

**MSLHOSDE | MSLHESDE – DRUVA®PUR MANIFOLD****MANIFOLD | PURE LINE (STAINLESS STEEL) | 20 m³ SERIES****HIGH PRESSURE RANGE | SEMI-AUTOMATIC CHANGE OVER | DUAL 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 MSLHOSDE00  
E0 HP Ext. Gas Purge  
0 Without Specials

**TECHNICAL SPECIFICATION:**

- > Switching between two sources by semi-automatic change over system
- > 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 ISO7291
- > 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:**

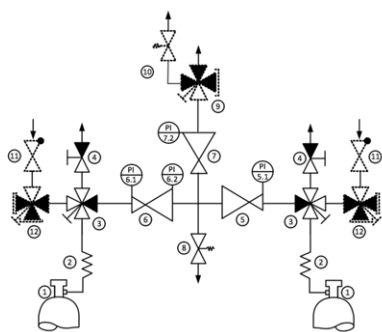
- > Splitted plates of manifold
  - Separated mounting of ground plate
  - Easy mounting of manifold to ground plate and fix with one screw only
- > Front plate cutout for in-field gauge replacement



Type MSLHOSDESS  
ES HP Ext. Gas Purge  
LP Shut-off valve  
S Specials  
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 11,05 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>	2/ 3/ 6/ 10/ 14 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 (1 <sup>st</sup> stage) PTFE (2 <sup>nd</sup> stage)
<b>Relief valve seat:</b>	
<b>H0 Version</b>	FKM
<b>HE Version</b>	EPDM
<b>Regulator poppet:</b>	Stainless Steel
<b>Pressure gauges rates (pressure rates):</b>	2,5 (2)/ 5 (3)/ 10 (6)/ 18 (10)/ 25 (14) bar
<b>Contact gauges available – please contact us</b>	
<b>Cracking pressure relief valves:</b>	3,1 (2)/ 4,6 (3)/ 9,2 (6)/ 15,4 (10)/ 21,6 (14) 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 – Shut-off valve (3xin, 1xout)  
 4 – Purge outlet valve  
 5 – Fix Pressure Regulator 1st stage  
 6 – Set Pressure Regulator 1st stage  
 7 – Set Pressure Regulator 2nd stage  
 8 – Relief valve  
 9 – Shut-off valve (1xin, 3xout)  
 10 – Safety valve  
 11 – Check valve  
 12 – Purge inlet valve (1xin, 3xout)

