption**

Typically 20 mA

##### **Delay on operate**

100ms

##### **Channels**

1 to 6 on standard unit  
Only one channel may be activated at a time.

##### **Delay on release**

100ms

#### **General Operation**

The system works as follows :

- The transmitter is directed towards the activating surface of one or more receivers.
- On activation of a push-button on the transmitter unit, pulse position modulated infra-red light is emitted. Simultaneously, a red LED lights to indicate transmission is taking place.
- When a valid code at the correct frequency is detected by the receiver, the corresponding channel will be activated. The frequency of the carrier signal is adjustable by a variable resistor on the transmitter and receiver units. This adjustment is not normally necessary as systems are normally shipped in matched pairs.

**Ultrabeam**  
**Infra-red Remote Control Unit**

**Farnell Order No: 239 - 380**

The system consists of

- 1 A battery operated hand-held transmitter. Standard transmitters supplied with six channels (type 239-392).
- 2 A receiver unit supplied as standard with six channel outputs, sealed to IP55.

The system can be coded to 4 different channel groups explained in table 1.

**Transmitter Switch Settings**

The 4 Way DIL switch should have all four switches in the on position to enable all six channels.

The 8 Way DIL switch is used to set the channel groups as shown in table 1.

**Receiver Switch Settings**

Switches 1-2 are used to set the channel groups as shown in table 1.

Switches 3-8 allow channels 1-6 respectively to be enabled/disabled (for example, when SW3 is off, channel 1 is disabled).

**Table 1**

Transmitter Unit								Receiver Unit		
1	2	3	4	5	6	7	8	Decoder	1	2
ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	926	ON	OFF
OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	926	OFF	ON
OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	927	ON	OFF
OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	927	OFF	ON

**Important**

This Unit is supplied with an ML926 decoder in the IC1 position. This IC may be replaced by a ML927 decoder to use the extra codes in table 1.