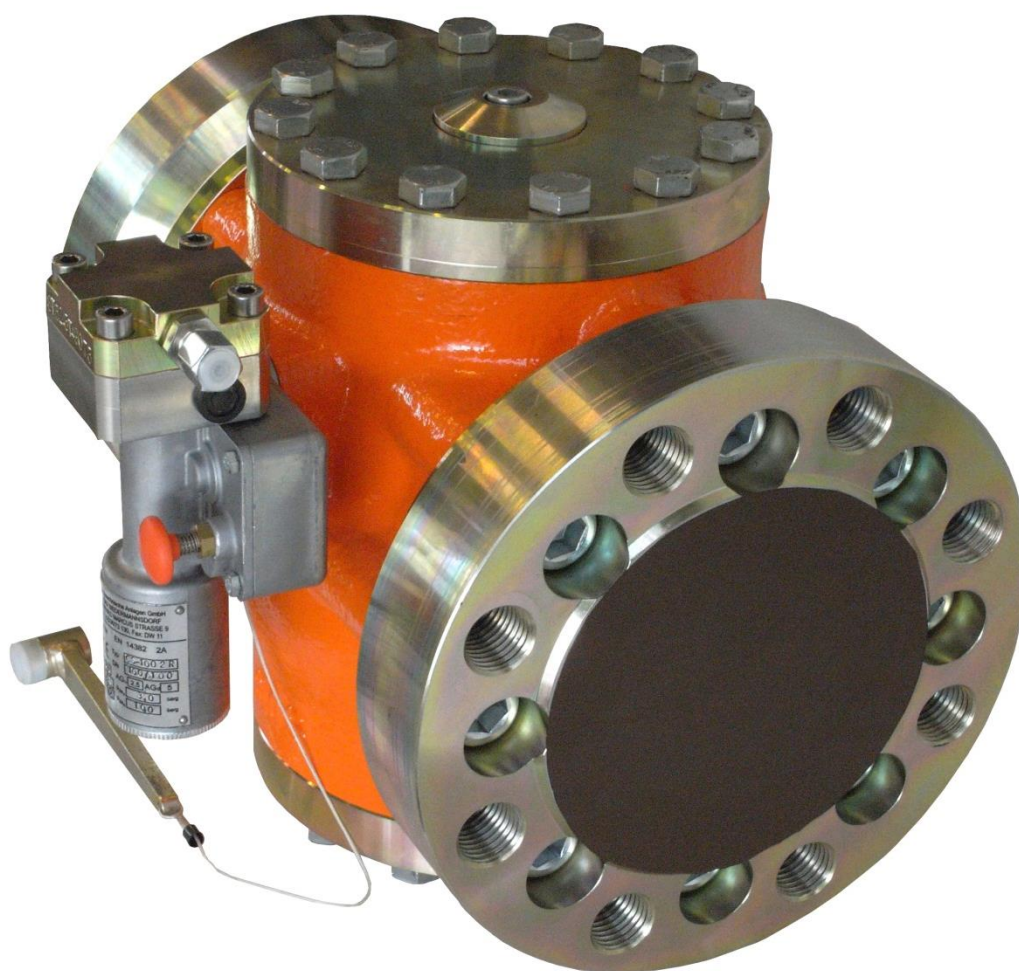


**Energie dintr-o singura sursa**



**Supapa de siguranta  
Safety Shut-off Valve  
CITYSTOP CS**



**The Experts in Energy Supply**

# CITYSTOP CS

## GENERALITATI

## GENERAL

Supapa de siguranta **CITYSTOP CS** este un dispozitiv de siguranta (**EN 14382**) pentru instalatii de reglare presiune de gaz conform **EN 12186 si EN 12279**.

The **CITYSTOP CS** is a safety shut-off valve (**EN 14382**) for gas pressure regulating stations as defined in **EN 12186 and EN 12279**.

## BENEFICII

## BENEFITS

- gama larga de setare pentru declansarea superioara si inferioara
- Timp de inchidere < 1secunda
- conectari cu flanse variabile
- proiectat si examinat conform DVGW
- constructie usor de intretinut

- Large range for setting upper and lower trip
- Closes in less than 1 second
- Variable flange connections
- Designed and tested in accordance with DVGW
- Easy to maintain

Aparatul se poate utiliza pentru gaz natural si alte gaze neagresive. La solicitare se poate furniza optional si cu constructie pentru gaz acru.

