

DRUVA® TEC MANIFOLD – MTMHOTSP | MTMHETSP | MTMHETSP
 MANIFOLD | TEC LINE (BRASS) | 100 m³ SERIES | HIGH PRESSURE VERSION | 3 INLETS | MANUAL
 CHANGEOVER | SINGLE STAGE | PROCESS GAS PURGING AT INLET



- HO VERSION – HIGH PRESSURE REGULATOR WITH FKM-SEAL
- HE VERSION – HIGH PRESSURE REGULATOR WITH EPDM-SEAL
- HS VERSION – HIGH PRESSURE REGULATOR WITH SST VALVE AND EPDM-SEAL (ONLY FOR MISON)

Manifolds for use in supply systems for inert, flammable, oxidizing gases and gas mixtures up to gas purity 5.0.
 Not suitable for Acetylene, corrosive and/or toxic gases and their mixtures.



- Typ:** MTMHxTSP0U
- Option P0**
- Process gas purging at inlet
- Special U**
- Check valve at inlet
 - Safety valve at outlet

SPECIAL FEATURES

- > Metallic sealing of the shut-off valves and pressure regulator against atmosphere by Elgiloy/Hastelloy diaphragms.
- > No increase in outlet pressure with decreasing inlet pressure due to the use of a pressure reducer with inlet pressure compensation
- > Very compact design
- > Easy installation due to splitted plates for the manifold

TECHNICAL DATA – MANIFOLD

Working temperature:	-40 °C to +60 °C
Inlet pressure range:	60 200 300 bar
Outlet pressure range:	10 20 40 100 bar (adjustable)
Nominal flow:	100 m³/h (N₂) according to ISO 7291 at 20 bar outlet pressure and 41 bar inlet pressure
Weight:	10.18 kg (Weight refers to the basic version of the manifold)
Inlet - & outlet connection:	see ordering information
Leakage rate seat:	max. 5 x 10 ⁻⁶ mbar l/s (Helium)
Leakage rate outside:	max. 5 x 10 ⁻⁶ mbar l/s (Helium)
Pressure gauges rates (in brackets- pressure rates):	18 (10) 40 (20) 65 (40) 80 (60) 160 (100) 315 (200) 400 (300) bar
Cracking pressure relief valves (in brackets – Outlet pressure rates):	15 (10) 30 (20) 60 (40) 140 (100) bar

TECHNICAL DATA – REGULATOR LTMH0SJ | LTMHESJ SEE SEPARATE DATA SHEETS

TECHNICAL DATA – Shut- off valves
 VTMDSMIR – 4 Port (3x inlet – 1x outlet)
 VTMDSMFR –4 Port (1x nlet – 3x outlet)
 see separate data sheets

TECHNICAL DATA – MOUNTING PLATES MANIFOLD

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 230 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 25 x 500 mm
Marking on panel:	Product range label QR-Code – Link to the product overview on the website and from there the operating instructions (IFU) can be accessed



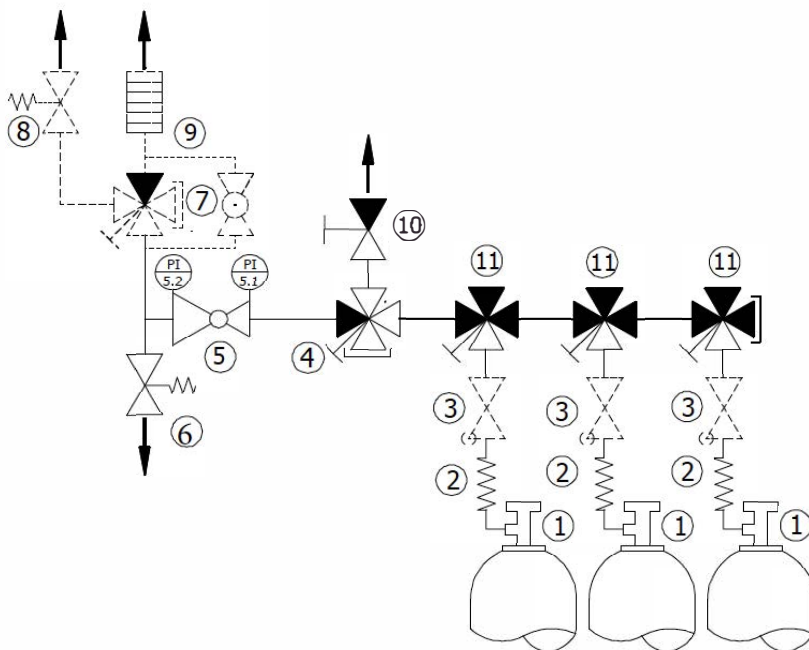
- Typ:** MTMHxTSPBU
- Option PB**
- Process gas purging at inlet
 - Ball valve at outlet
- Special U**
- Check valve at inlet
 - Safety valve at outlet

