

P16 Range

Fully proven Full Sequence Controls



technology factfile

The P16 range is a complete family of fully proven, full sequence controls designed to meet the needs of appliance manufacturers. All controls are fully approved to EN 298 and meet all the essential requirements of the Gas Appliance Directive.

The P16 range of full sequence controls is ideal for use in atmospheric and forced draught appliances, with either single or 2 stage ignition sequences. The family consists of both volatile and non-volatile lockout versions and has an integral spark ignition generator for operation in dual or single electrode applications.

The P16 range has a well proven track record and, over the years, has become an industry standard, with its high-impact, flame retardant housing, screw connectors and wide variety of variants.



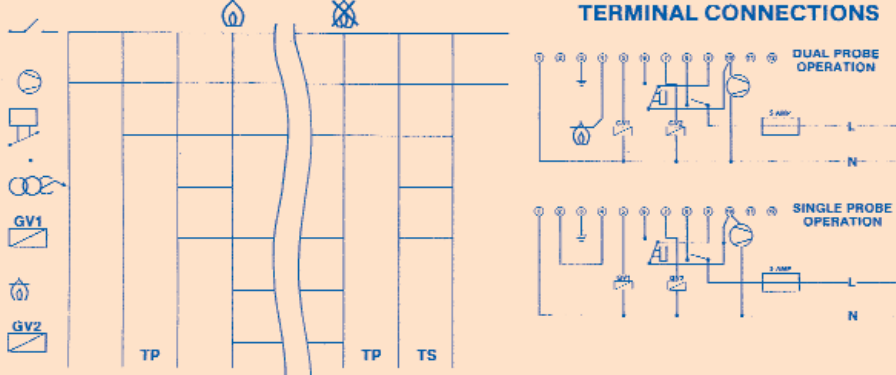
Typical applications

- Combination Boilers
- Condensing Boilers
- Heating Boilers
- Water Heaters
- Warm Air Heaters
- Radiant Tube Heaters

key features

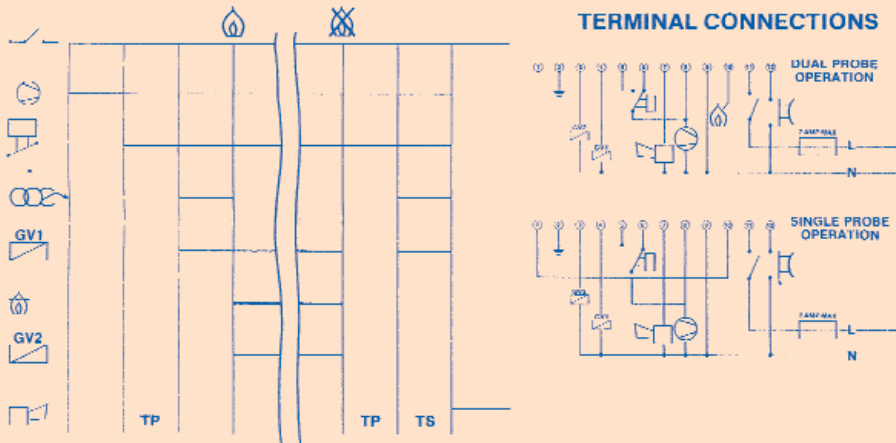
- CE Certified to EN298
- Well-proven range of controls
- Integral spark and flame detection
- Single or dual electrode operation
- Volatile or non-volatile lockout functions
- Atmospheric or fanned applications
- Single or 2 stage ignition sequences
- Strong, flame retardant enclosure
- Non-reversible, screw based connector

P16D Dual Stage Ignition, Air Pressure Switch Proving, Electrical Reset Lockout












Note: The sequence chart for P16DI and P16DIS is as shown above. Wiring for P16DI is as dual probe operation P16D only. Wiring for P16DIS is as single probe operation P16D only

P16F Dual Stage Ignition, Air Pressure Switch Proving, Manual Reset Lockout



Note: The sequence chart for P16F1 is as shown above. Wiring for P16F1 is as dual probe operation P16F only

SIGN CONVENTIONS

-  LIVE IN
-  SPARK GENERATOR
-  1st STAGE GAS VALVE
-  2nd STAGE GAS VALVE
-  FLAME PRESENT
-  FAN
-  AIR PRESSURE SWITCH
-  ALARM
-  FUSE



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To keep abreast of current developments, controls may be subject to change without notice. Such changes may affect the accuracy of information contained in this data-sheet, and the manufacturers advice should be sought if any problems arise.