The valve can be used with natural gas and other non-aggressive gases. Optionally, a design suitable for acid gas may be supplied.

Seria aparatului este disponibil pentru urmatoarele trepte de presiuni nominale:

The series is designed to accommodate the following nominal pressure stages:

PN 16 / ANSI 150,  
PN 40 / ANSI 300,  
PN 100 / ANSI 600.

PN 16 / ANSI 150,  
PN 40 / ANSI 300,  
PN 100 / ANSI 600.

Sunt doua tipuri pentru diferite presiuni: presiune de iesire pana la 16 bar ( schema 1.) peste 16 bar ( schema 2.)

Two designs are available to cover different response pressures: for downstream pressures ≤16 bar (Fig. 1) and >16 bar (Fig. 2).

Am dezvoltat supapa de siguranta **CITYSTOP CS** special pentru utilizare in alimentarea cu gaz a consumatorilor comunali si industriali.

The safety shut-off valve **CITYSTOP CS** has been developed specifically for use in municipal and industrial gas supply systems.

Proiectarea si dimensionarea supapei de siguranta s-a facut in conformitate cu Directiva Echipamentelor de Presiune **PED 97/23/EK** si cu standardul **EN14382**. Ca standard produsul are Declaratie de Conformitate EC si marcaj CE.

The safety shut-off valve is designed and dimensioned in accordance with the Pressure Equipment Directive **PED 97/23/EC** and the standard **EN 14382**. An EC declaration of conformity is provided as a standard.

Supapa de siguranta **CITYSTOP CS** este o alegere optima si pentru utilizare inaintea arzatoarelor cu gaz.

Its structure makes the safety shut-off valve **CITYSTOP CS** ideal for use in gas burners.

Fata de alte produse, are beneficiul variatiilor mari de conectare, inclusiv alegerea preferentiala a flanselor de intrare si iesire. Seria **CITYSTOP CS** Este caracterizata prin utilizare usoara, constructie service usor si dimensiuni mici.

Multiple connection options, including versions with different intake and outlet flanges, provide the design with an edge over its competitors. Simple operation, service-friendliness and small dimensions are further advantages of the **CITYSTOP CS** series.

Supapa de siguranta poate fi folosita in caz de suprapresiune si in caz de lipsa presiune. Membrana este echipata cu un brat de reglare manual, atasabil, utilizat pentru redeschidere si cu un deblocator simplu, manual cu buton. Optional este posibilitatea echiparii cu intrerupator limita si un deblocator electric actionat de la distanta( cu ajutorul unei valve magnetice incorporate)

The device is suitable for excess pressure as well as insufficient pressure. The valve is provided with a manual clip-on lever for re-opening and a simple pushbutton-operated manual trip. Limit switches to acknowledge tripping and an electric remote trip (by an add-on solenoid valve) are available optionally.

