

MSLHOMSE | MSLHEMSE – DRUVA®PUR MANIFOLD

MANIFOLD | PURE LINE (STAINLESS STEEL) | 20 m³ SERIES

HIGH PRESSURE RANGE | MANUAL CHANGE OVER | SINGLE STAGE | EXTERNAL GAS PURGING



This manifold is used in gas supply systems for pure, inert, flammable, oxidising, corrosive and / or toxic gases and their mixtures up to gas purity 6.0.



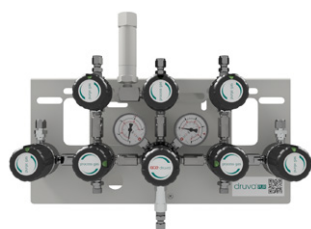
Type MSLHOMSE00
E0 HP Ext. Gas Purge
0 Without Specials

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
 - > Regulator - designed and approved regarding ISO 7291
 - > Relief valve in delivery pressure side
 - > Manifold with purge valve for external 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:

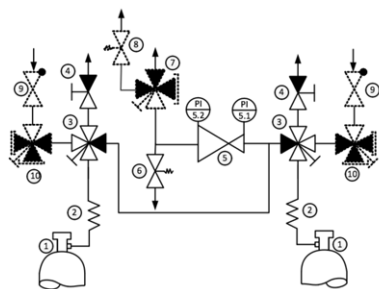
- > Splitted plates of manifold
- > Separated mounting of ground plate
- > Easy mounting of manifold to ground plate and fix with one screw only
- > Front plate cutout for in-field gauge replacement



Type MSLHOMSESS
ES HP Ext. Gas Purge
LP Shut-off valve
S Specials
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 8,65 kg
Flow nominal:	20 m³/h (N₂) acc. to ISO 7291 at 20 bar outlet pressure and 41 bar inlet pressure
Pressure rates manifold:	
Max. inlet pressure:	300 bar
Delivery pressure:	3/ 6/ 10/ 14/ 28/ 50/ 100/ 200 bar

TECHNICAL DATA – REGULATOR	
Filter:	1x for inlet 1x for each outlet
Material gas wetted parts:	
Regulator body:	Stainless Steel
Regulator diaphragm:	Hastelloy
Regulator seat:	PCTFE
Regulator poppet:	Stainless Steel
Relief valve seat:	
MSLHOMSE Version	FKM
MSLHEMSE Version	EPDM
Pressure gauges rates (pressure rates):	5 (3)/ 10 (6)/ 18 (10)/ 25 (14)/ 40 (28)/ 80 (50)/ 160 (100)/ 315 (200) bar
Contact gauges available – please contact us	
Cracking pressure relief valves:	4,6 (3)/ 9,2 (6)/ 15,4 (10)/ 21,6 (14)/ 43,1 (28)/ 65 (50)/ 154 (100)/ 308 (200) bar
Test in production:	Pressure test with Helium of each item
	Seat leakage test with Helium of each item
	Helium leak test of each regulator against atmosphere
	Test of functionality of each item



