

AUTOMATIC BURNER CONTROL SYSTEM

The burner control unit Quad800 is suitable for the control of direct ignition burners up to 350 kW, pursuant to EN 746-2.

Flame control by means of UV scanner or ionization rod (even shared with ignition).

Time and cycle are configurable: the same device can be used to control different types of gas and oil burners, meeting all relevant requirements.

A led-bar flame signal indicator and an advanced self-diagnostic system provides the display of either the cycle status, lockouts and failures.

Main burner is enabled 3 seconds after pilot flame detection and controlled from remote input.

Air valve is directly controlled from remote input once the unit is turned on.

A traditional electric interface allows remote burner control and reset through contact inputs.

Dry contacts are provided for air valve, main gas valve and remote burner monitoring (burner on and burner lockout).



SAFETY INFORMATION

Read and understand this manual before installing, operating, or servicing this unit. This unit must be installed according to this manual and local regulations. The drawings may show units without covers or safety shields to illustrate details. Disconnect power supply and follow all usual safety precautions before carrying out any operation on the device. Be sure to reinstall covers or shields before operating any devices.

The device is not user serviceable, a faulty device must be put out of order and sent back for servicing.

CONTRIVE manufactures products used as components in a wide variety of industrial systems and equipment. The selection and application of products remain the responsibility of the equipment manufacturer or end user.

CONTRIVE accepts no responsibility for the way its products are incorporated into the final system design. All systems or equipment designed to incorporate a product manufactured by CONTRIVE must be supplied to the end user with appropriate warnings and instructions as to the safe use and operation of that part.

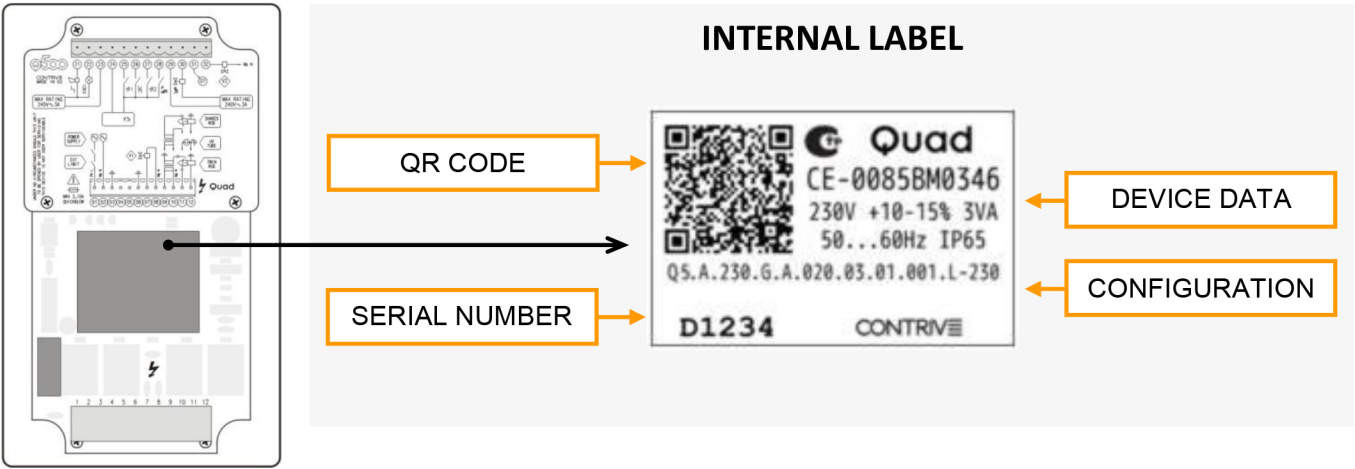
Any warnings provided by CONTRIVE must be promptly provided to the end user.

CONTRIVE guarantees for two years from the date of manufacture of its product to replace, or, at its option, to repair any product or part thereof (except fuses and with some limitations for tubes and photocells) which is found defective in material or workmanship or which otherwise fails to conform to the description of its sales order. CONTRIVE makes no warranty of merchantability or any other warranty express or implied. CONTRIVE assumes no liability for any personal injury, property damage, losses, or claims arising from misapplication of its products.

CONFORMITY

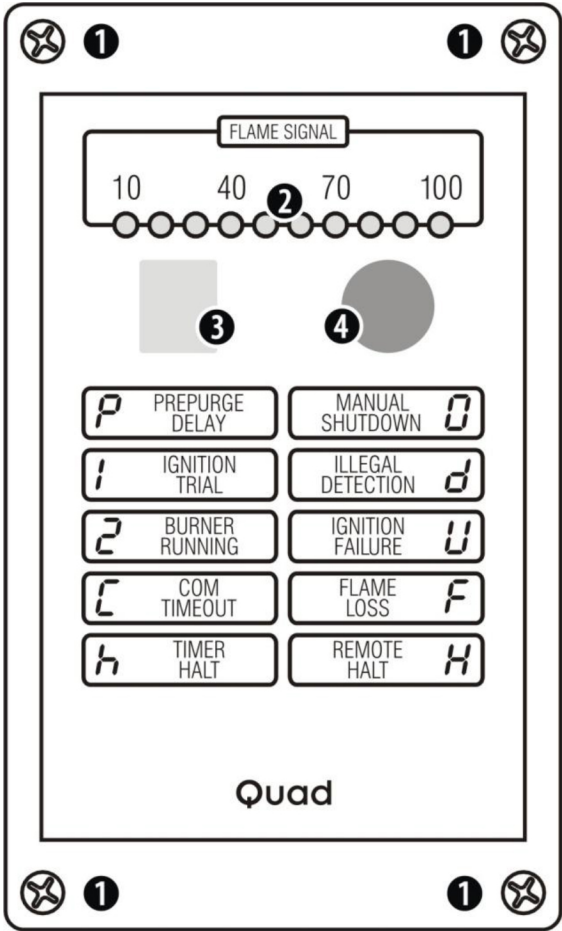
- Gas Equipment Directive (90/396/EEC)
- Low Voltage Equipment Directive (73/23/EEC)
- Machinery Directive (89/392/EEC)
- EMC Directive (89/336/EEC)

