



## HiQ<sup>®</sup> REDLINE<sup>®</sup> S 20. Single source manifold.



**Application** HiQ REDLINE manifolds are suitable for all applications in analysis, as well as research and development, where high demands in gas purity, accuracy and reliability are required.

**Description** S 20 is a wall-mounted manifold designed for one single gas source. The gas source might be one or more gas cylinders. S 20 is especially suitable for providing inert purge gas to manifolds with external purging. The manifold reduces a cylinder pressure of up to 200 bar to a distribution pressure. The house of the manifold is made of chrome-plated brass.

The standard configuration is equipped with a CE marked safety valve and a shut-off valve on the low-pressure side. In the basic configuration, the pressure protection consists of a relief valve and there is no low-pressure shut-off valve. A contact gauge, mounted on the high-pressure side, intended for connection to a low-level gas alarm system, is optional.

**Quality assurance** Pressure regulators are designed and approved according to EN ISO 7291 (including the oxygen ignition test and the life cycle test). Valves are designed and approved according to relevant sections of EN ISO 10297 (including the oxygen pressure surge test). The equipment meets the electrostatic chargeability requirements of EN ISO 80079-36, IEC TS 60079-32-1 and the German TRGS 727. The manifolds can therefore be used in the EX zones 1 and 2 for gases with the explosion risk groups I, IIA, IIB or IIC. Each regulator and valve is seat leakage tested, atmosphere leakage tested and pressure tested with helium.



## Versions HiQ REDLINE S 20

Product name	Material	Outlet pressure, bar(g)	Outlet pressure, psi(g)	Art. No.
<b>Basic version with relief valve:</b>				
S 20 B	Chrome-plated brass	1-14	15-203	342043
<b>Basic version with contact pressure gauge and relief valve:</b>				
S 20 B C	Chrome-plated brass	1-14	15-203	342045
<b>Standard version with safety valve and low pressure shut-off valve:</b>				
S 20 B SV SOV	Chrome-plated brass	1-14	15-203	342046
<b>Standard version with contact pressure gauge, safety valve and low pressure shut-off valve:</b>				
S 20 B C SV SOV	Chrome-plated brass	1-14	15-203	342047

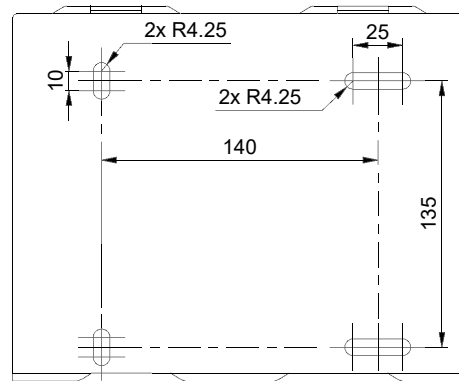
## Technical data

<b>Pressures</b>	bar(g)	psi(g)
Maximum inlet pressure	230	3 336
Outlet pressure range	1-14	15-203
Relief/safety valve opening pressure	21.6/21	313/305
Outlet gauge range	-1 to 25	-15 to 363
<b>Nominal flow</b>	20 m <sup>3</sup> /h (nitrogen) acc. to ISO 7291	
<b>Flow coefficients</b>	Cv	
Shut-off valve	0.25	
<b>Operating temperature</b>	-20° C to +60° C	-4° F to +140° F
<b>Gas purity</b>	≤6.0 (99.9999 %)	
<b>Leakage rates</b>		
to the atmosphere	≤1x10 <sup>-9</sup> mbar l/s (helium)	
through the seat	≤5x10 <sup>-6</sup> mbar l/s (helium)	
<b>Particle filters</b>		
Shut-off valve	100 µm (each inlet)	100 µm (each outlet)
Pressure regulator	10 µm (inlet)	100 µm (each outlet)
<b>Materials</b>		
Shut-off valve, house	Chrome-plated brass	
Shut-off valve, diaphragms	Hastelloy and Elgiloy	
Shut-off valve, seat	PCTFE	
Shut-off valve, poppet	Chrome-plated brass	
Pressure regulator, house	Chrome-plated brass	
Pressure regulator, diaphragm	Hastelloy	
Pressure regulator, seat	PCTFE	
Pressure regulator, poppet	Chrome-plated brass	
Relief/safety valve seat	FKM	
<b>Connections</b>		
Process gas inlet	NPT ¼" female	
Process gas outlet	NPT ¼" female	
Relief/safety valve outlet	12 mm tube fitting in stainless steel	
<b>Weight</b>	≤4.7 kg	≤10.4 lbs

