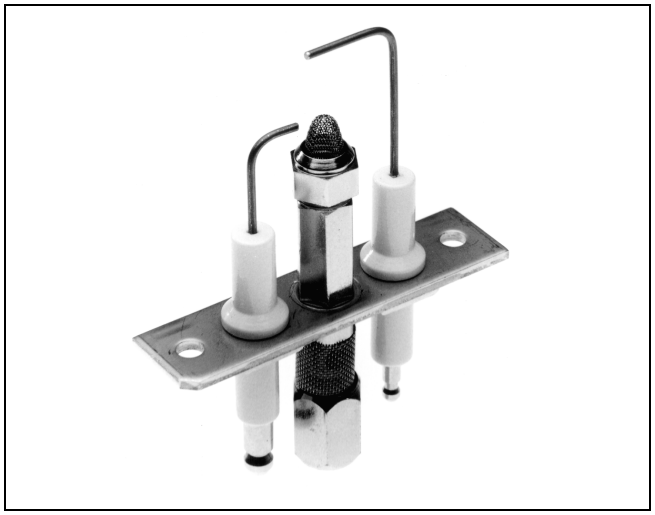
Honeywell

Q358B “2000 SERIES”

PRIMARY AERATED PILOT BURNERS

INSTRUCTION SHEET



APPLICATION

Q358B “2000 series” primary aerated intermittent pilot burners provide main burner ignition for gas appliances using natural or LP gas.

Q358B “2000 series” primary aerated pilot burners are used in conjunction with sensing electrode and an electronic control to prove the presence of pilot flame before main gas is admitted into the appliance.

SPECIFICATIONS

Models
Q358B series:
- Primary aerated pilot burner
- Normal consumption
- Intermittent pilot burner

The Q358B pilot burner is available as complete assembled pilot burner, including electrodes orifice assy and compression fitting for gas connection or as a non pre-assembled pilot burner with only a dust screen for primary air inlet and two clips for easy mounting of ignition and sensing electrode.

Pilot gas connection
4 mm or 6 mm tubing.

Dimensions
See page 1.

Gas type
The pilot burner can be used for the following gases:
- Natural gas
- LP gas

Sensing function
The sensing function of the system is done with a sensing electrode to measure the flame current for intermittent pilot application.

Mounting holes (see fig 1.)
The two mounting holes have a dia of 5.5 mm.

Maximum operating temperatures

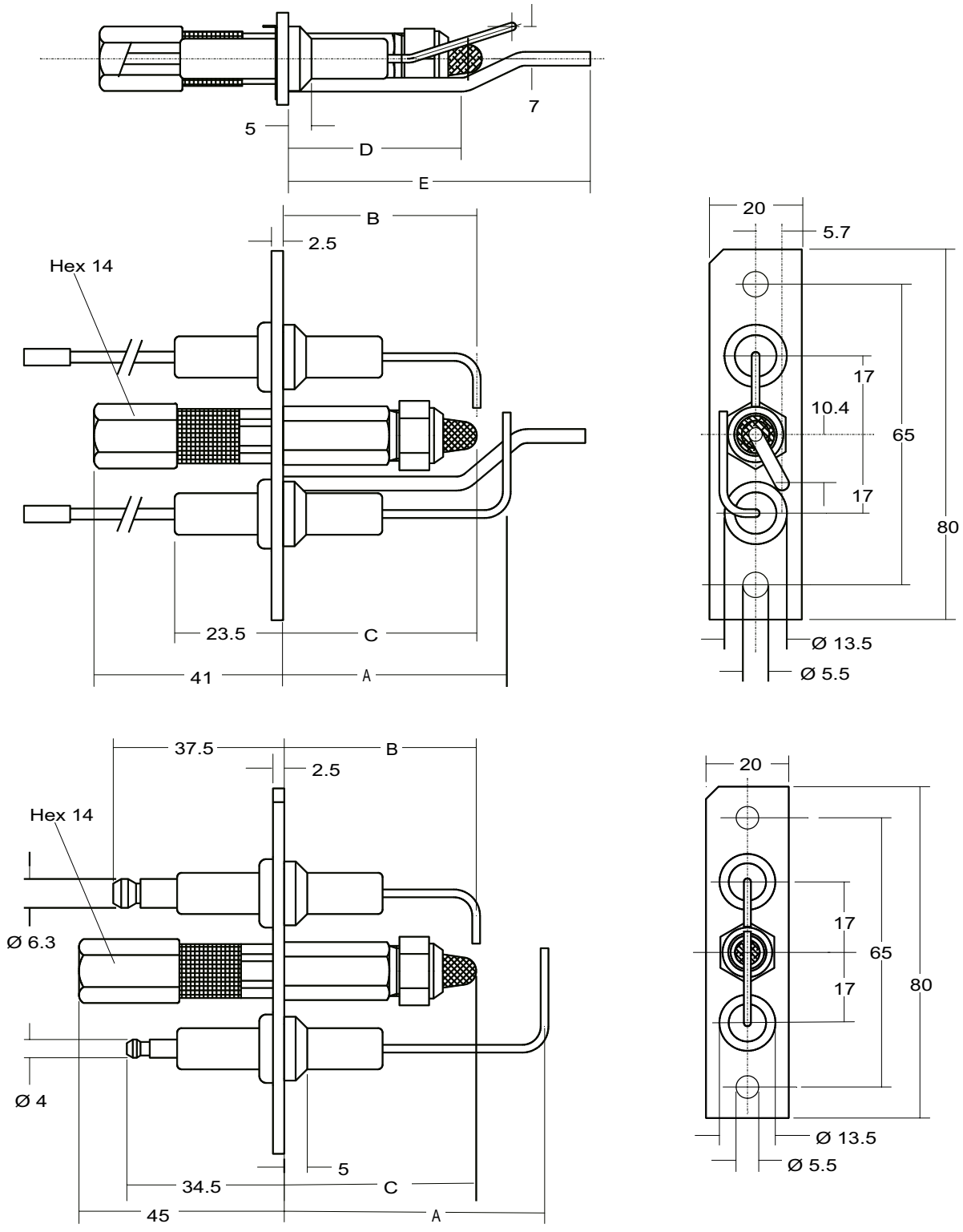
At burner head:	650°C
At orifice assy:	200°C
At electrode connector:	200°C
At electrode lead wire:	250°C
At ignition electrode tip:	970°C
At sensing electrode tip:	1150°C

