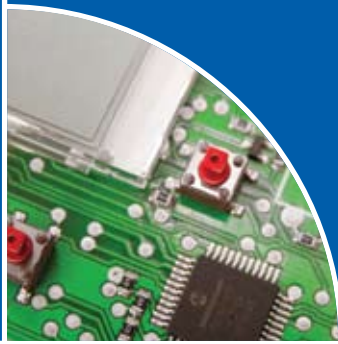


# CSS 2 SERIES

FULL SEQUENCE CONTROLLERS FOR  
THE IGNITION AND MONITORING OF  
ATMOSPHERIC GAS BURNERS

Certified to EN298:2003



## TYPICAL APPLICATIONS

The **CSS 2** family of advanced, cost-effective, gas safety controls is designed to satisfy the exacting control needs of a wide range of commercial appliances, where a fully enclosed, IP40 construction is essential. Pactrol's proven record digital design has been applied to this comprehensive range of commercial controls units, suitable for a wide range of applications including:

- Catering appliances
- Commercial boilers
- Space heaters

## KEY FEATURES

- Intermittent Pilot or Direct Burner Ignition
- Digital Timing
- Phase sensitive flame detector
- Integral spark generator
- Single or dual probe operation
- Volatile or Non-volatile Lockout
- Alarm Output
- Remote Reset (switched neutral allowing common reset line)
- Front panel status (flame/diagnostics)
- Separate base with wiring terminals
- CE Approval

## OPTIONS

- UV flame sensor
- Other options available on request

## HOUSING

The CSS 2 is supplied in a two part housing, the base is detachable and includes all the connections needed to wire the control to the appliance.

The housing dimensions are H 120mm X L 112mm X W 75mm.

The housing offers IP40 protection.

The base includes four M12 (Pg9) and three M16 (Pg11) gland knockouts around the edge and three cable entry knockouts in the bottom.

The control can be mounted using an integral DIN rail clip or using two screws through knockout holes in the base (slotted mounting holes allow 70...80mm centres for easy replacement of existing control).



PACTROL  
CONTROLS

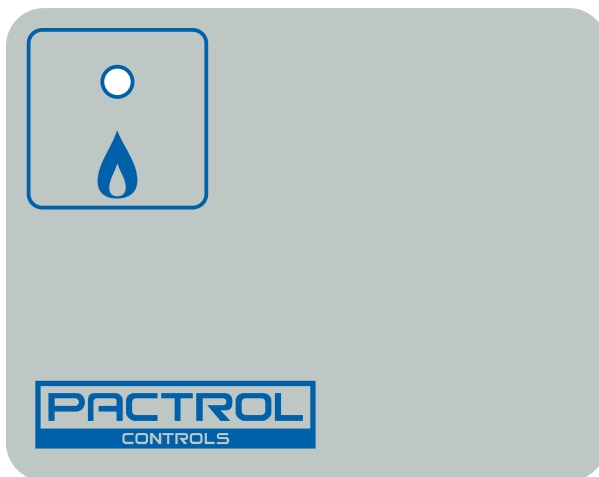
## SYSTEM OPERATION SEQUENCE (NORMAL IGNITION)

### Intermittent Pilot

With power applied to the control the system enters a wait period ( $T_w$ ). At the end of the wait period sparking commences, the pilot valve energises and a trial for ignition is made. On successful ignition the sparks stop and the main valve opens.

### Direct Burner Ignition

For direct burner ignition pilot valve output is used for the main valve. The main valve output is not present.



### Fascia

The fascia has a single LED. This LED flashes during the wait period and illuminates when the burner lights.