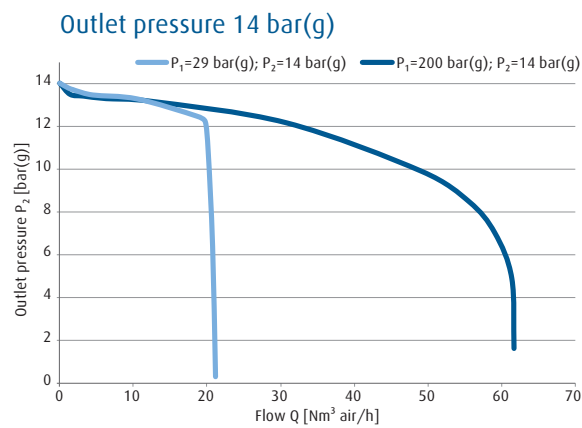


### Installation

The manifold is easily installed due to separate mounting plates in polished stainless steel. A base plate is first mounted on the wall. The manifold, mounted on a front plate, is then simply hooked onto the base plate, and fixed with a screw. A safety wire of the high-pressure hose with a carabiner hook, can be attached to a hole in the base plate. Further, there is a grounding bolt in the base plate. Due to the cut-outs in the front plate, a faulty pressure gauge can be replaced without dismantling the manifold.



