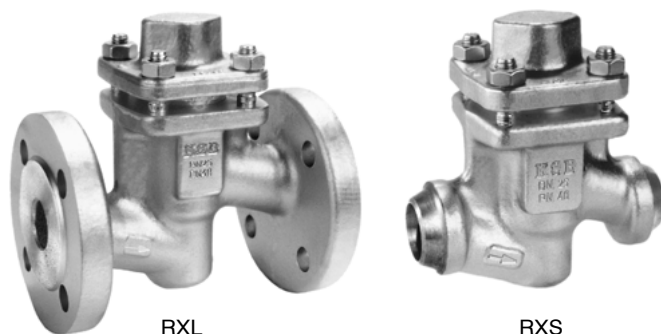


## Non-return valves



flanged  
or with butt or socket  
weld ends

**PN 25/40**  
**DN 10-300**

### Application

- In industrial plants, building service industry, power stations and marine engineering.
- For water, steam, gas and other non-aggressive media.
- Other applications on request.

### Operating data

- Maximum allowable pressure 40 bar
- Maximum allowable temperature 450 °C
- Pressure-temperature ratings see next side

### Materials

- Flanged design  
DN 10-40 forged steel P 250 GH - 1.0460  
DN 50-300 cast steel, GP 240 GH+N - 1.0619+N
- Weld end design  
DN 10-50 forged steel P 250 GH - 1.0460  
DN 65-300 cast steel, GP 240 GH+N - 1.0619+N
- For further details see table of materials

### Design

- Straight-way pattern with vertical bonnet
- Check plug
- Closing spring
- Inside and outside confined bonnet gasket
- Seats made of wear-resistant and corrosion-proof Cr-steel or CrNi-steel
- EC type tested (Module H), component mark TÜ.A.-290
- Exterior finish: blue RAL 5002

The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED) of annex I for fluids of the groups 1 and 2.

### Standard variants

- Studs/hex. nuts in A4-70 (low temperature)
- Free from oil and grease (parts in contact with flow medium)
- Free from oil and grease for handling oxygen
- Other flange and butt-weld end designs
- Acceptance tests to technical codes such as TRD/TRB/AD2000 or customer specification

### Remarks

- NORI® 40 globe valves with gland, with rotating stem, type ZXL/ZXS according to type series booklet: 7621.1
- NORI® 40 globe valves with gland, with non-rotating stem, type ZXLF/ZXSF according to type series booklet: 7622.1
- NORI® 40 globe valves with bellows, with two-piece stem, type ZXLBV/ZXLB, ZXSbv/ZXSB according to type series booklet: 7165.1
- Operating instructions: 0570.82

### On all enquiries / orders please specify

- |                         |                               |
|-------------------------|-------------------------------|
| 1 Type                  | 6 Medium                      |
| 2 PN                    | 7 Operating temperature       |
| 3 DN                    | 8 Pipe connection             |
| 4 Working pressure      | 9 Variants                    |
| 5 Differential pressure | 10 Type series booklet number |

The valves do not have a potential internal source of ignition and can be used in potentially explosive atmospheres, group II, category 2 (zones 1+21) and category 3 (zones 2+22) according to ATEX 94/9/EC.



### Pressure-Temperature ratings (to EN 1092-1)

Nom. pressure PN	Material		Working pressures at temperatures in °C								
			RT 1)	100	150	200	250	300	350	400	450
25	P 250 GH	1.0460	25.0	23.2	22.0	20.8	19.0	17.2	16.0	14.8	8.2
40	GP 240 GH+N	1.0619+N	40.0	37.1	35.2	33.3	30.4	27.6	25.7	23.8	13.1

