

MPLHOSSP | MPLHESSP – DRUVA® PUR MANIFOLD

MANIFOLD | PURE LINE (BRASS CHROME PLATED) | LOW FLOW SERIES

HIGH PRESSURE RANGE | SEMI-AUTOMATIC CHANGE OVER | SINGLE STAGE | PROCESS GAS PURGING



The **HO-version** of this manifold is used in gas supply systems for pure, inert, flammable, oxidizing gases and gas mixtures. Not usable for corrosive and/ or toxic gases and gas mixtures.

The **HE-version** of this manifold is usable for CO₂ and N₂O. Maximum gas purity is 6.0.



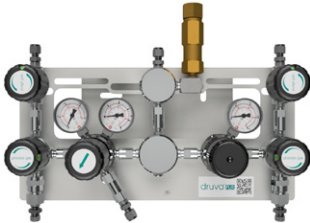
Type **MPLHOSSP00**
 P0 HP Purge Valve
 0 Without Specials

TECHNICAL SPECIFICATION:

- > Switching between two sources by manual valve actuation
 - > Regulator and Valves – Hastelloy/Elgiloy diaphragm tightening system to atmosphere
 - > Compact design
 - > Excellent pressure adjustment
 - > Valves - designed and approved in accordance with relevant sections of ISO 10297:2015 (including O₂ - ignition test for main valve)
 - > Regulator - designed and approved regarding ISO 7291 (including O₂ ignition test)
 - > Relief valve in delivery pressure side
 - > Manifold with purge valve for process gas purging
 - > Available with shut-off valve at outlet, safety valve at outlet, check valve at inlet
 - > Electrostatic chargeability test
- Fulfills requirements according to ISO 80079-36, IEC TS 60079-32-1 and German TRGS 727
 Usable in EX- areas zones 1 and 2 for gases with explosion risk group I, IIA, IIB, IIC

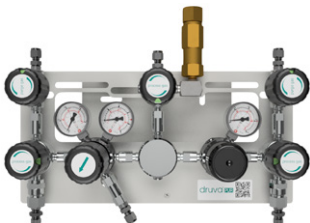
SPECIAL FEATURES OF MANIFOLD:

- > Splitted plates of manifold
 Separated mounting of ground plate
 Easy mounting of manifold to ground plate and fix with one screw only
- > Front plate cutout for in-field gauge replacement



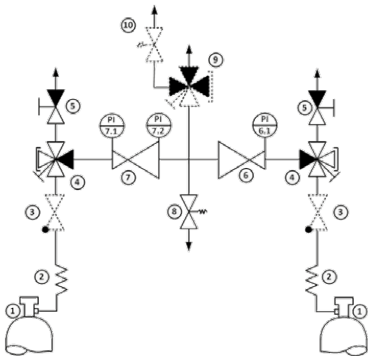
Type **MPLHOSSPOU**
 P0 HP Purge Valve
 U Specials
 Check Valve &
 Safety Valve

TECHNICAL DATA – MANIFOLD	
Working temperature:	-20 °C to +60 °C
Inlet/ outlet ports:	see technical drawing
Leakage rate seat:	<5x10 ⁻⁶ mbar l/s (Helium)
Leakage rate outside:	<1x10 ⁻⁹ mbar l/s (Helium)
Weight:	max 9,0 kg
Flow nominal:	20 m ³ /h (N ₂) acc. to ISO 7291 at 20 bar outlet pressure and 41 bar inlet pressure
Pressure rates manifold:	
Max. inlet pressure:	300 bar
Delivery pressure:	10/ 14/ 28/ 50 bar



Type **MPLHOSSPSU**
 PS HP Purge Valve &
 LP Shut-off Valve
 U Specials
 Check Valve &
 Safety Valve

