

# Medium pressure relief valve AISI 316L

Stainless steel AISI 316L relief valves,  
suitable for compressed air, gas and liquid



## FEATURES

Relief valve for pressure up to 50 bar (725 psi).

Inlet and outlet connections:

G 3/4-F;

G 1-F;

G 1 1/4-F;

3/4"NPT-F;

1"NPT-F;

1 1/4"NPT-F

by flanges screwed to the body.

Inlet and outlet connections:

G 1/2-F;

1/2"NPT-F

in the body.

Flanged connections EN or ASME available on request.

The relief valve opens when the inlet pressure increases above the set point initially regulated by the adjusting screw and it closes when the pressure goes down under the set point.

Set point pressure up to 15 bar (218 psi) is controlled by a rubber diaphragm; greater outlet pressures are controlled by a piston.

Available the ATEX version

Brand  $\text{CE} \text{ II 2GDc IICX}$ .

For use in potentially explosive zones:

1, 21, 2, 22 (not for mines and zone 0).

The product complies with the directive 97/23/CE PED.

### **3VSS2 1": SPECIFICATIONS**

Relief valve weight (diaphragm version): ~9.4 kg (20.7 lb)

Relief valve weight (piston version): ~10.2 kg (22.5 lb)

Working temperature: -20 °C ÷ +80 °C (-4 °F ÷ +176 °F) for standard version

Degree of protection: IP25

### **3VSS2 1/2": SPECIFICATIONS**

Relief valve weight (diaphragm version): ~1,6 kg (3,5 lb)

Relief valve weight (piston version): ~2,2 kg (4,8 lb)

Working temperature: -20 °C ÷ +80 °C (-4 °F ÷ +176 °F) for standard version

Degree of protection: IP25

### **MATERIALS**

Body and bonnet: stainless steel AISI 316L (from round bar)

Internal parts: stainless steel AISI 316L

Adjusting screw: C85 nickel-plated NiP/Fe 15 µm, not in contact with the fluid

O-Ring: FPM (other compounds available on request)

diaphragm: two coupled diaphragms NBR+PTFE, PTFE in contact with the fluid

Version for liquid: AISI 316L piston with FPM seal

### **ACCESSORIES**

G 1/4 or 1/4"NPT inlet pressure gauge connections

Wall mounting bracket kit: P36107030304 (For 3VSS2 1")

Wall mounting bracket kit: M1H301 (For 3VSS2 1/2")

