

Safety valve made of stainless steel, angle type, with stainless steel spring

# → Series Hygienic 4040






### ■ MATERIAL



### ■ SPECIFICATION



### ■ SUITABLE FOR

Liquids	neutral and non-neutral	
Air, gases and vapours	neutral and non-neutral	
Steam		

### ■ EXAMPLES OF USE

- For the protection of:
- processes, plants and containers in the food and pharmaceutical industry for air, neutral and non-neutral vapours and gases, steam and liquids
  - food industry
  - Dairy industry
  - breweries and beverage industry
  - pharmaceutical industry
  - Cosmetic industry
  - Medical technology
  - Clean Service applications

### ■ FEATURES

- Smooth and faultless surface finish optimized for cleaning process
- Minimal dead space in inlet area and no gaps in the valve
- Exposed and rinsed o-ring seals
- Shape of valve body avoids forming of puddles in the valve after it has opened
- Suitable for CIP/SIP due to pneumatic lifting device
- Gap-free installation of seals in contact with the medium
- Surface roughness standard  $Ra < 0,8 \mu m$  (Internal product wetted parts),  $Ra < 1,6 \mu m$  (outside, not product wetted parts)
- Moulded diaphragm to divide the product chamber from the spring housing
- Dead space ratio  $L/D < 0,33$

### ■ APPROVALS

TÜV-Type test approval 2111	D/G, F
EU type examination	S/G, L
TR ZU 032/2013 - TR ZU 010/2011	D/G (S/G), F (L)
<b>Requirements</b>	
DIN EN ISO 4126-1	AD 2000 Data sheet A2
DGR 2014/68/EU	VdTÜV Guideline SV 100
TRD 421	

### ■ MATERIALS

Component	Material	DIN EN	ASME
Body	Stainless steel	1.4435	316 L
Inner parts, wetted	Stainless steel	1.4435	316 L
Upper section, other inner parts	Stainless steel	1.4404	316 L
Spring	Stainless steel	1.4310	302

Series 4040 ■ VALVE VERSION

<b>t</b>	Standard with diaphragm	for neutral and non-neutral media. Spring, moving parts and the environment are protected from being affected by the medium.
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Parts which are difficult to clean in the guide, the spring housing and the spindle / disc combination are protected against soiling by elastomer diaphragm.

■ MEDIUM

<b>GF</b>	gaseous and liquid	Air, vapours, gases, liquids and - depending on safety valve version and seal - also for steam
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■ TYPE OF LIFTING MECHANISM

<b>P</b>	Pneumatic lifting device
<b>L</b>	with lifting lever
<b>O</b>	without lifting device, with additional gas-tight cap

■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

<b>Connection type</b>		<b>RODIN</b>
<b>Nominal diameter DN</b>		<b>25</b>
<b>Inlet DN</b>	Standard	directly via tank flange
<b>Outlet DN</b>	25 (1")	■

■ TYPE OF CONNECTION INLET / OUTLET

<b>VC / RODIN</b>	Standard	tank flange / pipe connection	Pipe standard DIN 11850 / 11866-A
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other connections on request

■ SEALS / DIAPHRAGM

<b>FKM</b>	Fluorcarbon	Seals / diaphragms	FDA, USP	-20°C to +200°C
<b>EPDM</b>	Ethylene propylene diene	Seals / diaphragms	FDA, USP	-40°C to +170°C
<b>HNBR</b>	Hydrogenated acrylonitrile butadiene rubber	Seals / diaphragms	FDA	-20°C to +150°C