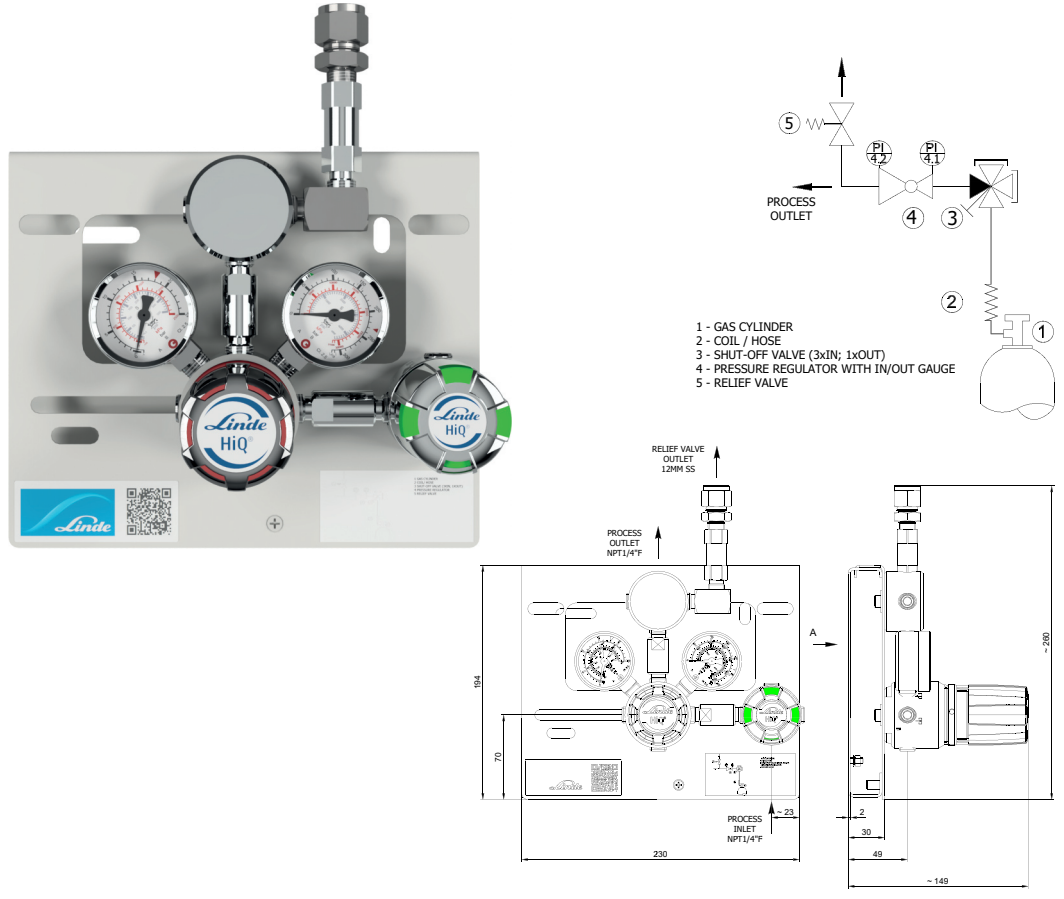
### Flow curves



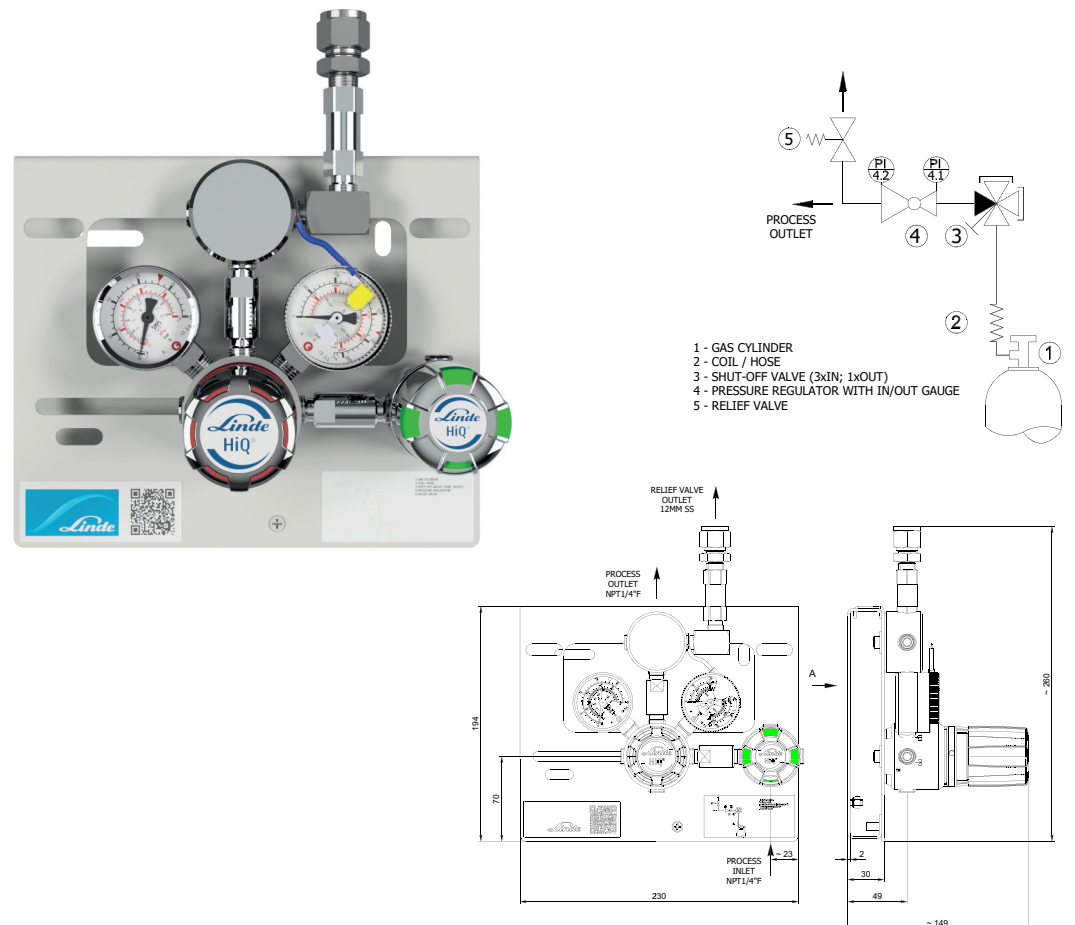
### Accessories

High-pressure hose, coil and/or extension header rails for connection to the gas cylinder(s)/bundle(s) are ordered separately. Note that a tube fitting outlet connection is not included in the manifold.

