Pilot burner ZMI, ZMIC

- Pilot burner with forced air supply
- Safe flame control thanks to ionization electrode
- Reliable electrical ignition
- Space-saving slim design due to single-electrode operation
- Optimum positioning thanks to moveable mounting device
- Different lengths make it suitable for many installation situations
- Maintenance-friendly thanks to simple design
- Can be used in many applications
- Optional: ZMIC with ceramic tip
Application
For safely igniting gas burners on furnaces in the metal, ceramics and non-ferrous metal industries and on heat treatment installations. The ZMI can also be used as an independently operated burner.
Suitable for operation with natural gas, town gas/coke oven gas or LPG.
The pilot burner is ignited electronically and monitored by a single ignition and ionization electrode.
The ZMIC 28 with ceramic tip has a longer, sharper flame. The ceramic tube has a longer service life and is suitable for higher temperatures.

Examples of application
Main burner BBG with integrated pilot burner ZMI

Main burner ZIO with integrated pilot burner ZMI
In the case of combined pilot and main burners, EN 746-2:2010 stipulates the monitoring of pilot and main burner via the automatic burner control unit. Exceptions are permitted provided that the safety of the installation is not impaired.

Alternating pilot burner with modulating-controlled main burner

As soon as voltage is supplied to the ignition transformer, the pilot burner ZMI is ignited using an ignition spark. If the pilot burner detects a stable ionization signal, the enable signal for operation of the main burner is issued via the automatic burner control unit. The main burner is ignited. If the main burner provides a stable flame signal, the pilot burner ZMI can be switched off.

Igniting a flame curtain

As soon as voltage is supplied to the ignition transformer, the pilot burner ZMI is ignited using an ignition spark. If the pilot burner provides a stable ionization signal, the enable signal for the flame curtain is then issued via the automatic burner control unit. The flame curtain is ignited.

Type code

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>ZMI</td>
<td>Pilot burner</td>
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<tr>
<td>ZMIC</td>
<td>Pilot burner with ceramic flame tube</td>
</tr>
<tr>
<td>16</td>
<td>16 mm burner size</td>
</tr>
<tr>
<td>25</td>
<td>25 mm burner size</td>
</tr>
<tr>
<td>28</td>
<td>28 mm burner size</td>
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<tr>
<td>T</td>
<td>T-product</td>
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<tr>
<td>B</td>
<td>For natural gas</td>
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<tr>
<td>G</td>
<td>For LPG</td>
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<tr>
<td>D</td>
<td>For town gas/coke oven gas</td>
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<tr>
<td>150</td>
<td>Flame tube length [mm]*</td>
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<tr>
<td>200</td>
<td></td>
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<td>300</td>
<td></td>
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<tr>
<td>R</td>
<td>Rp internal thread</td>
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<td>N</td>
<td>NPT internal thread</td>
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<tr>
<td>K</td>
<td>Bellows unit</td>
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* Burner lengths as of 200 mm in 100 mm increments/lengths of the ZMIC 28.K as of 250 mm in 50 mm increments
Technical data
Capacity:
ZMI 16: 1 to 2 kW (3.8 to 7.6 $10^3$ BTU/h),
ZMI 25: 2.5 to 4 kW (9.5 to 15.1 $10^3$ BTU/h)
(1.5 to 3.3 kW when used with town gas,
coke oven gas),
ZMIC 28: 2.5 to 4.2 kW
(9.5 to 15.9 $10^3$ BTU/h).
Capacities in kW refer to the lower calorific
value $H_u$ and capacities in BTU/h refer to
the upper calorific value $H_o$.
Gas inlet pressure:
ZMI: up to 80 mbar (up to 32 °WC),
ZMIC: up to 100 mbar (up to 40 °WC),
air inlet pressure: up to 120 mbar
(up to 47 °WC),
each depending on the gas type.
Burner pressures: see
www.docuthek.com ➔ Elster Kromschröder
Search term: ZMI, ZMIC
Kind of document: Flow rate curves
Registration in the Docuthek required.
Burner length increments: 100 mm (4"),
length increments of the ZMIC 28..K:
50 mm (2").
Gas types: natural gas, LPG (gaseous) and
coke oven gas, other gases on request.
For cold air only.
Flame control: with ionization electrode.
Ignition: direct spark ignition (5 kV ignition
transformer),
Angle plug: interference-suppressed.
Housing: aluminium.
Flame tube:
ZMI: heat-resistant steel,
ZMIC: ceramic flame tube.
Max. temperature at the tip of the flame
tube:
ZMI: 1000°C (1832°F),
for lambda $< 1$: 900°C (1652°F),
ZMIC: 1450°C (2642°F).

Maintenance cycles
We recommend a function check at least
once a year.

Detailed information on this product
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