

## Specifications of LVDT/HC-pilot burner

Typical burner data				
60° F – 21 % O <sub>2</sub> combustion air – 50 % humidity – natural gas with 1000 Btu/ft <sup>3</sup> HHV - sg = 0.6 [1] Stated pressures are indicative - actual pressures are function of air humidity, altitude, type of fuel, gas quality				
Type		LVDT	HC	BSTD
Capacity	(MBtu/h)	68 (51-85)	68 (51-85)	290
Air (required air flow on scanner connection)	scfm	2 -2.3	2 -2.3	2 -2.3
Air pressure (relative to process back pressure)	[2] ("wc)	28	28	28
Natural gas pressure (relative to process back pressure)	[2][3] ("wc)	12	803 - 1605	803 - 1605
Propane pressure (relative to process back pressure)	("wc)	4.8	401 - 803	401 - 803
Flame length (outside the pilot burner)	[4] in.	3.9 - 6	3.9 - 6	7.8

[1] sg (specific gravity) = relative density to air (density air = 0.0763 lb/ft<sup>3</sup>(st)).

[2] Measured at pilot inlet.

[3] Customized orifices can be supplied for different gas pressures.

[4] Measured from outlet pilot tube (see page 4-22.4-3).



**The LVDT/HC-pilot burner is designed for intermittent operation.**

**For special application and in specific conditions, a continuous pilot version may be supplied on request. Contact MAXON for more details.**

## Materials of construction

Pilot tube	AISI304 (1.4301)
Spark ignitor holder	AISI304 (1.4301)
Spark ignitor	AISI304 (1.4301) + porcelain insulator
Ball valve	AISI304 (1.4301)

## Selection criteria

Refer to the product data of AIRFLO® “LV”, “HC”, DELTA-TE™ and COMBUSTIFUME® burners.  
Refer to page 4-22.4-3.

### Standard available LVDT/HC-pilot burners (other combinations are possible on request)

Pilot type	Length X (inches)	MAXON compatible burners
LVDT-450	18	“LV” / COMBUSTIFUME® / DELTA-TE™
LVDT-600	23.6	“LV” / COMBUSTIFUME® / DELTA-TE™
LVDT-750	29.5	“LV” / COMBUSTIFUME® / DELTA-TE™
LVDT-900	35.4	“LV” / COMBUSTIFUME® / DELTA-TE™
LVDT-X	customized max.: 59	“LV” / COMBUSTIFUME® / DELTA-TE™
HC-X-SM	customized max.: 59	HC-S / HC-M / “LV” / COMBUSTIFUME® / DELTA-TE™
HC-X-L	customized max.: 59	HC-L
HC-US-X-SM	customized max.: 59	HC-S / HC-M / “LV” / COMBUSTIFUME® / DELTA-TE™
HC-US-X-L	customized max.: 59	HC-L
HC-EEx-X-SM	customized max.: 59	HC-S / HC-M / “LV” / COMBUSTIFUME® / DELTA-TE™
HC-EEx-X-L	customized max.: 59	HC-L
HC-BSTD-X	customized: 59 - 197	HC-S / HC-M / “LV” / COMBUSTIFUME® / DELTA-TE™
HC-BSTD-US-X	customized: 59 - 157.4	HC-S / HC-M / “LV” / COMBUSTIFUME® / DELTA-TE™



When ATEX category 2G (European hazardous area zones 1 & 2) applies, an –EEx type pilot burner shall be selected. Additional material needs to be ordered in this case:

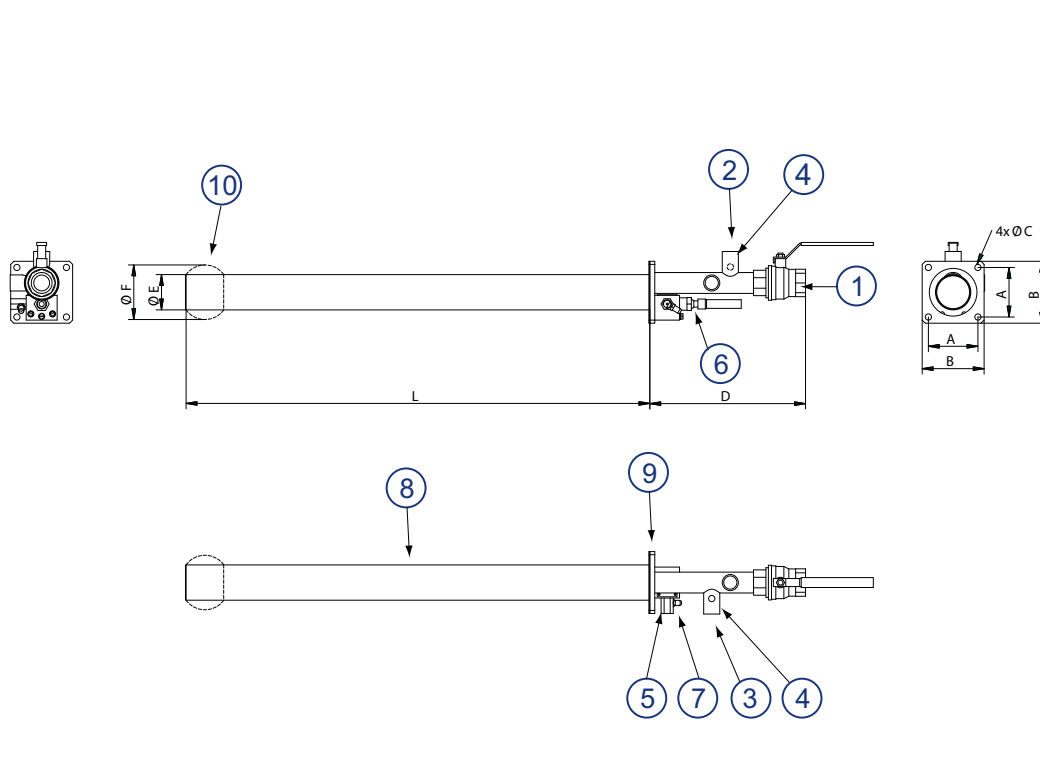
- ignition coil
- spark pulse generator (SPG)
- EExd-box to house the SPG in case the SPG is mounted in an hazardous area itself

For use in very humid atmospheres (low temperature dryers) a special quartz insulated spark ignitor is optionally available. Refer to page 4-22.4-9.

## Dimensions & weights

LVDT / HC - types (non EEX, non BSTD)

- 1) UV-scanner connection 1"
- 2) Scanner cooling & combustion air inlet 1/2"
- 3) Alternative cooling & comb. air inlet 1/2"
- 4) Test connection combustion air 1/8"
- 5) Pilot gas inlet 1/4"
- 6) Spark ignitor
- 7) Pilot gas pressure test connection
- 8) Stainless steel pilot tube
- 9) Gasket
- 10) Ball joint (only on -L type)



Dimensions in inches unless stated otherwise						
A	B	C Ø	D	E Ø	F Ø	Weight (lbs)
3	3.9	0.39	9.8	2.2	2.9	2 + (6 x L*)