TECHNICAL DATA – SAFETY VALVE

	Spring loaded according P.E.D. 2014/68/EU and AD2000 (A2)
Opening pressure:	15 30 60 bar
Material:	Housing and metallic parts made of brass, pressure spring made of alloy steel
Seat and seal:	FKM / EPDM

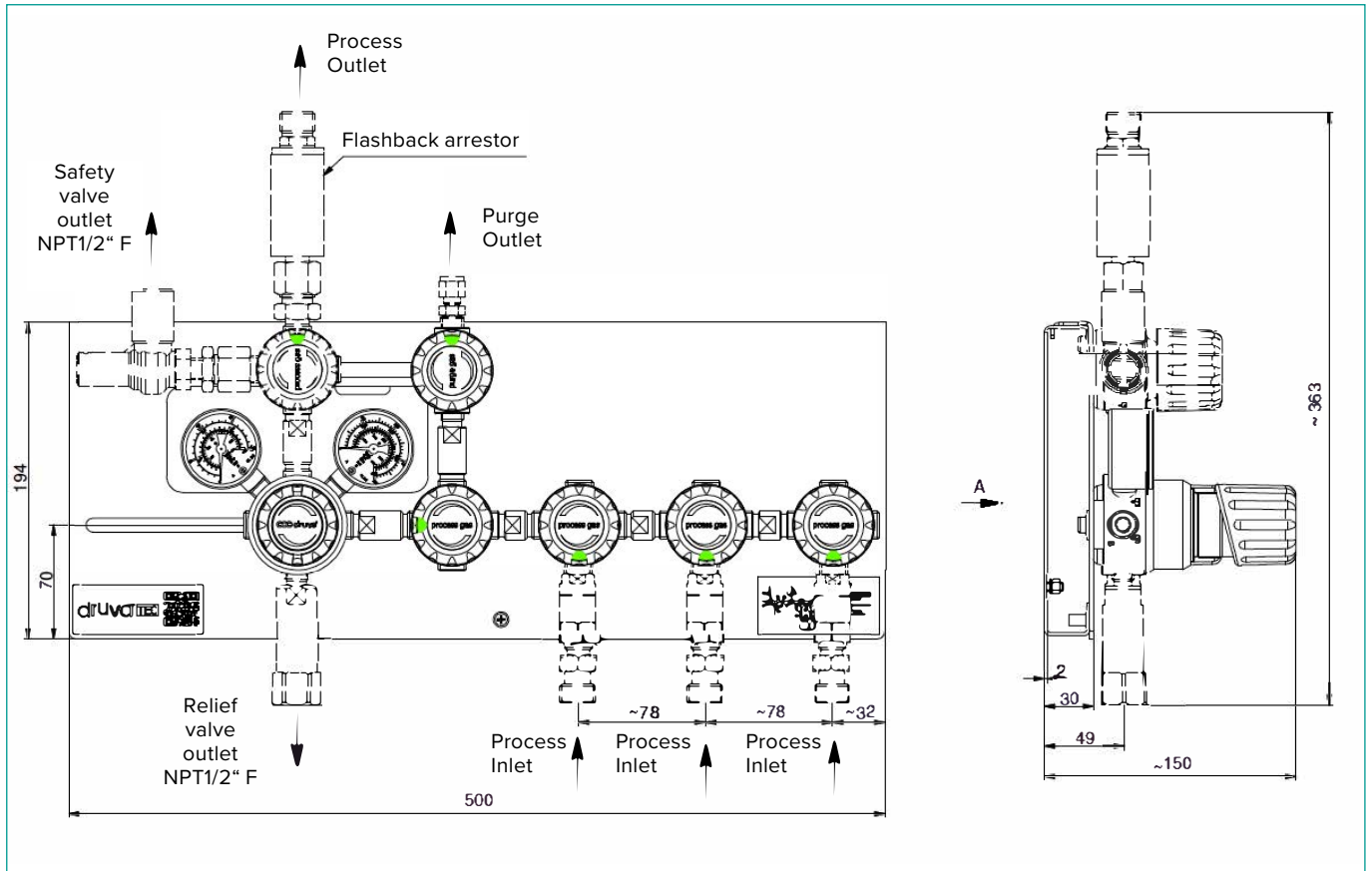
TECHNICAL DATA – BALL VALVE UP TO 20 BAR	
Max. working pressure:	20 bar
Material gas wetted parts:	
Body	Brass nickel plated
Ball	Brass hard chrome plated
Ball seal	PTFE
Gearshift seal	FKM / EPDM
Nominal width (free passage):	13 mm
TECHNICAL DATA – BALL VALVE UP TO 40 BAR – NOT SUITABLE FOR OXYGEN	
Max. working pressure:	40 bar
Material gas wetted parts:	
Body	Stainless Steel
Ball	Stainless Steel
Ball seal	PTFE
Gearshift seal	PTFE
Nominal width (free passage):	15 mm
TECHNICAL DATA – CHECK VALVE	
Max. Working pressure:	300 bar
Pressure loss at inlet pressure 41 bar and flow rate 100m ³ /h:	3,8 bar
Material gas wetted parts:	
Valve body	Brass
Filter	Sinter bronze SIKA-B
Valve seat	Silicon nitride ceramic (Si ₃ N ₄)
Spring	Stainless Steel 316 L

