

Pilot burner SDB and SCE 40



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CHARACTERISTICS

- SDB and SCE 40 are both pilot burners with forced air supply.
- SDB: premixed combustion with stable and strong flame. SCE 40: non-premixed combustion with no flareback.
- SDB 1: 1~2kW, SDB 2: 2.5~4kW, SDB 4: 2~7 kW, SCEM 40/SCEC 40: 5~20kW.
- Thanks to the removable mounting device, pilot burner SDB 1 and SDB 2 are convenient to operate and have flexible installation positions.
- Can only be used with non-preheated air.
- Fuel: LPG, natural gas, town gas and other clean fuel gas.

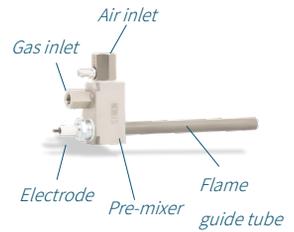
APPLICATIONS

Low-capacity burners SDB and SCE 40 are mostly used as safe pilot burner of high-capacity burners due to their good flame stability and can also be used independently.

CONFIGURATION

- The pilot burner SDB 1 and SDB 2 are composed of pre-mixer, electrode, and flame guide tube, while the SDB 4 is composed of burner housing, protective tube and flame guide tube.
- Both the gas and air inlet of pilot burner SDB have a pressure test nipple, which can be used for measuring the gas and air inlet pressure.
- The pilot burner SCE 40 is composed of air housing, gas system, electrodes, and burner tube. The SCEM 40 is used with metal burner tube, while the SCEC 40 is used with ceramic burner tube.
- The gas and air inlet of SCE 40 are both equipped with orifice plates and pressure test nipples for pressure measurement.
- The pilot burner SDB 1 and SDB 2 can only be used with single-electrode ignition/detection. In addition to single-electrode ignition/detection, the double-electrode ignition/detection is also available for the pilot burner SDB 4 and SCE 40.

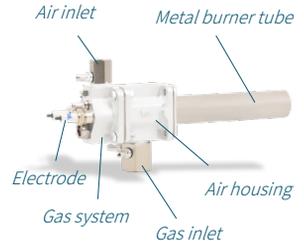
SDB 1/SDB 2:



SDB 4:



SCEM 40:



SPECIFICATION

Type table

SDB series

Type	SDB				4	N	150/	100
Capacity*	1: 1~2kW	2: 2.5~4kW	4: 2~7kW					
Fuel	N: Natural gas T: Town gas	P: LPG M: Mixture gas (only for SDB 4)	T: Town gas					
Protective tube length (mm)**	150	200	250	150+50n				
Flame guide tube length (mm)***	100	150	200	150+50n				

*Capacity when using natural gas as fuel gas.

**Only SDB 4 has protective tube, and the burner length of SDB 4 can be adjusted by changing the length of protective tube.

***The length of flame guide tube of SDB 4 is fixed 100mm, and the shortest flame guide tube length of SDB 1 and SDB 2 is 150 mm.

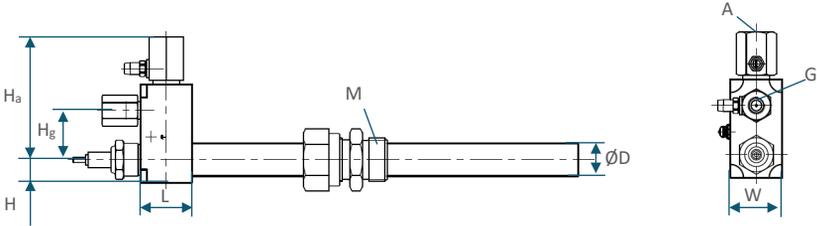
SCE 40 series

Type	SCEM				40	L	N	200	/135
Combustion chamber material	SCEM: Metal		SCEC: Ceramic						
Capacity	40: 20kW								
Flame shape	L: Long flame								
Flue	N: Natural gas		P: LPG		T: Town gas				
Burner tube length /mm	100	150	200	100+50n					
Burner core length /mm	35	85	135	35+50n					

The pilot burner's capacity should be 2~5% of the main burner's capacity.

