

# MSLHOXSS | MSLHEXSS – DRUVA® PUR MANIFOLD

MANIFOLD | PURE LINE (STAINLESS STEEL) | 20 m³ SERIES | HIGH PRESSURE RANGE  
SINGLE STAGE | HIGH PRESSURE SHUT-OFF VALVE



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



Type MSLHOXSS00  
S0 HP Shut-off valve  
0 Without Specials

## TECHNICAL SPECIFICATION:

- > Manifold for one gas cylinder or bundle
  - > 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 external gas purge system
  - > 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



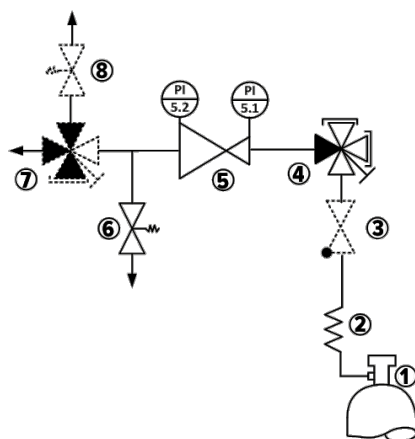
Type MSLHOXSS0U  
S0 HP Shut-off valve  
U Specials  
Check Valve &  
Safety Valve



Type MSLHOXSSSU  
SS HP Shut-off valve &  
LP Shut-off Valve  
U Specials  
Check Valve &  
Safety Valve

TECHNICAL DATA – MANIFOLD	
<b>Working temperature:</b>	-20 °C to +60 °C
<b>Inlet/ outlet ports:</b>	see technical drawing
<b>Leakage rate seat:</b>	<5x10 <sup>-6</sup> mbar l/s (Helium)
<b>Leakage rate outside:</b>	<1x10 <sup>-9</sup> mbar l/s (Helium)
<b>Weight:</b>	max 4,62 kg
<b>Flow nominal:</b>	20 m³/h (N₂) acc. to ISO 7291 at 20 bar outlet pressure and 41 bar inlet pressure
<b>Pressure rates manifold:</b>	
<b>Max. inlet pressure:</b>	300 bar
<b>Delivery pressure:</b>	3/ 6/ 10/ 14/ 28/ 50/ 100/ 200 bar

TECHNICAL DATA – REGULATOR	
<b>Filter:</b>	1x for inlet 1x for each outlet
<b>Material gas wetted parts:</b>	
<b>Regulator body:</b>	Stainless Steel
<b>Regulator diaphragm:</b>	Hastelloy
<b>Regulator seat:</b>	PCTFE
<b>Relief valve seat:</b>	
MSLHOXSS Version	FKM
MSLHEXSS Version	EPDM
<b>Regulator poppet:</b>	Stainless Steel
<b>Pressure gauges rates (pressure rates):</b>	5 (3)/ 10 (6)/ 18 (10)/ 25 (14)/ 40 (28)/ 80 (50)/ 160 (100)/ 315 (200) bar
<b>Contact gauges available – please contact us</b>	
<b>Cracking pressure relief valves:</b>	4,6 (3)/ 9,2 (6)/ 15,4 (10)/ 21,6 (14)/ 43,1 (28)/ 65 (50)/ 154 (100)/ 308 (200) bar
<b>Test in production:</b>	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 – Check valve  
 4 – Shut-off valve (3xin, 1xout)  
 5 – Pressure regulator  
 6 – Relief valve  
 7 – Shut-off valve (1xin, 3xout)  
 8 – Safety valve