SCHEMA 1

FIGURE 1

Supapa de siguranta  $p_{ol} \leq 16$  bar

Safety shut-off valve  $p_{ol} \leq 16$  bar

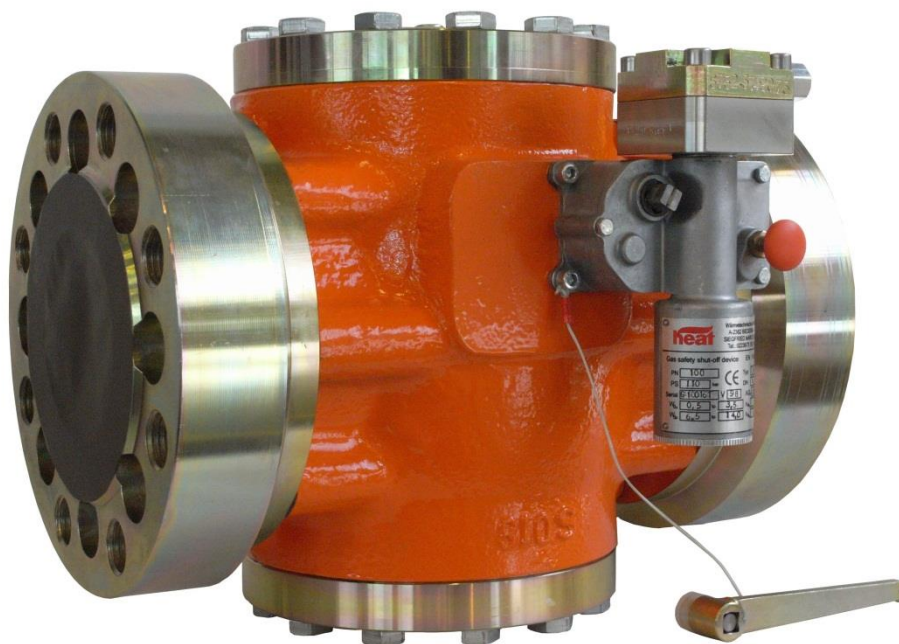


SCHEMA 2

FIGURE 2

Supapa de siguranta  $p_{ol} > 16$  bar

Safety shut-off valve  $p_{ol} > 16$  bar



# CITYSTOP CS

## CONSTRUCTIE SI FUNCTIONARE

Supapa de siguranta **CITYSTOP CS** consta din doua unitati: din dispozitivul de baza cu conectarea cu flansa a unitatii de inchidere si cu scaunul supapa, si din unitatea de deblocare a supapei.

Dispozitivul de baza este echipat cu flansele solicitate conform treptei de presiune (PN16 – PN100). Unitatea de deblocare a supapei pana la presiunea de deblocare PN16, se face in constructie cu membrana, iar peste aceasta presiune in constructie bloc.

## FUNCTIONAREA SUPAPEI CITYSTOP CS

Puterea arcului de inchidere (1) prin teaca de inchidere (2) are efect asupra discului de supapa (3) a supapei de siguranta in directia de inchidere. Inchiderea este impiedicata de bratul cu role (4) pana ce, unitatea de deblocare (7) a supapei este inchisa. Daca unitatea de pilot se deblocheaza, bratul cu role (4) se roteste si se misca spre teaca de inchidere respectiv spre discul supapei (3) si supapa se opreste fara influenta externa. Deblocarea se poate face si manual, prin apasarea butonului de deblocare (5). Pentru deschiderea supapei de siguranta trebuie pozitionat bratul (6) pe partea patrata si trebuie pus in functiune. Discul supapei (3) prin teaca de inchidere (2) revine in pozitia inchisa. In timp la inceputul miscarii se intampla egalizarea presiunii interne.

## SETUP AND FUNCTION

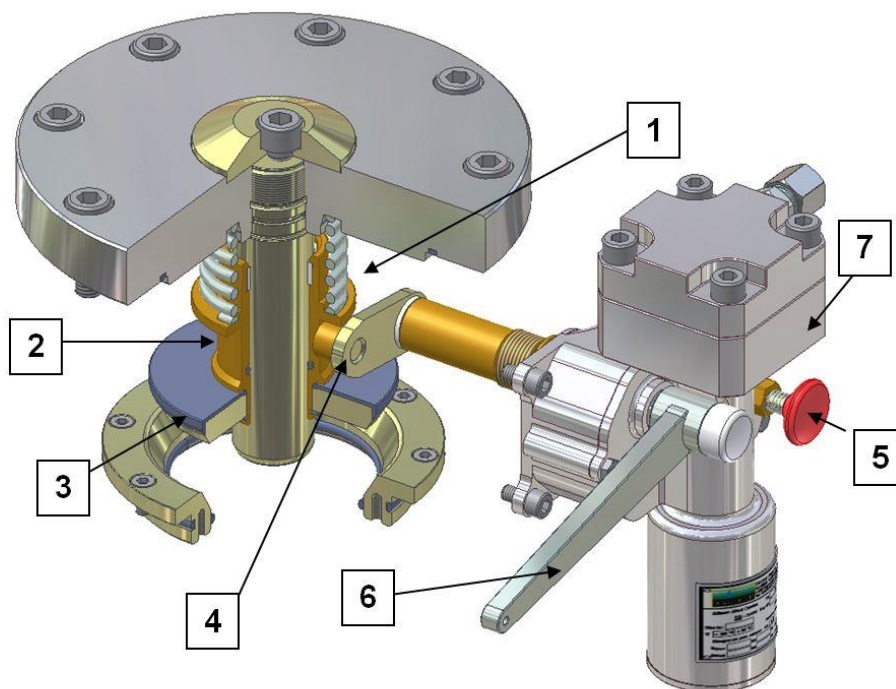
The safety shut-off valve type **CITYSTOP CS** essentially consists of two components: the basic device which includes the flange connections of the closing unit and the valve seat, and the SSV trip.

