

# COMBINED GAS VALVE M3N



M3N - 11 - Ed 3 - June 2023

This is a general documentation; for specific applications not covered by this leaflet, please consult us.

The SUNTEC M3N combined gas valve is a 1-stage system, with two safety valves.

### **APPLICATIONS**

The SUNTEC combined gas valve is recommended for collective or industrial pressure jet burners.

The use of the SUNTEC combined gas valve is recommended in all gas installations requiring a safety shutoff for inlet pressure up to 160 mbar.

It is suitable for use with 1st, 2nd and 3rd family gases (according to EN 437).

#### **OPERATION PRINCIPLE**

M3N combined gas valve comprises two class B automatic safety valves, direct-acting, electrically operated.

At rest, both safety valves are closed; thus gas cannot flow beyond chamber ①.

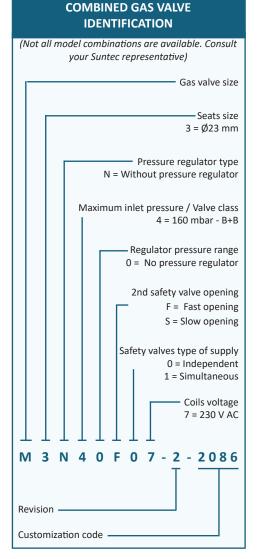
When energized, the coils open and release the gas flow from chamber ① to chamber ② for valve V1 (from chamber ② to chamber ③ for V2).

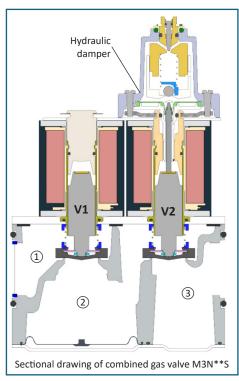
When de-energized, each safety valve closes within 0.2 s.

## Slow opening (M3N\*\*S)

A hydraulic damper, placed above the safety valve V2, offers the possibility to dampen the movement of the safety valve V2 and thus apply a progressive gas flow in the combustion chamber in the starting phases.

This device allows a fast initial opening (ignition flow) of the safety valve V2, adjustable up to 80% of the maximum flow.





## TECHNICAL SPECIFICATIONS

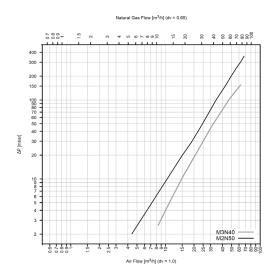
#### General

Maximum operating pressure	160 mbar
Ambient temperature range	-20°C to +60°C
Operation with	Air and gas of 1st, 2nd and 3rd families
Body	Aluminium
Weight	<ul><li>M3N**F: 2.3 kg</li><li>M3N**S: 2.5 kg</li></ul>
Certification	CE: Certificate n°1312CU6361 UKCA : certificate n°8510/0099
Inlet/outlet flanges	<ul><li>DN15 (Rp1/2")</li><li>DN20 (Rp3/4")</li></ul>
Pressure taps	G1/8" connections Supplied in 3 locations on the gas valve, and on inlet/ outlet flanges.
Inlet strainer	Mesh size : 0.6 mm. Replaceable filter.
Pressure switch (optional)	Factory mounted on inlet flange. When suitable configuration, can be side-mounted.

## Safety valve characteritics

Leakage class	Class B+B
Opening time (EN 161)	• M3N**F: < 0.5 s
	<ul> <li>M3N**S: &lt; 10 S (For other setting, contact SUNTEC.)</li> </ul>
Closing time (EN 161)	• M3N**F: < 0.2 s
	<ul><li>M3N**S: &lt; 0.2 s</li></ul>
Voltage	230 V AC, 50/60 Hz
Consumption	34 VA
IP rating	IP54 (with suitable connector) according to EN 60529
	standard.

## FLOW CURVE



P burner = 3 mbar Flange = Rp3/4"

Maximum flow can be reduced when other flanges are connected with.

## **DIMENSIONS**