TECHNICAL DATA – REGULATOR	
Filter:	1x for inlet 1x for each outlet
Material gas wetted parts:	
Regulator body:	Brass chrome plated
Regulator diaphragm:	Hastelloy
Regulator seat:	PCTFE
Relief valve seat:	
MPLHOSSP Version	FKM
MPLHESSP Version	EPDM
Regulator poppet:	Brass
Pressure gauges rates (pressure rates):	18 (10)/ 25 (14)/ 40 (28)/ 80 (50) bar
Contact gauges available – please contact us	
Cracking pressure relief valves:	15,4 (10)/ 21,6 (14)/ 43,1 (28)/ 65 (50) bar
	Pressure test with Helium of each item
	Seat leakage test with Helium of each item
Test in production:	Helium leak test of each regulator against atmosphere
	Test of functionality of each item



- 1 – GAS CYLINDER
- 2 – COIL/HOSE
- 3 – CHECK VALVE
- 4 – SHUT-OFF VALVE (3XIN, 1XOUT)
- 5 – PURGE OUTLET VALVE
- 6 – FIX PRESSURE REGULATOR
- 7 – SET PRESSURE REGULATOR
- 8 – RELIEF VALVE
- 9 – SHUT-OFF VALVE (1XIN, 3XOUT)
- 10 – SAFETY VALVE

Options & specials are shown as dotted line

	Type test in accordance with ISO 7291
	O ₂ ignition test in accordance with ISO 7291
	Additional life cycle test
Approvals during development:	Electrostatic chargeability test
	• Fulfill requirements according ISO 80079-36, IEC TS 60079-32-1 and German TRGS 727
	• Usable in EX-areas zones 1 and 2 for gases with explosion risk group I, IIA, IIB, IIC

TECHNICAL DATA – VALVES	
Max. working pressure:	300 bar
Kv-value:	0,25
Seat diameter:	5 mm
Leakage rate seat:	<5x10 ⁻⁶ mbar l/s (Helium)
Leakage rate outside:	<1x10 ⁻⁹ mbar l/s (Helium)
Filter:	1x for each inlet 1x for each outlet

Material gas wetted parts:	
Valve body:	Brass chrome plated
Valve diaphragm:	4-Port: 1x Hastelloy, 1x Elgiloy 2-Port: 2x Elgiloy
Valve seat:	PCTFE
Valve poppet:	Brass
Test in production:	Pressure test with Helium of each item
	Seat leakage test with Helium of each item
	Helium leak test of each valve against atmosphere
	Test of functionality of each item

