

Control unit for system leak-tightness tests

Type VPM-VC (Valve Check)

DUNGS®
Combustion Controls



Description

The valve test module VPM-VC according to EN 1643 for system leak-tightness tests checks the tightness of the gas shut-off valves in combination with one or two gas pressure switches. The program sequence, filling / venting variants, and program times can be adjusted by the user according to the system requirements.

Application

The VPM-VC is suitable for the automatic leak-tightness tests between two solenoid valves in gas-consuming devices, either before start-up or after the system is switched off. The test system can be used as a single leakage tester or in combination with suitable control systems, e.g., PLC con-

trols or automatic burner control systems. It is used in gas burner systems and gas engines.

Approvals

EU type-examination certificate according to:

- EU Gas Appliances Regulation
- EU Pressure Equipment Directive

The VPM meets the requirements of:

- Machinery Regulation (EU) 2023/1230
- Low Voltage Directive 2014/35/EU
- EMC 2014/30/EU

Approvals in other important gas-consuming countries:

EAC, EURO-Tysk, UL, FM Approvals Class 7610

VPM-VC

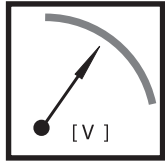
Control device for system leak-tightness tests according to EN 1643.

Checks the tightness of the gas shut-off valves either before starting or after shut-off.

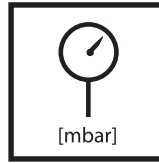
Equipment: one or two gas pressure switches.

Additional auxiliary valves are necessary, depending on the plant.

Pressure sensing devices / valves / auxiliary valves are not included in the scope of supply!

Technical data

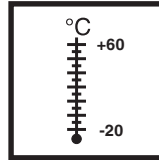
Power supply
(see nameplate)
(DC) 24 V +/- 30 %
~(AC) 115 V +10 % / -15 %
50-60 Hz ± 5 %
~(AC) 230 V +10 % / -15 %
50-60 Hz ± 5 %



Inlet pressure depending on the valve and pressure sensing device



Power consumption
max. 10 W



Operation, environment

(DC) 24 V

-30 °C / +60 °C

~(AC) 115/230 V -20 °C / +60 °C

Storage

(DC) 24 V

-30 °C / +60 °C

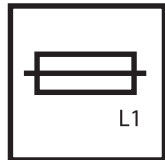
~(AC) 115/230 V -20 °C / +60 °C

-40 °C / +80 °C

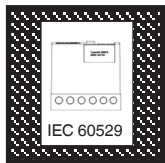
Transport

-20 °C / +60 °C

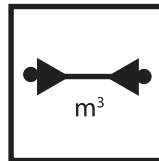
-20 °C / +60 °C



Integrated, replaceable
6.3 A T (10 A F)



Degree of protection according to
IEC 60529 IP 54



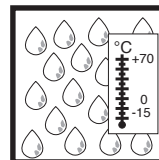
Test volume unlimited



Suitable for use up to 4000 m
above sea level (DC) 24 V

Suitable for use up to 2000 m above
sea level

~(AC) 115 V und ~(AC) 230 V



Air humidity DIN 60730-1

Condensation not permissible

Approvals

	EU Gas Appliances Regulation	EU Pressure Equipment Directive	UKCA	EAC	EURO-TYSK	UL	FM	AGA	SIL
VPM-VC (AC)	●	●	●	●	●	●	●	●	●
VPM-VC (DC)	●	●	●	●	●	●		●	●

LED display for indication of

- the system status
- any leaks
- system faults

RESET button

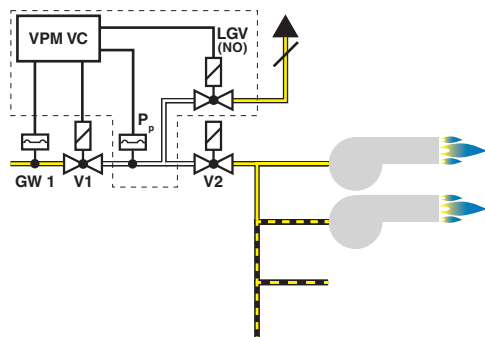
The program sequence and the test times are set by simple configuration via DIP switches.