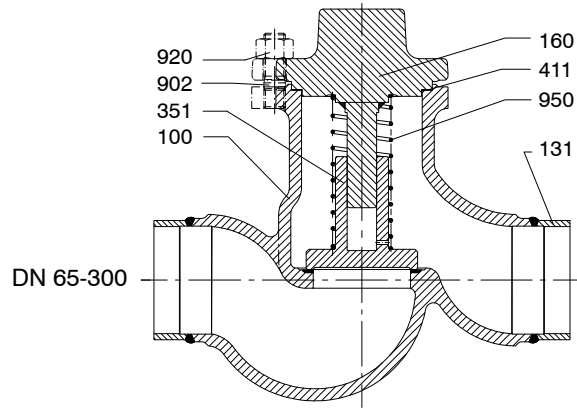
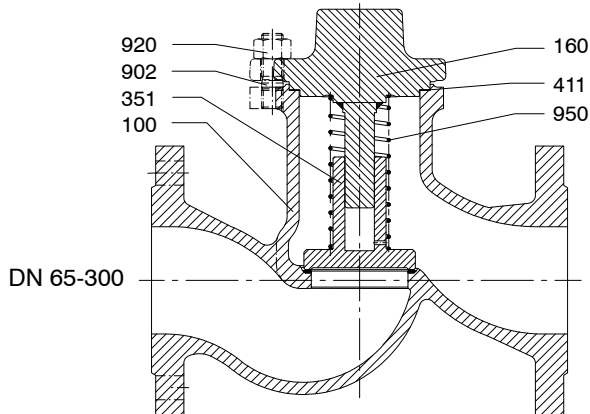
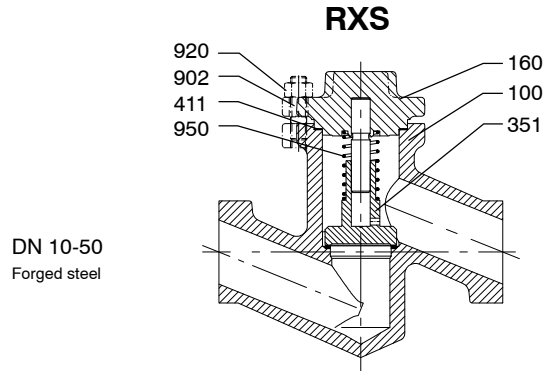
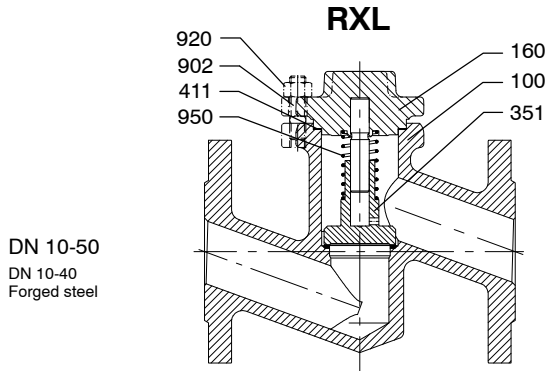
1) RT = room temperature (-10 °C to +50 °C)  
Working pressures to DIN DIN 2401 are also permitted.

### Installation

Non-return valves are installed in the line so that the medium enters the valve underneath the valve plug and flows out above it.

### Minimum opening pressure

DN 10-50 0.15 bar  
DN 65-300 0.07 bar



### Materials

Part no.	Name of parts	Material	DN	Remarks	
100	Body	P 250 GH	1.0460	DN 10-40 type RXL DN 10-50 type RXS	Stainless steel hard-faced (1.4370)
		GP 240 GH	1.0619	DN 50-300 type RXL DN 65-300 type RXS	
131	Connection branch	P 235 GH	1.0305	DN 65-300 type RXS	
160	Cover	P 250 GH	1.0460	10-200	
		GP 240 GH	1.0619	250-300	
351*)	Check plug	X 6 CrNiMoTi 17 12 2	1.4571	10-50	
		X 20 Cr 13	1.4021	65-100	
		P 250 GH	1.0460	125-300	with hard faced (1.4115)
411*)	Gasket	CrNi-steel/graphite		10-300	
902	Stud	21 CrMoV 5-7	1.7709	10-300	Olive-chromated
920	Hex. nut	24CrMo5	1.7258	10-300	
950*)	Spring	X 5 CrNiMo 17-12-2	1.4401	10-50	
		X 12 CrNi 177	1.4310	65-100	
		Spring steel B	1.060	125-300	