- EN298 compliant
- EN230 compliant
- EN746-2 compliant
- DVGW type certification No. CE-0085BM0346
- Certified by Gosstandart pursuant to GOST-R



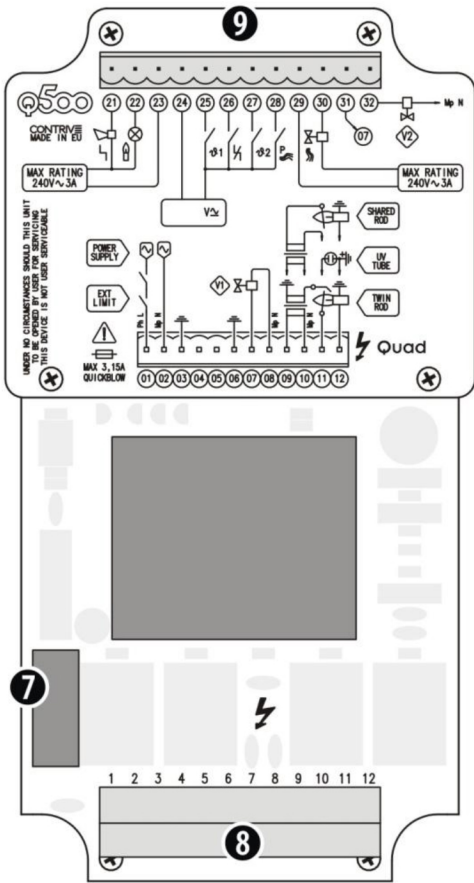
Please perform the following tasks after receiving the product:

- Inspect the unit for damage. If the product appears damaged upon receipt, contact the shipper immediately.
- Verify receipt of the correct power supply voltage option by checking the label.
- If you have received the wrong model or the device does not function properly, contact your supplier.



FRONT PANEL

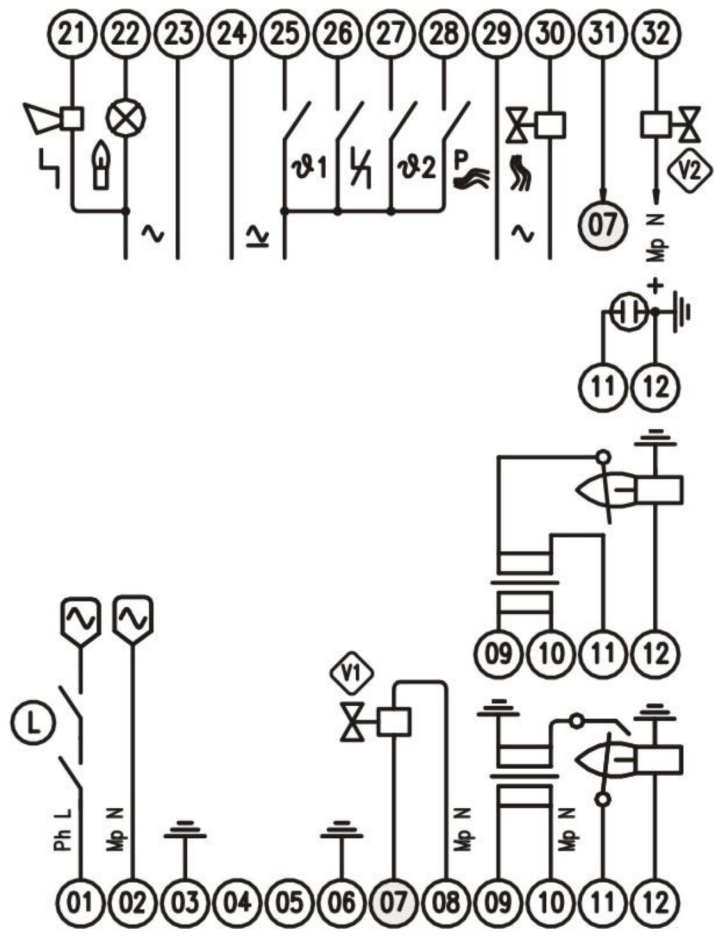
- | | |
|------------------------|---|
| FITTING SCREWS | 1 |
| FLAME SIGNAL BARGRAPH | 2 |
| STATUS DISPLAY | 3 |
| RESET / SHUTOFF BUTTON | 4 |



INTERNAL

- | | |
|---|--------------------------|
| 7 | POWER SUPPLY FUSE |
| 8 | MAIN TERMINAL BOARD |
| 9 | EXPANSION TERMINAL BOARD |

WIRING DIAGRAM



01	POWER SUPPLY PHASE
02	POWER SUPPLY NEUTRAL
03	GROUND
04	TRAXBUS INTERFACE POSITIVE (UNAVAILABLE)
05	TRAXBUS INTERFACE NEGATIVE (UNAVAILABLE)
06	GROUND
07	GAS VALVE (v1)
08	POWER SUPPLY NEUTRAL
09	IGNITION TRANSFORMER OUTPUT
10	POWER SUPPLY NEUTRAL
11	FLAME DETECTOR INPUT (ROD, UV-)
12	GROUND
21	OUTPUT BURNER LOCKOUT
22	OUTPUT BURNER ON
23	OUTPUT COMMON RETURN
24	INPUTS COMMON RETURN
25	THERMOSTAT 1 INPUT (BURNER ON OFF)
26	RESET INPUT (RESET FROM LOCKOUT)
27	THERMOSTAT 2 INPUT (MAIN BURNER ON OFF)
28	AIR CONTROL INPUT (AIR OUTPUT ON OFF)
29	AIR VALVE SUPPLY (PHASE)
30	AIR VALVE OUTPUT
31	MAIN GAS VALVE SUPPLY (FROM TERMINAL 7)
32	MAIN GAS VALVE OUTPUT

USE POWER, SIGNAL AND CONTROL CABLE SUITABLE FOR THE TYPE OF OPERATION AND COMPLYING WITH ALL REGULATIONS
DO NOT ROUTE CONNECTIONS TOGETHER WITH FREQUENCY CONVERTER CABLES OR CABLES EMITTING STRONG FIELDS
PROVIDE RELIABLE CONNECTION TO PE (PROTECTION EARTH) AND BURNER FRAME, RECOMMENDED WIRE GAUGE > 4 mm²
ALL ELECTRONIC SYSTEMS MUST BE SUPPLIED BY A DEDICATED TRANSFORMER IN A TN-S EARTHING SYSTEM

