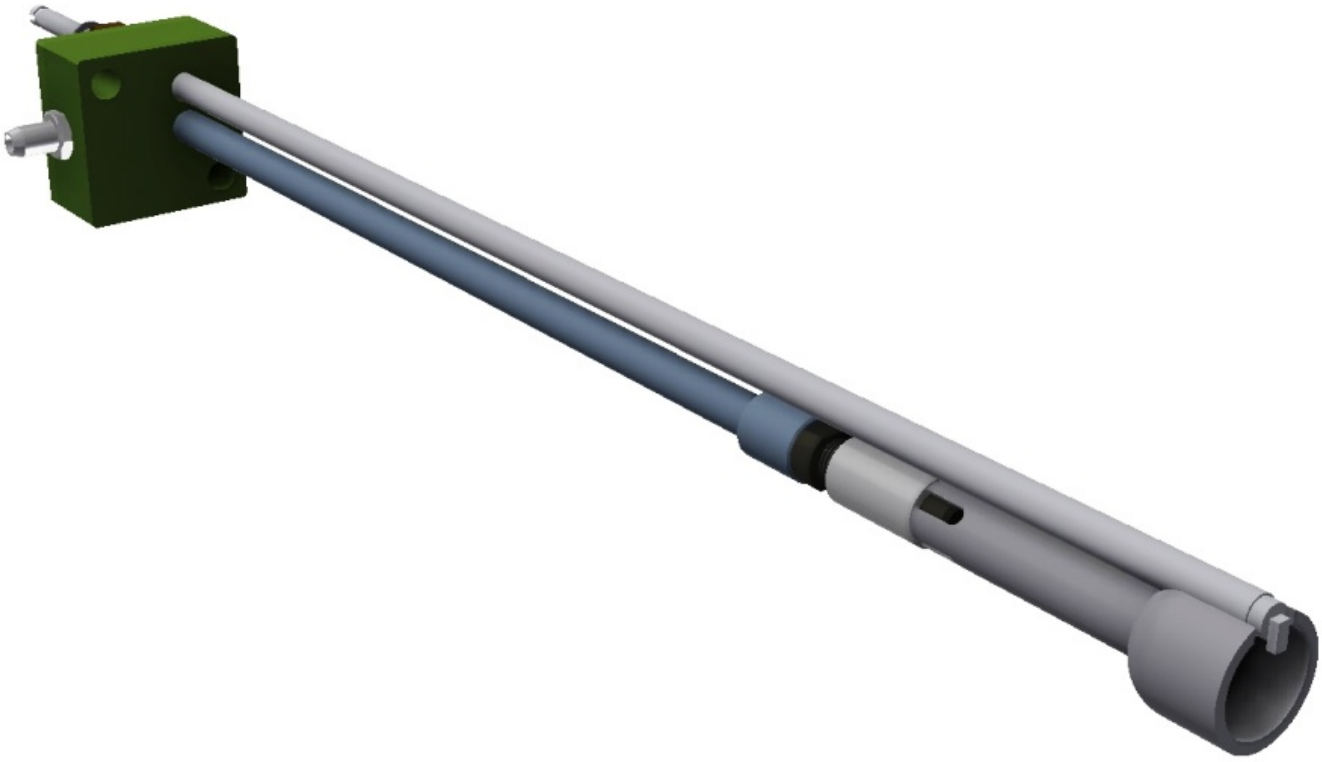
PiecoSerwis® Spółka z o.o. Gliwice

INJECTOR-TYPE IGNITION BURNER

IPZ-7



DATA SHEET

Description and Technical Characteristics of the Burner

The IPZ-7 ignition injector burner is designed to ignite various types of burners installed in furnaces and other industrial heating devices, provided the following conditions are met:

- ✓ Installation of the ignition burner is possible only within the body of the main burner.
- ✓ The main burner is equipped with a UV flame detector.
- ✓ The UV detector of the main burner detects the presence of the ignition burner flame.
- ✓ The automatic controller that starts the main burner must include functions for controlling the ignition burner (automatic start-up and shutdown after ignition of the main burner).