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

Options are shown as dotted line

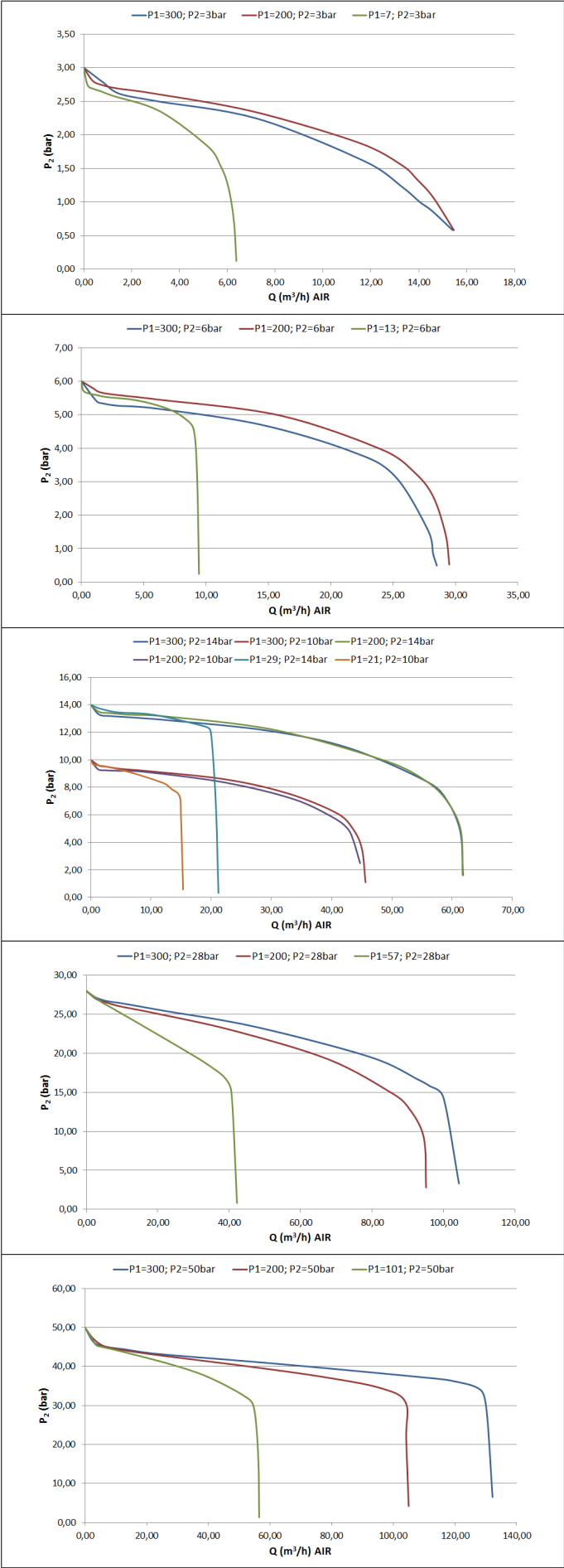
Approvals during development:	Type test in accordance with EN ISO 7291
	Additional life cycle test
	Electrostatic chargeability test <ul style="list-style-type: none"> Fulfill requirements according DIN EN ISO 80079-36, IEC TS 60079-32-1 and German TRGS 727 Usable in EX-areas zones 1 and 2 for gases 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:	Stainless Steel
Valve diaphragm:	4-Port: 1x Hastelloy, 1x Elgiloy 2-Port: 2x Elgiloy
Valve seat:	PCTFE
Valve poppet:	Stainless Steel
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
Approvals during development:	Type test in accordance with relevant sections of EN ISO 10297:2015
	Electrostatic chargeability test <ul style="list-style-type: none"> Fulfill requirements according DIN EN 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

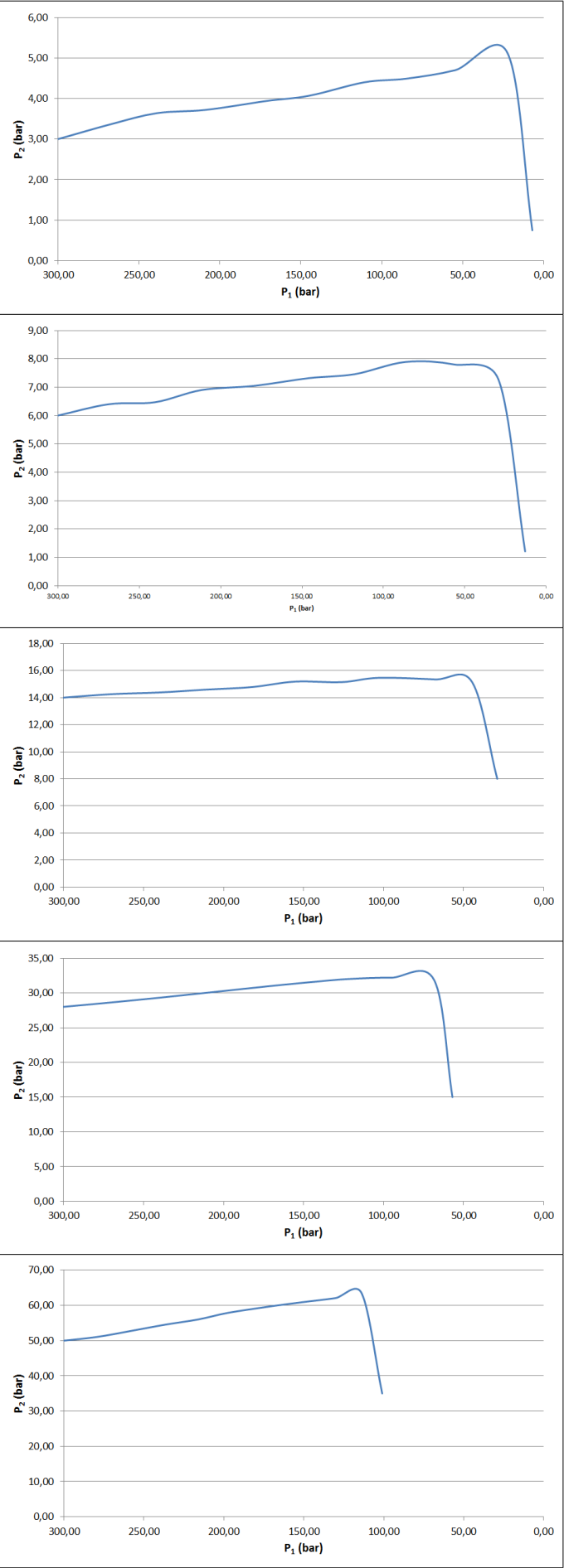
TECHNICAL DATA – PLATES	
Ground plate:	Stainless Steel (polished) Option to secure arrestor cable of hoses with hook on ground plate. Grounding bolt Cut outs on top and bottom allows installation
Dimensions ground plate: (Height x Width x Length)	194 x 30 x 250 mm
Front plate:	Stainless Steel (polished) 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:	4,5/ 9/ 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 stainless steel, pressure spring made of stainless steel
Seat and seal:	FKM
Outlet connection:	NPT ½" female