USE UNSCREENED HIGH-VOLTAGE CABLE FOR IGNITION AND IONIZATION ROD LINES, LAYING CABLES INDIVIDUALLY, AVOIDING METAL CONDUITS. KEEP HIGH VOLTAGE IGNITION CABLES AS SHORT AS POSSIBLE, AVOIDING LOOPS AND KEEP ALL OTHER CABLES, ESPECIALLY THOSE OF UV OR IONIZATION ROD, AS FAR APART AS POSSIBLE

OUTPUTS AT TERMINALS 24 25 26 27 ARE SPST UNPROTECTED DRY CONTACTS, LOAD MUST BE WITHIN THE RATED CURRENT

POWER SUPPLY FUSE

The device and following burner loads are protected by means of an embedded POWER SUPPLY FUSE [7]:


- TERMINAL 07 : GAS VALVE V1
- TERMINAL 09 : IGNITION TRANSFORMER

This fuse must be replaced only with same type and value component: 3,15 A quickblow (5x20mm).


STATUS DISPLAY

The STATUS DISPLAY [4] gives, at any time, a clear indication about the working conditions of both the burner and the equipment, making it easier to detect any failure occurring in the system or the device.


WARNINGS



SELF-TEST
SELF DIAGNOSIS, EVERY TIME THE UNIT IS POWERED OR THE BURNER IS STARTED.



LIFETIME EXPIRED
MAINTENANCE REQUIRED AFTER 2.000.000 IGNITIONS. PUSH AGAIN TO START ANYWAY.



CONFIGURATION
UNIT IN CONFIGURATION MODE THROUGH COMMUNICATION LINK.

CYCLE



MANUAL SHUTDOWN
UNIT HAS BEEN PUT OUT OF SERVICE FROM
PUSH BUTTON. PUSH AGAIN TO RESTORE.



TIMER SHUTDOWN
BURNER HAS BEEN TURNED OFF BY
OPTIONAL INTERNAL TIMER.



THERMOSTAT SHUTDOWN
BURNER HAS BEEN TURNED OFF BY LOCAL
THERMOSTAT AT TERMINAL 25.



PREPURGE
PURGE OF COMBUSTION CHAMBER OR MIN
TIME FOR ILLEGAL FLAME PROVING.



IGNITION
1ST SAFETY TIME. BURNER IGNITION TRIAL
WITH PILOT GAS VALVE OPEN.



PILOT BURNER ON
PILOT GAS VALVE IS OPEN, BURNER ON
UNTIL SHUTDOWN, LOCKOUT OR FAILURE



POSTCOMBUSTION
WAITING FOR FLAME QUENCHING AFTER
LOCKOUT OR SHUTDOWN REQUEST.



POSTPURGE
PURGE OF COMBUSTION CHAMBER, SHOWN
TOGETHER WITH ASSOCIATED CODE.

LOCKOUTS



STANDBY
WAITING FOR RESET WHEN PROGRAMMED
FOR STANDBY MODE AT POWER-ON.



ILLEGAL DETECTION
PARASITE FLAME DETECTION DURING PRE-
PURGE, POSTPURGE OR POSTCOMBUSTION.



IGNITION FAILURE
NO FLAME DETECTED AT THE END OF
IGNITION TRIAL, 1ST SAFETY TIME.



FLAME LOSS
FLAME QUENCHING DURING NORMAL
BURNER OPERATION.



CONTROL BOARD COM FAILURE
EXPANSION CONTROL BOARD IS MISSING OR
NOT WORKING PROPERLY.

RESETABLE FAILURES



IGNITION DEVICE FAILURE
IGNITION DEVICE UNPLUGGED, DEFECTIVE
OR NOT WORKING PROPERLY.



GAS VALVE FAILURE
GAS VALVE(S) UNPLUGGED, DEFECTIVE OR
NOT WORKING PROPERLY.



OUTPUT RELAYS FAILURE
SHORT CIRCUIT ON OUTPUT RELAY CONTACT
LOADS DISCONNECTED BY SAFETY RELAY.



CONTROL BOARD ERROR
WRONG OPERATION OF CONTROL BOARD,
ILLEGAL COMMAND



MISSING GROUND JOINT | SOFT JUMP
POOR SPARK RETURN PATH (I.E.: BAD
GROUND CONNECTION TO BURNERS HEAD).



STRONG EMI | CONFIG ERROR
ELECTRO MAGNETIC INTERFERENCE ABOVE
ADMISSIBLE LIMIT, CONFIGURATION ERROR.



TIMEBASE FAILURE
MISMATCH BETWEEN 1ST AND 2ND INTERNAL
TIMEBASE GENERATORS.



SYSTEM WATCHDOG
MICROPROCESSOR ISN'T OPERATING
PROPERLY.

NON RESETABLE FAILURES



PUSH BUTTON FAILURE
PUSH BUTTON FOUND CLOSED AT SELF TEST.
FAILURE OR AVOID PUSHING DURING TEST.



SYSTEM ERROR
PROGRAM ERRORS, CORRUPTION IN
FIRMWARE MEMORY.



MASTER SAFETY RELAY FAILURE
SHORT CIRCUIT ON SAFETY RELAY CONTACT.
OUTPUT RELAYS WILL DISCONNECT LOADS.

SINGLE STAGE GAS BURNER

When the equipment is used for gas burners, the prescriptions set forth in the European Standard EN298 (including any further revision) must be completely fulfilled, along with the specific requirements of any National regulation in force in the Country where the equipment is installed. Optional process limits are controlled by external circuitry.