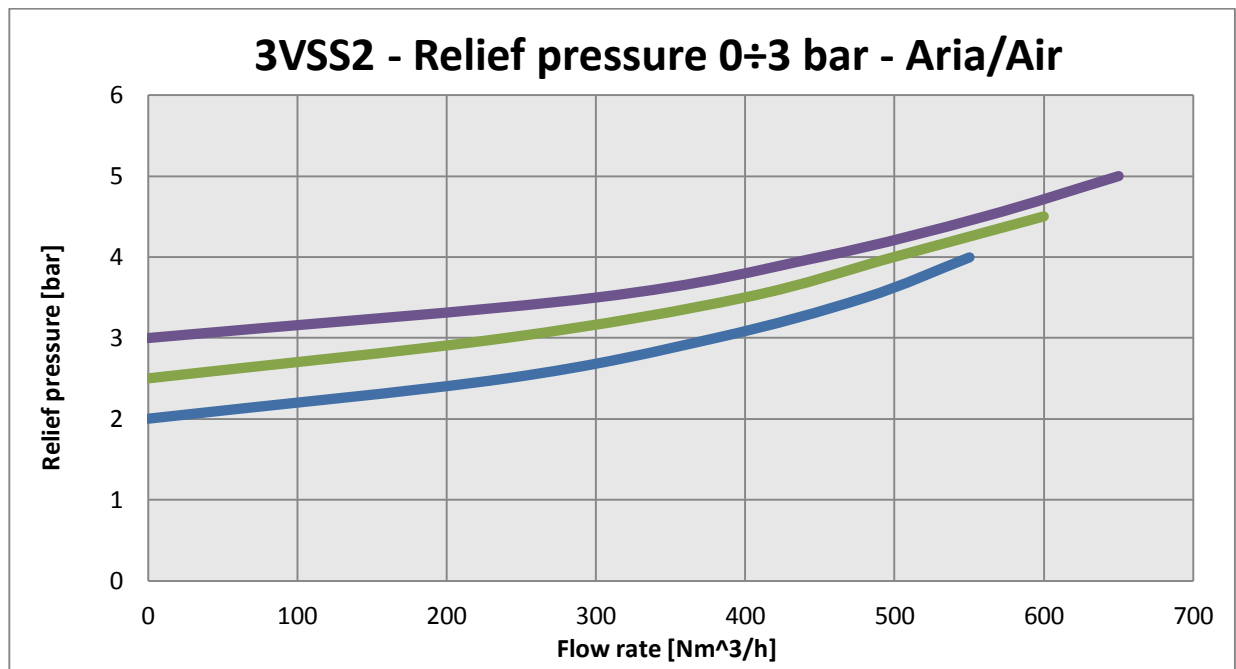
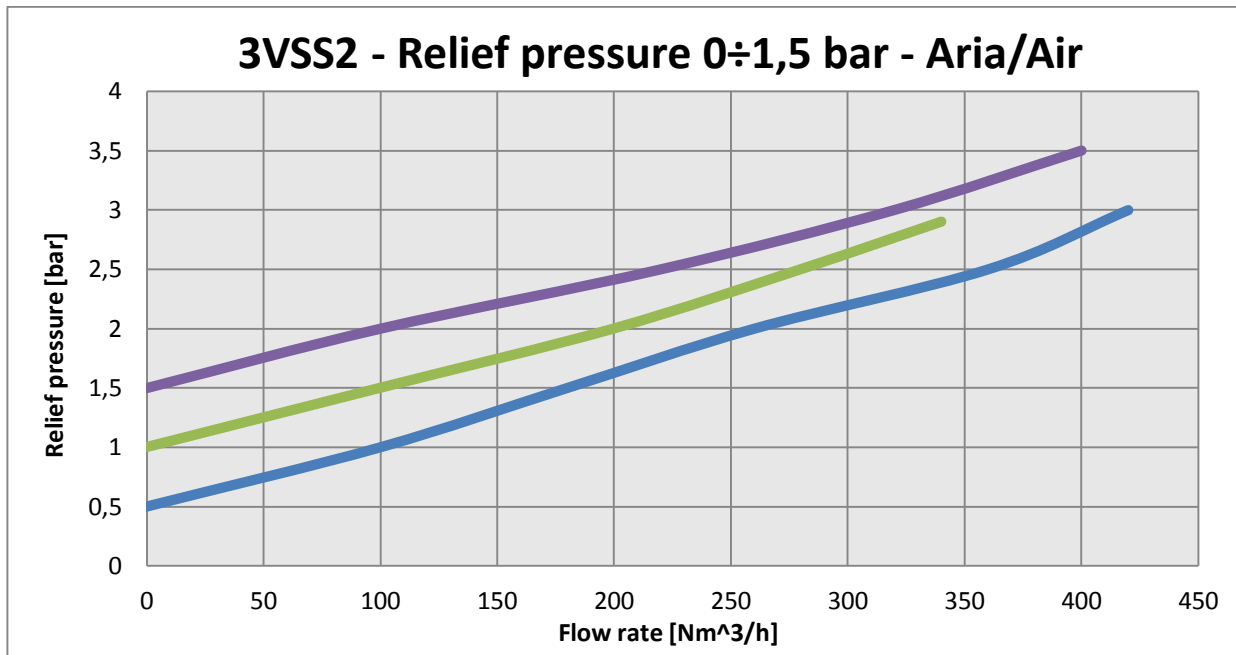
Pressure gauge