### Internal Spark Igniter

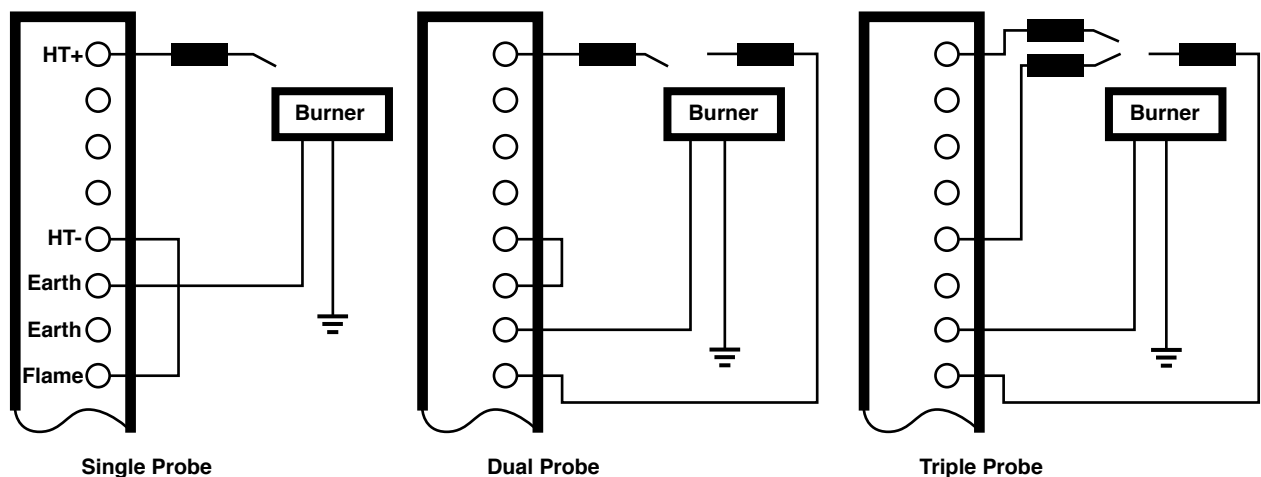
The spark rate can be factory specified (1...50 sparks/s).

### Probe Arrangements

The control can be configured as either single, dual or triple probe.

To ensure correct single probe operation the spark rate must be less than 10 sparks/s.

### Probe Configuration



## TECHNICAL SPECIFICATION

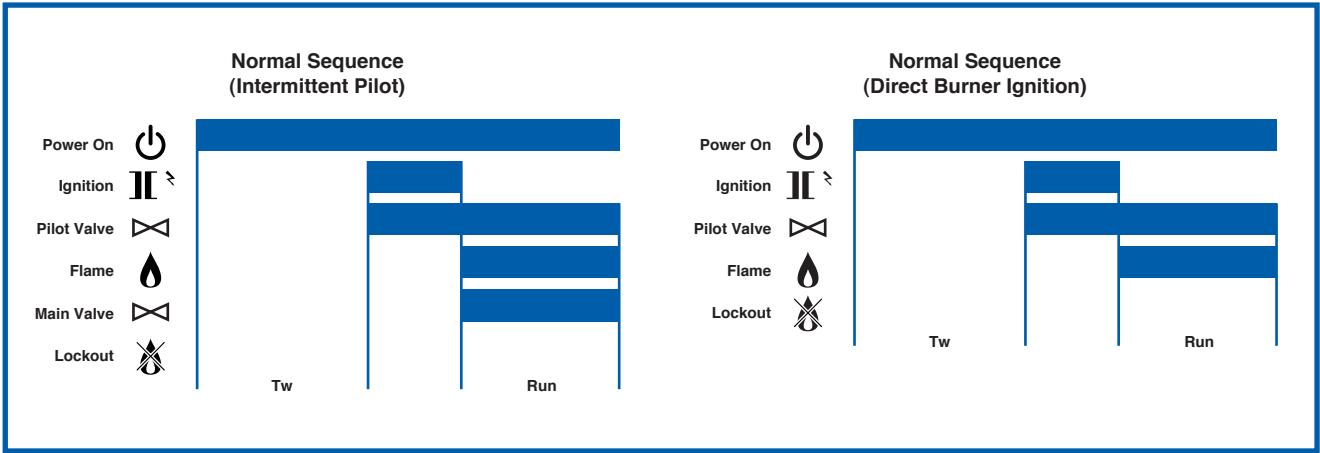
<b>Supply</b>	Voltage	230V~ +10%/-15%
	Frequency	50/60Hz
	Consumption	< 1W (Standby)
	Fuse	1A T HRC (ceramic slow-blow)
<b>Ambient</b>	Temperature	-10°C...+60°C,
	Humidity	0...90%RH (Non-condensing)
<b>Housing</b>	Dimensions	H 120mm, L = 115mm, W = 75mm
	IP rating	IP40 (when installed with suitable cable glands)
	Mounting	Flush or DIN clip
<b>Ignition</b>	Internal Spark	>25kV, >4mJ (30pF load)
	Spark rate	1....50 sparks/s (factory programmable)
<b>Flame Detector</b>	Probe Type	Flame ionisation (measurement range 0....10µA)
	Sensitivity options	• 0.4µA      • 1µA      • 2µA The flame detector is self checking (suitable for continuous operation)
<b>Burner</b>	Valving	• Pilot (intermittent) • Direct (1 stage)
<b>Sequence</b>	Timings	All timings are factory programmable
<b>Loads</b>	Total Load	230V~ 1A
	Gas valves	Pilot = 230V~ 0.5A, Main = 230V~ 0.5A
	Lockout	230V~ 0.5A
<b>Lockout</b>	Type	• Non-volatile      • Volatile
	Reset options	• Local pushbutton   • Remote (switched N, max cable length 100m)
<b>Standard features</b>	Burner Indicator	Via front panel

