

1 Pressure regulator 3 possibilities  
 0-20 bars  
 0-40 bars  
 0-100 bars

## Technology

### Spring-loaded adjustment setting

**Multi-piston sensing element** : three pressure control ranges

**Balanced poppet** : any effects of inlet pressure loss on outlet pressure is considerably reduced.

## Function

A spring-loaded regulator controls the operator specified outlet pressure keeping it constant over a range of inlet pressures, within the limits of its technical characteristics<sup>1</sup>.

## Application

Designed for High-Pressure gas uses, the Alcrysafe® spring-loaded multi-range(3) regulator can be employed in conjunction with the whole range of gases and liquids compatible with the component materials.

However, some specific on-site installation factors can limit possible uses of the pressure regulator.



## Spring-loaded multi-range(3) regulator

Size 1/HP/Brass

alcrysafe®

The Alcrysafe® Pressurised Equipment range has been developed in our in-house R&D team. Technical expertise and innovation combined to provide optimal performance and security standards for your high pressure industrial gas applications.

<sup>1</sup> in accordance with the formula (2P+1) : PE = 2P + 1 bar  
 Please, consult us if this principle is not applicable

## Technical data

Working pressure	Pressure control ranges		
	370 bars maxi 5360 psi maxi	0 - 20 bars	3/8" F BSPP
	0 - 40 bars	1/2" F BSPP	0-580 psi
	0 - 100 bars	3/4" F BSPP	0-1450 psi
Temperature range	-20°C / +70°C		-4°F / +158°F
Inlet port	1/4" F BSPP	3/8" F BSPP	1/2" F BSPP
Outlet port	1/4" F BSPP	3/8" F BSPP	1/2" F BSPP
Seat size	1,5 mm (non-balanced)	3 mm	5,4 mm
DN (Nominal Diameter)	12		
Pressure Gauge port	2x 1/4" BSPP pre-tapped		
Mounting	All mounting positions possible		
	Allows integration with Alcrysafe® modular systems		
Weight	3,5 kg		

Brackets	Two tapped M6x8 on the underside face		
	Four Ø6 ports for bracket mounting (brackets optional)		
Body material*	Brass		
Seat materials*	PAI Torton	PCTFE	Peek
Gasket materials*	Nitrile	FKM	EPDM
Cleaning	Inert Gas procedure MO-PROD0103 / Oxygen procedure MO-PROD0102		
Documentation	2.2 Certificate of Conformity (COC) according to EN 10204		
	General operating instructions		
Finishing's on demand	Drilled pressure gauge port		
	Automatic decompression		
	Hermetic spring cap		
Options	Mounting brackets		
	Flanges : Welded BW or Screwed BSPP (please refer to Range of connectors technical data sheet n°9111)		

\* others by request

**Recommendation** : we advise one sets the upstream filtration at 25µm minimum. Please, refer to "Filter" technical data sheet n°2221.

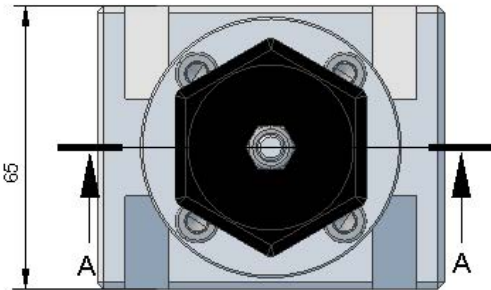
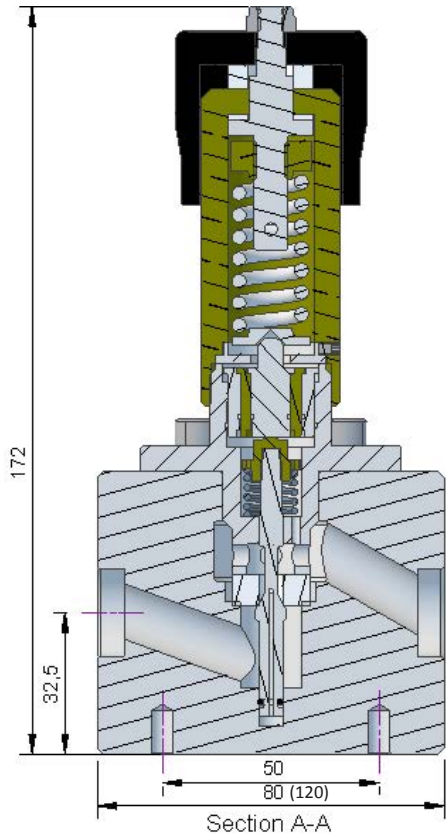
Spring-loaded  
 multi-range(3) regulator  
 Size 1/HP/Brass

alcrysafe®

v.1/10-2014

Data  
 Sheet  
 n°1121

# drawings

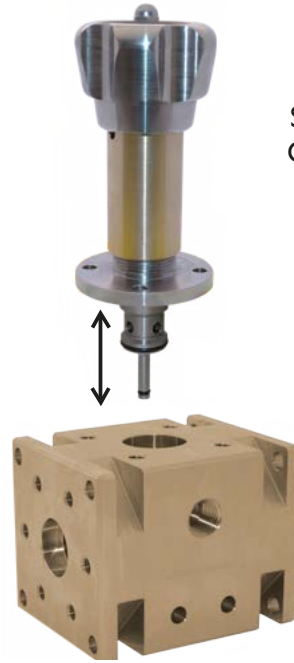


# f

## ast&safe maintenance

### Maintenance cartridge

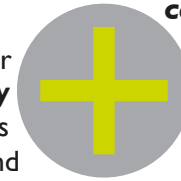
Safety, speed and cost-effective.  
On-site maintenance only takes a few minutes !



Designed under our **Comprehensive Safety norm** guarantees performance and comprehensive safety of the installation (refer to *Alcrysafe®* range technical notice)

**Solution**  
Scalable  
Modular  
Integrated  
Safe  
Cost-effective

### The Fast&safe maintenance cartridges offer unlimited scalability !



The regulation function, provided by the multi-range spring-loaded regulator in this case can be easily reconfigured (dome-loaded, proportional or spring-loaded regulator) to respond to new requirements for the installation.

## Order references

Standard configuration : Multi-range regulator - ARS1HB1001  
Fast&safe cartridge - CRS1HS-001

Please refer to the table below for other Pressurised Equipment and cartridge configurations :

Gaskets	Nitrile	FKM	EPDM
<b>Seat</b>			
<b>PAI</b>	standard configuration	ref. + TV	ref. + TE
<b>PCTFE</b>	ref. + KN	ref. + KV	ref. + KE
<b>Peek</b>	ref. + PN	ref. + PV	ref. + PE

## Compatible gases\*

- Inert Gases
- Flammable Gases
- Oxidizing Gases
- Toxic Gases

\* Please, refer to one of our engineers



Spring-loaded  
multi-range (3) regulator  
Size1/HP/Brass

alcrys safe®

Data Sheet  
n°1121

v.1/10-2014