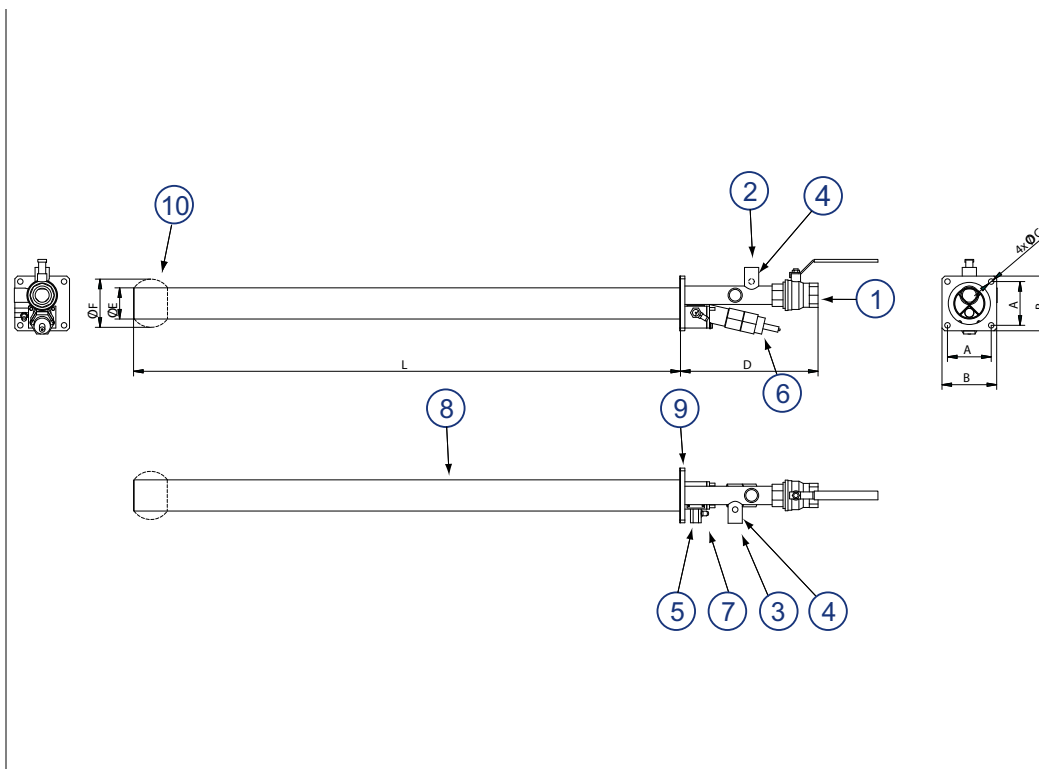
\* L = tube length in ft



Air, gas and test connections are ISO female threaded for European versions, NPT female threaded for US version pilots. Except UV-scanner connection: this is ISO female threaded in both versions.

LVDT / HC-SM / HC-L - EEx -types

- 1) UV-scanner connection 1"
- 2) Scanner cooling & combustion air inlet 1/2"
- 3) Pressure test connection 1/2"
- 4) Test connection combustion air 1/8"
- 5) Pilot gas inlet 1/4"
- 6) EEx spark ignitor
- 7) Pilot gas pressure test connection
- 8) Stainless steel pilot tube
- 9) Gasket
- 10) Ball joint  
(only on HC-L type)



Dimensions in inches unless stated otherwise						
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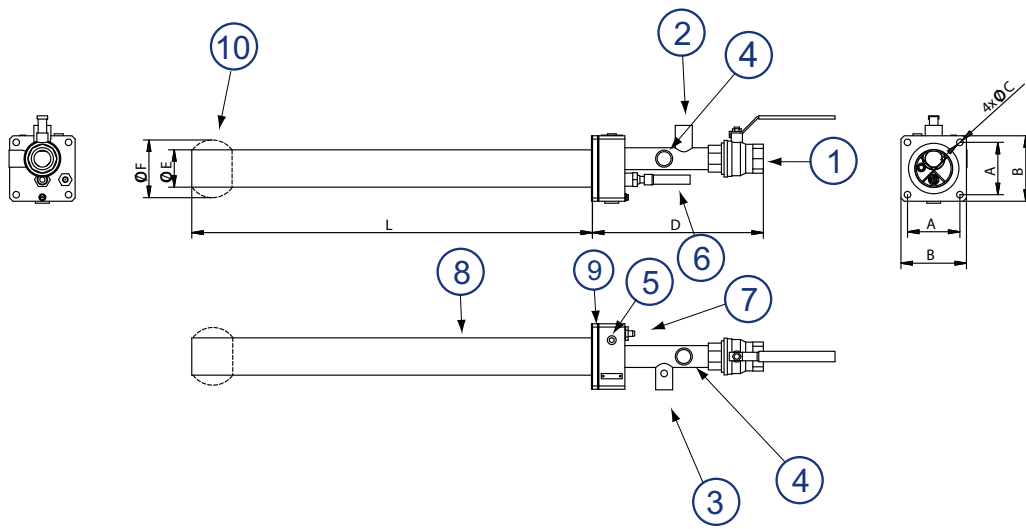
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Air, gas and test connections are ISO female threaded for European versions, NPT female threaded for US version pilots. Except UV-scanner connection: this is ISO female threaded in both versions.