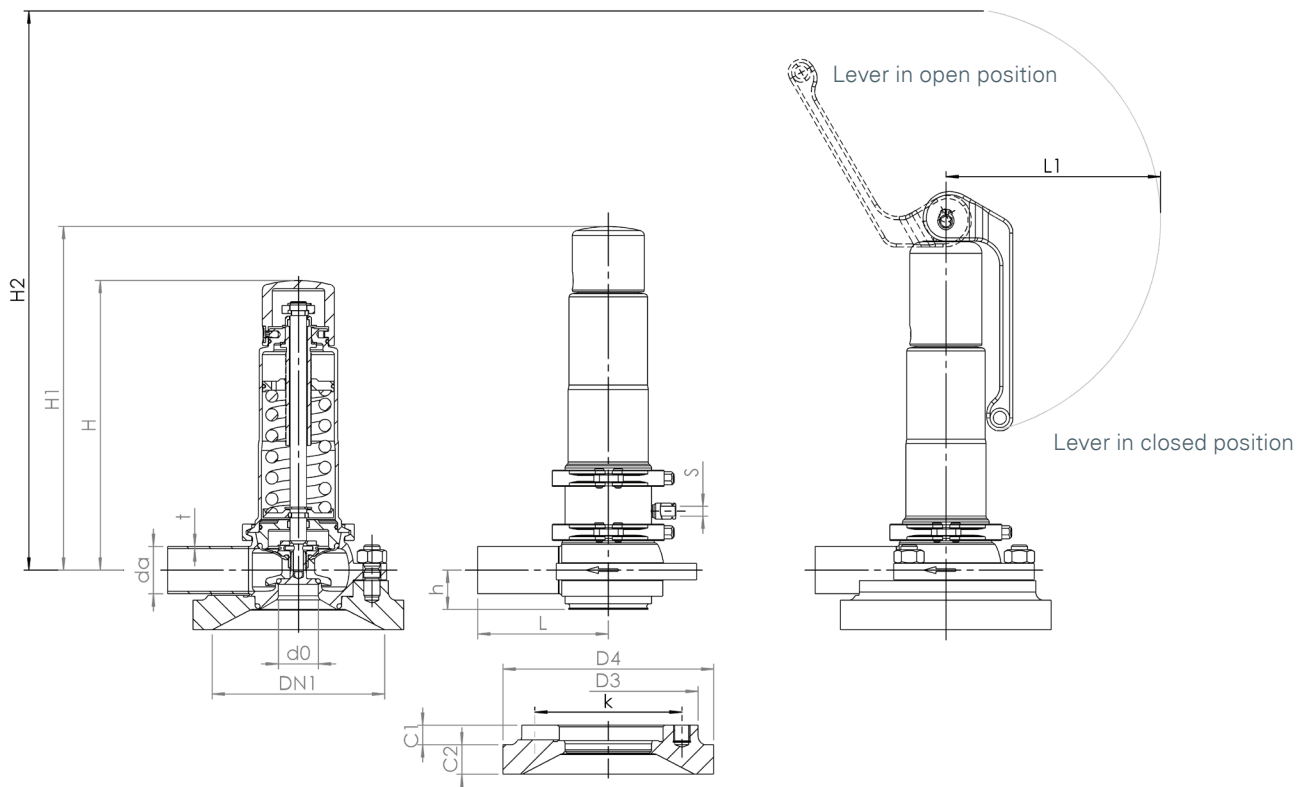


■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series Hygienic 4040: Connection, installation dimensions, ranges of adjustment		
Nominal diameter	DN	25
Connection type <sup>1)</sup>		Pipe
Connection inlet	DN1	105
Connection outlet	da x t	29 x 1,5
Installation dimensions in mm	L	80
	L1 <sup>4)</sup>	132
	h	24
	k	90
	C1	12
	C2	18
	D3	110
	D4	130
	H	177
	H1 <sup>3)</sup>	212
Compressed air connection in mm	H2 <sup>4)</sup>	350
	S	6
	$\alpha_w / K_{dr}$ (F)	0,37
Weight	$\alpha_w / K_{dr}$ (D/G) <sup>2)</sup>	0,50
	do	24,5
	kg	1,7 <sup>5)</sup>
	kg <sup>3)</sup>	2,0 <sup>5)</sup>
	kg <sup>4)</sup>	2,1 <sup>5)</sup>
Range of adjustment	bar	0,4 - 16