TECHNICAL DRAWING – FLOW SCHEMATIC

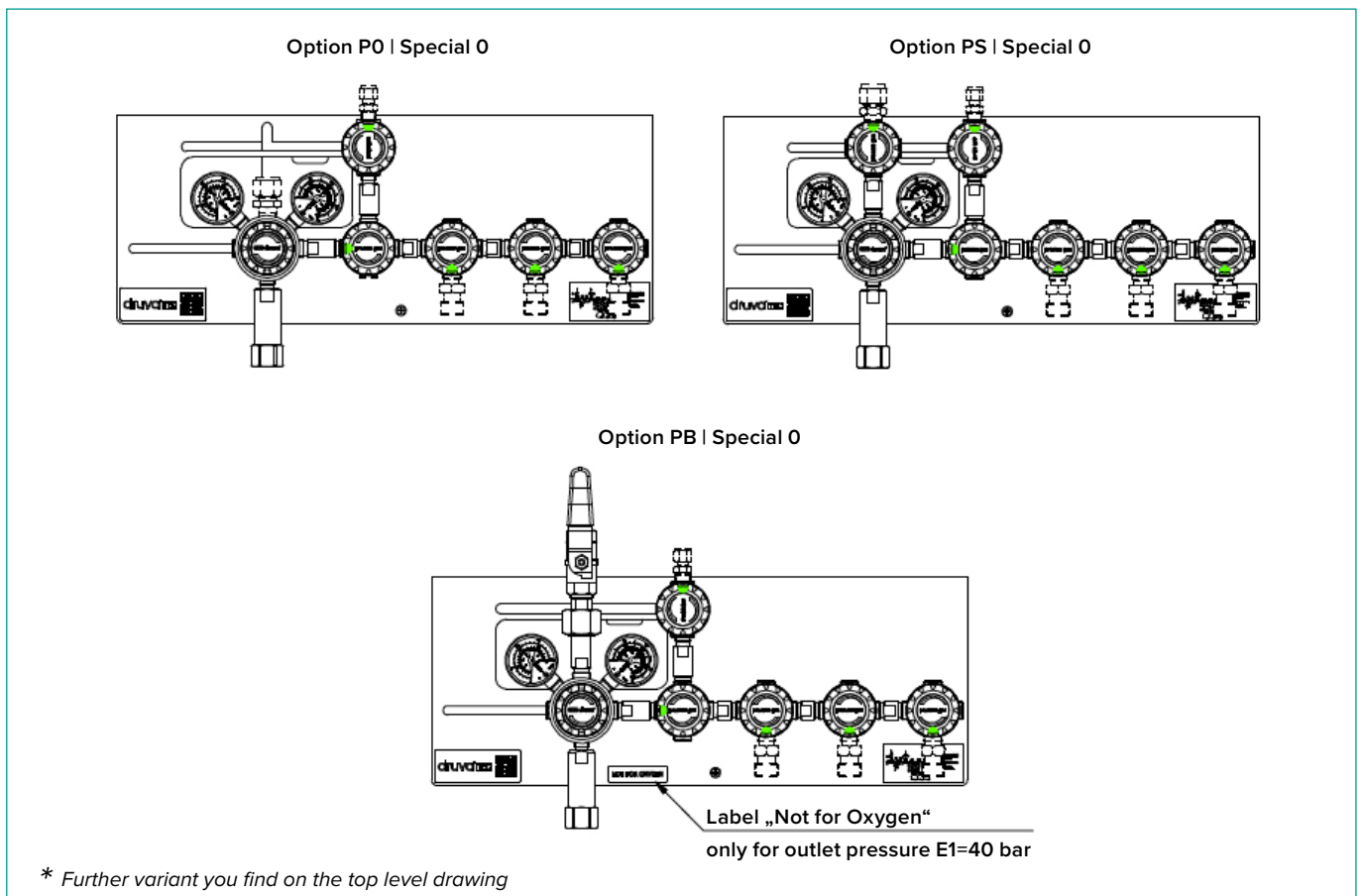


- 1 - Gas cylinder
- 2 - Coil
- 3 - Check valve (optional)
- 4 - Shut-off valve (3xinlet; 1xoutlet)
- 5 - Pressure regulator with in/out gauge
- 6 - Relief valve
- 7 - Shut-off valve (3xinlet; 1xoutlet) or ball valve (optional)
- 8 - Safety valve (optional)
- 9 - Flashback arrestor (optional)
- 10 - Purge outlet valve
- 11 - Shut-off valve (1xinlet; 3xoutlet)