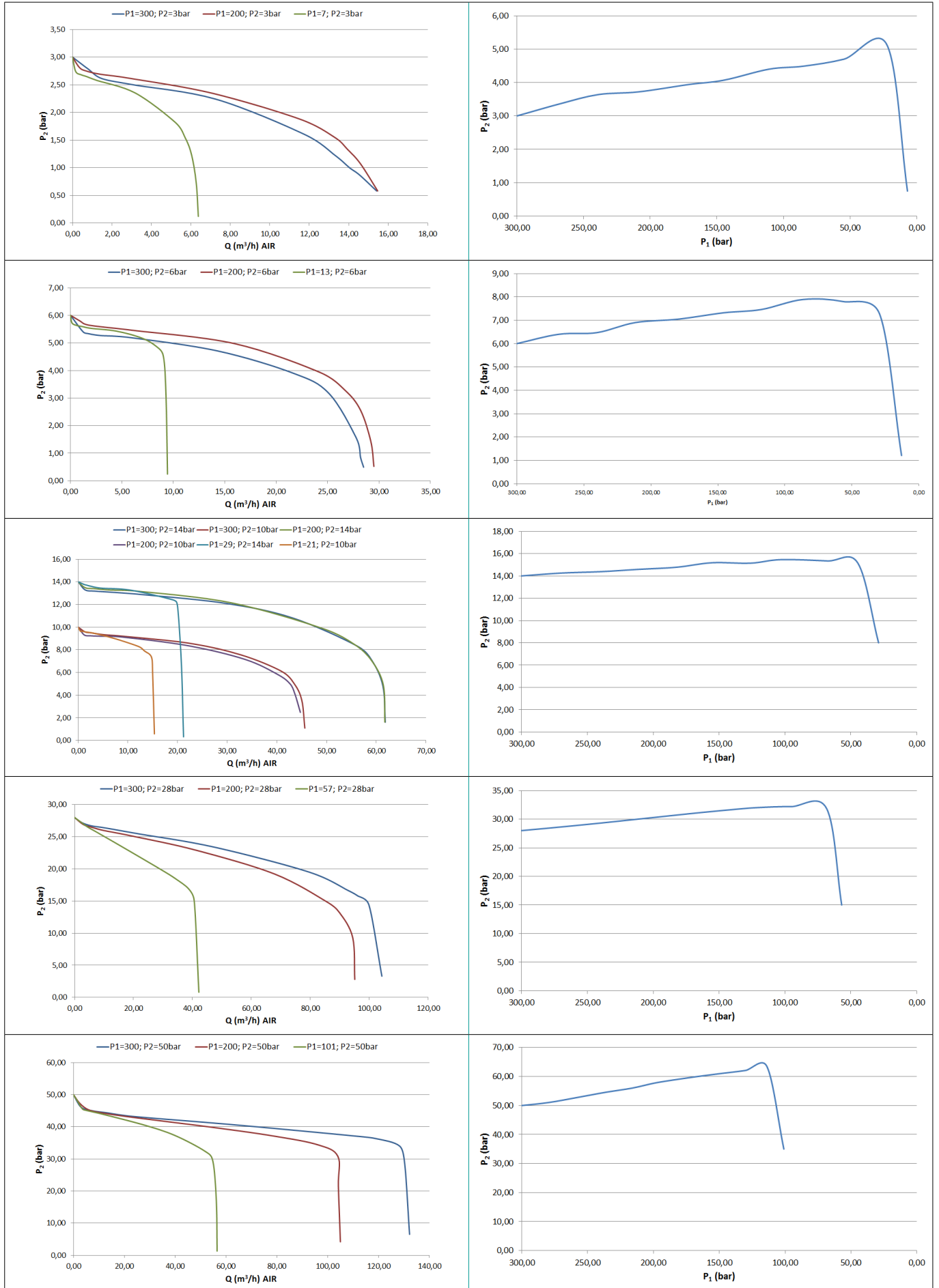
	Type test in accordance with relevant sections of ISO 10297:2015
	O ₂ ignition test regarding ISO 10297 for main shut-off valve
Approvals during development:	Electrostatic chargeability test
	• Fulfill requirements according ISO 80079-36, IEC TS 60079-32-1 and German TRGS 727
	• Usable in EX-areas zones 1 and 2 for gases with explosion risk group I, IIA, IIB, IIC

TECHNICAL DATA – PLATES	
Ground plate:	Stainless Steel (polished) Option to secure arrestor cable of hoses with hook on ground plate. Grounding bolt Cut outs on top and bottom allows installation
Dimensions ground plate: (Height x Width x Length)	194 x 30 x 250 mm
Front plate:	Stainless Steel (polished) Cut outs for easy replacement of gauges Free space for additional installer label (e.g. remark for next maintenance)
Dimensions front plate: (Height x Width x Length)	194 x 30 x 400 mm
Marking on panel:	Product range label QR-Code – link to online product configurator

TECHNICAL DATA – SAFETY VALVES (S)	
	Spring loaded according P.E.D. 2014/68/EU and AD2000 (A2)
Opening pressure:	15/ 21/ 42 bar
Leakage rate:	< 5 x 10 ⁻⁶ mbar l/s (valve seat) at nominal pressure of receiver
Material:	Housing and metal parts made of brass, pressure spring made of stainless steel
Seat and seal:	FKM
Outlet connection:	NPT ½" female