Gasket materials different from standard

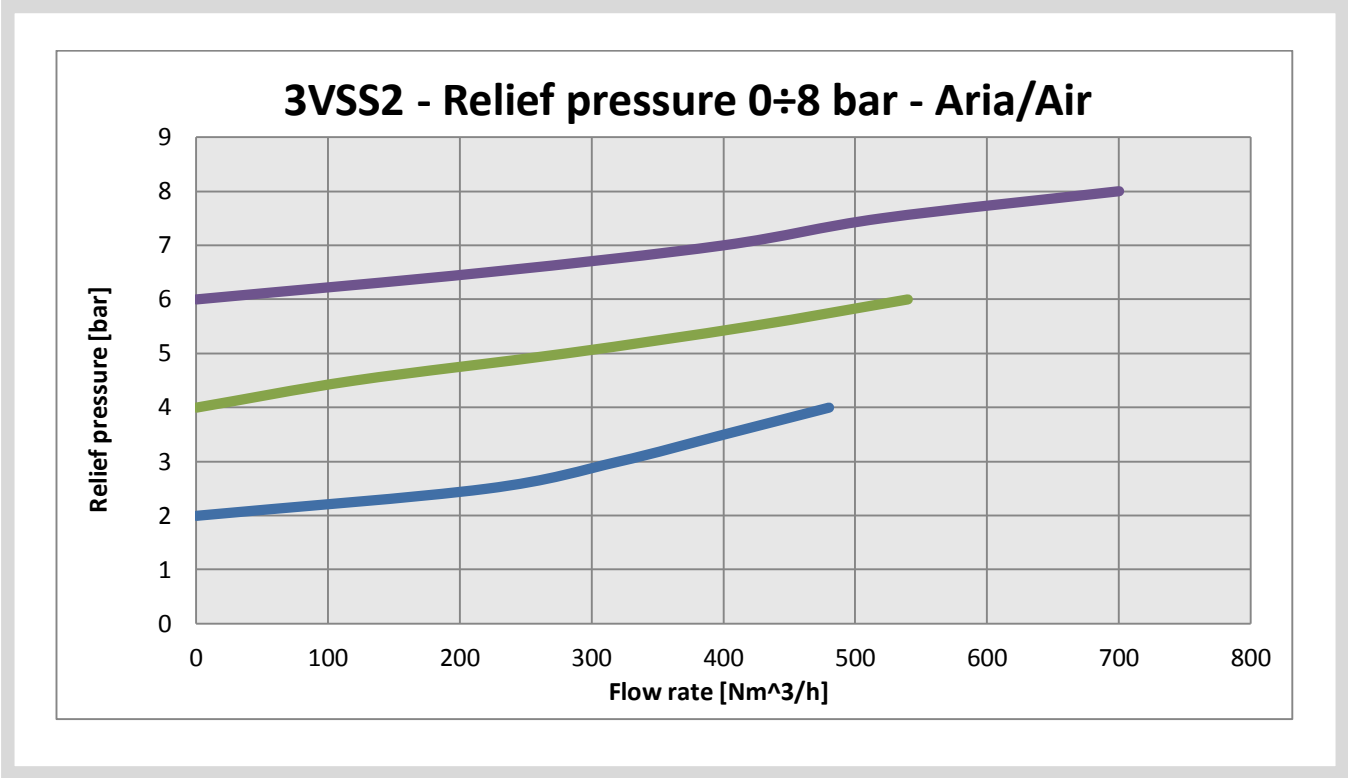
### **SPARE PARTS**

Complete kit: diaphragm or piston and o-rings

## flow charts



flow chart



## available model types

Valvole di sfioro per media pressione in acciaio inox 316L idonee per aria compressa, gas tecnici e liquidi  
 Relief valves for medium pressure made of stainless steel suitable for compressed air, technical gases and liquids  
 Corpo e campana da lavorazione di barra / Body and bonnet machined from solid bar

TYPE	P. SFIORO Relief pressure bar	CONNECTION IN/OUT	CODE	MEDIUM
				<b>3VSS2 1"</b>
3VSS2	0-1,5	G 3/4-F	3VSS2#	O2
		G 1-F		*
		G 1-1/4 -F		**
		3/4" NPT-F		
		1" NPT-F		
3VSS2	0-3	1 1/4" NPT-F	3VSS2#	O2
		G 3/4-F		*
		G 1-F		**
		G 1-1/4 -F		
		3/4" NPT-F		
3VSS2	0-8	1" NPT-F	3VSS2#	O2
		G 3/4-F		*
		G 1-F		**
		G 1-1/4 -F		
		3/4" NPT-F		
3VSS2	0-15	1" NPT-F	3VSS2#	O2
		G 3/4-F		*
		G 1-F		**
		G 1-1/4 -F		
		3/4" NPT-F		
3VSS2	0-30	1" NPT-F	3VSS2#	O2
		G 3/4-F		*
		G 1-F		**
		G 1-1/4 -F		
		3/4" NPT-F		
3VSS2	0-50	1" NPT-F	3VSS2#	O2
		G 3/4-F		*
		G 1-F		**
		G 1-1/4 -F		
		3/4" NPT-F		
3VSS2	0-50	1" NPT-F	3VSS2#	O2
		G 3/4-F		*
		G 1-F		**
		G 1-1/4 -F		
		3/4" NPT-F		
3VSS2	0-50	1" NPT-F	3VSS2#	O2
		G 3/4-F		*
		G 1-F		**
		G 1-1/4 -F		
		3/4" NPT-F		

