



## TGRD6x and TGRD8x Types Gas burner controls

### MAIN FEATURES

- Program versions for forced draft gas burners and atmospheric
- TGRD versions available with post-purge function available
- Multicolor indications of operating status and fault status messages
- Controlled intermittent mode after 24 hours of continuous operation
- TGRD versions available with limitation function of the number of repetitions
- External reset facility
- TGRD versions suitable for EN676 and EN746 applications
- Approval based on **Gas Appliances Regulation** EU 2016/426 European Standard EN298:2012, versions available with approval based on UL 372 / CSA C22.2 No. 199

**TGRD burner controls** ensure reliable operation and supervision of 1-2 or 3-stage gas burners. The products have a high level of safety while offering ease of operation.

Burner controls of the TGRD line feature are equipped with a single-channel microprocessor system with periodic self-check and 2 independent shutdown paths for safety-related functions. The controls are also suitable for driving an interrupted pilot and air dampers by means of 1 or 2 wires of a modulating thermostat. An ionization probe or FD... sensor is used for flame supervision.

### Technical data (extract)

For further information see data sheets 14540.

Mains voltage:	200÷240V~ +10% / -15% @ 50/60Hz
On request:	100÷120V~ +10% / -15% @ 50/60Hz
Operating temperature range:	-20°C ÷ +70°C
Ambient humidity:	95% max @ 40°C
Protection degree (with connecting socket):	IP 00
Maximum cables length:	
- Thermostat (T) and external reset (RE):	20 m
- external components:	1 m

**Standards and certificates (extract)**



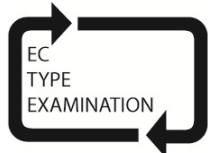
YY = year of production

**Conformity to EC directives**

- Electromagnetic compatibility EMC (immunity) 2014/30/EU
- Low-voltage directive 2014/35/EU
- Gas appliances directive 2009/142/EC until 20 April 2018)
- Gas appliances regulation (EU) 2016/426 (from 21 April 2018)
- EC - type certification (CE PIN 0476CR0813)



EC Directive

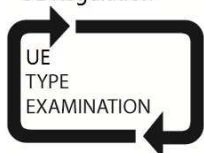


2009/142/EC

GASTEC



UE Regulation



2016/426/UE

GASTEC

**Conformity to UL directives**

- UL 372 and CSA C22.2 No. 199
- File No. MH46742



**Types reference (extract)**

The type reference applies to the TGRD burner control without flame detector. The operating cycle and timers are set on request, further information see data sheets 14540.

Type reference	Mains	Valve stages	Repetition	Remote Reset	Non-volatile Lockout	On board Ignitor	tw max	TP min	TS max	Tj min	Tdk max	Tdq min	Tdw min
<b>Devices for forced draft burners up to 120kW capacity</b>													
TGRD61		V 1	3x	✓	(1) (2) (3)	✓	2 s	30 s	3 s	3 s	1 s	16 s	8 s
<b>Devices for forced draft burners with 2-stage, without air damper</b>													
TGRD62		V 2	---	✓	(1) (2) (3) (4)	✓	2 s	5 s	3 s	3 s	1 s	16 s	8 s
TGRD63(*)		V 3	---	✓	(1) (2) (3) (4)	✓	2 s	20 s	3 s	3 s	1 s	12 s	3 s
TGRD82		V 2	---	✓	(1) (2) (3)	---	2 s	15 s	3 s	0 s	1 s	---	3 s
<b>Devices for forced draft burners with 2-stage, with air damper</b>													
TGRD62		V 2	---	✓	(1) (2) (3) (4)	✓	2 s	5 s	3 s	3 s	1 s	16 s	8 s
TGRD63(*)		V 3	---	✓	(1) (2) (3) (4)	✓	2 s	20 s	3 s	3 s	1 s	12 s	3 s
TGRD82		V 2	---	✓	(1) (2) (3) (4)	---	2 s	30 s	5 s	3 s	1 s	16 s	8 s
<b>Devices for atmospheric burners</b>													
TGRD63(*)		V 3	---	✓	(1)	✓	2 s	10 s	5 s	2 s	---	---	10 s
TGRD81		V 1	2x	✓	(1)	---	2 s	1 s	5 s	1 s	---	---	---

(\*) Interrupted pilot.

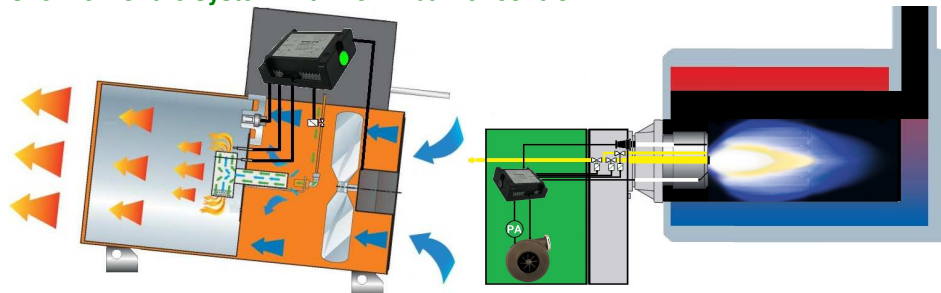
(1) No establishment of flame at the end of TS.

(2) Air pressure stuck during start-up, lost air pressure during operation.

(3) Simulation of flame on burner startup.

(4) Lost flame during operation.

**Overview of the system with TGRD burner control**



**Diagnostic possibilities of the TGRD burner controls**

Table of colour codes for multi-coloured signal lamp	
Multicolour Code	Status
Continuously off	Waiting heat request
Green Continuously on	All OK.
Orange Continuously on	Ignitor On
Flashing Green	Low/bad flame signal during operation
Flashing Orange	Good flame signal during ignition
Green/Orange	Low/bad flame signal during ignition
Red/Orange	Under/Over voltage detect
Blinking Red(*)	Diagnostics (press 5 s reset button) or simulation of flame on burner startup
Red Continuously on	Lockout alarm

**\* Table of error code messages (lockout diagnostic enabled by on-board button)**

Red Blinking Codes	Description of possible cause
2 switch off every 2 seconds	No establishment of flame at the end of TS
3 switch off every 2 seconds	Air pressure switch faulty (only versions with Qnn option)
4 switch off every 2 seconds	Extraneous light or simulation of flame on burner startup (only versions with Knn option)
7 switch off every 2 seconds	too many losses of flame during operation (only versions with Vnn option)
8-14 switch off every 2 seconds	Wiring error or internal error, miscellaneous errors