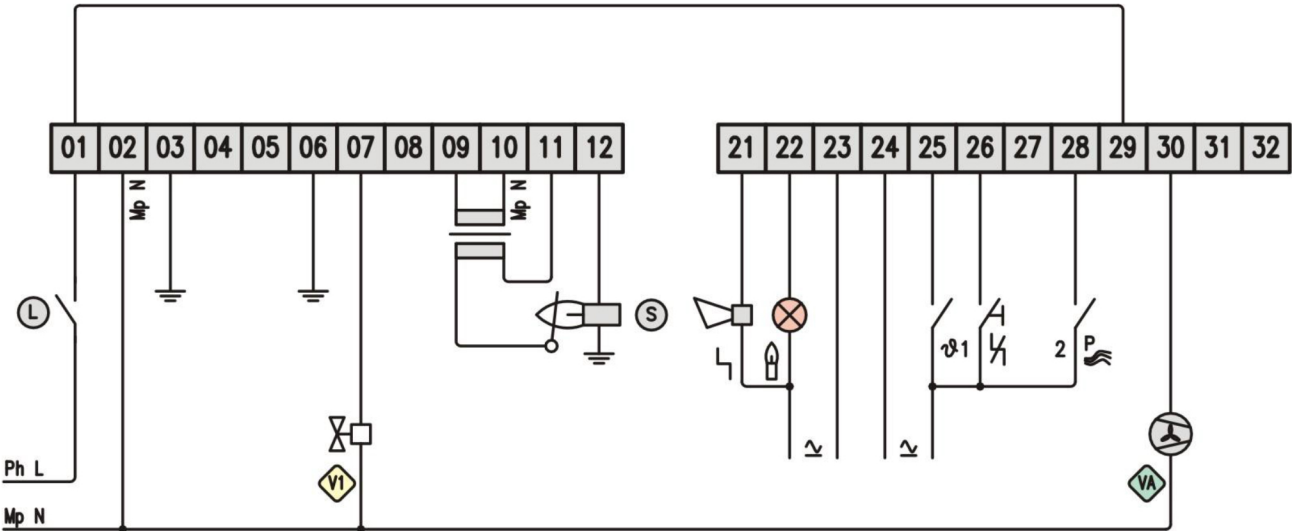
A complete self test is deployed at power-on and at any reset from lockout, possible failures are reported on the front panel display. A flame simulation test is carried out during Prepurge or waiting time. The gas valve will be activated only if the ignition device is detected (power supply current) during preignition time. The gas valve remains open during the programmed safety time, if a valid flame signal is detected within the safety time the valve is kept open and contact between terminal 23 and terminal 22 is closed. If no flame is detected the system will lockout and contact between terminal 23 and terminal 21 is closed. Push the front panel button or close the reset input at terminal 26 to reset from lockout (will take place at release). Flame quenching during burner operation will force the system to lockout, recycle or respark.

There are different options to operate the burner:

- switching on/off the power supply;
- pressing the front panel button (manual shutdown);
- by means of thermostat input at terminal 25 (halt);
- internal timer (if enabled).

A postcombustion time (max 20 seconds) is allowed after a lockout or shutdown request, followed by postpurge. The device can stop the burner after programmed auto shutoff time (5m to 20h50m) of continuous operation and restart again, providing that all the equipment and burner safety tests are successfully performed.

Contact between terminal 29 and terminal 30 is controlled by input at terminal 28 (only when the unit is operating properly) and is meant for air valve or blower control.



(L)	EXTERNAL LIMITS
(V1)	INTERMITTENT PILOT GAS VALVE
(VA)	AIR VALVE OR BLOWER
(S)	SINGLE ROD CIRCUIT

(L)	BURNER LOCKOUT
(S)	BURNER ON
(T1)	ON/OFF THERMOSTAT INPUT
(R)	RESET INPUT
(P)	AIR CONTROL INPUT



ALL SAFETY SWITCHES SHOULD BE APPROVED AS LIMIT CONTROLS
THE USE OF ELECTRONIC SWITCHES MAY CAUSE ERRATIC OPERATIONS

DUAL STAGE GAS BURNER

First stage intermittent gas valve is connected to terminal 7. This output is kept open once the burner has been properly ignited and the flame signal is detected.

Contact between terminal 31 and terminal 32 is provided for the control of the 2nd stage gas valve by means of input at terminal 27. The control of this output is enabled 3 seconds after pilot burner successfully ignited. Power supply for main gas valve must be linked to terminal 7 (pilot gas valve output) to guarantee a safe operation.

Both valves are turned off when flame quenches or following any lockout or shutdown request.

In the following example devices, loads and remote control inputs are operating at the same power supply.

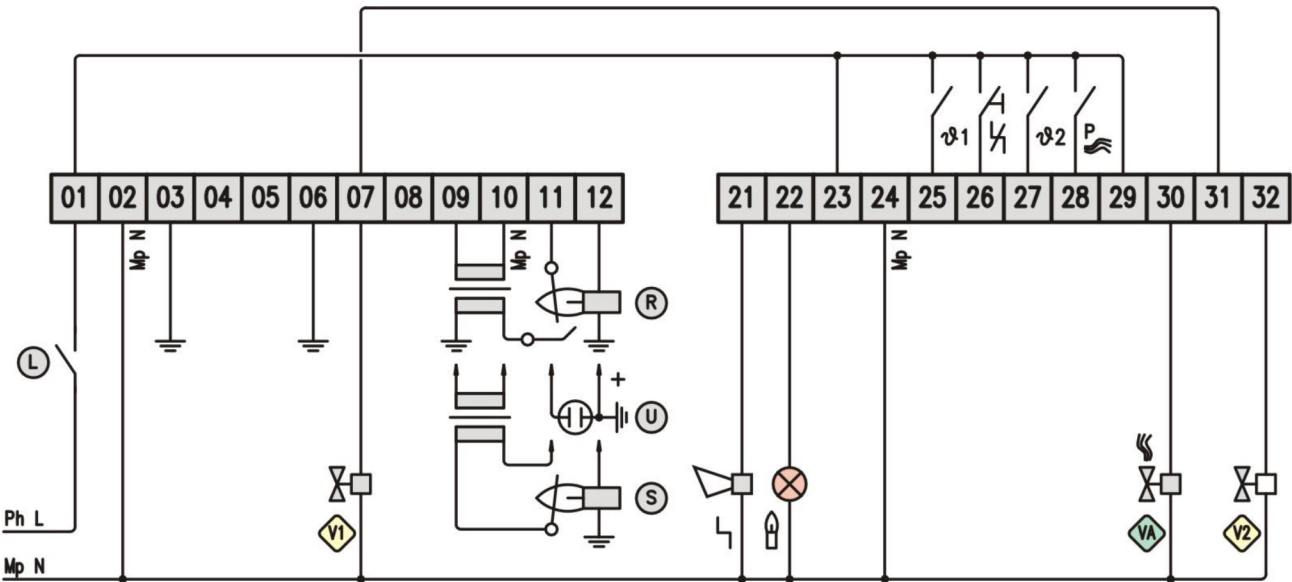
Contact between terminal 23 and terminal 22 is closed when the burner is on.