Options & specials are shown as dotted line

Type test in accordance with ISO 7291

Additional life cycle test

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

<b>Max. working pressure:</b>	300 bar
<b>Kv-value:</b>	0,25
<b>Seat diameter:</b>	5 mm
<b>Leakage rate seat:</b>	<5x10 <sup>-6</sup> mbar l/s (Helium)
<b>Leakage rate outside:</b>	<1x10 <sup>-9</sup> mbar l/s (Helium)
<b>Filter:</b>	1x for each inlet 1x for each outlet
<b>Material gas wetted parts:</b>	
<b>Valve body:</b>	Stainless Steel
<b>Valve diaphragm:</b>	4-Port: 1x Hastelloy, 1x Elgiloy 2-Port: 2x Elgiloy
<b>Valve seat:</b>	PCTFE
<b>Valve poppet:</b>	Stainless Steel
<b>Test in production:</b>	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
<b>Approvals during development:</b>	Type test in accordance with relevant sections of EN ISO 10297:2015 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

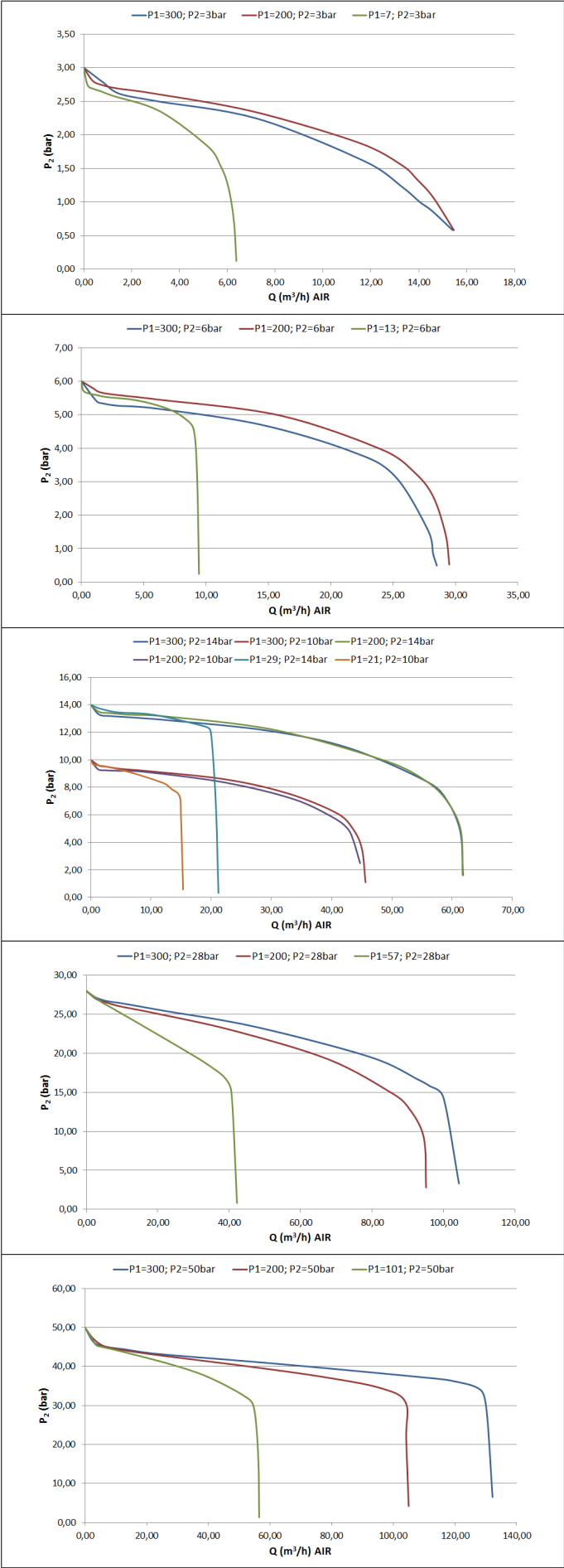
#### TECHNICAL DATA – PLATES

<b>Ground plate:</b>	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
<b>Dimensions ground plate:</b> (Height x Width x Length)	194 x 30 x 230 mm
<b>Front plate:</b>	Stainless Steel (polished) Cut outs for replacement of gauges Free space for additional installer label (e.g. remark for next maintenance)
<b>Dimensions front plate:</b> (Height x Width x Length)	194 x 30 x 230 mm
<b>Marking on panel:</b>	Product range label QR-Code – link to online product configurator