P16 option chart

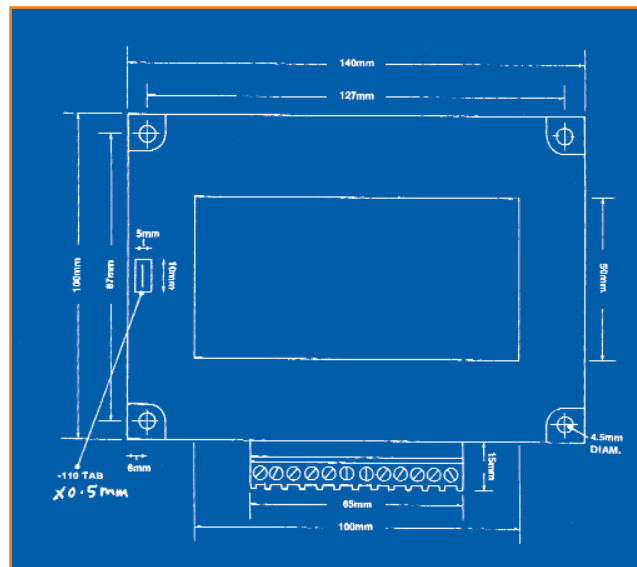
Product Model	Product Reference Number	Spark Rate	Manual Reset	Air Proving	1 or 2 Stage Ignition	Detector Sense u A	Flame Detector Response Time	Probe Option	Purge Time (secs.) TP	Ignition Time	Supply Volts	Connection Method (xxxxx)	Approval Authority
P16A	402601	5 HZ	NO	NO	1	1 ± 0.2	< 2 s	S or D	6-12	5-10	240	10 WAY EDGE + HT	—
P16AV	405801	2-4 HZ	NO	NO	1	1 ± 0.2	< 2 s	S or D	6-12	5-10	110	10 WAY EDGE + HT	CE
P16B	402701	5 HZ	NO	No	2	1 ± 0.2	< 2 s	S or D	6-12	5-10	240	10 WAY EDGE + HT	CE
P16C	402801	5 HZ	No	YES	1	1 ± 0.2	< 2 s	S or D	6-12	5-10	240	10 WAY EDGE + HT	—
P16D	402901	5 HZ	NO	YES	2	1 ± 0.2	< 2 s	S or D	6-12	5-10	240	10 WAY EDGE + HT	CE
P16DI	400601	50 HZ	NO	YES	2	1 ± 0.2	< 2 s	DUAL ONLY	6-12	5-10	240	10 WAY EDGE + HT	CE
P16DIS	400801 VAR03	50 HZ	No	YES	2	1 ± 0.2	< 2 s	SINGLE ONLY	6-12	5-10	240	10 WAY EDGE + HT	CE
P16F	403101	3-4 HZ	YES	YES	2	1 ± 0.2	< 2 s	S or D	6-12	5-10	240	12 WAY EDGE + HT	CE
P16F1	406200	50 HZ	YES	YES	2	1 ± 0.2	< 2 s	DUAL ONLY	30-40	3- 5	240	12 WAY EDGE + HT	CE
P16H	403301	3-4 HZ	YES	NO	2	1 ± 0.2	< 2 s	S or D	6-12	5-10	240	12 WAY EDGE + HT	CE

Technical specification

Electrical Supply	Voltage: 230V + 10% - 15% except P16AV 110V + 10% - 15%	
	Frequency: 50 Hz	
	Consumption: 5VA	
Ambient Temperature	-5Pc to + 60Pc	
Humidity	Maximum of 95% RH	
Ignition Generator	Open circuit voltage at 30pF	12KV
	Energy Output	10MJ
	Spark Gap Tolerance	2.5mm to 4.00mm
	H.T. Lead Length	1 Metre Maximum
Switching Capacity	1st Stage Gas Valve GV1	1A Maximum
	2nd Stage Gas Valve GV2	1A Maximum
	Air Pressure Switch Proving Relay 1A Maximum	

dimensions

Overall Dimensions
140mm x 100mm x 54mm



Sequence of Operation and Wiring Details for P16 Range

The following options are intended for use on atmospheric applications where air pressure switch proving is not required.

P16A & P16AV Single Stage Ignition Electrical Reset Lockout

TERMINAL CONNECTIONS

P16B Dual Stage1 Ignition Electrical Reset Lockout

TERMINAL CONNECTIONS

P16H Dual Stage1 Ignition Manual Reset Lockout

TERMINAL CONNECTIONS

SIGN CONVENTIONS

- LIVE IN
- SPARK GENERATOR
- 1st STAGE GAS VALVE
- 2nd STAGE GAS VALVE
- FLAME PRESENT
- FAN
- AIR PRESSURE SWITCH
- ALARM
- FUSE

The following options have an integral air pressure switch proving relay and are intended for use on forced draught burner applications.

P16C Single Stage Ignition Air Pressure Switch Proving Electrical

TERMINAL CONNECTIONS