Options are shown as dotted line

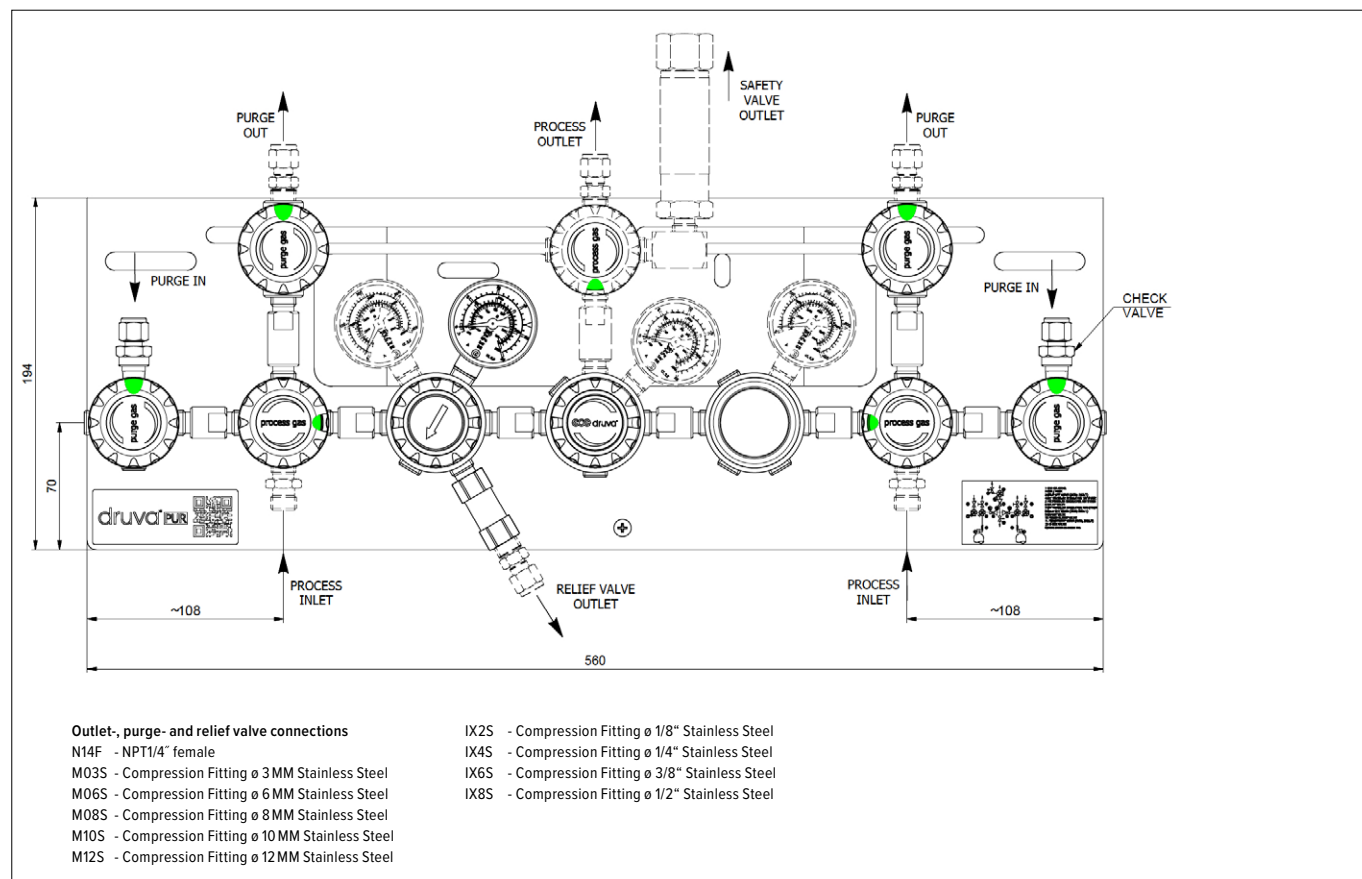
	Type test in accordance with ISO 7291
	Additional life cycle test
Approvals during development:	Electrostatic chargeability test
	• Fulfill requirements according ISO 80079-36, IEC TS 60079-32-1 and German TRGS 727
	• Usable in EX-areas zones 1 and 2 for gases with explosion risk group I, IIA, IIB, IIC

