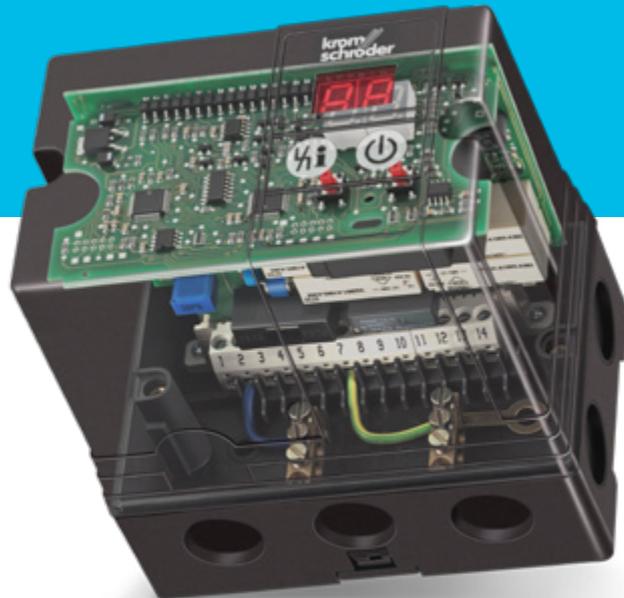




Automatic burner control unit IFD 258

Product brochure · GB
6.1.1.5 Edition 03.08



krom
schroder

- For directly ignited burners of unlimited capacity in continuous operation pursuant to EN 746-2
- Continuous self-testing for faults
- Immediate fault lock-out or restart following flame failure available as a switchable function
- Flame control with UV sensor or ionisation sensor
- Diverse installation possibilities via holes or snap mechanism for DIN rail
- Space-saving installation on site with IFD 258..I with integrated ignition
- Display for program status and flame signal intensity





IFD 244

Application

Automatic burner control unit IFD 258 ignites and monitors gas burners. As a result of its fully electronic design it reacts quickly to various process requirements and is therefore also suitable for frequent cycling operation. It can be used for directly ignited industrial burners of unlimited capacity. The burners may be modulating or stage-controlled.

The program status and the level of the flame signal can be read directly from the unit. The cut-off point can be set using a potentiometer.

The behaviour in the event of flame failure during operation can be selected using a switch. Either an immediate fault lock-out or a restart occurs.