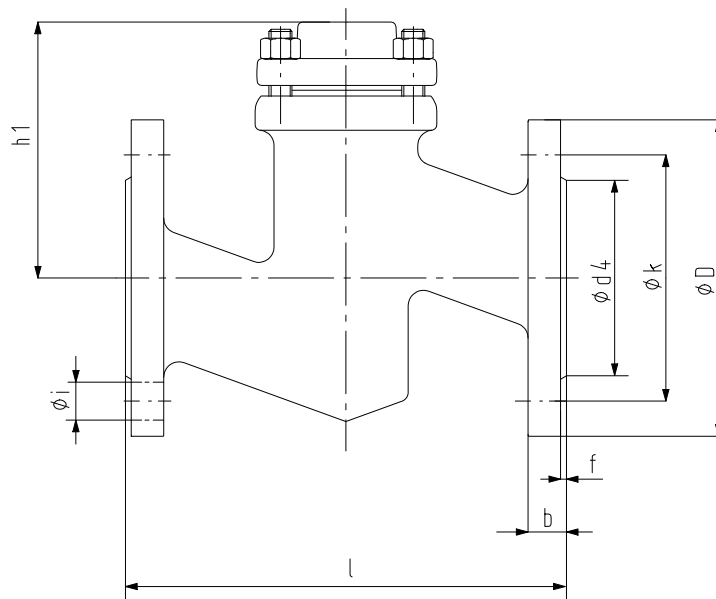
\*) Recommended spare parts

### Dimensions type RXL

Face-to-face dimension: - DIN EN 558 1/1  
 (previously: DIN 3202/F1)  
 ISO 5752/1

Flange: - connection dimensions to  
 EN 1092 (previously: DIN 2501)  
 ISO 7005  
 - raised face type B

Other flange designs:  
 - e.g. grooved both ends type D, tongue type C,  
 recessed (female face) type F, spigot (male face) type E to  
 EN 1092-1  
 - Other flange designs on request.



Dimensions in mm

Nom. pressure PN	Nom. bore DN	Face-to-face dimension l	Flange diam. øD	Bolt circle øk	Number of bolt holes z	Bolt hole diameter øi	Raised face diameter ød <sub>4</sub> x f	Flange thickness b	Centre-to-top height h 1	Weight approx. kg
25/40	10	130	90	60	4	14	40 x 2	16	85	2.6
	15	130	95	65	4	14	45 x 2	16	85	3.2
	20	150	105	75	4	14	58 x 2	18	105	4.0
	25	160	115	85	4	14	68 x 2	18	105	4.7
	32	180	140	100	4	18	78 x 2	18	115	7.9
	40	200	150	110	4	18	88 x 3	18	120	9.3
	50	230	165	125	4	18	102 x 3	20	135	12.1
	65	290	185	145	8	18	122 x 3	22	173	17.0
	80	310	200	160	8	18	138 x 3	24	202	27.0
	100	350	235	190	8	22	162 x 3	24	234	33.0
125	400	270	220	8	26	188 x 3	26	200	48.0	
150	480	300	250	8	26	218 x 3	28	220	65.0	
25	200	600	360	310	12	26	278 x 3	30	270	120.0
	250	730	425	370	12	30	335 x 3	32	310	205.0
	300	850	485	430	16	30	395 x 4	34	340	310.0
40	200	600	375	320	12	30	285 x 3	34	270	160.0
	250	730	450	385	12	33	345 x 3	38	310	240.0
	300	850	515	450	16	33	410 x 4	42	340	350.0