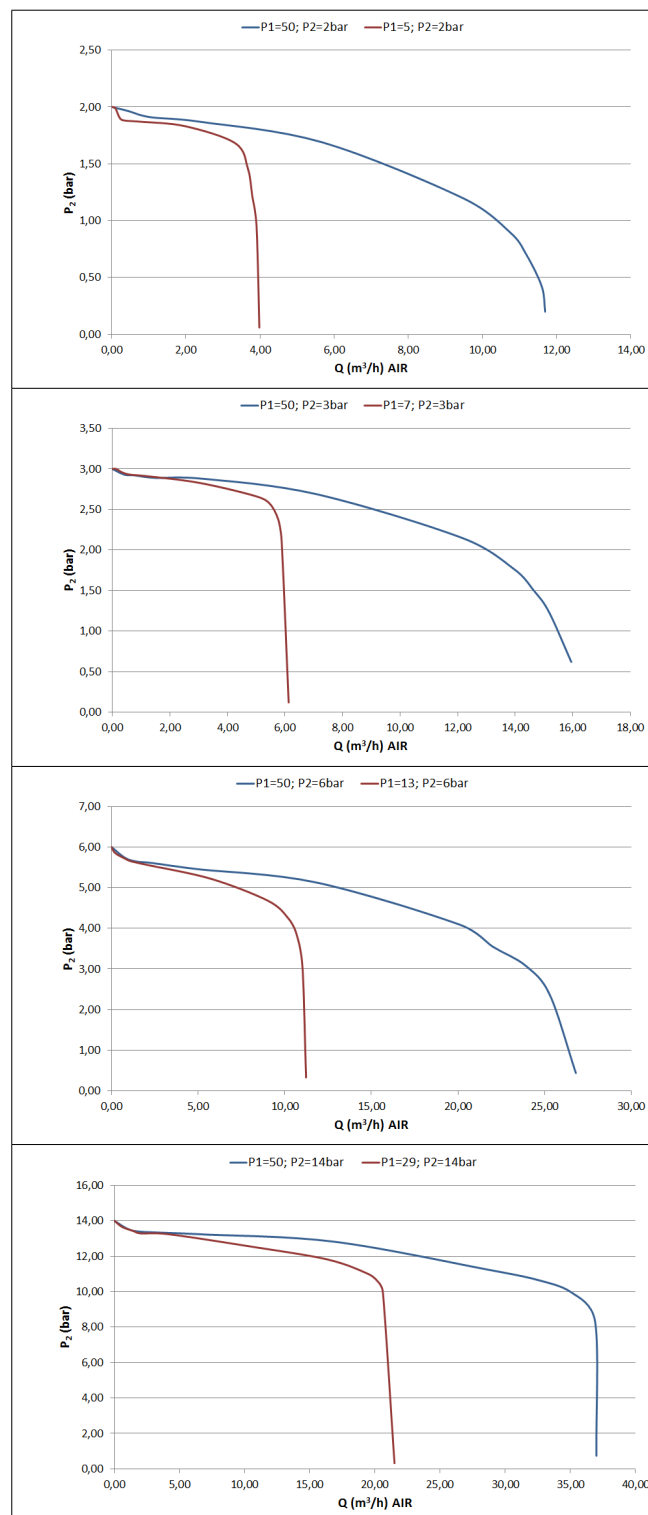
FLOW CURVES:



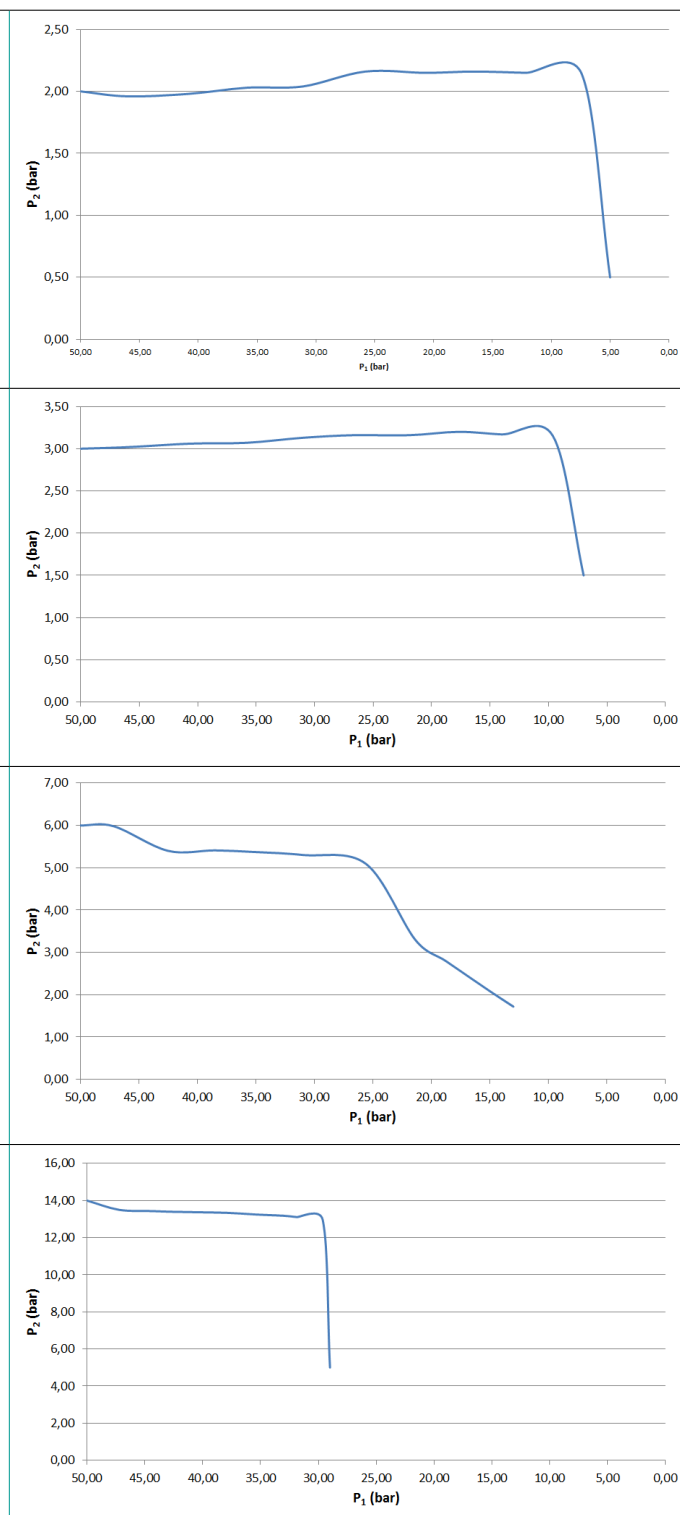
DYNAMIC EXPANSION CURVES:



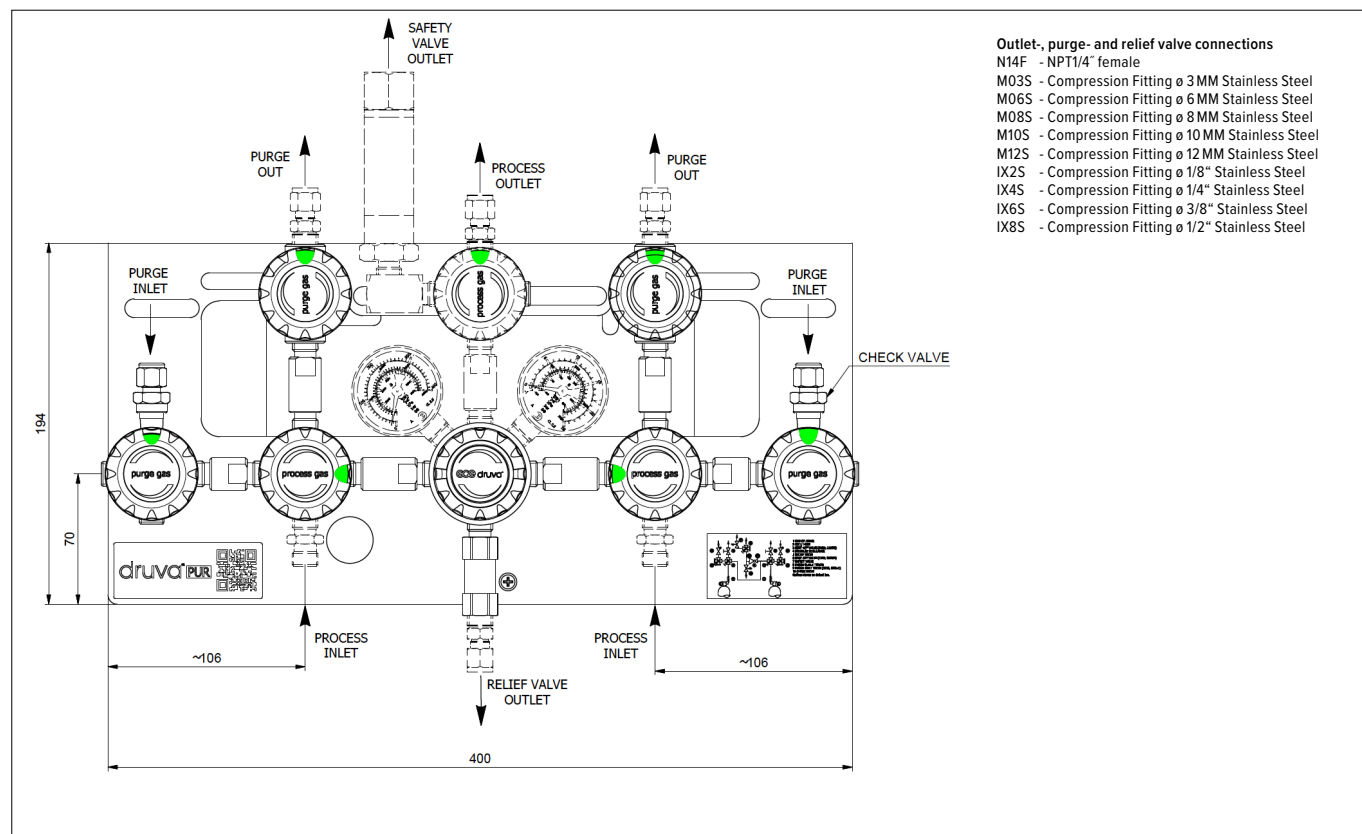
FLOW CURVES:



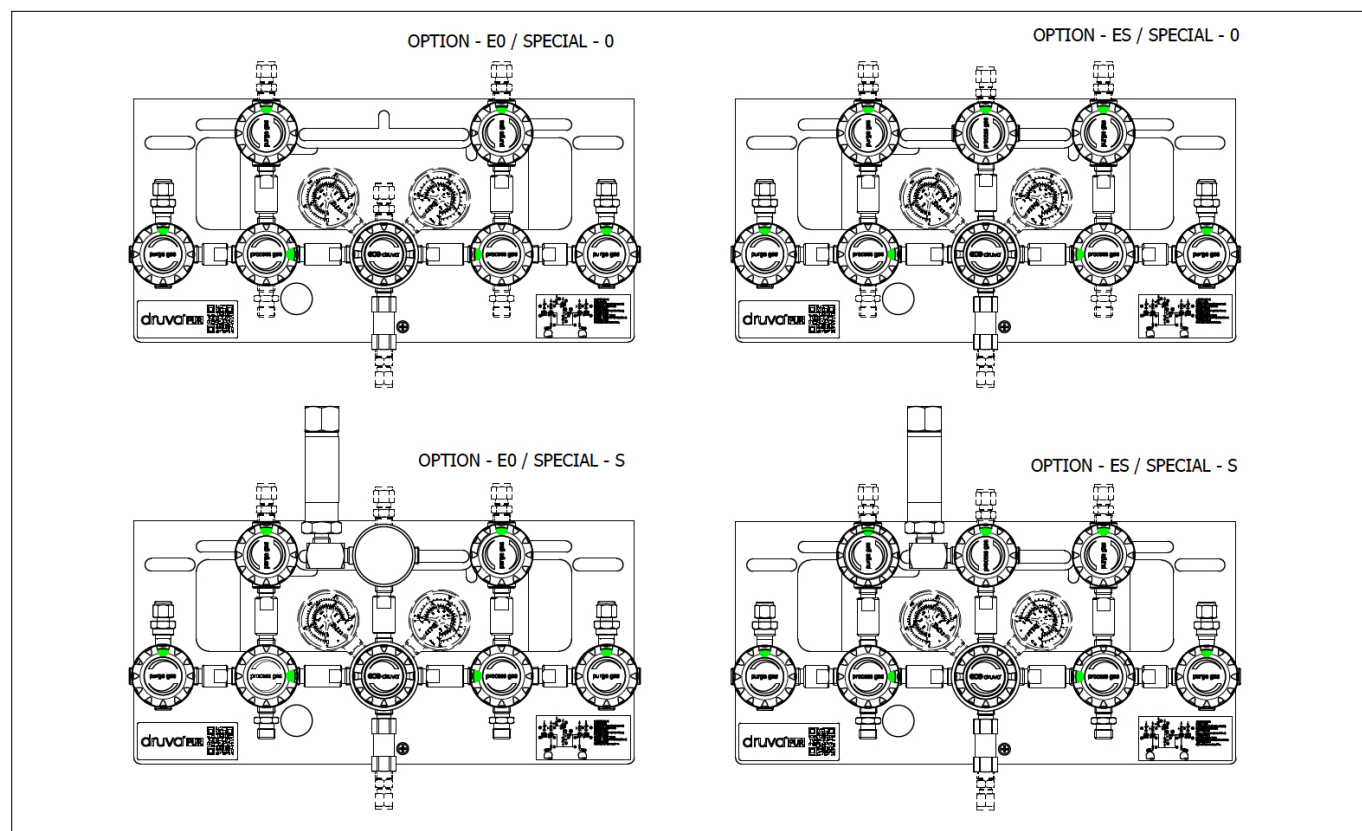
DYNAMIC EXPANSION CURVES:



TECHNICAL DRAWING:



TECHNICAL DRAWING – VARIANTS:



ORDER CODE:

Example Manifold | PUR Linie | Stainless Steel | Low Flow | Manual Change Over | Single Stage | External Gas Purging

MSLH0M	S	E0	S	FX	F2	BT	BT	N14F	N14F (1/4" NPT female)	N14F (1/4" NPT female)
MSLHEM										
	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	E0 HP ext. gas purge	0 without	F4 60	BX 3	BT Bourdon Tube gauge	BT Bourdon Tube gauge	N14F 1/4" NPT female		
		ES HP ext. gas purge LP Shut-off valve	S Safety valve	FX 200 *	CX 6	I1 Inductiv contact gauge I1	I2 Inductiv contact gauge I2	M14M Metric 14x1.5 male		
				GX 300	D2 10	R5 Reed contact gauge R5	I1 Inductiv contact gauge I1		possible connections	possible connections
					DX 14				see technical drawing	see technical drawing
					EY 28					
					EX 50					
					F2 100					
					FX 200 *					

* Without relief valve for 200 bar

Order code (as described above) without special characters or spaces! Complete Order Code [MSLH0MSE0SFXF2BTBTN14FN14FN14F](#)