



[Nanopowders Systems]

## Gas Box Module



# gbox

### Overview

g-Box module is a compact and easy-to-use device for gas delivery. It consists of Mass Flow Controllers (MFC) equipped with automated safety shut-off valves. Gas flow and switch on/off of the MFCs are remotely controlled (RS232) by a SW that runs on a Windows® PC.

g-Box is available in two different configurations:

- 2 MFC (two in-lines and two out-lines), designed to be coupled with Tethis FlameBeam Source
- 3 MFC (four in-lines and three out-lines), designed to be coupled with Tethis NanoPowder Nozzle npn

### Technical specifications

#### Environment

Operating temperature range	0 °C – 40 °C
Operating humidity	20% - 90% non condensing
Storage temperature	-20°C – 75°C
Storage humidity	20% - 90% non condensing

#### Mechanical data

Dimensions (L x W x H) in cm	43,5 x 22 x 25 cm
Weight	12 kg

#### Electrical data

Power supply	90 – 132 / 187 – 264 VAC, 47 – 63 Hz
Power consumption	50 W
Communication	RS-232
Pressure monitor	3 independent channels 0 V – 10 V
Valves remote control	5 V

**Gas**

Materials in contact with gases	Stainless Steel, brass, ceramic, Viton, FKM, NBR
Inlet connections	4 lines with 1/8" compression fittings
Inlet pressure	3 – 10 bar
Outlet connections	3 lines with 1/8" compression fittings
Line A gas type	N <sub>2</sub>
Line A flow	0 – 20 L/min
Line B gas type	O <sub>2</sub>
Line B flow	0 – 10 L/min
Line C1 gas type	CH <sub>4</sub>
Line C1 flow	0 – 5 L/min
Line C2 gas type	O <sub>2</sub>
Line C2 flow	0 – 5 L/min

**Layout**