\* Aria - N2 - He - Ar - H2 - C3H8 - CH4 - Liquids

\*\* CO2

### ATTACCHI DIVERSI DA STANDARD / CONNECTION DIFFERENT FROM STANDARD

Attacchi flangiati / Connections with flanges

### ESECUZIONI DIVERSE DA STANDARD / EXECUTIONS DIFFERENT FROM STANDARD

O-ring diversi da standard - EPDM / O-rings different from standard - EPDM

O-ring EPDM secondo FDA / O-ring EPDM according to FDA

Pressione di sfioro tarata fissa, sopra 1 bar / Fixed relieving pressure, set point greater than 1 bar

Pressione di sfioro pretarata, sopra 1 bar / Pre-set relieving pressure, set point greater than 1 bar

Stampigliatura su specifica del cliente / Not standard branding

Versione ATEX / ATEX version

Temperature diverse da standard / Special temperature range

Sgrassato uso O2 / Degreased for O2

Attacco manometro G 1/4-F / Gauge connection G 1/4-F

Attacco manometro 1/4"NPT-F / Gauge connection 1/4"NPT-F

### ACCESSORI / ACCESSORIES

Staffa P36107030304 / Bracket P36107030304

## available model types

### Valvole di sfioro per media pressione

### Relief valves for medium pressure

Valvole di sfioro per media pressione in acciaio inox 316L idonee per aria compressa, gas tecnici e liquidi

Relief valves for medium pressure made of stainless steel suitable for compressed air, technical gases and li

Corpo e campana da lavorazione di barra/ Body and bonnet machined from solid bar

TYPE	P. SFIORO Relief pressure bar	CONNECTION IN/OUT	CODE	MEDIUM
				<b>3VSS2 1/2"</b>
3VSS2	0-1,5	G 1/2-F	3VSS2#	O2
		1/2" NPT-F		*
3VSS2	0-3	G 1/2-F	3VSS2#	**
		1/2" NPT-F		O2
3VSS2	0-8	G 1/2-F	3VSS2#	*
		1/2" NPT-F		**
3VSS2	0-15	G 1/2-F	3VSS2#	O2
		1/2" NPT-F		*
3VSS2	0-30	G 1/2-F	3VSS2#	**
		1/2" NPT-F		O2
3VSS2	0-50	G 1/2-F	3VSS2#	*
		1/2" NPT-F		**