In the control system of both the main and ignition burners, the following electrical safety interlocks must be applied:

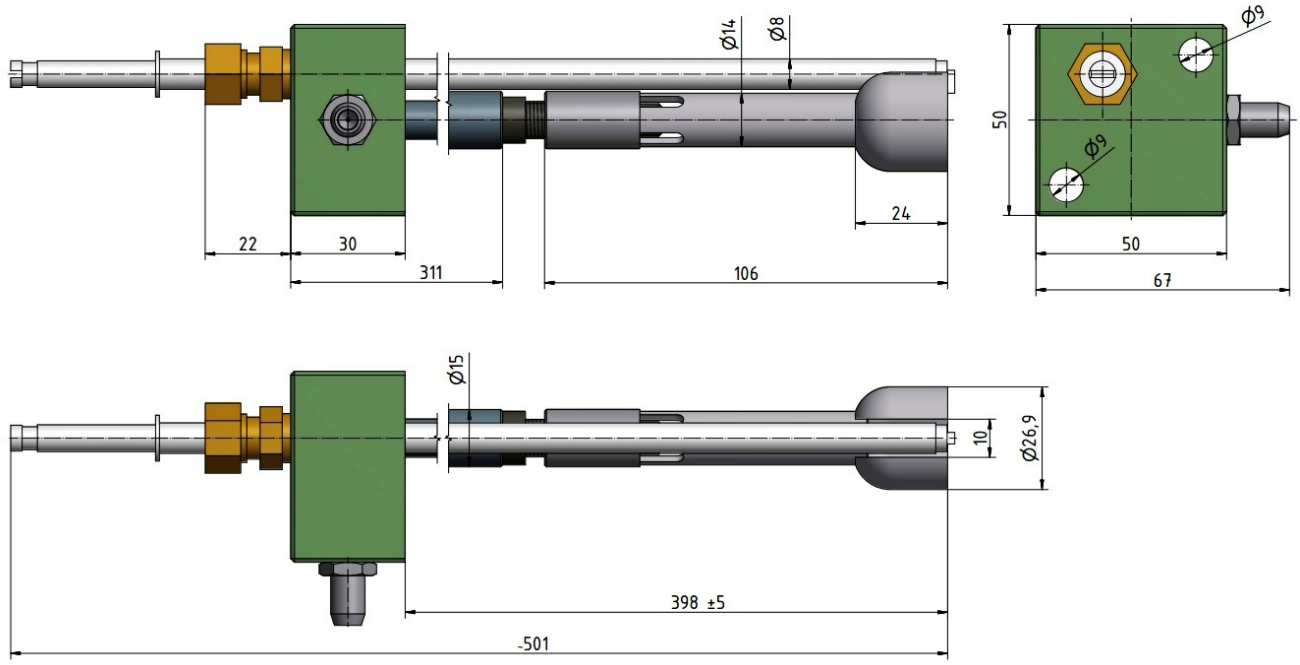
- ✓ Against power supply failure,
- ✓ Against flame loss or absence during ignition,
- ✓ Against improper combustion air pressure,
- ✓ Against improper gas pressure.

Ignition of both the ignition burner and the main burner may also be blocked by technological conditions, e.g. limit values of temperature or vacuum.

The IPZ-7 is an injector-type burner that can be supplied with either natural gas or coke-oven gas. In injector burners, the thermal output for a given nozzle diameter is regulated by the gas pressure. In the IPZ burner, the nozzle diameter is 2 mm, and the gas pressure range is from 5 mbar to 25 mbar. This corresponds to thermal output ranges of:
3 to 7 kW for natural gas and 1.25 to 3 kW for coke-oven gas.
Within this pressure range, the burner achieves effective ignition and stable operation.
The dimensions of the IPZ burner are shown in the drawing below.

IPZ-7 BURNER

Data Sheet



IPZ Burner Technical Data

Burner type:	injector
Nominal thermal power:	7 kW
Power adjustment range:	Natural gas (Wd = 35 MJ/ Nm3) od 3 do 7 kW
Power adjustment range:	Coke-oven gas (Wd = 16 MJ/ Nm3) od 1,25 do 3 kW
Gas pressure at burner inlet:	5 ÷ 26 mbar
Ignition:	spark
Flame monitoring:	UV detector

Materials

- ✓ Body: structural steel
- ✓ Gas nozzle: stainless steel
- ✓ Mixer: stainless steel
- ✓ Flame shaping element: stainless steel

Applications

Ignition of burners installed in industrial furnaces and heating equipment.

IPZ Burner Equipment

The IPZ burner is equipped with a replaceable ignition electrode, a replaceable gas nozzle, and a connection port for measuring gas pressure at the burner's gas inlet. The accessories forming the equipment of the IPZ burner are shown in the drawing below.