Contact between terminal 23 and terminal 21 is closed when the burner is forced to lockout.

Push the front panel button or close the reset input at terminal 26 to reset from lockout.

The reset will take place only when the button or contact are released. Input at terminal 26 is meant for reset purpose only, no action is performed closing this input while burner is running.

Contact between terminal 29 and terminal 30 is controlled by input at terminal 28 (only when the unit is operating properly) and is meant for air valve or blower control.



Ⓛ	EXTERNAL LIMITS
Ⓥ1	INTERMITTENT PILOT GAS VALVE
Ⓥ2	MAIN GAS VALVE
ⓋA	AIR VALVE OR BLOWER
Ⓡ	DUAL ROD CIRCUIT
Ⓤ	UV SENSOR
Ⓢ	SINGLE ROD CIRCUIT

Ⓛ	BURNER LOCKOUT
Ⓡ	BURNER ON
Ⓡ1	ON/OFF THERMOSTAT INPUT
Ⓡ2	RESET INPUT
Ⓡ2	MAIN THERMOSTAT INPUT
Ⓡ	AIR CONTROL INPUT



MAIN GAS VALVE POWER SUPPLY MUST BE PROVIDED FROM PILOT GAS VALVE OUTPUT AT TERMINAL 7

PARAMETERS

HARDWARE

Q001	POWER SUPPLY VOLTAGE	230 Vac	230
		115 Vac	115
F003	PROCESS INPUTS VOLTAGE	230 Vac	2
		115 Vac	1
		48 Vac	8
		24 Vac	4
Q002	ENCLOSURE	LIGHT ALUMINIUM	N
		STANDARD ALUMINIUM	A
		LOW PROFILE ALUMINIUM	B
		POLYCARBONATE	P

BEHAVIOUR AT POWER ON – LOCKOUT

Q101	START-UP MODE	AUTOSTART	A
		STANDBY	S

BEHAVIOUR DURING PREPURGE

Q305	PREPURGE TIME	1" ...	001
		... 250"	250

BEHAVIOUR DURING IGNITION

Q401	PRE-IGNITION TIME	0,5"	
Q402	STARTUP SAFETY TIME	2" ...	02
		... 25"	25

BEHAVIOUR DURING OPERATION

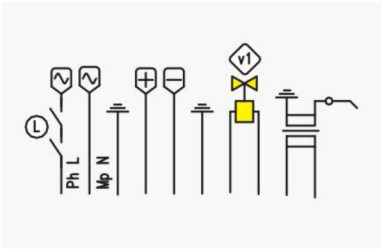
Q507	OPERATING SAFETY TIME	1" ...	01
		... 12"	12
Q508	ALLOWED POSTCOMBUSTION TIME	< 20"	
Q509	AUTO-SHUTOFF TIME	00:05 ...	01
		20:50 ...	FA
Q510	AUTO-SHUTOFF MODE	OFF	–
		MANUAL	M
		AUTOMATIC	A
Q512	FLAME LOSS	LOCKOUT	L
		RECYCLE	C
		RESPARK	K

BEHAVIOUR DURING POSTPURGE

Q602	POSTPURGE TIME	1" ...	001
		... 250"	250

GENERAL SETTINGS

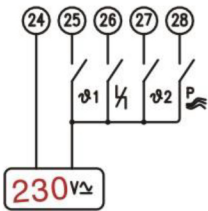
Q801	BURNER TYPE	GAS	G
		OIL	O
F809	DEVICE NOTES		
F810	DEVICE PASSWORD		



Q001 – POWER SUPPLY VOLTAGE

Power supply must be wired at terminal 01 and 02, for burner control unit and loads (air and gas valves and ignition transformer), both protected by the embedded fuse.

Optional safety interlock limits could be wired on the main supply phase.



F003 – PROCESS INPUT VOLTAGE

Inputs from remote control inputs are independent from device and burner power supply, allowing an isolated interface.

Different voltage options are available, both alternating or direct current.

Inputs are referred to a common return at terminal 24.

The use of electronic switches may cause erratic operation.

