



HTM 02-01 Automatic Manifold

Basic solution and amendment

IDENTIFICATION

- ▶ Two-stage-regulation, micro-processor driven, automatic manifold control panel for medical gas pipeline systems
- ▶ Fully compliant with HTM 02-01 and CE marked according to 93/42/EC directive (medical devices)
- ▶ First stage and second stage regulators specifically designed and tested for medical gases (in compliance with ISO 10524-2)
- ▶ Fail-safe normally-open (NO) solenoid valves for gas supply in case of power failure
- ▶ 24 V AC control system with RS485 interface for alarm signals reporting
- ▶ Painted stainless steel cabinet with piston-assisted opening system door

CE MARKING

Notified body: 0426

CE marking in risk class II B in accordance with Directive 93/42/EEC

REFERENCE STANDARD

HTM 02-01: "Medical gas pipeline systems"

ISO 10524-2: "Pressure regulators for use with medical gases- Part 2: Manifold and line pressure regulators"

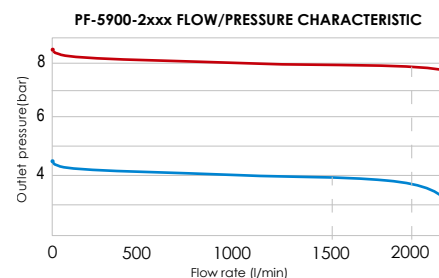
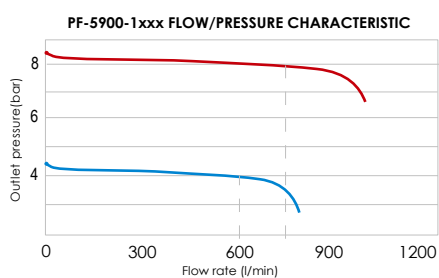
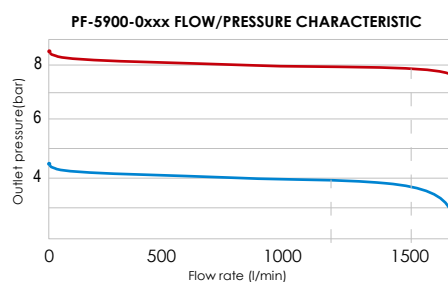
ISO 7396-1: "Medical gas pipeline systems - Part 1: Pipeline systems for compressed medical gases and vacuum"

ISO 15001: "Anaesthetic and respiratory equipment. Compatibility with oxygen"

* Validity of the standards is referred to the current year

KEY:

- $P_{out} = 4.3$ bar
- $P_{out} = 8.5$ bar (surgical air)
- — — Max flow rate

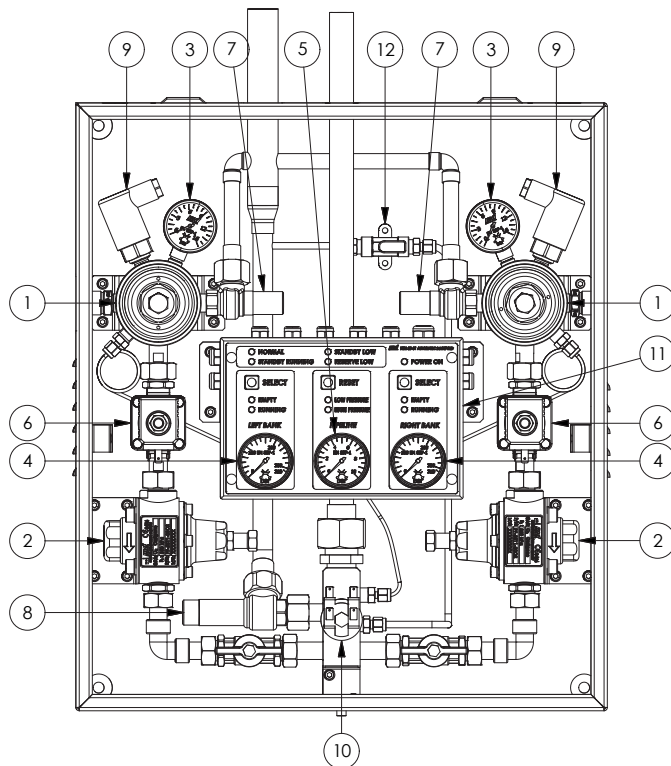




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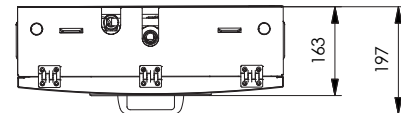
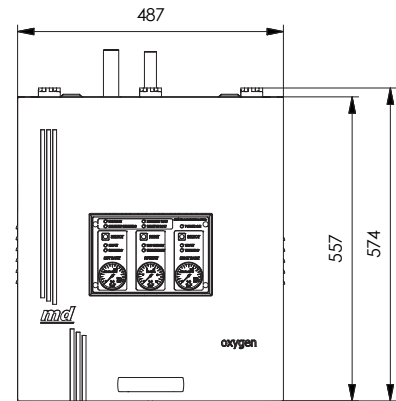
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DIMENSIONS

**KEY:**

- 1. 1st stage pressure regulator
- 2. 2nd stage pressure regulator
- 3. Intermediate pressure gauge
- 4. HP manifold pressure gauge
- 5. Pipeline pressure gauge
- 6. NO (Normally Open) solenoid ball valve

- 7. 1st stage safety valve
- 8. Pipeline safety valve
- 9. Manifold pressure switch
- 10. Pipeline low/high pressure switch
- 11. Manifold control panel 24 V AC
- 12. By-pass valve



- ▶ Available in 3 versions: 2000, 1000 and 650 l/min (2400, 1200 and 800 l/min for Air 7 bar)
- ▶ Inlet max pressure: 230 bar
- ▶ Cylinder bank pressure switch calibration: 11 bar
- ▶ Low/High pressure calibration: 3.7 bar / 5.0 bar (6.5 bar / 10.5 bar for Air 7 bar)
- ▶ Solenoid valves: NO (Normally Open); PN25; DN 11; 24 VAC
- ▶ 1st and 2nd stage regulators inlet degree of filtration: ≤ 24 µm

- ▶ 1st stage safety valve opening pressure: 14 bar
- ▶ Pipeline safety valve opening pressure: 5.3 bar (11.0 bar for Air 7 bar)
- ▶ Storage and working temperature: -20 °C ÷ +60 °C
- ▶ Inlet pressure gauges precision class and scale: 2.5; 0 ÷ 250 bar (0 ÷ 100 bar for N₂O and CO₂)
- ▶ Outlet pressure gauge precision class and scale: 2.5; 0 ÷ 10 bar (0 ÷ 16 bar for Air 7 bar)
- ▶ Cabinet in white painted AISI 430 stainless steel

CODE			GAS	PACKAGE		
2000 l/min	1000 l/min	650 l/min		pack	cm	kg
PF-5900-20O2	PF-5900-00O2	PF-5900-10O2	Oxygen	box	55 x 55 x 25	26.5
PF-5900-20AC	PF-5900-00AC	PF-5900-10AC	Medical Air MA4	box	55 x 55 x 25	26.5
PF-5900-2N2O	PF-5900-0N2O	PF-5900-1N2O	Nitrous Oxide	box	55 x 55 x 25	26.5
PF-5900-2CO2	PF-5900-0CO2	PF-5900-1CO2	Carbon Dioxide	box	55 x 55 x 25	26.5
PF-5900-2AC8*	PF-5900-0AC8**	PF-5900-1AC8***	Air for Driving Surgical Tools MA7	box	55 x 55 x 25	26.5

* flow rate: 2400 l/min

** flow rate: 1200 l/min

*** flow rate: 800 l/min

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