LVDT / HC-SM / HC-L - BSTD - types

- 1) UV-scanner connection 1"
- 2) Scanner cooling & combustion air inlet 1/2"
- 3) Pressure test connection 1/2"
- 4) Test connection combustion air 1/8"
- 5) Pilot gas inlet 1/4"
- 6) EEx spark ignitor
- 7) Pilot gas pressure test connection
- 8) Stainless steel pilot tube
- 9) Gasket
- 10) Ball joint (only on HC -L type)



Dimensions in inches unless stated otherwise						
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## Spark ignitors

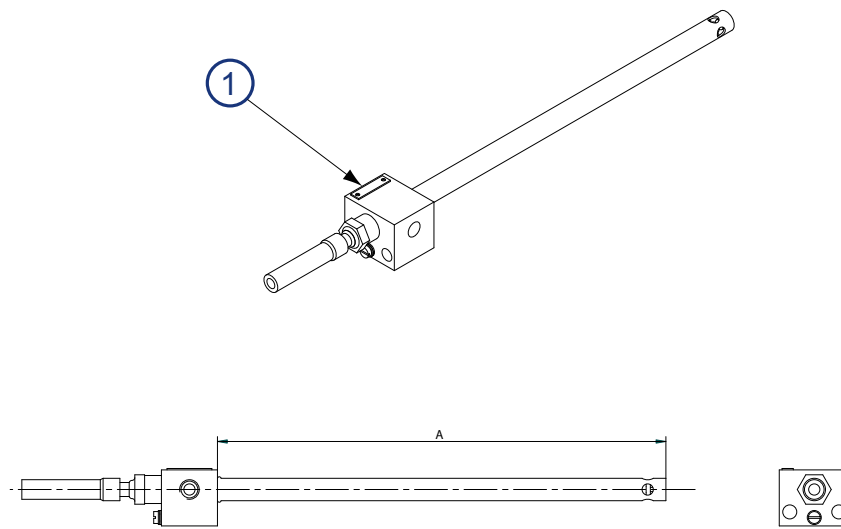
Spark ignitors are available in different lengths and can be ordered separately. MAXON advises to keep spark ignitors as spare parts. The spark ignitors are supplied including the spark ignitor holder, which facilitates on site replacement.

Available spark ignitor types		
Type	Length A (inches)	Remark
SI-LVDT-450	15.7	standard length
SI-LVDT-600	21.6	
SI-LVDT-750	27.5	
SI-LVDT-900	33.4	
SI-LVDT-X	L-50 (1)	customized length
SI-HC-EEEx-X	L-50 (1)	spark ignitor for EEx pilot burners
SI-HC-BSTD-X	L-50 (1)	spark ignitor for boosted pilot burners
SI-LVDT-QRTZ	L-50 (1)	one piece quartz insulator for use in very humid atmospheres

[1] L = pilot burner tube length

To define the spark ignitor, the correct type should be known. In addition, the length "A" should be specified when ordering. This length can be determined by measuring the length of the spark ignitor from the tip to the holder or it can be found engraved in the spark ignitor holder.

1) "A" length



Spark ignitor with holder