

## T 2570 EN

### Spare Parts and Accessories · Self-operated Regulators for Cryogenic Media

Connecting components · Non-return units · Service kits · Conversion kits · Other

#### Application

Spare parts and accessories for Series 2357 Regulators and Type 2040 Safety Temperature Monitor

All parts cleaned and packed in bags to protect them from contamination (free of oil and grease) for oxygen service (provided not labeled otherwise).

SAMSON offers the following spare parts (parts subject to wear) and accessories for the safe and reliable functioning of regulators:

#### Connecting components

- Soldering nipples with ball-type bushings including coupling nuts for installation in pipelines. The nipples are soldered at the site of installation.
- Welding ends including coupling nuts for installation in pipeline. The welding ends are welded at the site of installation.

#### Non-return unit

- Prevents the medium from flowing back into the valve.

#### Service kits

- Parts subject to wear, e.g. plugs, diaphragms and seals.

#### Conversion kits

- Springs, diaphragms or operating bellows to change the set point range of regulators.

#### Other

- Filters, accessories to raise the downstream pressure, caps etc.

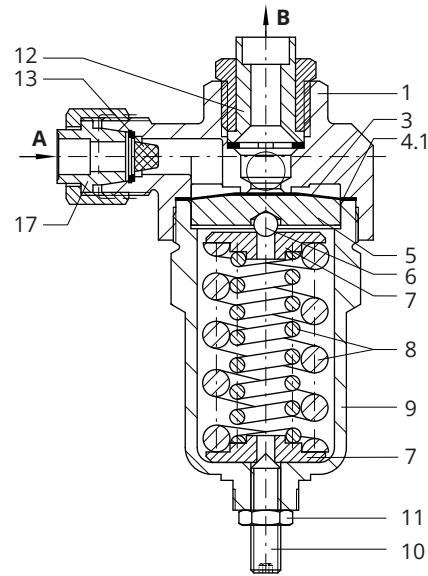
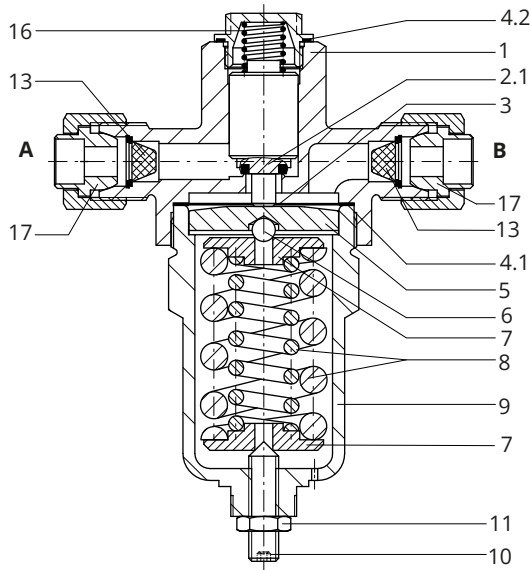
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**Type 2357-1 Pressure Build-up Regulator  
or Pressure Reducing Valve (PN 50)**