TECHNICAL DRAWING – DIMENSIONS



TECHNICAL DRAWING – STANDARD VARIANTS *



ORDERING INFORMATION – MTMH0TSP | MTMHETSP | MTMHSTSP

Example for a manifold | TEC Line | Brass | Mid Flow (100m³) | 3 Inlets | Manual changeover | Single stage | Process gas purging at inlet

MTMH0T MTMHET MTMHST	S	PB	C	FX	EZ	BT	BT	N14F	N38F (3/8" 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 connection
	S single stage	PO HP purge valve no LP valve	O without	F4 60	D2 10	BT Bourdon Tube Gauge	BT Bourdon Tube Gauge	N14F 1/4" NPT female	Further connections can be found in the table below	
		PS HP purge valve LP relief valve	C Check valve	FX 200	EZ 20	I1 Inductive contact gauge I1	I2 Inductive contact gauge I2	N38F 3/8" NPT female		
		PB HP purge valve LP Ball valve	F Safety Device Flammables	GX 300	E1* 40	R5 Reed contact gauge R5	R2 Reed contact gauge R2	E2MR G3/8" male EN560 right		
			G Check Valve & Safety Device Flammables		F2** 100		I1 Inductive contact gauge I1	W2ML Whitworth 21.8x1/4" male left		
			H Check Valve & Safety Valve & Safety Device Flammables				R5 Reed contact gauge R5	W2MR Whitworth 21.8x1/4" male right		
			N Safety Device Oxy/Air					W3ML Whitworth 30x2 male left		
			P Check Valve & Safety Device Oxy/Air					W3MR Whitworth 30x2 male right		
			Q Check Valve & Safety Valve & Safety Device Oxy/Air							
			S Safety valve							
			U Check valve & safety valve							
			Y Safety Device Flammables & Safety Valve							
			Z Safety Device Oxy/Air & Safety Valve							

HP= High pressure | LP= Low pressure

* Not available in combination with option bal valve at outlet for Oxygen | ** Not available in combination with option bal valve at outlet

Order code (as described above) without special characters or spaces! Complete Order Code: **MTMH0TSPBCFXEZBTBTN14FN38FN14F**

Process outlet connection

N38F - NPT 3/8 inch female

G12F - G 1/2 inch female

E3MR - G1/2" male EN560 right

E3ML - G1/2" male EN560 left

E5MR - G3/4" male EN560 right

M12B - Compression fitting 12 mm Brass

M15B - Compression fitting 15 mm Brass

M18B - Compression fitting 18 mm Brass

M12S - Compression fitting 12 mm Stainless Steel

M15S - Compression fitting 15 mm Stainless Steel

M18S - Compression fitting 18 mm Stainless Steel

M25S - Compression fitting 25 mm Stainless Steel

IX8B - Compression fitting 1/2 inch Brass

I10B - Compression fitting 5/8 inch Brass

I12B - Compression fitting 3/4 inch Brass

I14B - Compression fitting 7/8 inch Brass

IX8S - Compression fitting 1/2 inch Stainless Steel

I12S - Compression fitting 3/4 inch Stainless Steel

I16S - Compression fitting 1 inch Stainless Steel

DM21 - Tube 21,3 mm

Purge connection

N14F - NPT 1/4 inch female

M06B - Compression fitting 6 mm Brass

M08B - Compression fitting 8 mm Brass

M10B - Compression fitting 10 mm Brass

M12B - Compression fitting 12 mm Brass

M06S - Compression fitting 6 mm Stainless Steel

M08S - Compression fitting 8 mm Stainless Steel

M10S - Compression fitting 10 mm Stainless Steel

M12S - Compression fitting 12 mm Stainless Steel

IX4B - Compression fitting 1/4 inch Brass

IX6B - Compression fitting 3/8 inch Brass

IX8B - Compression fitting 1/2 inch Brass

IX4S - Compression fitting 1/4 inch Stainless Steel

IX6S - Compression fitting 3/8 inch Stainless Steel

IX8S - Compression fitting 1/2 inch Stainless Steel

Availability of brass fittings depending on pressure and size.

Pay attention to the maximum approved pressure of your pipework.