Ignition electrode (depending on O.S. number)
Spark plug Ø 6.3 mm
Lead wire connection with: 2.8 x 0.5 mm. receptacle
Ø 4 mm female spark plug.

Sensing electrode (depending on O.S. number)
Spark plug Ø 4 mm
Lead wire connection with: 4.8 x 0.8 mm receptacle
6.3 x 0.8 mm tab.
6.3 x 0.8 mm receptacle

Dielectric strength ignition electrode
20 kV

Accessories
(to be ordered seperately, see Product Handbook EN2R-9002)
Compression fitting for 4 or 6 mm tubing.
Ignition electrode with spark plug or with leadwire .
Sensing electrode with spark plug or with leadwire .
Orifice assembly for natural (I_2) and LP (I_3) gas.



NOTE: See table 1. for dimensions which depends on O.S. number

Fig. 1. Dimensional drawing (mm)

Table 1: Dimensions and electrode conections

Q358B	A	B	C	D	E	Electrode connection			
						Sensing electrode		Spark electrode	
						Spark plug	Lead wire	Spark plug	Lead wire
2008	57/48.5[1])	42	42	-	-	[2])	[2])	[2])	[2])
2024 [3])	48.5	42	42	-	-	-	300 mm 4.8 x 0.8 receptacle	-	300 mm 2.8 x 0.5 receptacle
2032 [3])	57	42	42	-	-	-	300 mm 4.8 x 0.8 receptacle	-	300 mm 2.8 x 0.5 receptacle
2040 [3])	48.5	42	42	-	-	Ø 4 mm	-	Ø 6.3 mm	-
2057 [3])	48	33	33	-	-		300 mm 4.8 x 0.8 receptacle		300 mm 2.8 x 0.5 receptacle
2065 [3])	48.5	42	42	37.5	65.5	-	300 mm 4.8 x 0.8 receptacle	-	300 mm Ø 4 mm female plug
2073 [4])	57	42	42	-	-	-	300 mm 4.8 x 0.8 receptacle	-	300 mm 2.8 x 0.5 receptacle
2081 [3])	48.5	42	42	37.5	65.5	-	400 mm 6.3 x 0.8 receptacle	-	180 mm Ø 4 mm female plug
2099 [3])	48	33	33	-	-	Ø 4 mm	-	Ø 6.3 mm	-
2107 [3])	48.5	42	42	37.5	65.5	-	400 mm 4.8 x 0.8 receptacle	-	400 mm 2.8 x 0.5 receptacle
2115 [3])	48.5	42	42	37.5	65.5	-	400 mm 6.3 x 0.8 receptacle	-	400 mm 2.8 x 0.5 receptacle

[1]) Depending of type of sensing element.
[2]) To be ordered separately,
see Product Handbook EN2R-9002.
[3]) Including orifice for natural gas.
[4]) Including orifice for LP gas.