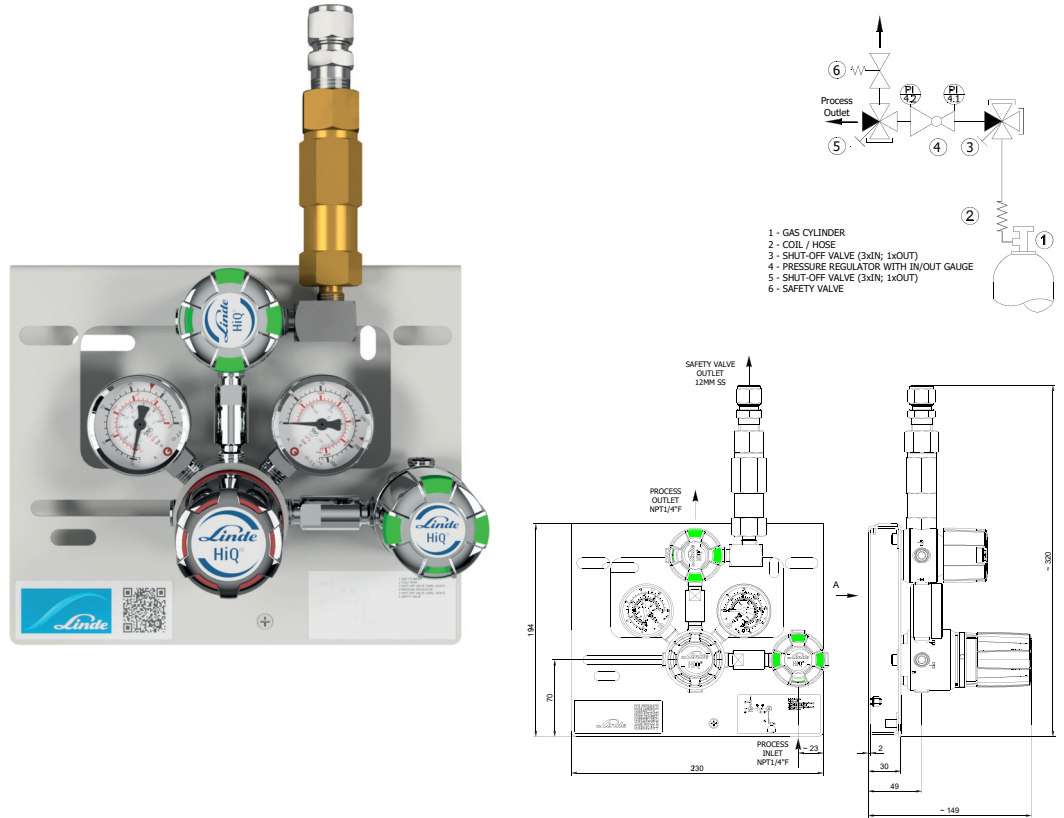
Images, P&IDs and drawings Basic version with relief valve



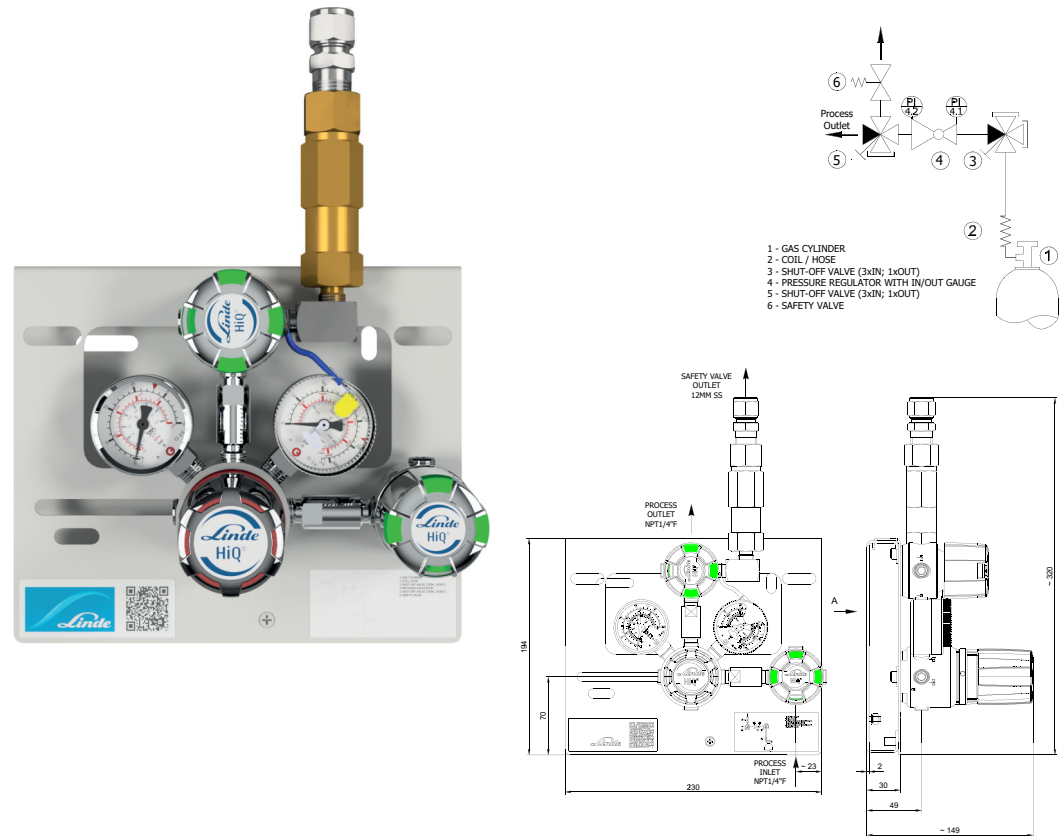
Basic version with contact pressure gauge and relief valve



Images, P&IDs and drawings Standard version with safety valve and low pressure shut-off valve



Standard version with contact pressure gauge, safety valve and low pressure shut-off valve



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