## CONTINUOUS DEVELOPMENT

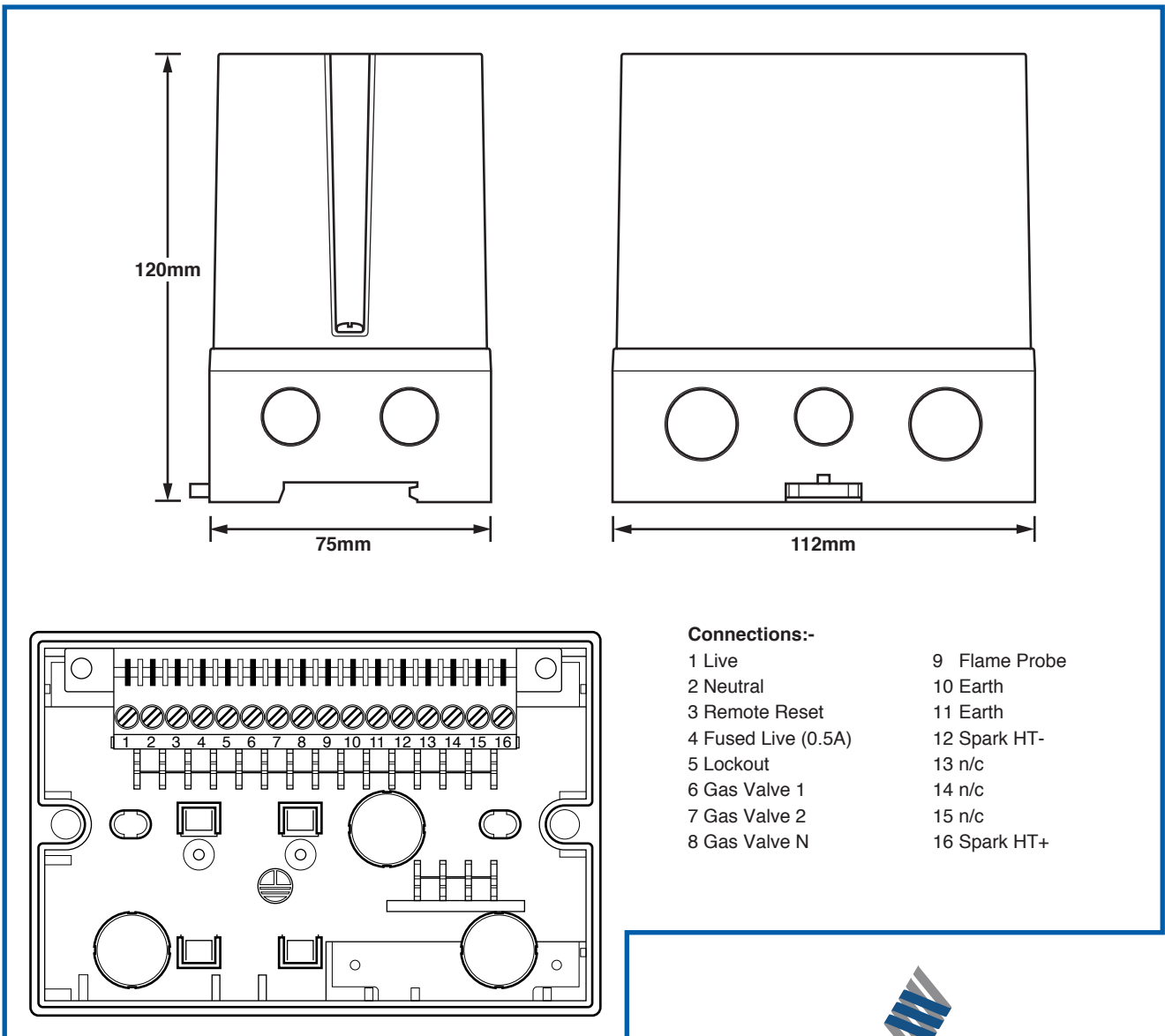
New models are continuously under development.  
For further information visit our  
Website [www.pactrol.com](http://www.pactrol.com) or  
contact the sales team [sales@pactrol.com](mailto:sales@pactrol.com)

Pactrol Controls reserve the right to change the  
specification of this product range without notice.

# SYSTEM OPERATION SEQUENCE



## MECHANICAL DETAILS



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