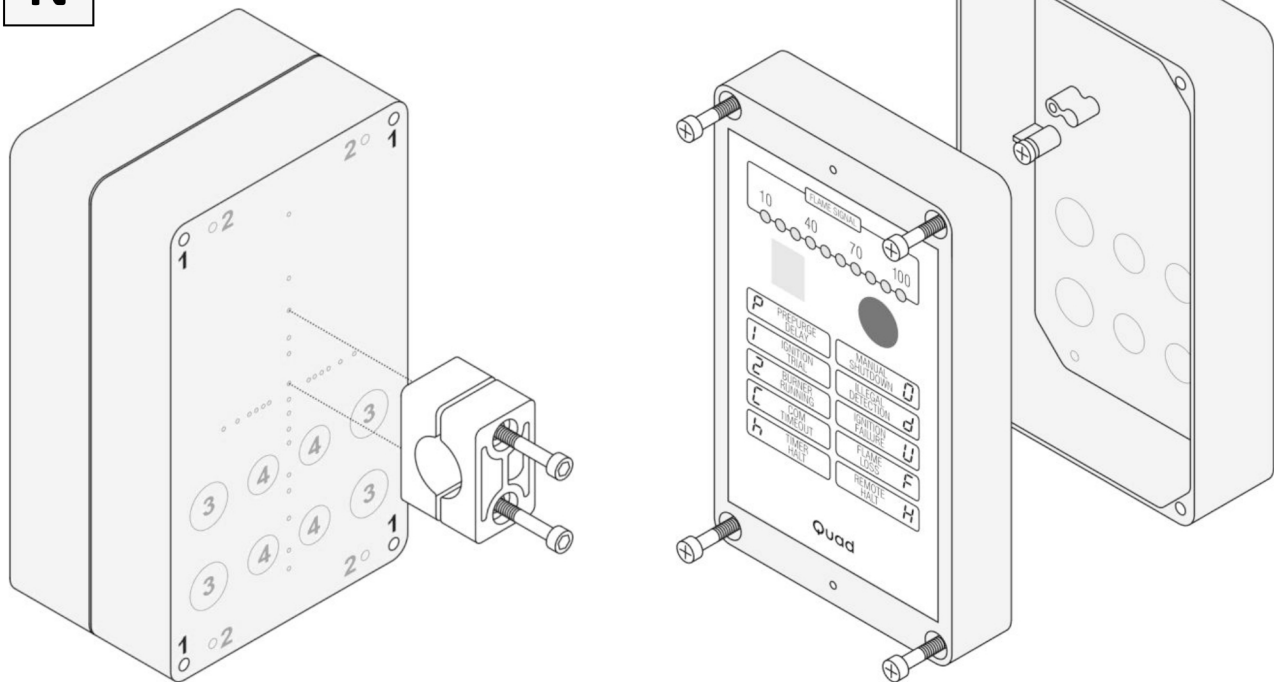
Q002 – ENCLOSURE

Quad600 is available in 4 different enclosure options. Standard version is N, all other types are available on request. According to European Standard EN60529 a minimum protection degree IP40 must be guaranteed, raised to IP54 for open air application.



ALUMINIUM ENCLOSURES MUST BE
CONNECTED TO PROTECTIVE EARTH

N

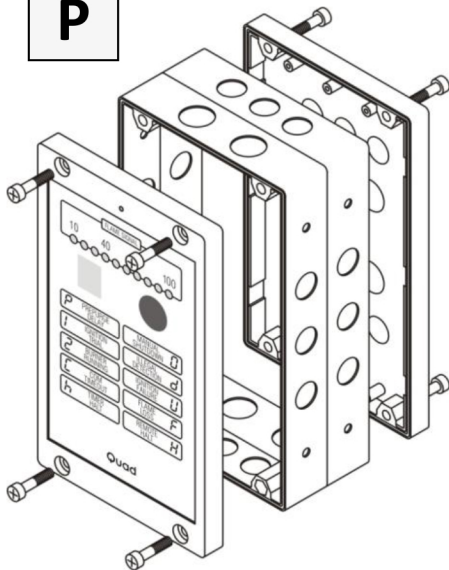


1	EXTERNAL FITTING HOLES (4) 4.2 mm SELF TAPPING OR M5 THREAD FORMING SCREW	106 x 186 mm
2	BREAKABLE FITTING HOLES (4) 4,0 mm DIAMETER	77 x 182 mm
3	BREAKABLE HOLES FOR WIRING (4) SUITABLE FOR PG11 CABLE GLAND	Ø 19,0 mm
4	BREAKABLE HOLES FOR WIRING (4) SUITABLE FOR PG9 CABLE GLANDS	Ø 15,5 mm

CAST ALLUMINIUM ALLOY EN AB 46100 IP65
OVERALL DIMENSION: 200 x 120 x 71 mm WEIGHT: 1180 g
ELECTROSTATIC POLYESTER POWDER COATING COLOR: GRAY

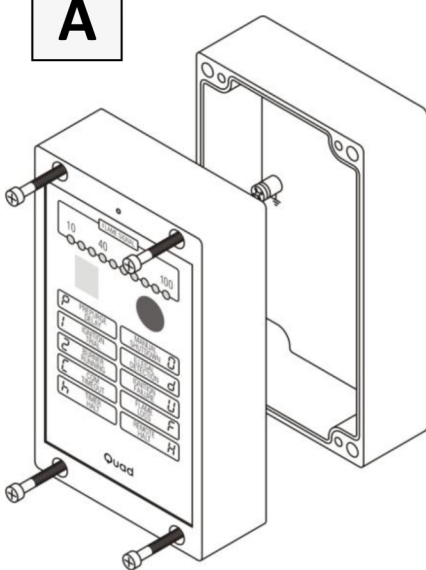
OPTIONAL FITTING CLAMPS FOR PIPES
VERTICAL MOUNTING OUTSIDE DIAMETER 6 ... 76 mm
HORIZONTAL MOUNTING OUTSIDE DIAMETER 6 ... 63 mm

P



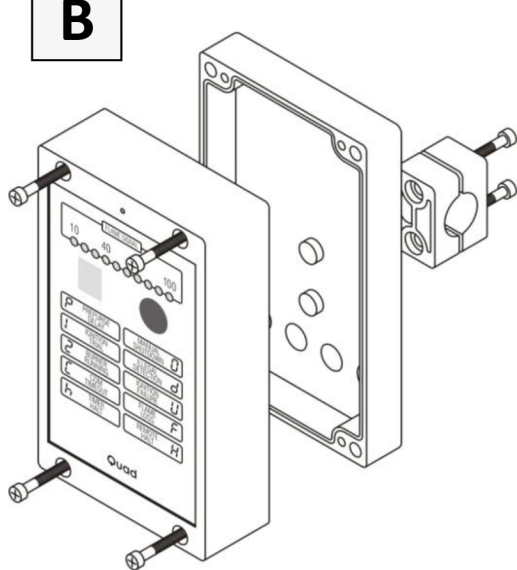
POLYCARBONATE UL-V0
200 x 120 x 96 mm | 800 g

A



CAST ALUMINIUM ALLOY
200 x 120 x 92 mm | 1560 g

B

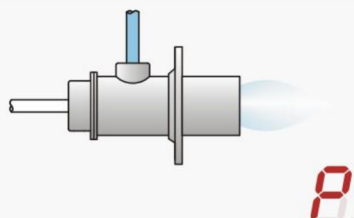


CAST ALUMINIUM ALLOY
200 x 120 x 71 mm | 1350 g



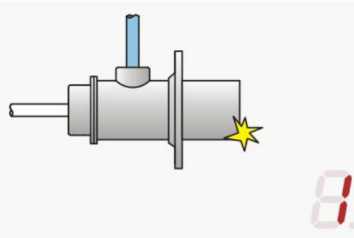
Q101 – START-UP MODE

At power-on, once the self-test has been successfully completed, the unit waits in STANDBY mode until a reset operation is performed from local push button or through a fieldbus remote command. Setting AUTOSTART mode, the cycle starts automatically, unless the units has been turned off while in lockout.