\* Aria - N2 - He - Ar - H2 - C3H8 - CH4 - Liquids

\*\* CO2

#### ATTACCHI DIVERSI DA STANDARD / CONNECTION DIFFERENT FROM STANDARD

Attacchi flangiati / Connections with flanges

#### ESECUZIONI DIVERSE DA STANDARD / EXECUTIONS DIFFERENT FROM STANDARD

O-ring diversi da standard - EPDM / O-rings different from standard - EPDM

O-ring EPDM secondo FDA / O-ring EPDM according to FDA

Stampigliatura su specifica del cliente / Not standard branding

Versione ATEX / ATEX version

Temperature diverse da standard / Special temperature range

Sgrassato uso O2 / Degreased for O2

Membrana inox / INOX Diaphragm

#### ACCESSORI / ACCESSORIES

Ghiera P35017030304 / Ring nut P35017030304

Kit staffa + ghiera M1H301 / Kit bracket and Ring nut M1H301

## generating the product code

VALVOLA DI SFIORO 2° stadio AISI 316L / AISI 316L medium pressure relief valve			
AA BB CC DD EE			
AA	Attacchi / Connections	P0	G1/2-F
		Q0	G3/4-F
		R0	G 1-F
		J0	G1 1/4-F
		H0	1/2"NPT-F
		X0	3/4"NPT-F
		Y0	1"NPT-F
		B0	1 1/4"NPT-F
BB	Pressione di sfioro / Relief pressure	AR	R.P. 0÷1,5 bar
		BR	R.P. 0÷3 bar
		DR	R.P. 0÷8 bar
		ER	R.P. 0÷15 bar
		FR	R.P. 0÷30 bar
		GR	R.P. 5÷50 bar
CC	Tipologia di fluido / Fluid type	99	FPM
DD	Marchiato / Marked	I0	ID
EE	Accessori / Accessories	00	Nessun accessorio / No accessories
		06	Manometro / Pressure gauge

### CODE COMPOSITION EXAMPLE

**3VSS2# R0 DR 99 I0 00**

**3VSS2#:** AISI 316L medium pressure relief valves

**R0:** Connections G 1 – F

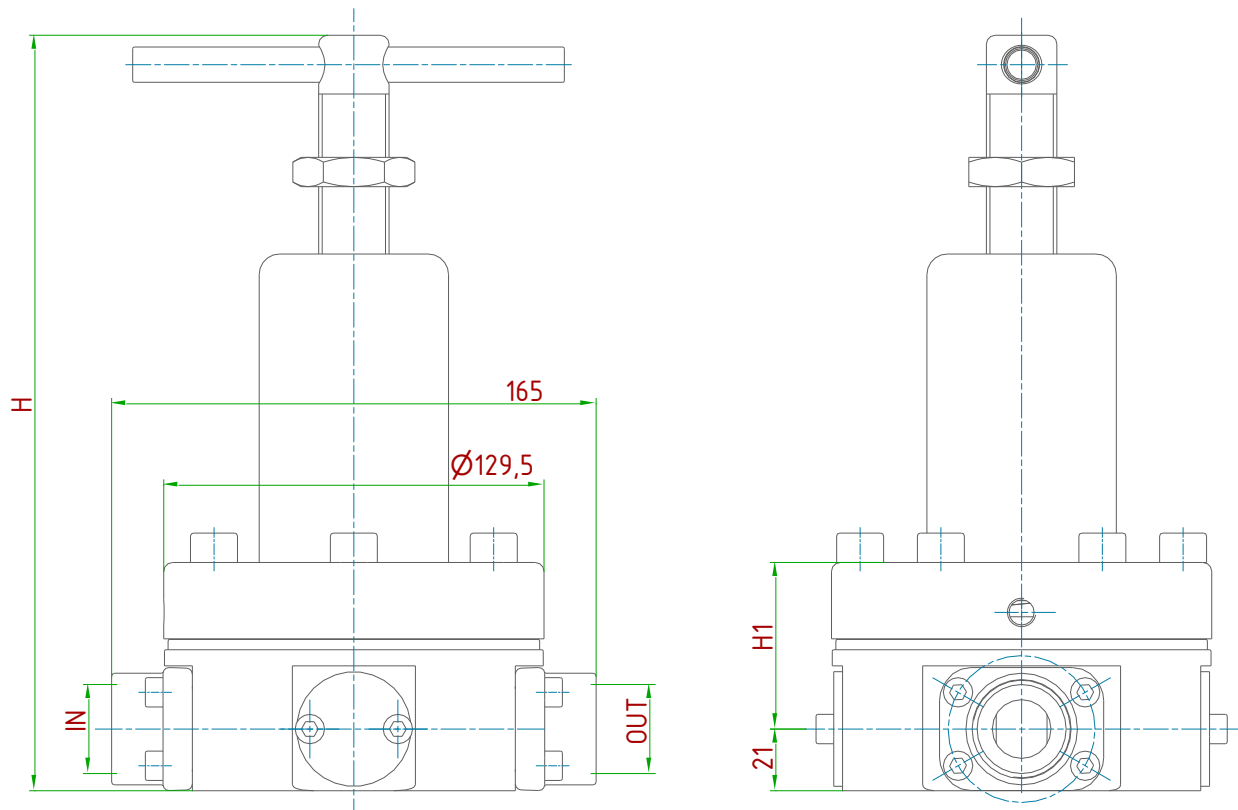
**DR:** Relief pressure range 0 ÷ 8 bar (0 ÷ 116 psi)