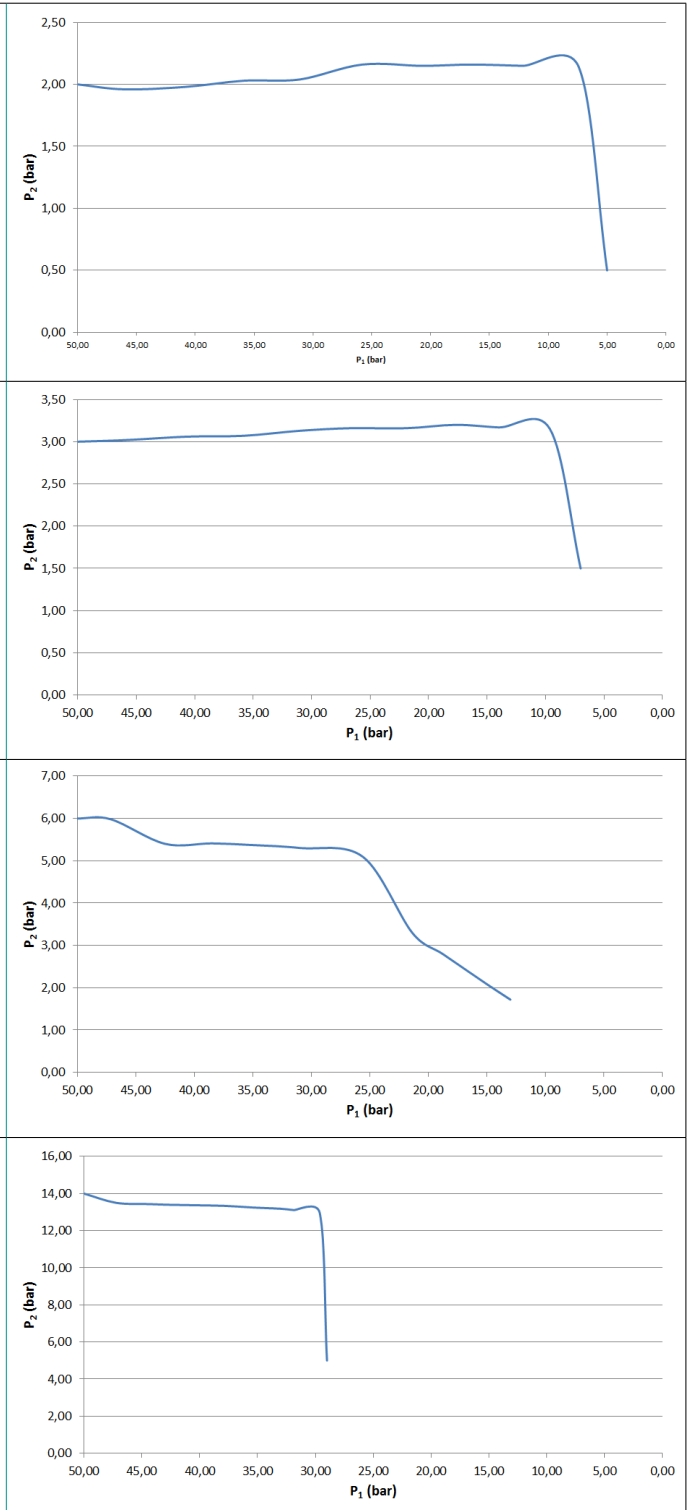
