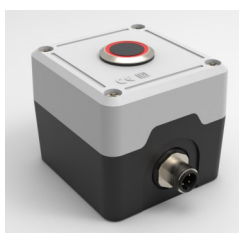


Main Components:

- 1 x Control Unit
- 2 x Traffic Lights
- 2 x Non-Contact Sensors
- 2 x 5 metre Cables
- 1 x Power Supply



Control Unit: Showing Power, 2 x
Sensor Input Connectors and
Maintenance Switch



Contact Free Sensors: Provides Trigger
Input for Flow Through System,
Connected via 5 metre Cables

Motion29 Limited

Unit C9, Newbridge Road Industrial Estate
Pontllanfraith, Blackwood, NP12 2XF, UK.

Tel: 01495 360022

www.motion29.com info@motion29.co.uk

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Control Unit:

Contains the control board with system fuse (3 Amp) and all connections to power, input signals and traffic lights. The control board has four PCB mounted switch blocks that are used to set the minimum operating time for each light sequence. The traffic light system can run in one of three modes.

1. Demand call mode: Sensor 1 & 2 are required. If light 1 is on green, a call from sensor 2 will cause the system to change light 2 to green. Light 2 will remain green until there is a call from the opposite direction.
2. Direction priority mode: Light 1 remains on green unless there is a call from the other direction by sensor 2, sensor 1 is not connected. The reverse operation can be achieved with light 2 remaining on green with sensor 1 receiving call from the other direction, sensor 2 is not connected.
3. Free running mode: Traffic lights step through sequence according to timer settings; the sensors are not required and should be left disconnected.

Light sequence: From light 1 on green the next step is all lights on red with the "red to green delay" used to flush traffic through before the next green is illuminated. Light 2 will remain on green until the "green on time" has elapsed. Please note a short green on time should be used for demand call or direction priority modes as these are controlled by sensors. For free running set-up, times are required for both green lights.

Maintenance Switch: In "all stop" position, both red arrays on both lights are illuminated. This is used to stop traffic for maintenance purposes.

Time Control: Using the DIP switches in the four blocks at the base of the control board, the timer settings are achieved by selecting the time required in seconds. 76 seconds would be switch 3, 4 & 7 ON. Note: all switches should be set for a minimum of 1 second.

Traffic Lights: Depending on choice of lights, two units are used one for each direction, these should be mounted to avoid glare to the pedestrians travelling through the system.

Non-Contact Sensors: These use an infra-red sensor to detect an object within range of the unit. The range is set to approximately 7.5 cm and can be adjusted between 5 and 15 cm. The output time duration for the switch is set to momentary, but this can be set between

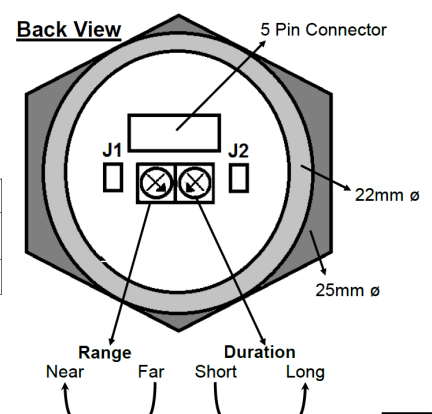
approximately 0.5 and 20 seconds. By fully rotating the setting clockwise the switch can be set to latching mode, this is not suitable for the correct operation of the traffic light system. When the sensor detects an object the red indicator ring on the switch will change to green and then back to red. This indicates a request to pass signal to the traffic light control board.

DU-NT/TF

Range (cm)		
5	7.5	15

Duration (seconds)			
0.5	5	10	20

Default Settings
(see diagram to the right)
Range - 15 cm
Duration - 0.5 Secs



PLEASE NOTE - Device is Latching (not-timed) when 'Duration' is in position -

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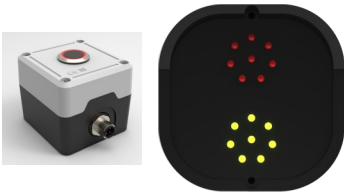
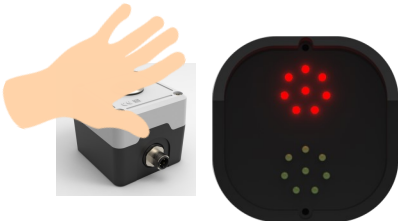
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www.motion29.com info@motion29.co.uk

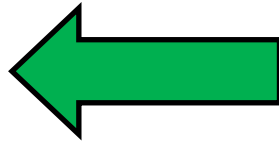
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Traffic Light Sequence

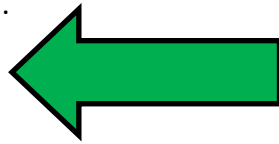
Direction A



Direction A is on green, traffic is allowed to move from B to A.



Call from direction A starts the timing process, programmed delay before direction B changes to red.



Both direction on red, programmed delay to allow traffic to flush through the area.



Traffic cleared, direction A can now cross through to B. There is no change until another call is received.



New call from direction B starts the timing process to change direction B back to green.



Direction B



Traffic Light Sequence - Continued

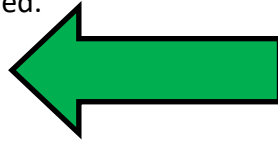
Direction A



Both on red, programmed delay to allow traffic to flush through the area.



Traffic cleared, direction B can now cross through to A. There is no change until another call is received.



Direction B



With the **Maintenance Switch** set to All Stop, the traffic lights in both directs are set to red until the maintenance switch is reset to run mode.



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System Items:

Each traffic control unit is supplied with the following components:

- 1 x Control Unit—Main control and connectivity unit for the system., supplied with wall mounting brackets.
- 2 x Traffic Lights—These will vary according to the system chosen. Note that the 50 mm and 100 mm flat pack traffic lights are supplied with 4 metre cables and the walking figure and circular traffic lights are supplied with 5 metre cables.
- 2 x Contact Free Sensors—These are used to call for the visible red light to change to green. Each sensor is supplied with a 5 metre cable to connect it to the control board.
- 1 x Power supply unit—A desk top style is used to power the system, these have a 1.4 metre cable between the power supply and the connector to the control unit.

Optional Extras:

Extension cables are available with fixed lengths of 2, 5, 10 and 20 metres. They can be used between any items of the system and the control box, for example between power supply, sensors or traffic lights. **Please Note:** If you need to use more than one 20 metre cable between the control box and the traffic light, please contact us for technical advice on 01495 360022.

For the flat pack traffic lights only. If you find the traffic lights are brighter than desired, a ballast resistor unit can be fitted between the traffic light and control unit. These are available in two sizes - 68 ohm and 150 ohm, which can be combined to achieve 218 ohm. One ballast unit is required per traffic light, please refer to the table for an approximate guide.

Traffic Light Used	68R	150R	218R
100mm Array	65%	47%	38%
Walking Figure	65%	47%	38%

Technical Specification - Traffic Control System

Operating Voltage	24 V dc	
Maximum Power	10 W	
System Fuse	3 A Medium Blow	
Environmental	Power Supply	Indoor Use Only
	Control Board	IP65
	Sensor Units	IP65
	Traffic Lights	IP65

Warning: LED traffic lights are designed to be visible in bright sunlight, they are therefore very bright. For direct viewing the recommended minimum viewing distance should not be less than 5 meters. If this is not possible, we recommend that the lights are positioned above head height and out of direct field of vision. The light output can be moderated by the use of ballast resistors as detailed above. If in doubt, please ask!

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