**99:** FPM o-rings

**I0:** Marked Insert Deal

**00:** No accessories

## technical drawings (all dimensions in mm)

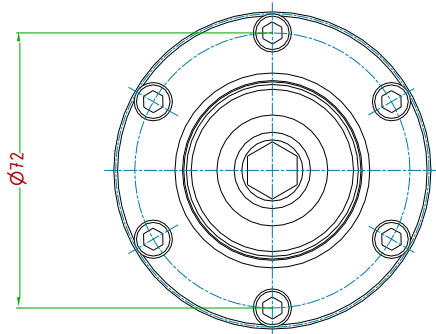
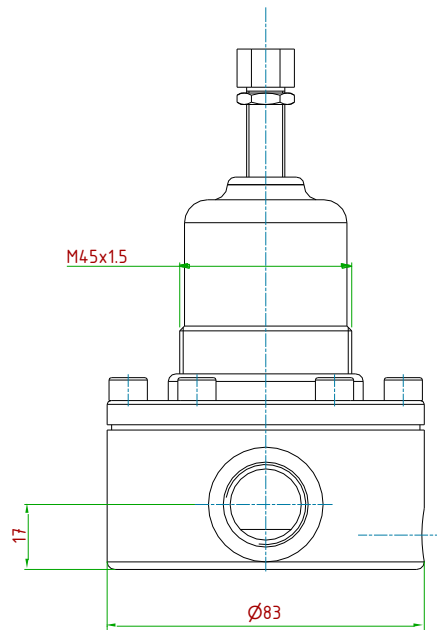
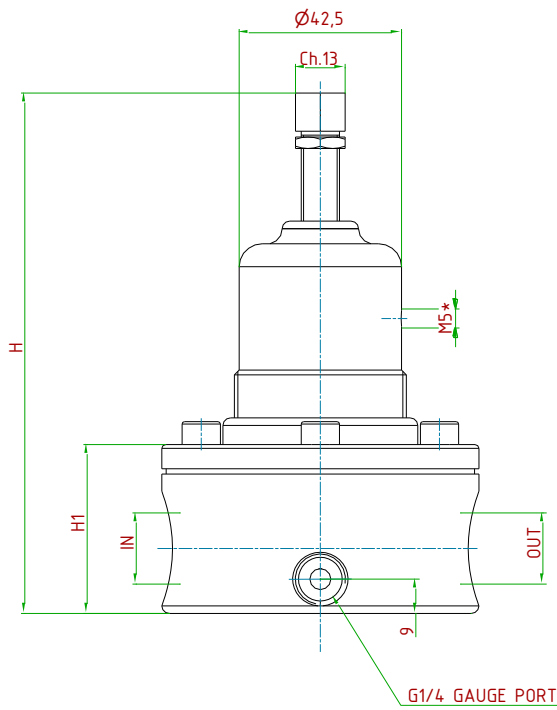


MODEL	RELIEF PRESSURE RANGE	H	H1
Diaphragm	0÷1.5 / 0÷3 / 0÷8 / 0÷15 bar	~257 mm	~57 mm
Piston	0÷30 / 0÷50 bar	~271 mm	~80 mm

TYPE	IN/OUT
3VSS2 3/4" GF	G 3/4-F
3VSS2 1" GF	G 1-F
3VSS2 1-1/4" GF	G 1 1/4-F
3VSS2 3/4" NPTF	3/4" NPT-F
3VSS2 1" NPTF	1" NPT-F
3VSS2 1-1/4" NPTF	1 1/4" NPT-F



# technical drawings (all dimensions in mm)



MODEL	RELIEF PRESSURE RANGE	H	H1
Diaphragm	0÷1,5 / 0÷3 / 0÷8 / 0÷15	~136 mm	~44 mm
Piston	0÷30 / 0÷50	~154 mm	~62 mm

MODEL	IN/OUT
3VSS2 1/2"GF	G 1/2-F
3VSS2 1/2" NPTF	1/2"NPT-F

\*FOR PIPE CONNECTION WHEN REQUIRED; RANDOM ORIENTATION

## **ID Insert Deal Srl**

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RELIEF VALVE\_3VSS2\_EN\_01



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