INSTALLATION

IMPORTANT

Installer must be a trained, experienced service man.
Turn off gas supply before starting installation.
Disconnect power supply to prevent electrical shock and/or equipment damage.
An important requirement for the Q358B is that it must be installed correctly.
Consult Honeywell application engineers when considering using these devices.

Locating pilot burner

- Position for easy access and observation.
- Position so that pilot flame will not touch adjacent parts or main burner flames.
- Position so that pilot flame will ignite main burner when pilot gas pressure just exceeds safety shut-off value.
- Ensure that pilot flame has an ample supply of dust free air.
- Do not expose to draughts which will extinguish pilot flame or deflect it from the flame sensing electrode.
- Pilot burner should not extinguish when main burner is switched ”ON” and ”OFF”.
- Pilot burner shall be mounted in a position from horizontal up to an angle of 75°.

Mounting

The pilot burner can be mounted by using the mounting holes in the bracket.
The pilot burner has a non symetrical bracket which allows the possibility of **one way** mounting positioning.
Mounting is possible in a horizontal position or a position up to an angle of 75° from the horizontal, depending of the application.

IMPORTANT

It is recommended to mount sensing electrode in such a way that the tip of the sensing electrode is above or in the center plane of the pilot burner.

Pilot gas connection (see fig. 2.)

- Square off end of tubing, clean, remove burrs and form it.
- With orifice assembly, dust screen over primary air inlet and compression fitting in position, insert tubing into spud until it bottoms and turn compression fitting finger tight.
- Hold tubing to prevent turning and tighten compression fitting with a wrench about one turn beyond finger tight.

CAUTION

Do not use jointing compound.
Do not bend tubing near fitting after tightening as this may result in gas leakage at connection.
Fastening/loosening torque of gland must not exceed 12 Nm.

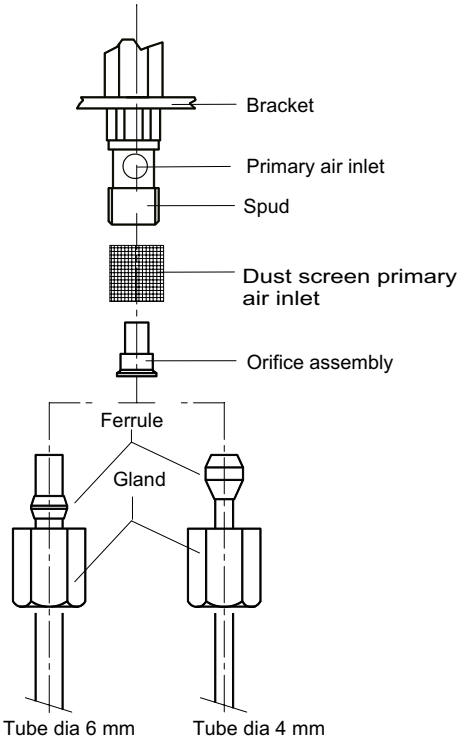


Fig. 2. Pilot gas connection

Mounting of ignition and sensing electrode (see fig. 3.)

NOTE: When mounting electrodes, Honeywell 's name on top side of bracket.

- Place ignition electrode in the flat side shaped hole on the left handed side of the bracket and fix the electrode with a clip.
- Place sensing electrode in the flat side shaped hole on the right handed side of the bracket and fix the electrode with a clip.
- It is recommended to position pilot burner in the application in such a way that the sensing electrode is above or in center plane of the burner head.

Checkout

After mouting of sensing electrode and clip check spark gap to target.
Spark gap must be between 2 and 5 mm.

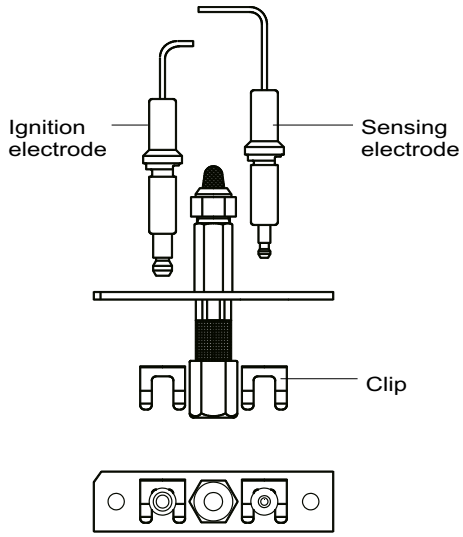


Fig. 3. Fixing electrodes

Electrical connections

- Switch off power supply before making electrical connections.
- Wiring must be within local regulations.
- Follow the instructions supplied by the appliance manufacturer.

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