Intermittent shuttle kiln in the ceramics industry

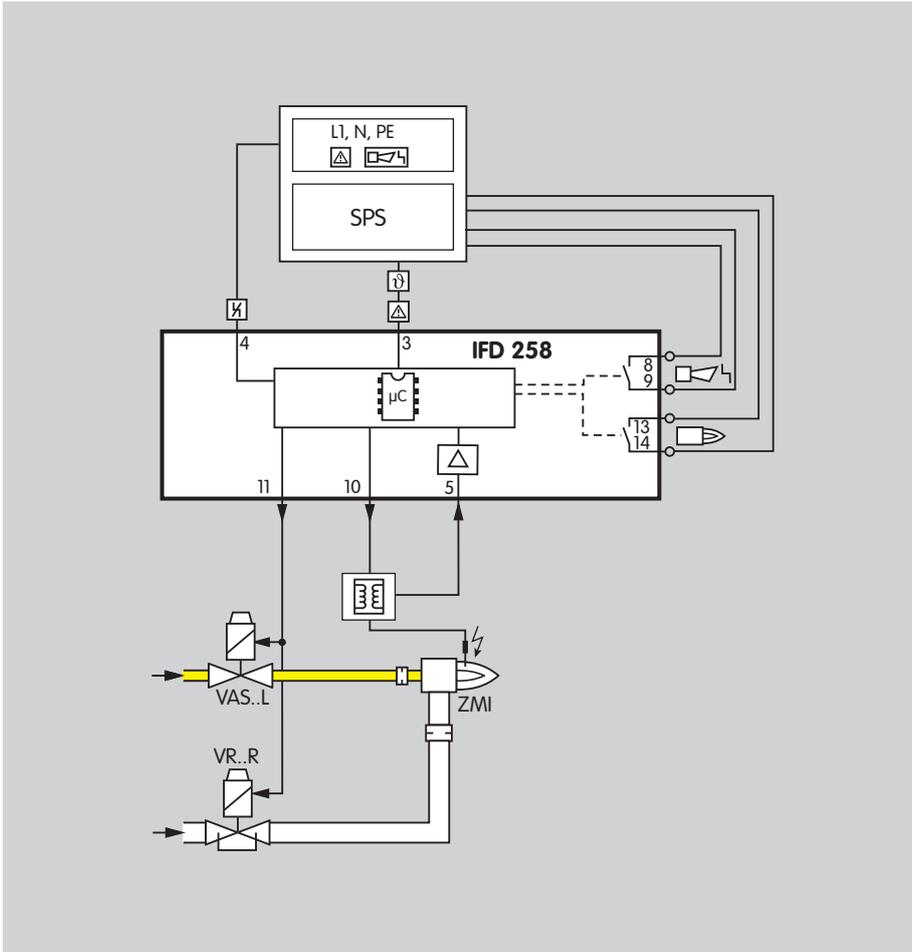


Roller hearth kiln



Bogie hearth furnace

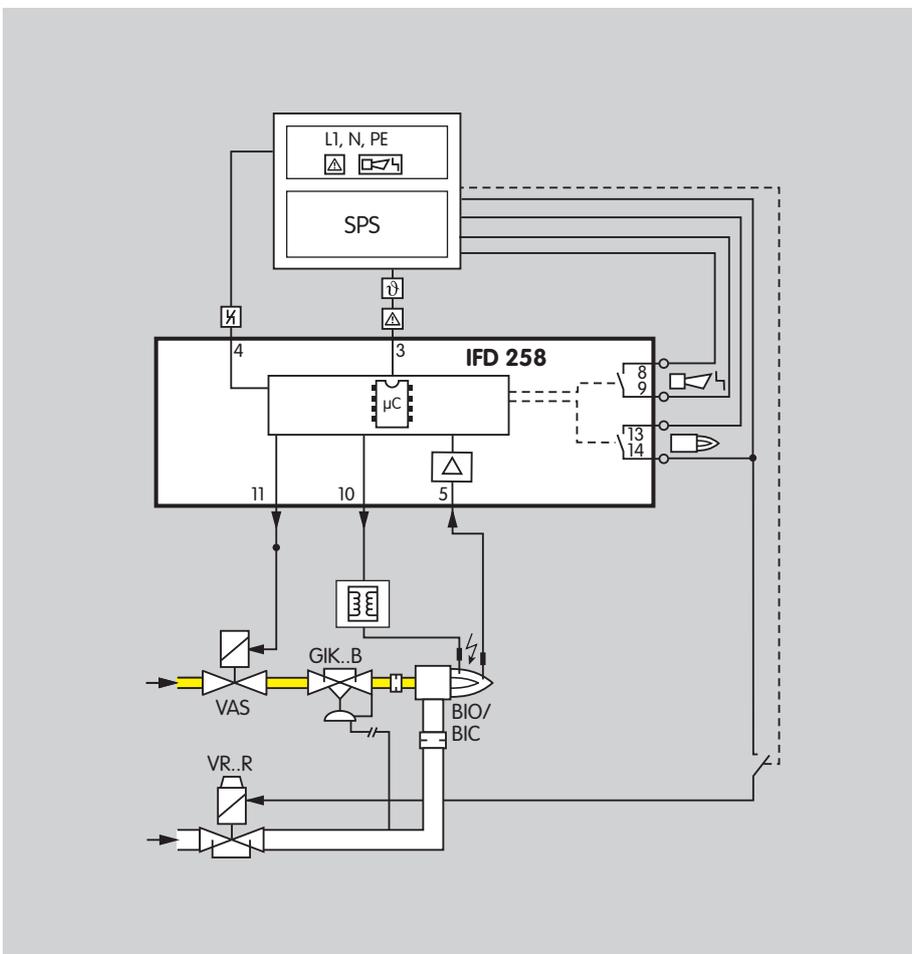
Examples of application



Forced draught burners

Control: ON/OFF

Gas valve and air valve are activated simultaneously. The burner is ignited and monitored by a single electrode. In the event of a flame failure, an immediate fault lock-out occurs.