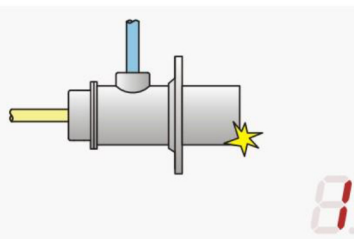
Q305 – PREPURGE TIME

Set prepurge time in forced draught burners according to EN 676 requirements. Any air valve and/or butterfly valve controlled by external process must be kept open during the whole prepurge time. During this time an illegal flame test is carried out.



Q401 – PRE-IGNITION TIME

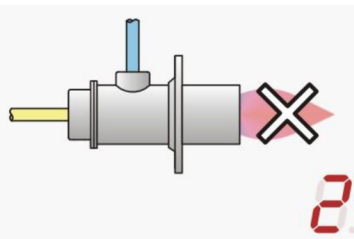
The ignition transformer is turned on 500 ms before the gas valve to check the correct operation before to open the gas. This is a fixed time and cannot be changed.



Q402 – STARTUP SAFETY TIME

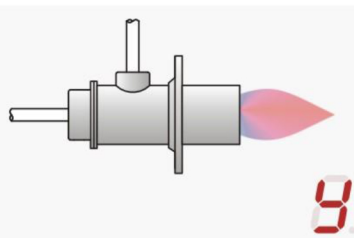
Set the correct time following EN 746-2 (or other relevant) requirements:

Natural draught burners	$\leq 70 \text{ kW} \rightarrow 10''$	$> 70 \text{ kW} \rightarrow 5''$
IGNITION POWER $\leq 33\%$ NOMINAL POWER WITH MAXIMUM OF 350 KW		
Forced draught burners	$\leq 350 \text{ kW} \rightarrow 5''$	$> 350 \text{ kW} \rightarrow 3''$
IGNITION POWER $\leq 10\%$ NOMINAL POWER WITH MAXIMUM OF 350 KW		



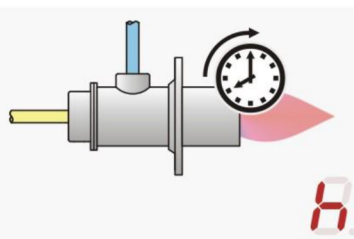
Q507 – OPERATING SAFETY TIME

If the flame fails during operation, gas valve is switched off within this safety time that must be in accordance with relevant application standards (default for EN 298 is 1'' and must not exceed 3'' including valves closing time for EN 746-2).



F508 – ALLOWED POST-COMBUSTION TIME

The flame signal is allowed for 20'' once gas valve has been closed. Lockout occurs if the flame is detected after the post-combustion time.



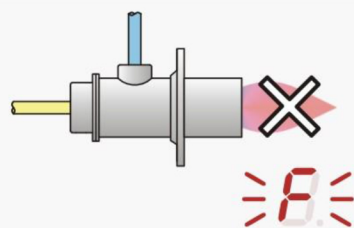
Q509 – AUTO SHUT-OFF TIME

An automatic shutoff is performed after the specified time since burner on.

Q510 – AUTO SHUT-OFF MODE

Behavior after an automatic shut-off. In AUTOMATIC mode a complete burner restart cycle is deployed, performing the test of the whole system, as per Standard requirements, within 24 hours of continuous operation.

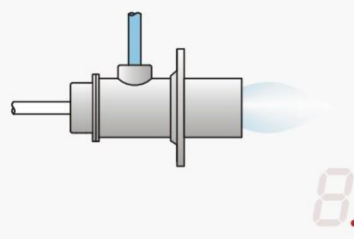
In MANUAL mode the burner waits for reset.



Q512 – FLAME LOSS

Determines the behavior at flame loss during normal burner operation.

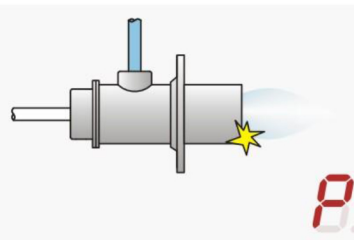
For burners with occasionally unstable flame signal a single recycle (including prepurge) or direct respark can be attempted. The setting is to be determined on the basis of burner capacity and relevant application standard.



Q602 – POSTPURGE TIME

Follow EN 676 requirements to set correct postpurge time in forced draught burners. Any air valve and/or butterfly valve controlled by external process must be kept open during the whole postpurge time.