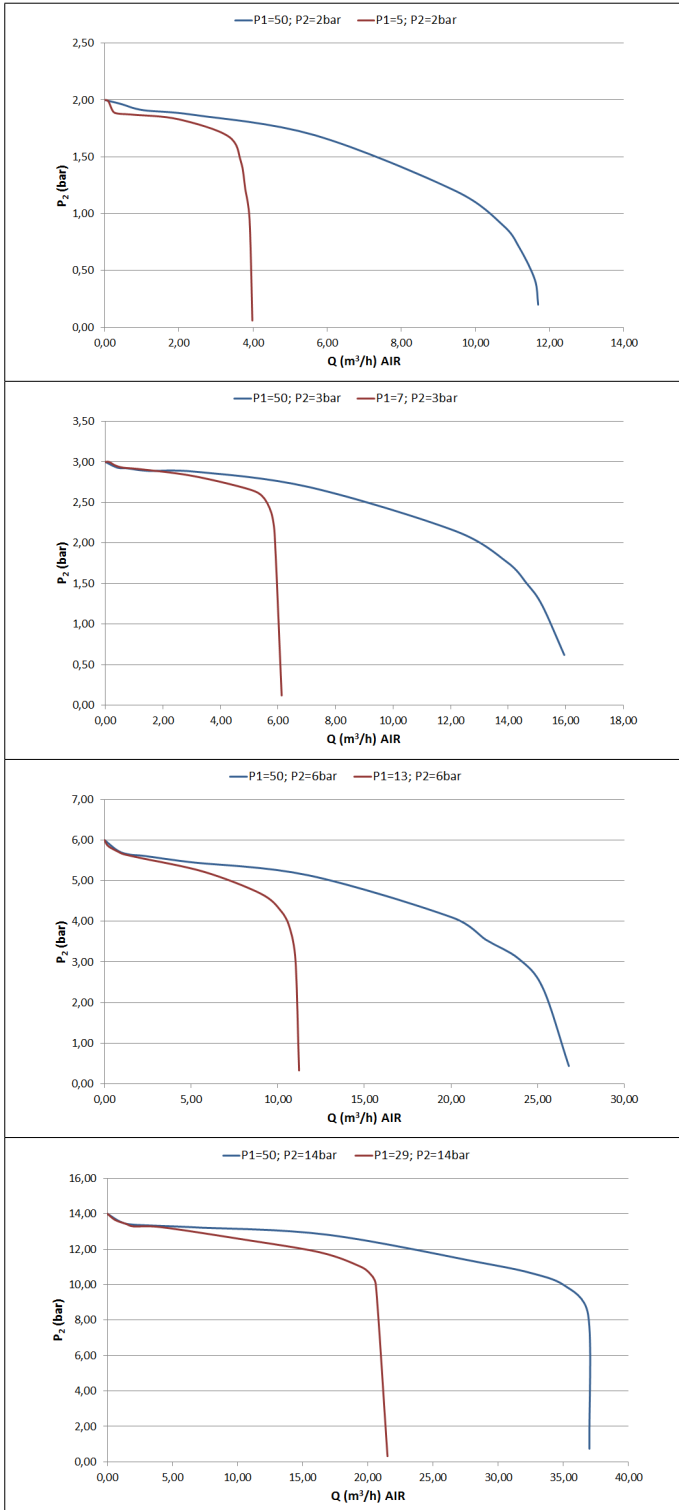
FLOW CURVES:

DYNAMIC EXPANSION CURVES:

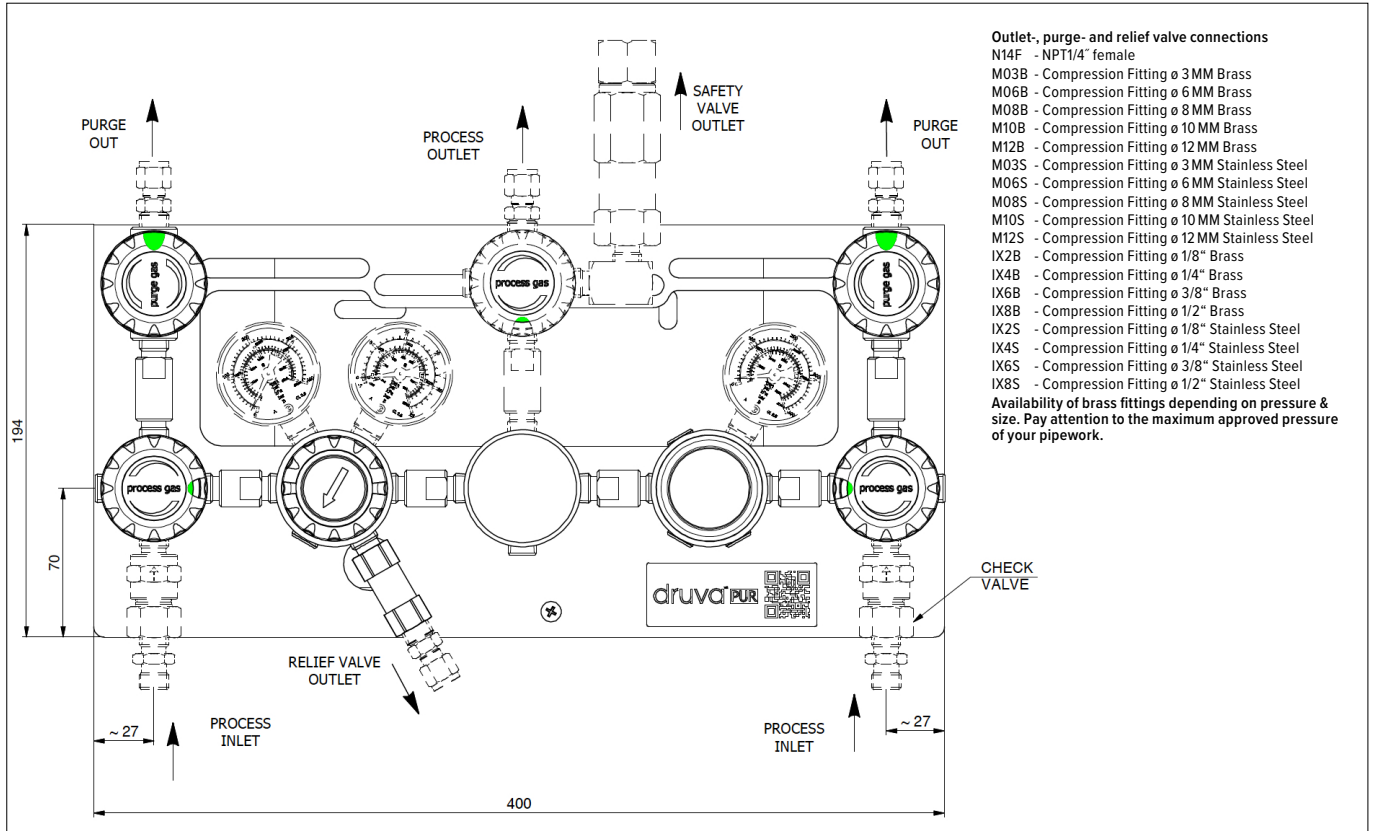


FLOW CURVES:

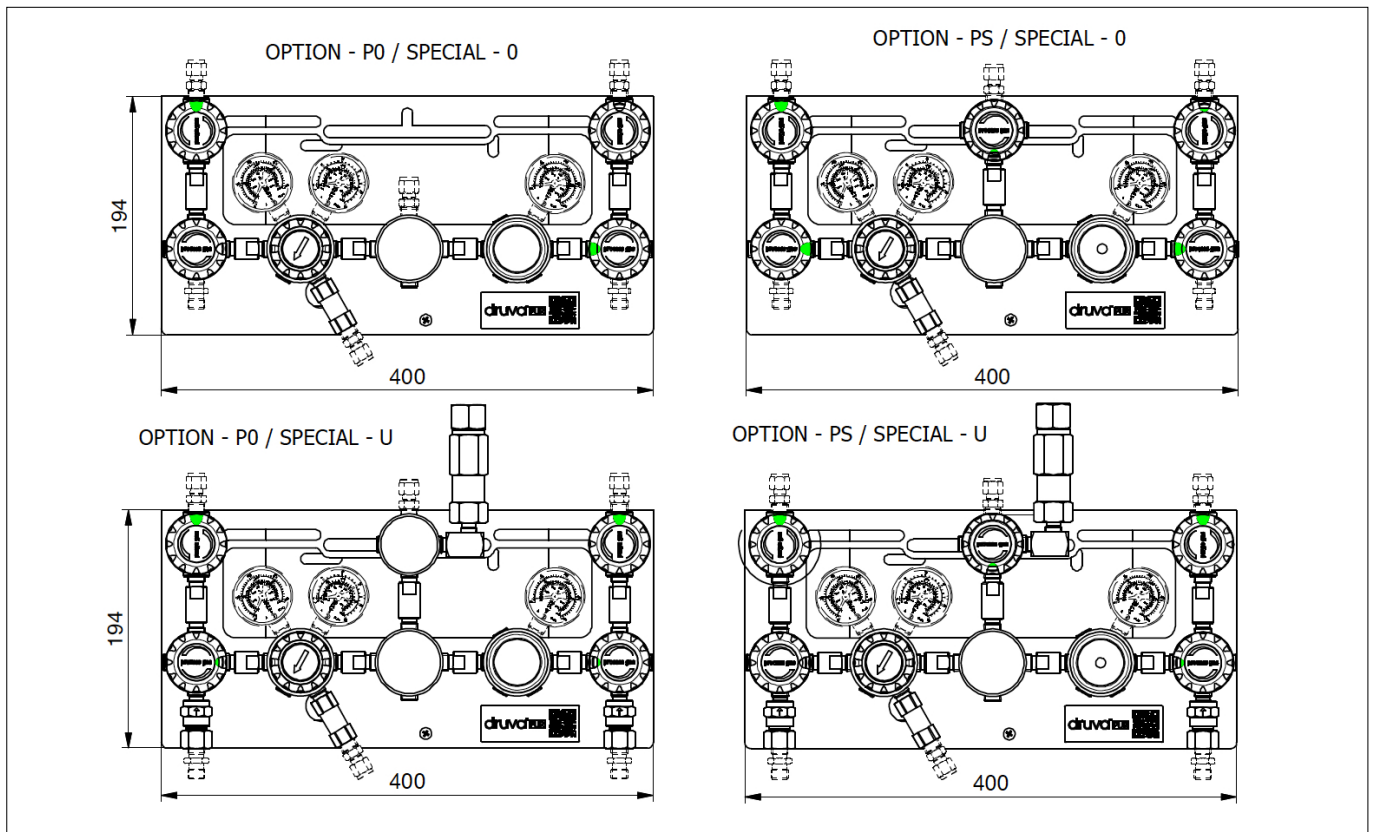
DYNAMIC EXPANSION CURVES:



TECHNICAL DRAWING:



TECHNICAL DRAWING – VARIANTS:



ORDER CODE:

Example Manifold | PUR Linie | Brass Chrome Plated | Low Flow | Semiautomatic Change Over | Single Stage | Process Gas Purging

MPLH0S	S	PS	U	FX	DX	BT	R2	N14F	N14F (1/4" NPT female)	N14F (1/4" NPT female)
MPLHES	Stages	Options	Specials	Inlet pressure (bar)	Outlet pressure (bar)	Inlet pressure gauge	Outlet pressure gauge	Process inlet connection	Process outlet connection	Purge & relief connection
	S Single stage	PO HP ** int. gas purge	O without	F4 60	D2 10	BT Bourdon Tube gauge	BT Bourdon Tube gauge	N14F 1/4" NPT female	possible connections see technical drawing	possible connections see technical drawing
		PS HP ** int. gas purge LP * Shut-off valve	C Check valve	FX 200	DX 14	I1 Inductiv contact gauge I1	I2 Inductiv contact gauge I2 ***	M14M Metric 14x1.5 male		
			S Safety valve	GX 300	EY 28	R5 Reed contact gauge R5	R2 Reed contact gauge R2 ***			
			U Check valve + safety valve		EX 50		I1 Inductiv contact gauge I1			

* HP = High pressure

** LP = Low pressure

*** Only for outlet pressure 200 bar

Order code (as described above) without special characters or spaces! Complete Order Code [MPLH0SSPSUFXDXBTR2N14FN14FN14](#)