The basic device is fitted with the flanges required for the pressure stage (PN 16 – PN 100). The SSV trip is designed with a diaphragm for trip pressures  $\leq$  PN 16 and as a block for pressures  $>$ PN 16.

## FUNCTION OF THE CITYSTOP CS

The load of closing spring (1) is applied, via sleeve (2), to valve disk (3) of the safety shut-off valve in the closing direction. A cam lever (4) prevents the valve from closing for as long as the SSV trip (7) is interlocked. Once the SSV trips, cam lever (4) rotates and releases the sleeve and valve disk (3). The SSV closes without the application of any external force. It may be tripped manually by an external pushbutton (5).

The safety shut-off valve is re-opened by applying lever (6) to the rectangular tube. Operating the lever moves the valve disk (3) via sleeve (2) into the original interlocking position. The start of the movement initiates the internal pressure compensation.





## DATE TEHNICE

## TECHNICAL DATA

Mediu : gaz natural, gaze neagresive, gaz natural odorizat, Pb gaz

Presiune de operare max: 16 bar, 40 bar, 100 bar

Gama temperatura: -20 / (-40) ÷ +60 °C

Dimensionare pozitionare: recomandat 60 m/s

Dimensiuni de conectare: conform tabelului 2

Medium: natural gas, odorised non-aggressive gases, natural gas and propane butane gas

Max. operating pressure: 16 bar, 40 bar, 100 bar

Temperature range: -20 / (-40) ÷ +60°C

Seat dimensioning: recommended up to 60 m/s

Connection sizes: see table 2

Connectarea supapei:  
Conectare cu flansa conform EN 1092-1:  
PN 16 / PN 40 / PN 63 / PN 100  
ASME B16.5:  
ANSI150 RF / ANSI 300 RF / ANSI 600 RF  
Fitting teava Ermeto-S

Valve connections:  
Connection flanges acc. to EN 1092-1:  
PN 16 / PN 40 / PN 63 / PN 100  
ASME B16.5:  
ANSI 150 RF / ANSI 300 RF / ANSI 600 RF  
Ermeto-S-tube fittings