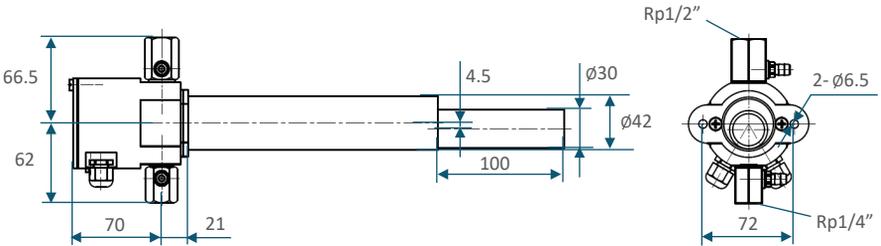
Dimensions

SDB 1/SDB 2

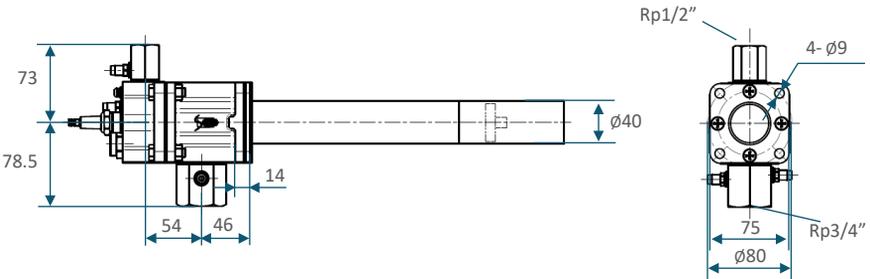


Type	A	G	M	D	H_g	H_a	H	L	W
SDB 1	Rp 1/2"	Rp 1/4"	G 1/2	16	37.5	93.5	17.5	40	40
SDB 2	Rp 1/2"	Rp 1/4"	G 1	25	37.5	93.5	17.5	40	40

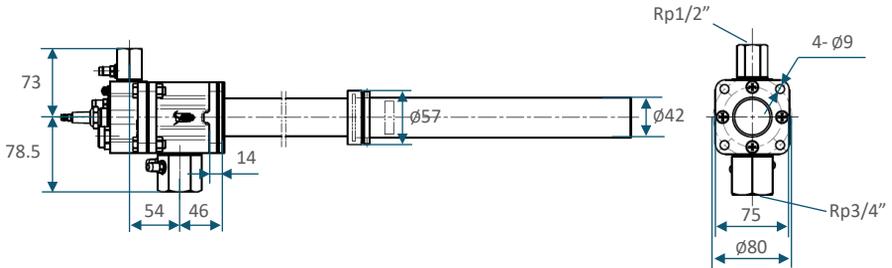
SDB 4



SCEM 40



Unit: mm



Unit: mm

INSTALLATION

- The pilot burner is mostly installed on main burner. If the pilot burner needs to be installed separately, please consult us and choose a suitable location.
- It's recommended to install a gas filter on the main gas tube of pilot burner. Before the pipe is connected to the burner, it must be purged to prevent welding slag or other debris from entering the burner and affecting the normal operation of the burner.
- If a pipe welding is required after the connection between burner and pipeline, ensure that there is no welding slag or molten substance falls into the pipe or burner.

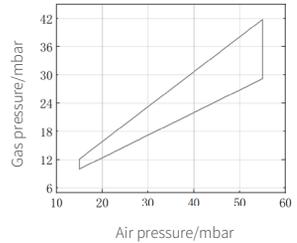
OPERATION

Attention

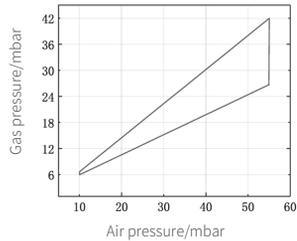
- Can only be used with non-preheated air.
- For SDB 1 and SDB 2: ensure that the temperature of the flame guide tube between the pre-mixer and burner head of the burner does not exceed the gas ignition point, generally recommended not exceeding 500 °C. And the temperature of the flame guide tube of the downstream of the burner head must be lower than 1000 °C.

- For SDB 4: ensure that the temperature of the SDB 4's protection tube do not exceed the gas ignition point, generally recommended not exceeding 500 °C. And the temperature of SDB 4's flame guide tube must be lower than 1000 °C.
- In order to ensure the continuous and stable combustion of the pilot burner SDB 1 and SDB 2 , the air pressure at the burner inlet should not less than 5kPa, and the gas pressure should be kept within the appropriate range, as shown in the figure on the right (the flue is natural gas).
- For SCE 40, the pressure difference of the air orifice plate should be maintained at about 35mbar, and the pressure difference of the gas orifice plate should be maintained at about 25mbar.
- Ensure that the air continues to enter the burner when the burner is closed to cool the burner.

SDB 1:



SDB 2:



Maintenance

- At least once every six months. Increase the times of maintenance, as appropriate.