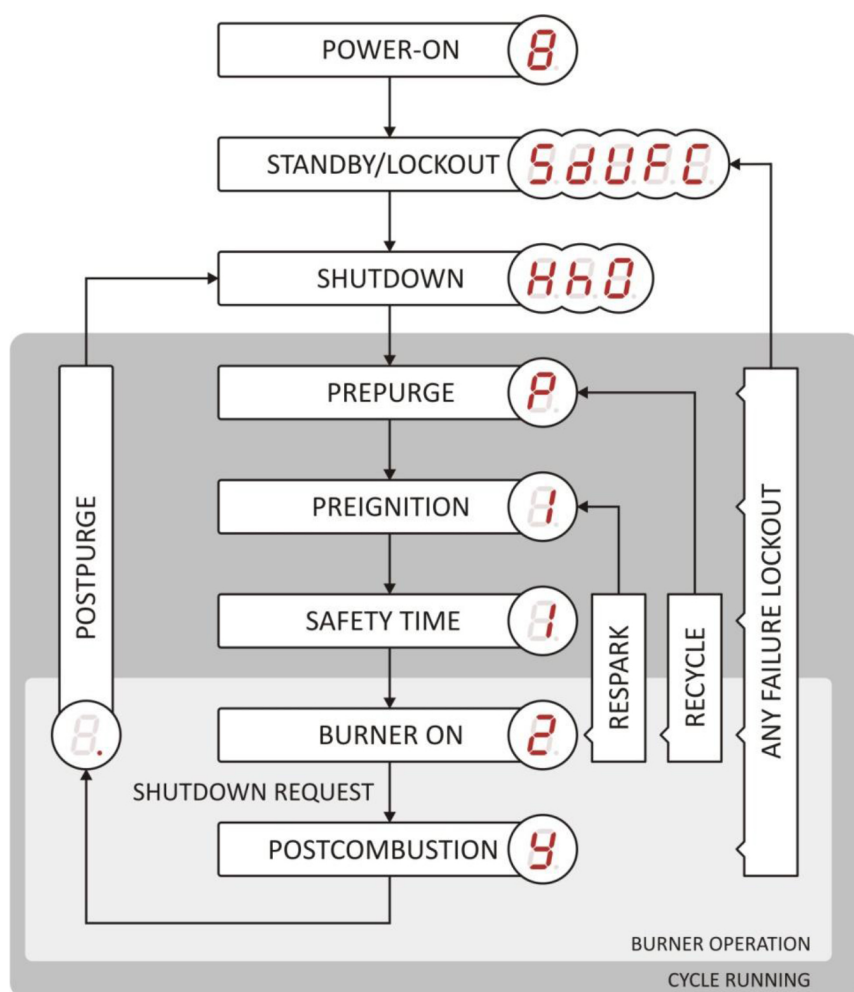
During this time an illegal flame test is carried out.



Q801 – BURNER TYPE

Selecting OIL type burner the ignition device will be activated also during the prepurge to allow the detection of oil leakage that will be ignited, leading to an illegal flame detection. Application and settings must be made in accordance to EN 230 (or other relevant standard) requirements.

PROGRAM SEQUENCE



A **SELF TEST** IS PERFORMED IN LESS THAN 1", ONCE SUCCESSFULLY COMPLETED THE BURNER IS READY TO START.

IF THE UNIT HAS BEEN TURNED OFF WHILE IN **LOCKOUT** OR PARAMETER Q101 HAS BEEN SET TO **STANDBY**, IT WILL BE NECESSARY TO RESET THE UNIT BY MEANS OF LOCAL PUSH BUTTON.

A **FLAME SIMULATION** CHECK IS CONDUCTED DURING WAITING OR PREPURGE TIME.

AFTER THE **WAITING OR PREPURGE** TIME HAS ELAPSED, THE IGNITION DEVICE IS ACTIVATED AND VERIFIED, THEN THE PILOT VALVE IS OPEN.

PILOT PROVING PERIOD STARTS IF THE FLAME IS DETECTED WITHIN THE **SAFETY TIME**.

IF NO FLAME IS DETECTED DURING THE SAFETY TIME A FAULT LOCKOUT OCCURS.

FLAME FAILURES DURING OPERATION LEADS TO LOCKOUT RESTART OR RECYCLE DEPENDING ON Q512 PARAMETER SETTING.

2ND STAGE IS CONTROLLED BY THERMOSTAT 2 INPUT, ENABLED 3" AFTER FLAME DETECTION.

A **SHUTDOWN REQUEST** FROM THERMOSTAT OR LOCAL PUSH BUTTON TURNS OFF THE BURNER, WAITING FOR ALLOWED POST-COMBUSTION AND POSTPURGE.

AUTOSHUTOFF (Q510) OF THE BURNER CAN BE ACTIVATED, AFTER A PRESET TIME OF BURNER RUNNING (MANUAL OR AUTOMATIC RESTART). A **SELF TEST** IS MADE AT EVERY RESTART. THIS PARAMETER MAY BE SET IN THIS WAY ONLY IF THE BURNER CAN RESTART AS INTENDED IN ALL OPERATING PHASES.

AIR VALVE IS CONTROLLED DIRECTLY FROM REMOTE INPUT ONCE THE UNIT IS TURNED ON.

TECHNICAL DATA

POWER SUPPLY	
VOLTAGE	115 or 230 V +10-15%
FREQUENCY	50/60 Hz §1
LINE FUSE	3,15 A QUICKBLOW - 5x20mm
POWER CONSUMPTION	4 VA MAX
POWER DISSIPATION	3 W MAX
LIFECYCLE COUNTER	2097157 IGNITIONS

§1 SINEWAVE, QUASI-SINEWAVE, SQUAREWAVE

FLAME DETECTION	
MINIMUM IONIZATION CURRENT	> 1 µA
CURRENT LIMITATION	1 mA
SIGNAL DISPLAY	0...100 µA
DETECTOR LINE LENGTH	< 30 m
SINGLE ROD LINE LENGTH	< 1 m
DETECTOR VOLTAGE	250 Vac
DETECTOR INSULATION	> 50 MΩ

ENVIRONMENT	
OPERATING TEMPERATURE	0...60 °C
STORAGE TEMPERATURE	-20...80 °C
PROTECTION CLASS (EN 69529)	IP65
RELATIVE HUMIDITY	90% MAX
MOUNTING POSITION	ANY

OUTPUTS	
RATED VOLTAGE	250 Vac MAX
SWITCHING VOLTAGE	277 Vac MAX
LOAD CURRENT	3 A MAX
MINIMUM CURRENT	1 mA @ 5 V
BREAKING CAPACITY	750 VA MAX

PROCESS INPUTS	
RATED VOLTAGE	230, 115, 48, 24 Vac
CURRENT	5 mA MAX

CONFIGURATION												
	Q002	Q001	Q801	Q101	Q305	Q402	Q507	Q602	Q512	Q510	F003	
Q5	N	230	G	A	020	03	01	001	L	-	230	DEFAULT

DEVICE CLASSIFICATION ACCORDING TO EN298	A / B	M / B	L / C / R	L	B	N (B)
DEVICE CLASSIFICATION ACCORDING TO EN230	A / B	I / T / M	L / C / R	L	B	N (B)



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