<sup>1)</sup> further connection size possible, Dimensions according to separate main dimension  
<sup>2)</sup> Coefficient of flow for D/G valid for 6 bar or more, for smaller set pressures see values in capacity table.  
<sup>3)</sup> Values for version with pneumatic lifting device  
<sup>4)</sup> Values for version with lifting lever  
<sup>5)</sup> Weight specification applies without tank flange

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



Series 4040 ■ INDIVIDUAL SELECTION / VALVE CONFIGURATION

Series	Valve version	Medium	Lifting device	Nominal diameter DN	Connection type		Connection type		Seal	Options	Set pressure	Quantity
					Inlet	Outlet	Inlet	Outlet				
4040	t	GF	P	25	VC	RODIN	25	25	EPDM	P07	3,2	1
4040	t	GF										
4040	t	GF										
4040	t	GF										
4040	t	GF										

■ TECHNICAL FINISHES, VARIANTS, ACCESSORIES

<b>S62</b>	Inductive proximity sensor, fitted, for indication of valve position, including connection cable 5m <sup>1</sup>	<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>

<sup>1</sup>not available for version tGFL (with lifting lever)

■ PROPERTIES

<b>P01</b>	Oil- and grease-free production	<input type="checkbox"/>	<input type="checkbox"/>
<b>P05</b>	Quality of surfaces in contact with media in inlet Ra <= 0.4	<input type="checkbox"/>	<input type="checkbox"/>
<b>P07</b>	Electropolished surfaces	<input type="checkbox"/>	<input type="checkbox"/>

■ CERTIFICATES / APPROVALS

<b>C01</b>	Factory certificate acc. DIN EN 10204 2.2 (WKZ 2.2)	<input type="checkbox"/>	<b>C06</b>	ATEX evaluation acc. to 2014/34/EU	<input type="checkbox"/>
<b>C02</b>	Test certificate acc. DIN EN 10204 3.1 (WPZ 3.1)	<input type="checkbox"/>	<b>C07</b>	SIL evaluation relating to IEC 61508-2	<input type="checkbox"/>
<b>C03</b>	Material test certificate acc. DIN EN 10204 3.1 (MPZ 3.1) (pressure retaining part)	<input type="checkbox"/>	<b>C09</b>	Seat tightness test with helium, leak detection method under vacuum incl. Factory Inspection Certificate 3.1 acc. to DIN EN 10204	<input type="checkbox"/>
<b>C04</b>	TÜV/DEKRA individual inspection acc. EN 10204 3.2 (TÜV/DEKRA-APZ)	<input type="checkbox"/>	<b>C10</b>	Certificate of oil- and grease free production	<input type="checkbox"/>
<b>C05-1</b>	Sealing material Manufacturer certification (FDA, USP,...), Please indicate description of certificate: .....	<input type="checkbox"/>			<input type="checkbox"/>

■ ADMISSIONS / ACCREDITATIONS

<b>AA1</b>	EC Type examination acc. to Directive 2014/68/EU	<input type="checkbox"/>	<b>AL</b>	Individual inspection by notified body inspector – (body to be indicated): .....	<input type="checkbox"/>
<b>AA2</b>	TÜV component test acc. to VdTÜV specification sheet SV 100	<input type="checkbox"/>			<input type="checkbox"/>
<b>AA4</b>	EAC - certificate/declaration with passport for the valve and laser marking of the valve	<input type="checkbox"/>			<input type="checkbox"/>
					<input type="checkbox"/>