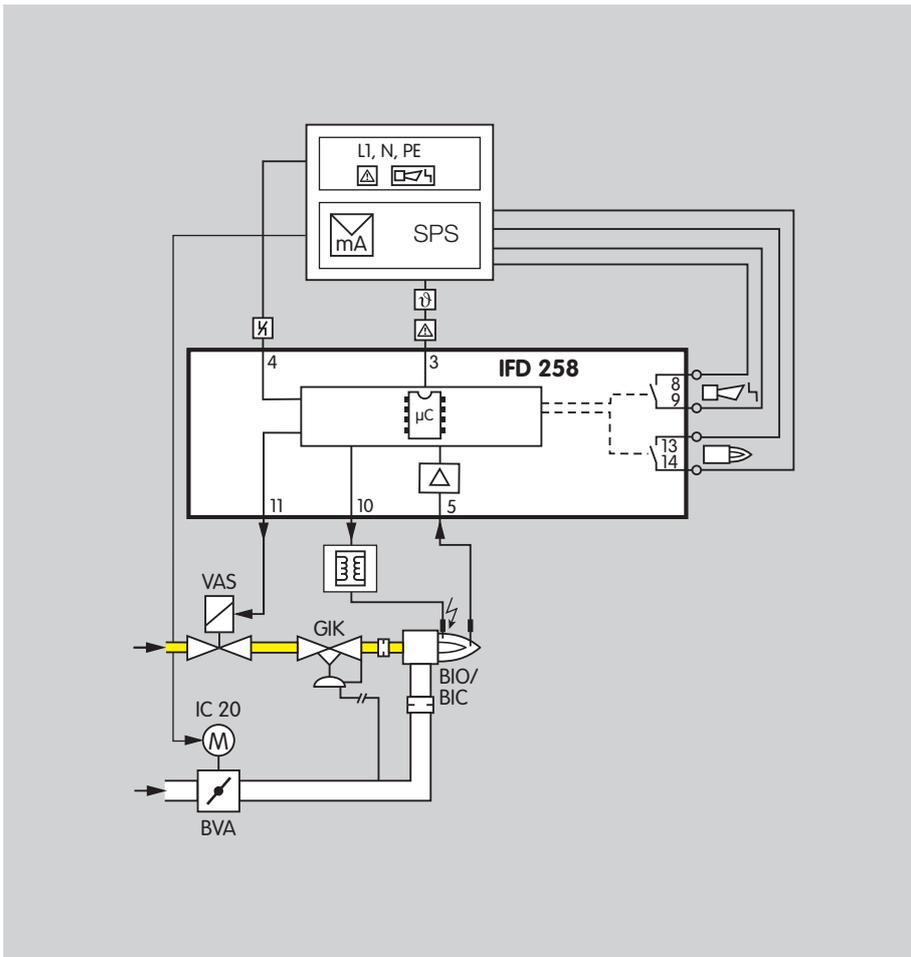


Two-stage-controlled burner

Control: ON/OFF or ON/HIGH/LOW/OFF

The burner BIO/BIC starts at low-fire rate. Once the normal operating state is reached, the automatic burner control unit for continuous operation IFD 258 will release control.

The PLC can now pulse the air solenoid valve VR..R in order to control the capacity between high and low fire.



Modulating-controlled burner

Control: ON/OFF/continuous

The PLC uses the actuator IC 20 to move the air butterfly valve BVA to ignition position.