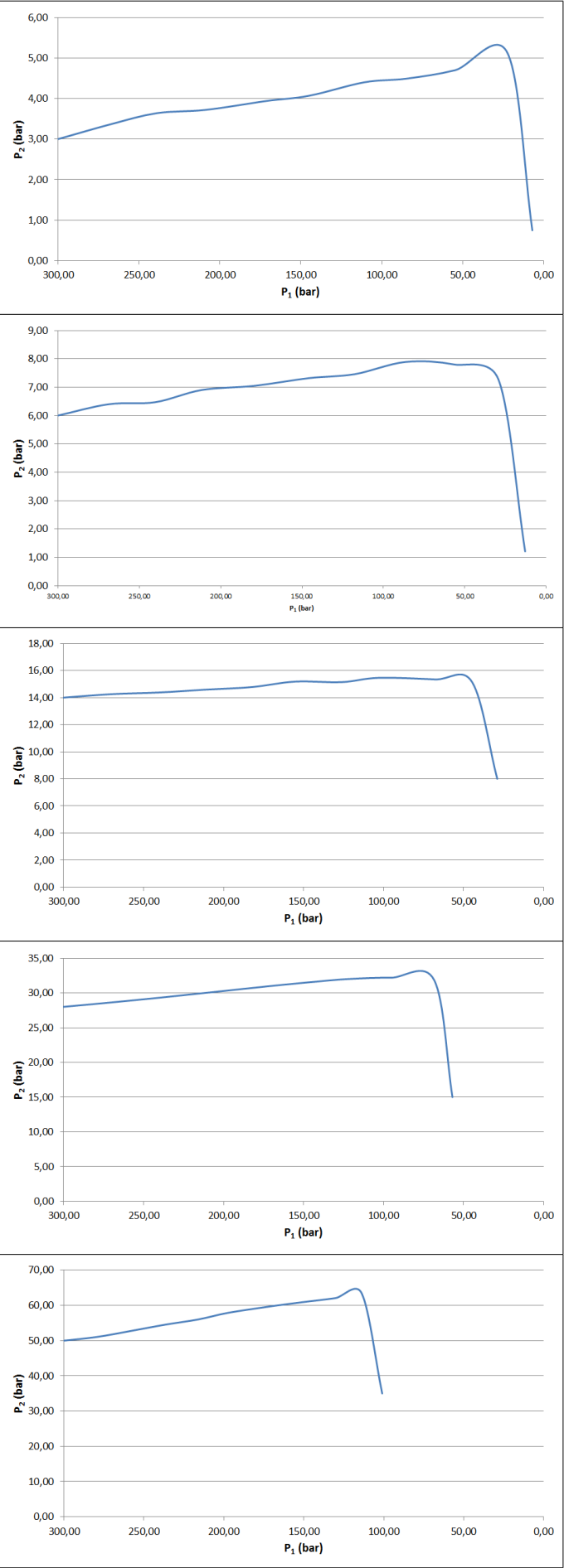
#### TECHNICAL DATA – SAFETY VALVES (S)

	Spring loaded according P.E.D. 2014/68/EU and AD2000 (A2)
<b>Opening pressure:</b>	4,5/ 9/ 15/ 21/ 42 bar
<b>Leakage rate:</b>	< 5 x 10 <sup>-6</sup> mbar l/s (valve seat) at nominal pressure of receiver
<b>Material:</b>	Housing and metal parts made of Stainless Steel, pressure spring made of stainless steel
<b>Seat and seal:</b>	FKM
<b>Outlet connection:</b>	NPT ½" female