■ ENQUIRY

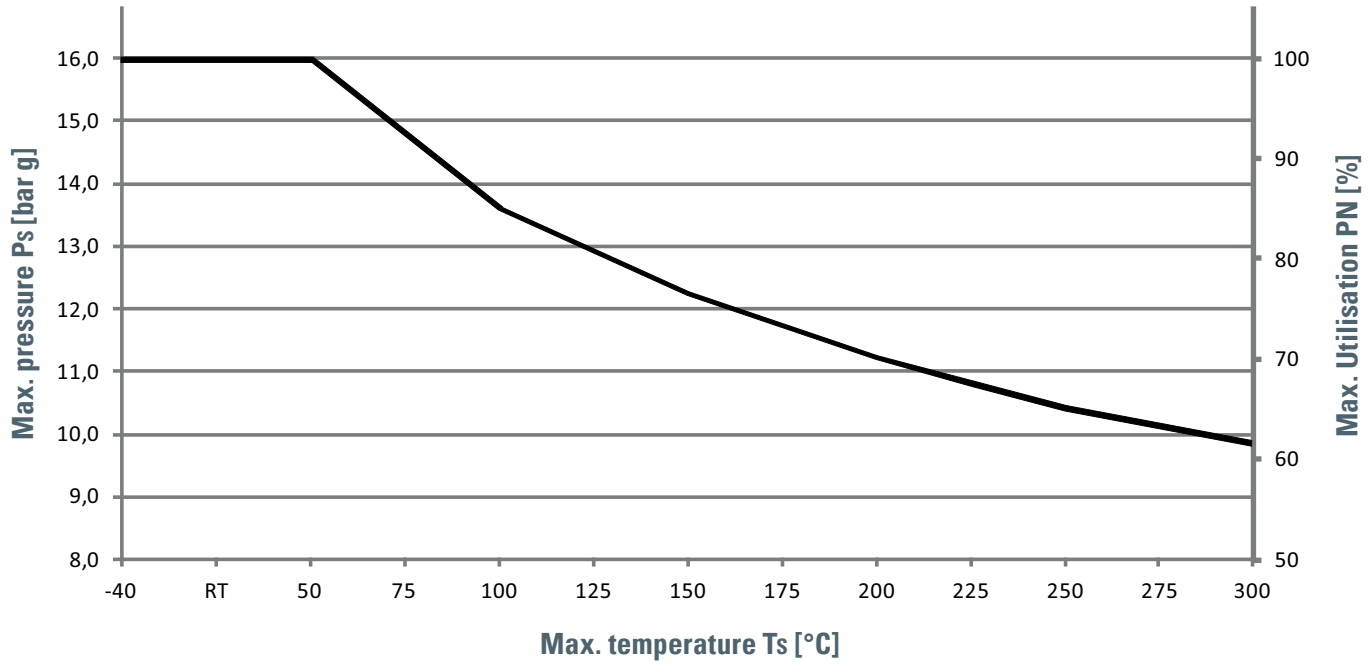
Copy and send to: order@goetze-armaturen.de.

Order form easily to be found online under the section for each series.

Series Hygienic 4040: Blowing-off rates at 10% above set pressure					
Nominal diameter DN	Set pressure bar (g)	25			
		d <sub>0</sub> = 24,5 mm			
		I	II	III	
Air I Nm <sup>3</sup> /h	0,4	193,7	159,8	6,2	
	0,7	258,2	207,3	7,9	
	1,0	317,3	252,6	9,3	
	1,5	421,7	333,3	11,4	
	2,0	514,4	404,1	13,1	
	2,5	602,8	471,3	14,7	
	3,0	691,2	538,2	16,1	
	3,5	779,6	604,9	17,4	
	Steam II kg/h	4,0	868,0	671,5	18,6
		4,5	956,5	737,8	19,7
5,0		1044,9	804,1	20,8	
Water III m <sup>3</sup> /h	5,5	1133,3	870,2	21,8	
	6,0	1221,7	936,1	22,8	
	6,5	1310,1	1002,2	23,7	
	7,0	1398,5	1068,2	24,6	
	7,5	1486,9	1134,0	25,5	
	8,0	1575,3	1199,8	26,3	
	8,5	1663,7	1265,5	27,2	
	9,0	1752,2	1331,2	27,9	
	9,5	1840,6	1396,9	28,7	
	10,0	1929,0	1462,6	29,5	
	11,0	2105,8	1594,1	30,9	
12,0	2282,6	1725,2	32,3		
13,0	2459,5	1856,2	33,6		
14,0	2636,3	1987,8	34,9		
15,0	2813,1	2119,3	36,1		
16,0	2989,9	2250,2	37,3		

**Pressure-/ temperature rating**

PN 16 | Material: 1.4404 / 1.4435



**Control air pneumatic lifting device (max. 6 bar)**