The burner BIO/BIC starts at low-fire rate. Once the normal operating state is reached, the PLC uses the actuator IC 20 and the air butterfly valve BVA to control the burner capacity.



Technical data

Mains voltage for grounded and ungrounded mains:

200 V AC, -15/+10%, 50/60 Hz,

120 V AC, -15/+10%, 50/60 Hz,

100 V AC, -15/+10%, 50/60 Hz,

230 V AC, -15/+10%, 50/60 Hz.

Safety time on start-up t_{SA} : 3, 5 or 10 s.

Safety time during operation t_{SB} : < 1 s, < 2 s.

Ignition time t_Z : approx. 2, 3 or 6 s.

Power consumption:

IFD 258: approx. 9 VA,

IFD 258..I: approx. 9 VA + 25 VA during ignition.

Output voltage for valves and ignition transformer = mains voltage.

Contact rating:

Ignition output: max. 2 A, $\cos \varphi = 0.2$,

Valve output: max. 1 A, $\cos \varphi = 1$,

Signalling contacts: max. 2 A, 253 V AC,

Max. number of operating cycles: 250,000.

Max. number of operating cycles:

Reset button: 1000,

Mains button: 1000.

Signal inputs:

Input voltage	110/120 V AC	220/240 V AC
Signal "1"	80–126.5 V	160–253 V
Signal "0"	0–20 V	0–40 V
Frequenz	50/60 Hz	

Input current signal inputs: Signal "1": typ. 2 mA.

Flame control:

Sensor voltage: approx. 230 V AC,

Sensor current: > 1 μ A,

Max. sensor current: ionisation < 28 μ A.

Ignition cable:

IFD 258: max. 5 m, recommended < 1 m (with TZI/TGI),

IFD 258..I: max. 1 m, recommended < 0.7 m.

Permissible UV sensors:

Elster Kromschöder models UVS 1, 5 and 6 for ambient temperatures from -40 to +80°C (-40 to 176°F).

Valve connections: 1.

IFD 258..I: Ignition voltage: 22 kVpp,

Ignition current: 25 mA,

Spark gap: 2 mm, max. 5 mm.

Fuse in unit: F1: T 3.15A H 250 V pursuant to IEC 127-2/5.

Ambient temperature: -20 to +60°C (-4 to +140°F).

Relative humidity: no condensation permitted.

Enclosure: IP 54 pursuant to IEC 529.

Overvoltage category III pursuant to EN 60730.

Cable gland: M16.

Installation position: any.

Weight:

IFD 258: 610 g,

IFD 258..I: 770 g.

Certification



The IFD 258 complies with the requirements of the following directives and standards:

- Machinery Directive (2006/42/EC)
- EN 298
- Low Voltage Directive (2006/95/EC)
- Electromagnetic Compatibility Directive (2004/108/EC)

Certification pursuant to

- Gas Appliances Directive
- FM

is currently being prepared.

Maintenance cycles

The automatic burner control unit IFD 258 requires little servicing.



Selection table

	2	5	8	-3	-5	-10	/1	/2	Y	Q	P	W	I*
IFD	●	●	●	●	●	●	●	●	●	●	●	●	○

* Only available for IFD 258..Q and IFD 258..W.

● = standard, ○ = available

Order example

IFD 258-5/1W

Type code

Code	Description
IFS	Automatic burner control unit
2	Series 200
5	With ionisation or UV control
8	Immediate fault lock-out or restart, switchable
-3	Safety time on start-up t_{SA} : 3 s
-5	5 s
-10	10 s
/1	Safety time during operation t_{SB} : 1 s
/2	2 s
W	Mains voltage: 230 V~, 50/60 Hz
R	115 V~, 50/60 Hz
Y	200 V~, 50/60 Hz
P	100 V~, 50/60 Hz
I*	Integrated electronic ignition

* if "none", this specification is omitted.

Detailed information on this product

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