### Game de setare supapa de siguranta:

**Tip N:** pdsu 0,013 ÷ 0,90 bar  
pdsu 0,005 ÷ 0,27 bar

**Tip R:** pdsu 0,70 ÷ 2,80 bar  
pdsu 0,15 ÷ 2,50 bar

**Tip 2R:** pdsu 2,6 ÷ 10,0 bar  
pdsu 2,0 ÷ 7,0 bar

**Tip 3R:** pdsu 10,0 ÷ 20,0 bar  
pdsu 7,2 ÷ 14,0 bar

### SSV setting ranges:

**Type N:** pdsu 0.013 ÷ 0.90 bar  
pdsu 0.005 ÷ 0.27 bar

**Type R:** pdsu 0.70 ÷ 2.80 bar  
pdsu 0.15 ÷ 2.50 bar

**Type 2R:** pdsu 2.6 ÷ 10.0 bar  
pdsu 2.0 ÷ 7.0 bar

**Type 3R:** pdsu 10.0 ÷ 20.0 bar  
pdsu 7.2 ÷ 14.0 bar

### Clasa de acuratete a supapei de siguranta:

pdsu AG 1 / 2,5  
pdsu AGu 5

### SSV accuracy group:

pdsu AG 1 / 2,5  
pdsu AG 5

## CALITATEA MATERIALELOR

## MATERIAL QUALITY

Corpul actuatorului: G20Mn5, otel turnat S355J2, otel

Conexiuni: C 22.3, P265GH

Corp membrana: aluminiu turnat, otel

Parti interne: otel, aluminiu, cupru

Membrana: EFFBE 7010 N AG 550-0.7 AF

Inele de etansare, sigilii: NBR70, B2/H3 EN 549

Body: cast steel G20Mn5 S355J2, steel

Connections: C22.3, P265GH

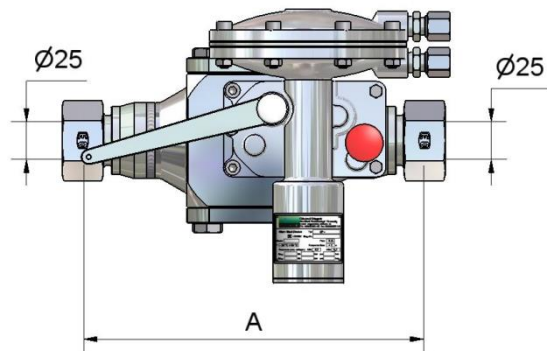
Diaphragm housing: cast aluminium, steel