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

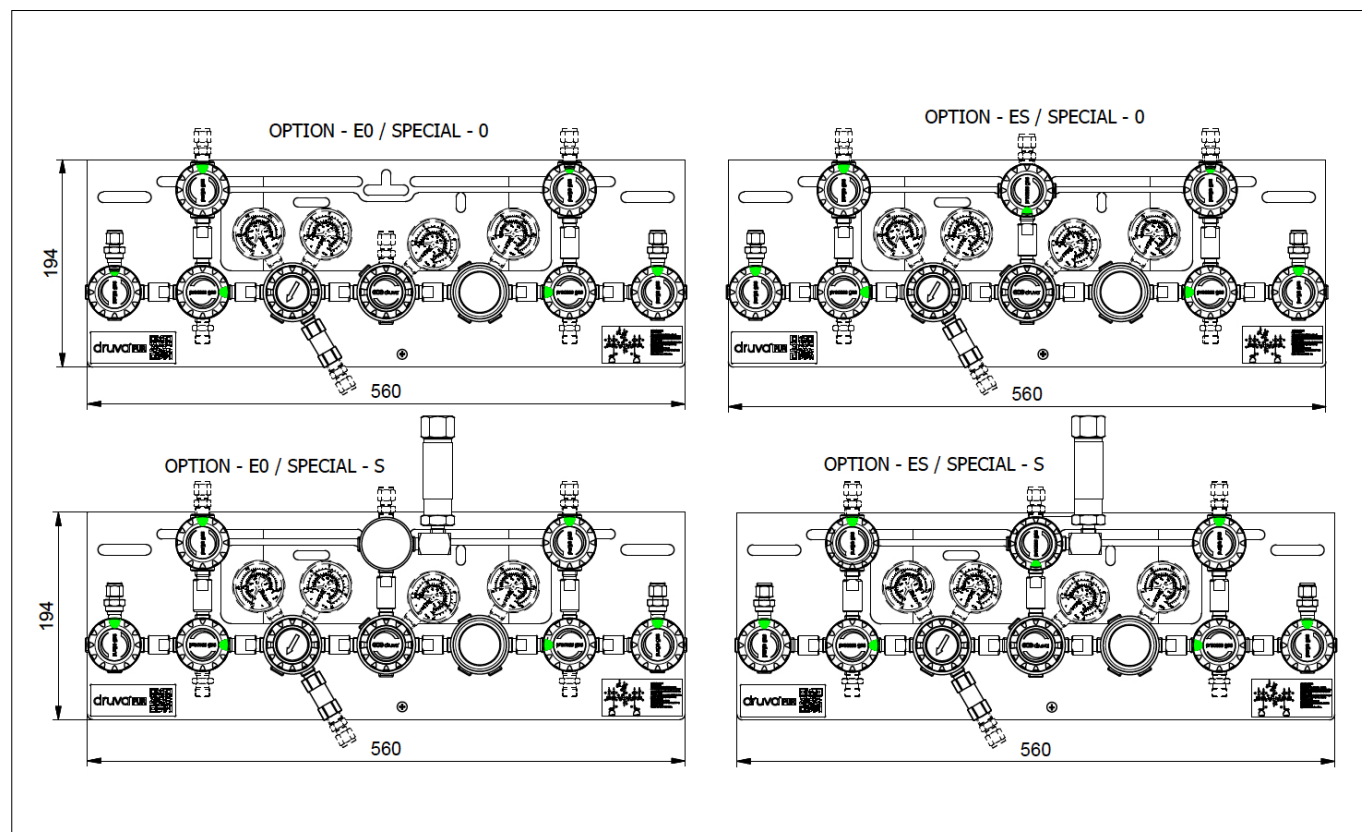
TECHNICAL DATA – PLATES	
Ground plate:	Stainless Steel (polished) Option to secure arrestor cable of hoses with hook on ground plate. Grounding bolt Cut outs on top and bottom allows installation
Dimensions ground plate: (Height x Width x Length)	194 x 30 x 250 mm
Front plate:	Stainless Steel (polished) Cut outs for 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 560 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:	3/ 4,5/ 9/ 15/ 21/ bar
Leakage rate:	< 5 x 10 <sup>-6</sup> 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

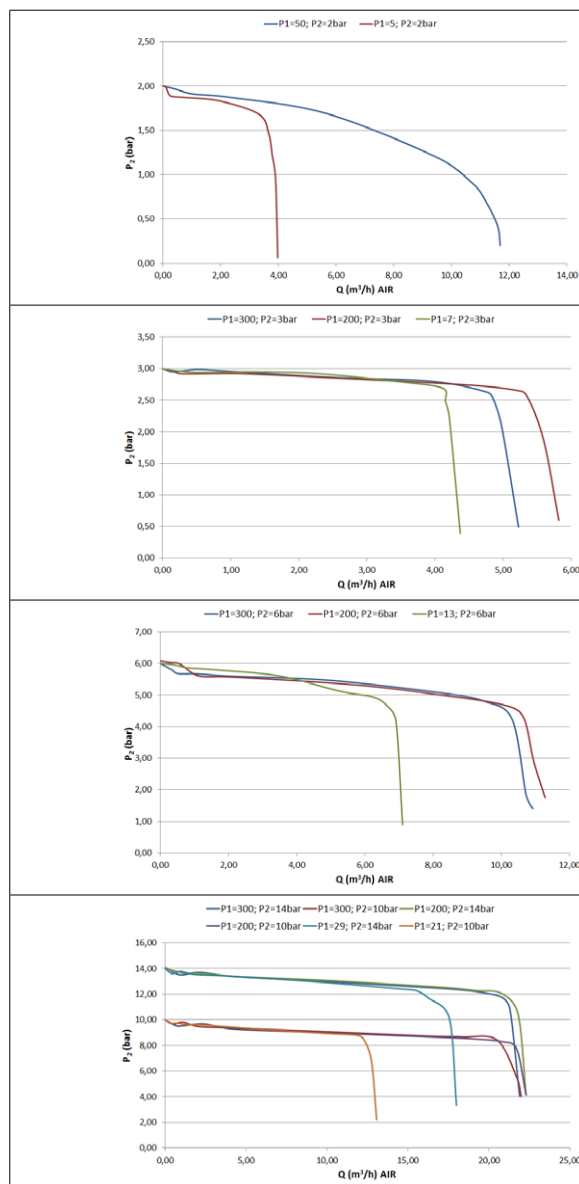
## TECHNICAL DRAWING:



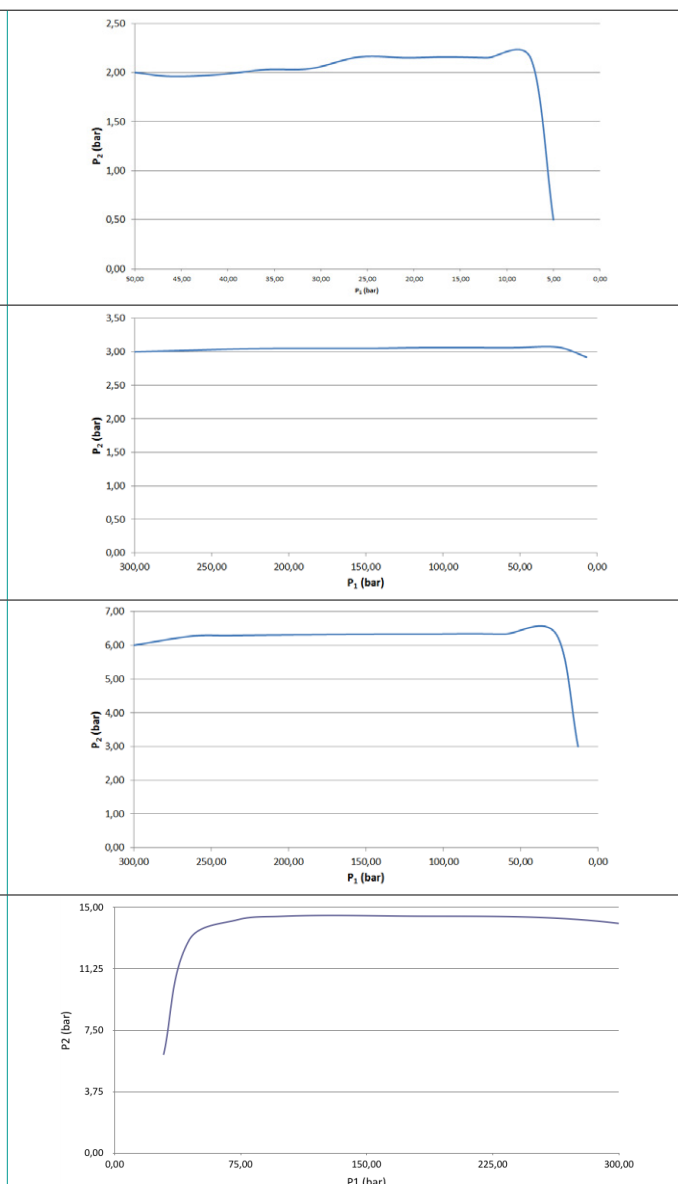
## TECHNICAL DRAWING – VARIANTS:



## FLOW CURVES:



## DYNAMIC EXPANSION CURVES:



## ORDER CODE:

Example Manifold | PUR Linie | Stainless Steel | Low Flow | Semiautomatic Change Over | Dual Stage | External Gas Purging

MSLH0S	D	E0	S	FX	CX	BT	BT	N14F	N14F (1/4" NPT female)	N14F (1/4" NPT female)
MSLHES										
	Stages	Options	Specials	Inlet pressure (bar)	Outlet pressure (bar)	Inlet pressure gauge	Outlet pressure gauge	Process inlet connection	Process outlet connection	Purge & relief connection
	D Dual stage	E0 HP ext. gas purge	0 without	F4 60	AX 2	BT Bourdon Tube gauge	BT Bourdon Tube gauge	N14F 1/4" NPT female	possible connections  see technical drawing	possible connections  see technical drawing
		ES HP ext. gas purge LP Shut-off valve	S Safety valve	FX 200	BX 3	I1 Inductiv contact gauge I1	I1 Inductiv contact gauge I2	M14M Metric 14x1.5 male		
				GX 300	CX 6	R5 Reed contact gauge R5	I2 Inductiv contact gauge I2			
					D2 10					
					DX 14					

Order code (as described above) without special characters or spaces! Complete Order Code **MSLH0SDE0SFXCXBTTN14FN14FN14F**

Link to online product configurator