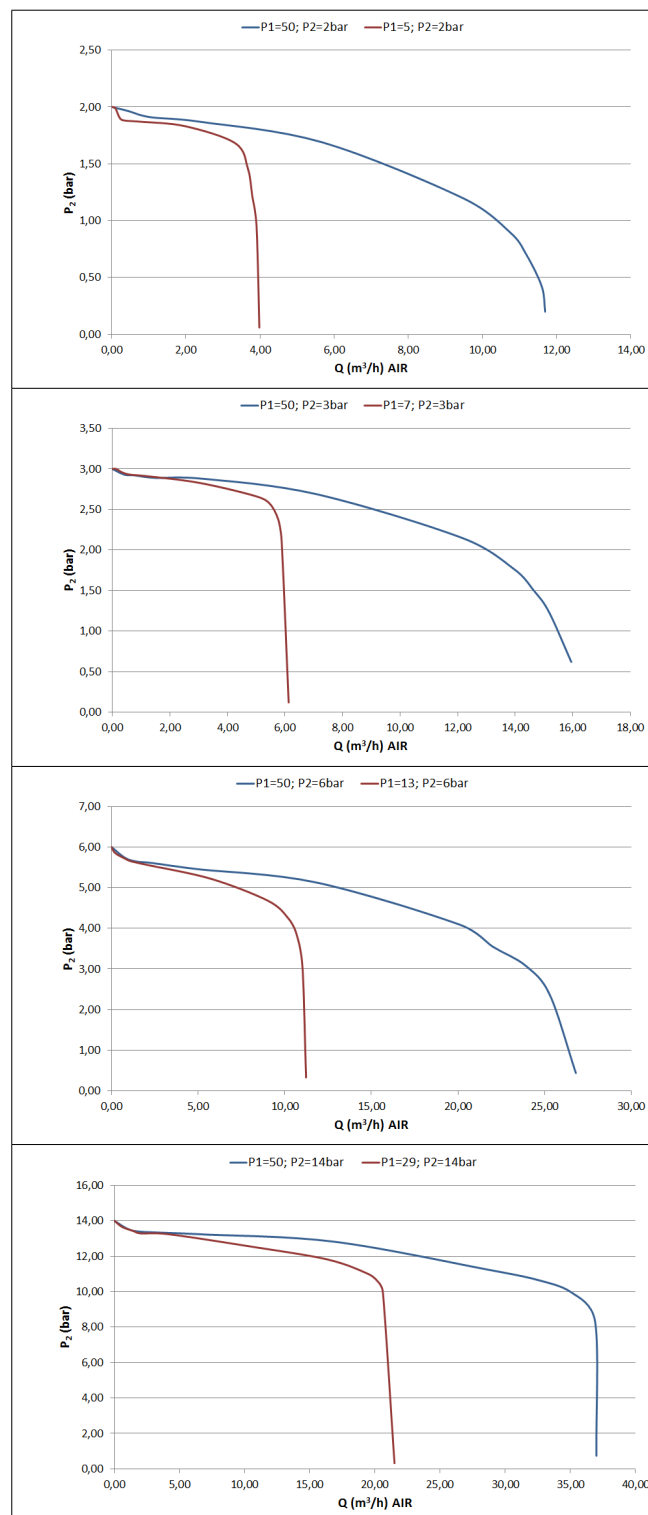
FLOW CURVES:



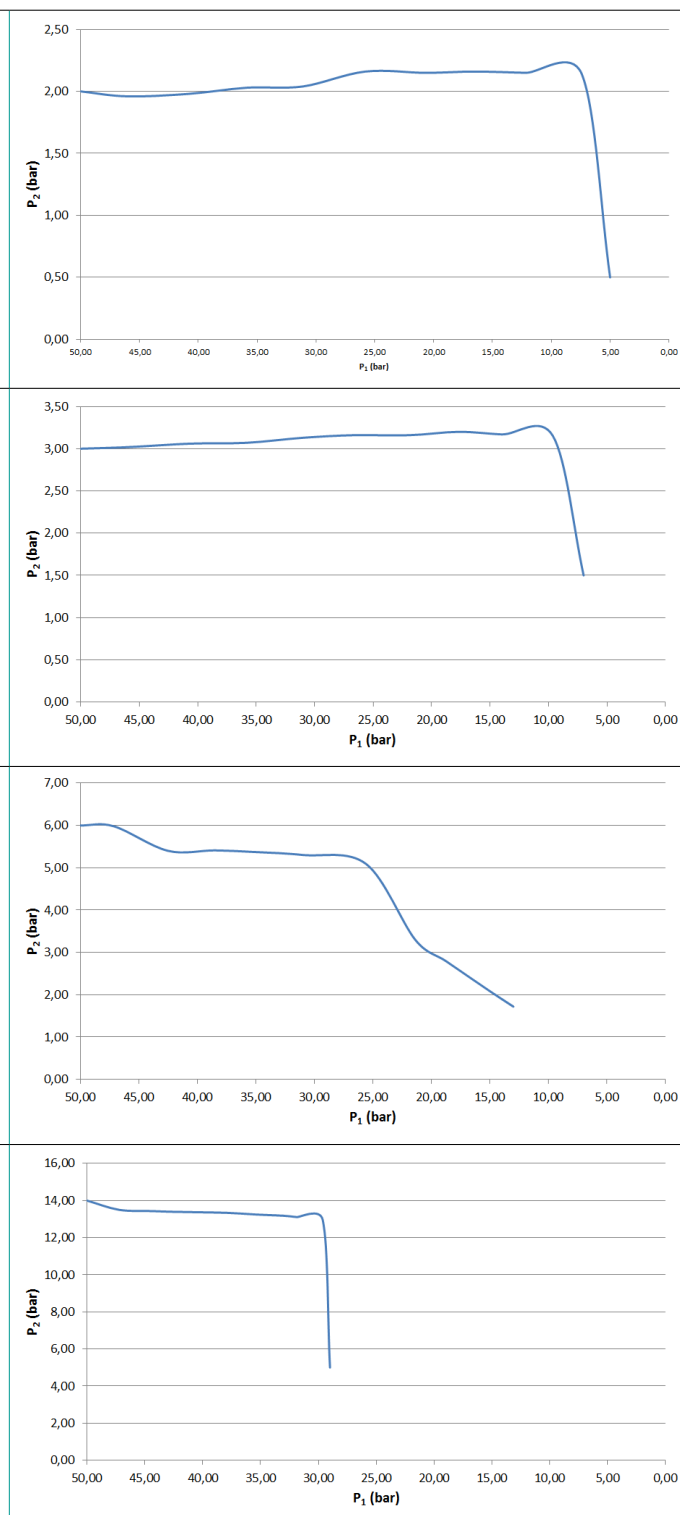
DYNAMIC EXPANSION CURVES:



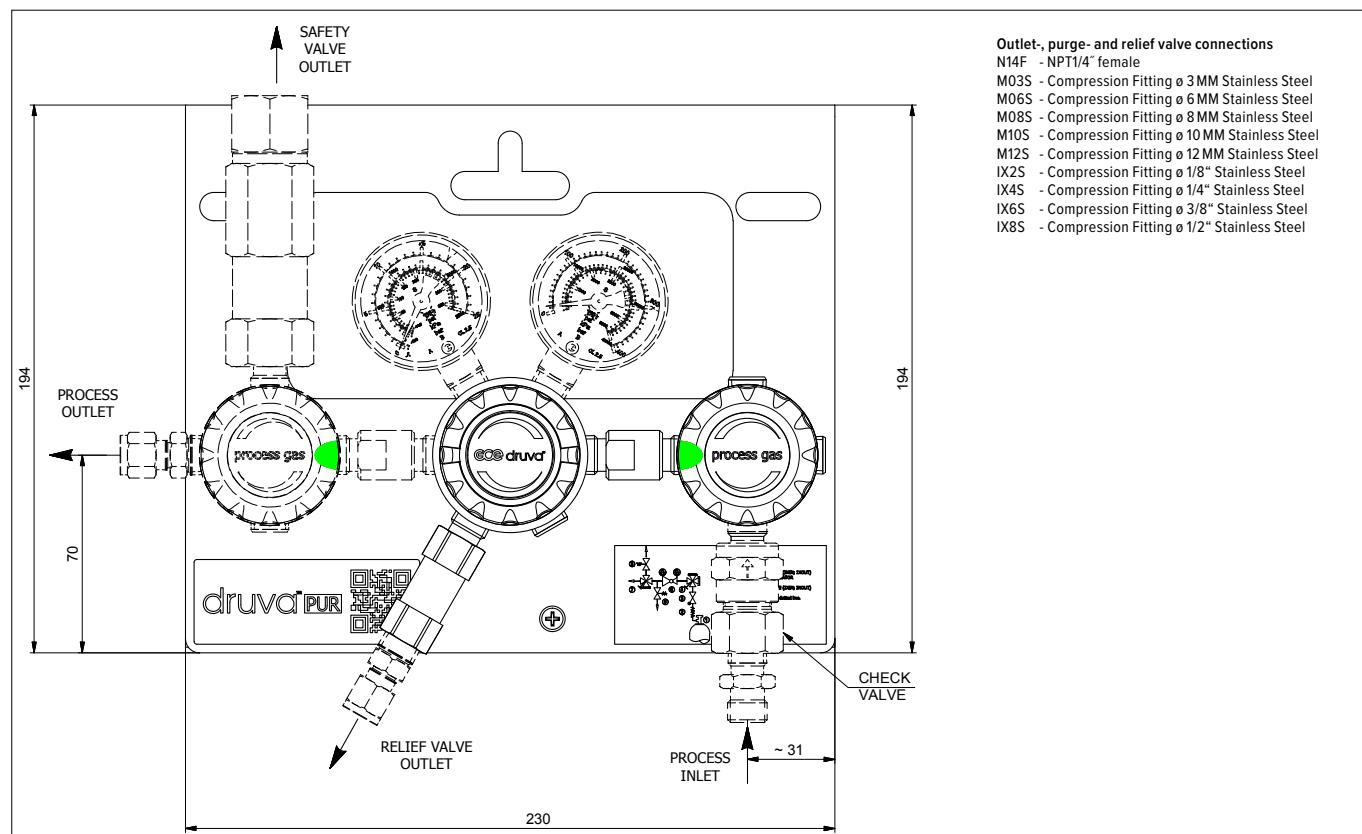
## FLOW CURVES:



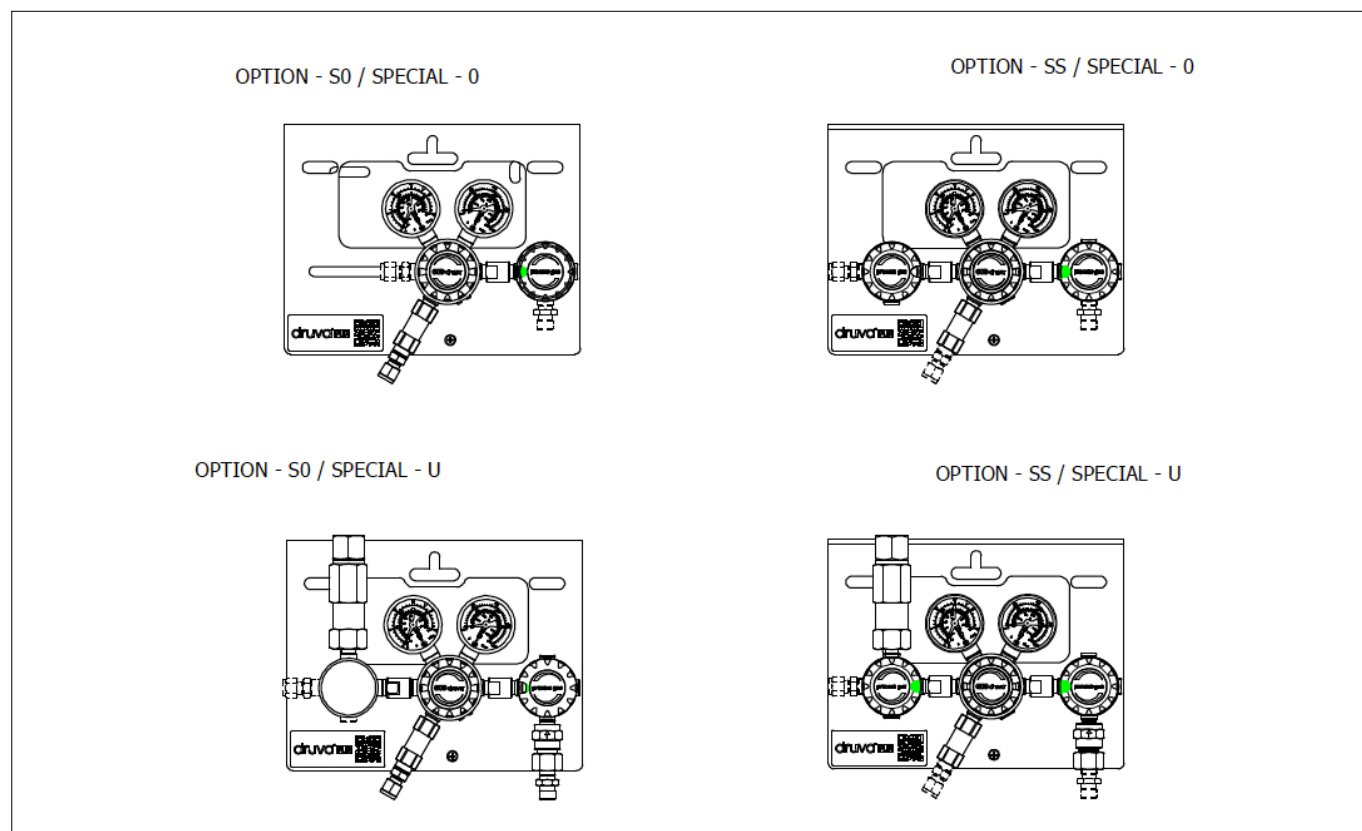
## DYNAMIC EXPANSION CURVES:



## TECHNICAL DRAWING:



## TECHNICAL DRAWING – VARIANTS:



## ORDER CODE:

Example Manifold | PUR Linie | Stainless Steel | Low Flow | Single Stage | High Pressure Shut-Off Valve

MSLH0X MSLHEX	S	S0	C	FX	F2	BT	BT	N14F	N14F (1/4" NPT female)	N14F (1/4" NPT female)
	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	S0 HP * shut-off valve	O without	F4 60	BX 3	BT Bourdon Tube gauge	BT Bourdon Tube gauge	N14F 1/4" NPT female	possible connections see technical drawing	possible connections see technical drawing
		SS HP * shut-off valve LP ** Shut-off valve	C Check valve	FX 200	CX 6	I1 Inductiv contact gauge I1	I2 Inductiv contact gauge I2 ****	M14M Metric 14x1.5 male		
			S Safety valve	GX 300	D2 10	R5 Reed contact gauge R5	R2 Reed contact gauge R2 ****			
			U Check valve + safety valve		DX 14		I1 Inductiv contact gauge I1			
					EY 28					
					EX 50					
					F2 100					
					FX 200***					

\* HP = High pressure

\*\* LP = Low pressure

\*\*\* Inlet and outlet pressure 200 bar not available with pressure relief valve (PRV)

\*\*\*\* Only for outlet pressure 200 bar

Order code (as described above) without special characters or spaces! Complete Order Code **MSLH0XSS0CFXF2BTBTN14FN14FN14F**