Inside parts: steel, aluminium, brass

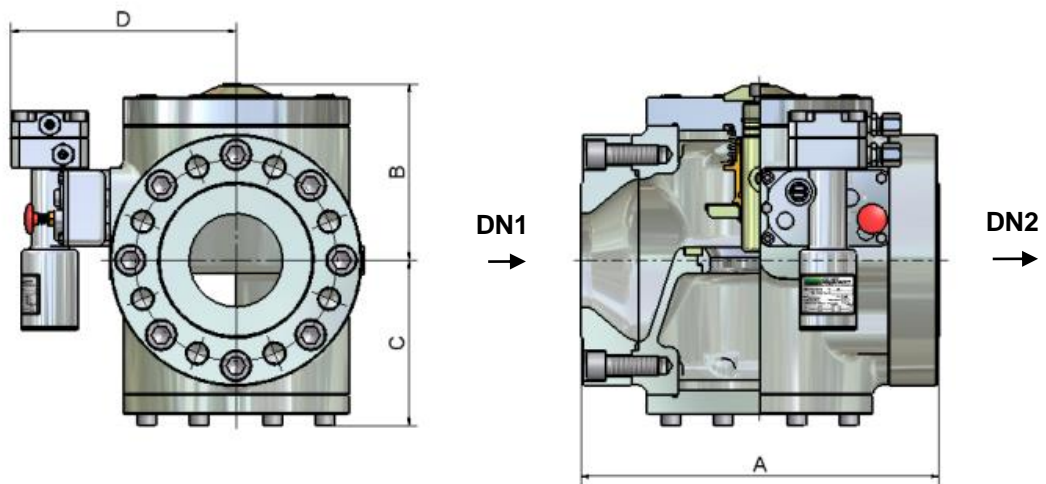
Diaphragm: EFFBE 7010 N AG 550-0.7 AF

Seals: NBR70, B2/H3 EN 549

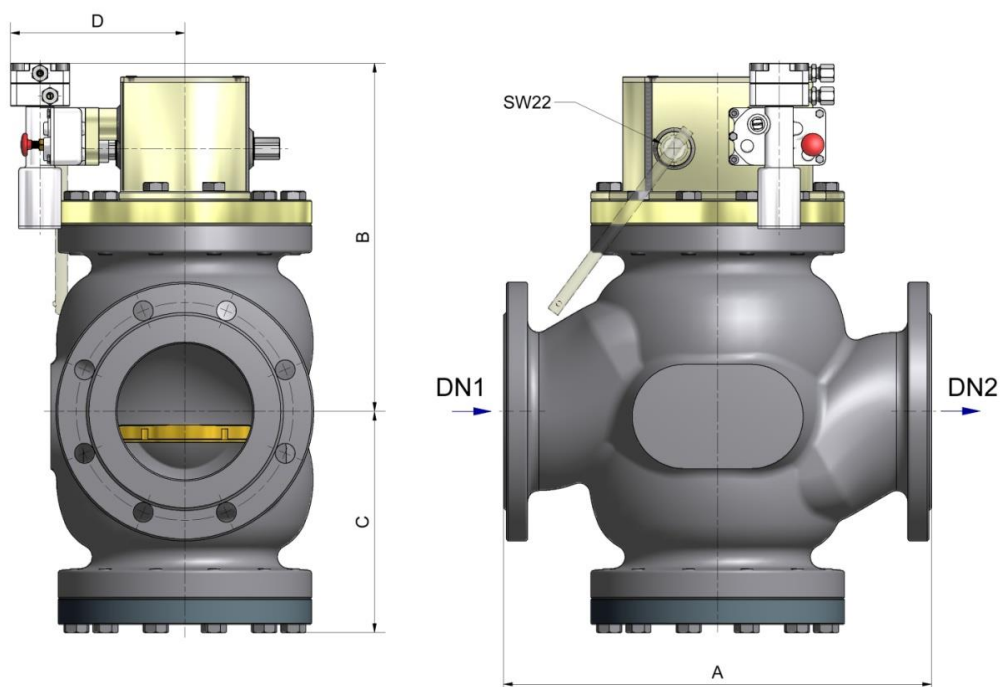
## CS 15



## CS 15 – CS100



## CS 150



Vezi dimensiunile in tabel

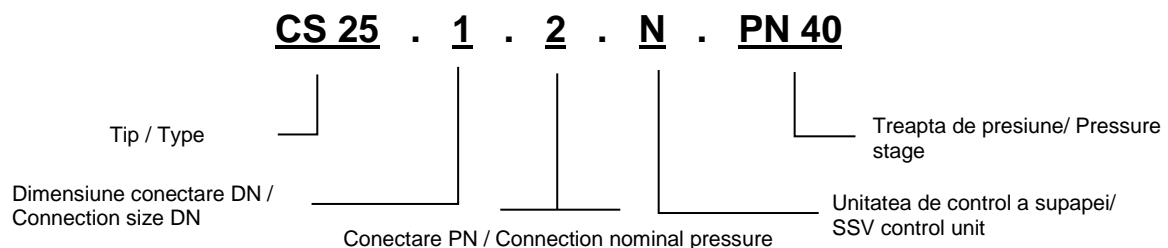
For dimensions see table

Selectie / Selection Code	Pilot supapa / SSV Control unit			
	N	R	2R	3R
pdso in bar	0,013 -0,900	0,7 – 2,8	2,6 -10,0	10,0 – 20,0
pdsu in bar	0,005 -0,270	0,150 – 2,5	2,0 – 7,0	7,2 -14,0

Duza Orifice Ø	max Bm <sup>3</sup> /h	Tip Typ	Dim.conect. Connection-Size		Lungime de instalare / Length A						B	C	D
			Cod.	DN1/DN2	Code 1 PN16	Code 2 PN 25/40	Code 3 ANSI 150	Code 4 ANSI 300	Code 5 PN 63	Code 6 ANSI 600			
19		CS15	1.	25 / 25	184	197	184	197	210	210	70	70	180
			2.	50 / 25	219	232	219	232	248	248			
35		CS25	1.	25 / 25	184	197	184	197	210	210	102	100	189
			2.	50 / 25	219	232	219	232	248	248			
			3.	80 / 25	241	257	241	257	274	274			
48		CS40	1.	50 / 50	254	267	254	267	286	286	121	114	197
			2.	80 / 50	276	292	276	292	312	312			
			3.	100 / 50	303	317	303	317	340	340			
82		CS80	1.	80 / 80	298	317	298	317	337	337	163	148	221
			2.	100 / 80	325	343	325	343	366	366			
			3.	150 / 80	374	395	374	395	423	423			
98		CS100	1.	100 / 100	352	368	352	368	394	394	159	155	200
			2.	150 / 100	401	421	401	421	451	451			
150		CS150	1.	150 / 150	473	473	473	473	508	508	383	244	192

\* Lungime de instalare de la PN63 si de la PN100 conform EN14382– TB1  
Length of PN63 and PN100 as per EN14382 – TB1

\*\* Constructie speciala cu EO25-S, DIN 2353  
Special design with EO25-S, DIN 2353



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