### Dimensions type RXS

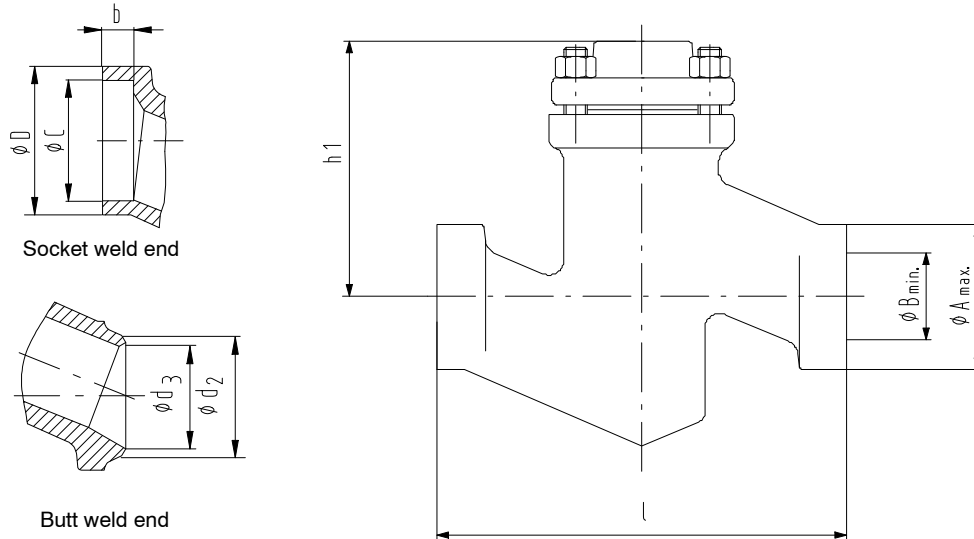
Face-to-face dimension: - to EN 12982/64

Butt-weld ends: (previously: DIN 3202/S2)  
- butt-weld ends to

Socket-weld ends: DIN EN 12627 Fig. 2  
- DIN EN 12760

Different designs of butt-weld ends, socket-weld ends and welding groove forms are possible, but only within the dimensions  $A_{max.}$  and  $B_{min.}$ .

Butt weld ends to DIN 3239 type1 or socket weld ends to ASME B16.11/DIN 3239/2 possible.



Dimensions in mm

Nom. pressure PN	Nom. bore DN	Face-to-face dimension l	Butt-weld ends not machined		Butt-weld ends to DIN EN 12627			Socket weld ends to DIN EN 12760			Centre-to-top height h 1	Weight approx. kg
			$\phi A_{max.}$	$\phi B_{min.}$	$\phi d_2$	$\phi d_3$	Associated pipe dimensions	$\phi D_{-0.5}$	$\phi C^{+0.2}$	$b_{min.}$		
25/40	10	130	44	10	18	13	17.2 x 2.0	25	17.6	10	105	2.0
	15	130	44	15	22	17	21.3 x 2.0	30.5	21.7	10	105	2.0
	20	130	44	20	28	22	26.9 x 2.3	36.5	27.1	13	105	2.0
	25	130	44	24	34	28.5	33.7 x 2.6	44.5	33.8	13	105	2.0
	32	160	60	33	43	37	42.4 x 2.6	53.5	42.5	13	120	5.5
	40	180	60	38	49	43	48.3 x 2.6	60.5	48.7	13	120	5.5
	50	210	73	48	61	54	60.3 x 3.2	73.5	61.1	16	135	7.5
	65	290	76.1	64.9	76.1	69	76.1 x 3.6				173	13.0
	80	310	88.9	79.9	88.9	81	88.9 x 4.0				202	20.0
	100	350	114.3	100.1	114.3	104	114.3 x 5.0				234	40.0
	125	400	139.7	125.5	139.7	130.5	139.7 x 4.5				200	60.0
	150	480	168.3	148.3	168.3	156.5	168.3 x 5.6				220	80.0
	200	600	219.1	199.1	219.1	204.5	219.1 x 7.1				270	130.0
	250	730	273	251	273	256.5	273.0 x 8.0				310	200.0
300	950	345	305	323.9	306.5	323.9 x 8.8				340	285.0	

Subject to technical modification without prior notice

01.02.2010

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