

503 EFD

MAIN FEATURES

The 503 EFD is an electronic flame safety device for controlling a gas appliance using the principles of flame rectification.

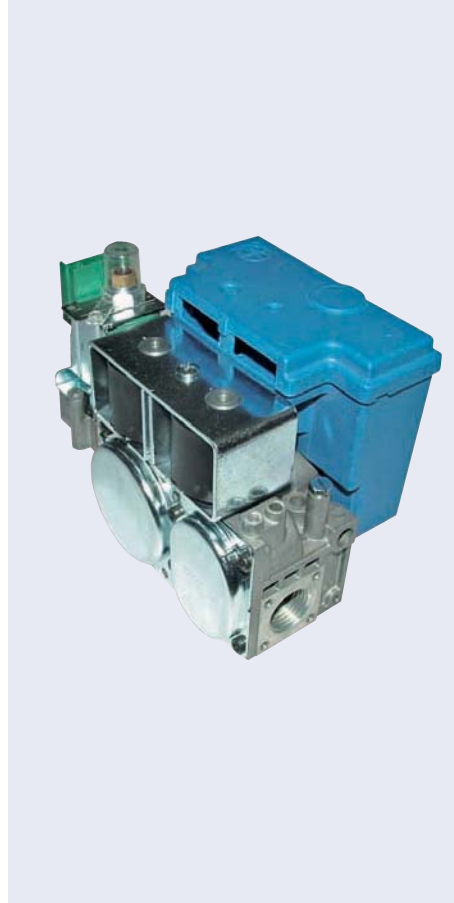
The 503 EFD automatic device has been designed for domestic gas appliances with or without a fan in the combustion circuit, with direct ignition or ignition by means of an intermittent pilot in applications which require either non-volatile or volatile lockout. It is also possible to have two separate electrodes for flame ignition and detection or to have these two functions incorporated in a single electrode.

The 503 EFD family of products has been specifically designed for fixing on SIT 830, 836 and 837 TANDEM and SIT 822, 826 and 827 NOVA multifunctional controls by means of an exclusive plastic container which integrates itself with the valve body and simplifies connection of the solenoid valves.

The 503 EFD is an automatic ignition control for applications with intermittent operation in accordance with EN 298 for:

- boilers with natural draught
- boilers with forced draught including dynamic control of the air pressure switch.

Standard reference EN 298



TECHNICAL DATA

• Ambient working temperature	-20... to + 60 °C	• Timing	Minimum waiting time Tw or purge time Tp: 1.5...40 sec. Maximum safety time Ts: 3...120 sec.
• Humidity	95% max at 40 °C	• Flame sensing	Minimum flame current: 0.5...2.5 µA (standard 0.5) Recommended flame current: > 3 times the minimum current
• Supply voltage	220/240 Vac - 15%, + 10%, 50-60 Hz	• Fusing	Internal: 4 A fast External: 3.15 A fast or less depending on the electrical loads. This fuse protects the device in the event of overloading or short circuits and prevents the intervention of the internal fuse
• Power consumption	maximum 10 VA for versions without fan maximum 12 VA for versions with fan	• Ignition	Ignition voltage: 15 KV at 30 pF load Repetition rate: 1 Hz...25 Hz (standard 25) Max length of the cable 2 m Spark gap recommended: 2-4 mm
• Electrical ratings	Pilot valve or main valve: 230 Vac, 0.5 A, $\cos\phi \geq 0.4$ Fan: 230 Vac, 1 A, $\cos\phi \geq 0.4$ Flame relay: 230 Vac, 0.5 A, $\cos\phi \geq 0.4$ Alarm: 230 Vac, 1 A, $\cos\phi = 1$	• Mounting	Integrated on SIT 830, 836, 837 TANDEM and SIT 822, 826, 827 NOVA multifunctional gas controls
• Electrical connections	High voltage probe: male fast-on connector 2.8 x 0.5 mm Flame detection probe: Male fast-on connector 4.8 x 0.5 mm Other connections: male Molex series 2599 suitable for female Molex series 3001 and 3002 or compatible		
• Protection degree	standard IP 40 IP 44 with gaskets		

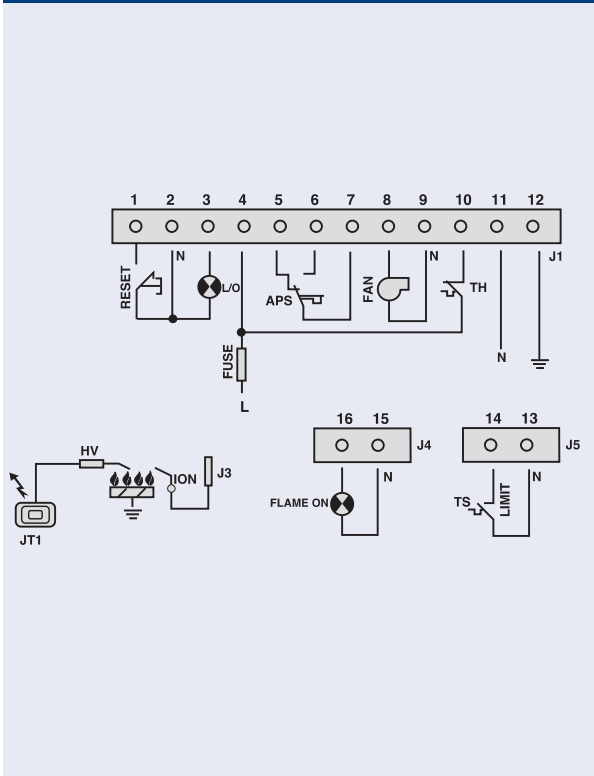
CODES

Codes	electrodes	waiting or purge time [s]	safety time [s]	connections for FAN/APS	lockout	ignition (*)	protection degree
0503001	2	30	10	no	volatile	DBI	IP 44
0503003	2	1.5	10	no	not volatile	DBI	IP 40
0503004	1	1.5	5	no	not volatile	DBI	IP 40
0503005	2	1.5	30	no	volatile	DBI	IP 20
0503006	2	1.5	7	no	volatile	DBI	IP 44
0503101	2	1.5	10	no	not volatile	DBI	IP 20
0503104	2	10	5	no	not volatile	DBI	IP 20
0503201	2	1.5	25	no	not volatile	IP	IP 40
0503204	1	1.5	60	no	volatile	IP	IP 20
0503501	2	10	5	yes	not volatile	DBI	IP 40
0503602	2	1.5	10	yes	not volatile	DBI	IP 20
0503603	2	1.5	10	yes	not volatile	DBI	IP 44
0503703	1	1.5	60	yes	volatile	IP	IP 44
0503901	2	30	5	yes	volatile	DBI	IP 44

(*) DBI: Direct burner ignition

IP: Ignition by intermittent pilot

ELECTRICAL CONNECTIONS



DIMENSIONS