- Test at system start or system stop
- Setting of the test time
- Setting of filling and emptying tests

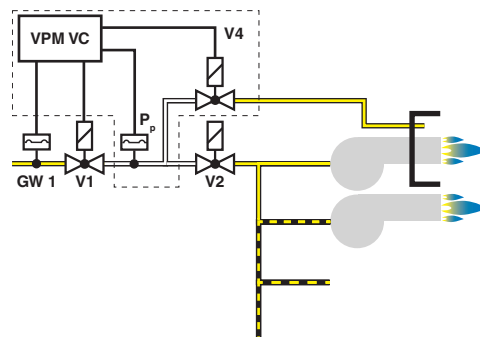


Application examples

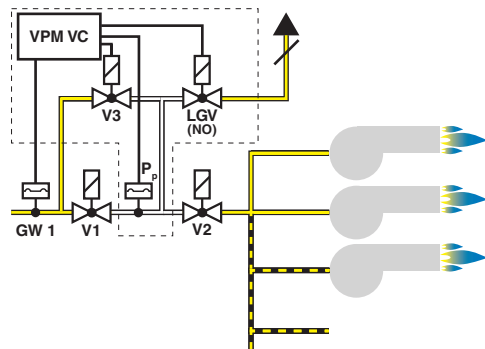
Direct valve control with LGV, venting via roof



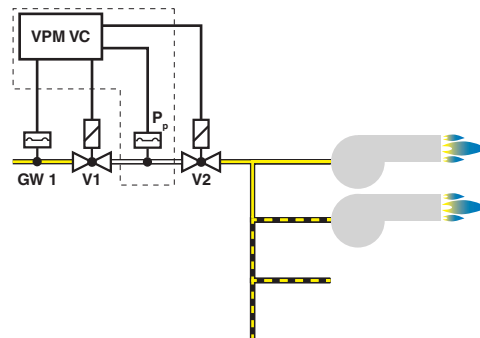
Direct valve control with auxiliary valve V4, venting into the combustion chamber



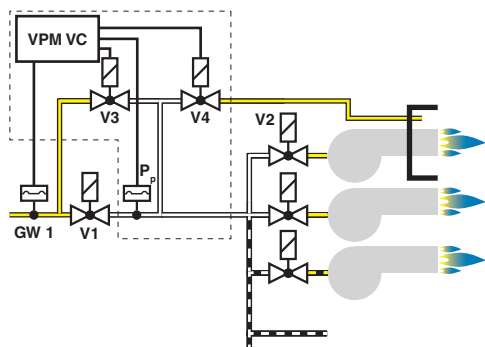
Valve check involving auxiliary valves V3, LGV Venting via roof



Direct valve control



Valve check involving auxiliary valves V3, V4 Venting into the combustion chamber





For further configuration options and connection diagrams, see EU Declaration of Conformity – instructions # 293538(VPM-VC 24 VDC), # 259960 (VPM-VC).

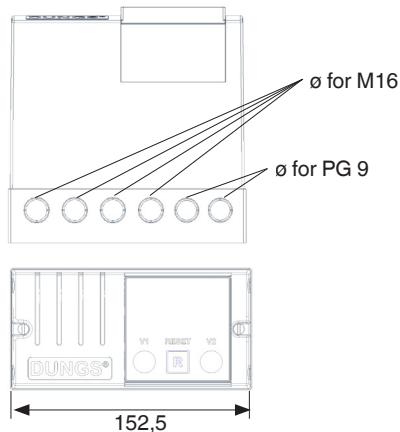
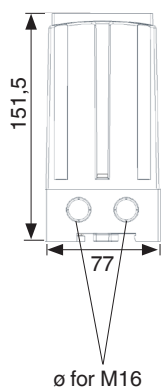
**Control unit for system
leak-tightness tests**

**Type VPM-VC
(Valve Check)**

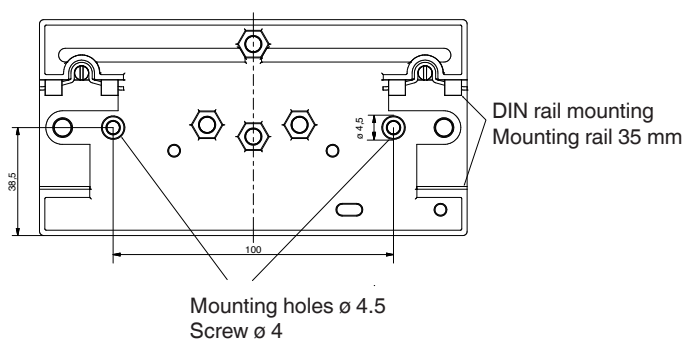
DUNGS®
Combustion Controls

Version		Description	Ordering No.
Complete device		VPM-VC 24 VDC VPM-VC 230 VAC VPM-VC 115 VAC	292 110 301 234 301 235
Base		1 piece	259694




Dimensions



Installation



Example of accessories

	Gas pressure switch depending on the inlet pressure, see datasheets LGW...A4 (5.08) GW...A6 (5.01) / GW...A5 (5.02) flange mounting GW...A4 HP (5.04)
	Auxiliary solenoid valves see datasheets DMV... (7.30, 7.37, 7.38), MV 502 (6.21) MVD... (6.20)
	MPA VisionBox As a supplement, MPA parameterization and service case for setting the VPM parameters via PC / laptop.

Subject to technical modification in the interest of technical progress.

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