**Type 2357-2 Excess Pressure Valve (PN 50)**



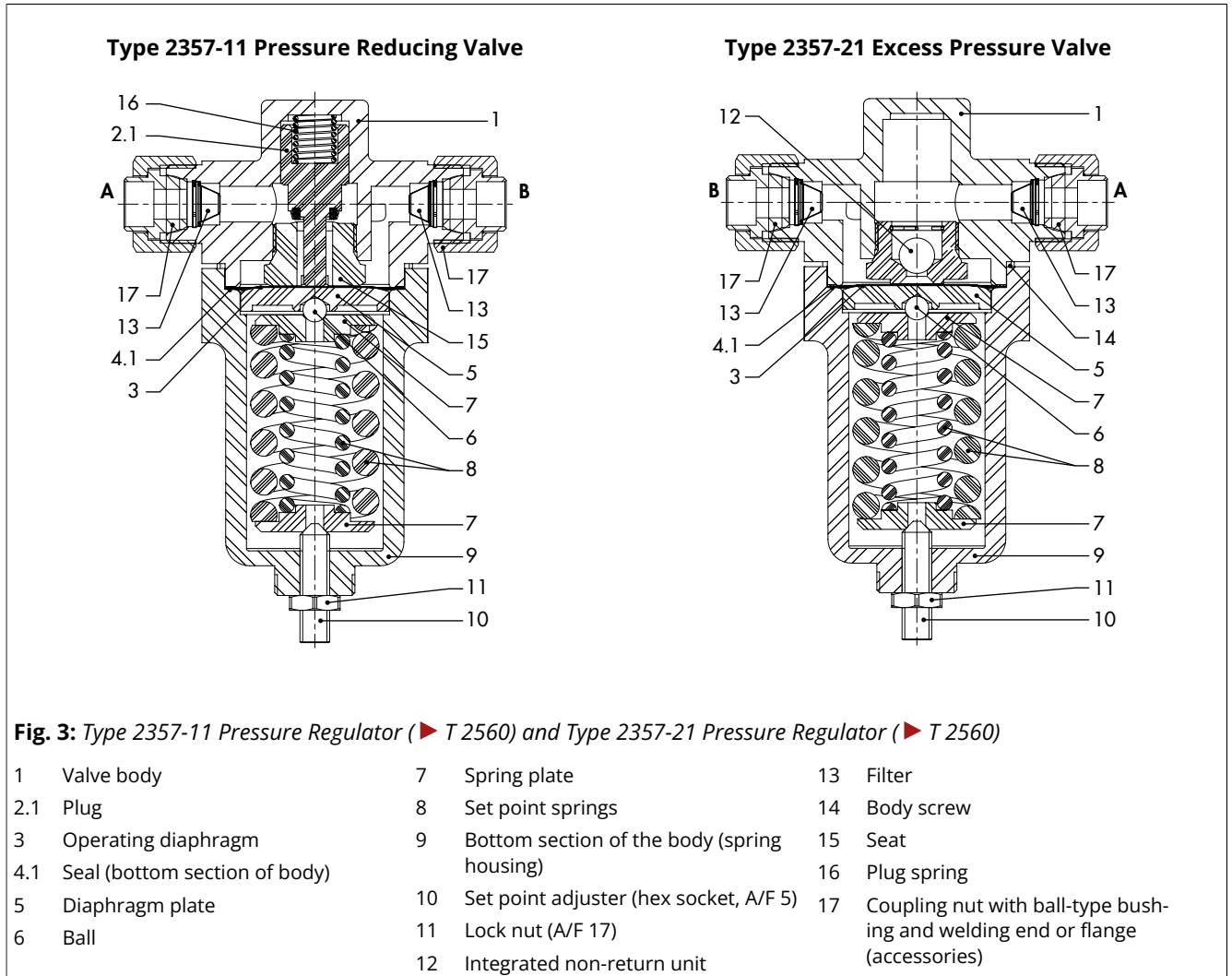
**Fig. 2:** Type 2357-1 Pressure Regulator (▶ T 2557-1) and Type 2357-2 (▶ T 2557-2) Pressure Regulator

1	Valve body	6	Ball	12	Non-return unit
2.1	Plug	7	Spring plate	13	Filter
3	Operating diaphragm	8	Set point springs	16	Plug spring
4.1	Seal (bottom section of body)	9	Bottom section of the body (spring housing)	17	Solder nipple with ball-type bushing (accessories)
4.2	Seal (top section of body)	10	Set point adjuster (hex socket, A/F 5)		
5	Diaphragm plate	11	Lock nut (A/F 17)		

**Table 1:** Spare parts and accessories · Type 2357-1 and Type 2357-2

Item	Spare parts/accessories	Order no.				
		PN 40		PN 50		
	Pressure rating	1 to 25	10 to 36	1 to 8	5 to 25	8 to 40
	Set point range in bar					
	Number of diaphragms Inside diaphragms made of CuBe Outer diaphragms made of 1.4404	3		3	5	7
4.1 · 8	Conversion kit (set point range)	1402-0716	1402-0717	1402-0720	1402-0721	1402-0722
3	Service kit	incl. 10 diaphragms	1400-7625		1400-7622	
		incl. 20 diaphragms	1400-7626		1400-7623	
4.1	Service kit including 20 seals	1402-0709		1402-0708		
2.1 · 4.2	Service kit (plug)	1402-0715		1402-0713		
	Service kit (hex plug)	-		1402-0714		
2.1 · 3 · 4.1 · 4.2	Service kit (plug)	-		1402-0725		
4.2	Service kit including 20 seals	1402-1728				
12	Non-return unit for Type 2357-2 (used as an economizer)	1402-0703 (Ø15 mm) · 1402-0704 (Ø16 mm)				
	Solder nipple with 1 mm hole to raise the downstream pressure (Type 2357-2), used for pressure relief ( $\Delta p > 3$ bar; reduction of $K_{vs}$ to 0.02) · Without non-return unit	1400-7303 (1x Ø15 mm) 1400-7304 (1x Ø16 mm, standard for Type 2357-2)				
17	Solder nipple	1400-9897 (1x Ø12 mm) · 1400-5133 (1x Ø15 mm)				
		1400-5138 (1x Ø16 mm, standard for Type 2357-2)				
		1400-5134 (2x Ø15 mm) 1400-5137 (2x Ø16 mm, standard for Type 2357-1)				
	Solder nipple without coupling nut	1400-9560 (1x Ø12 mm)				
	Welding ends	1400-9519 (2x Ø21.3x1.6 mm)				

Item	Spare parts/accessories	Order no.				
		PN 40		PN 50		
	Pressure rating					
	Set point range in bar	1 to 25	10 to 36	1 to 8	5 to 25	8 to 40
	Number of diaphragms Inside diaphragms made of CuBe Outer diaphragms made of 1.4404	3		3	5	7
13	Filter	1402-2116 (1x 270x10 <sup>-6</sup> m mesh size)				
	Orifice plate for Type 2357-1	1400-5130 (Ø4 mm hole, 1x Ø15 mm) 1400-5131 (blank, 1x Ø15 mm)				
6	Ball	1402-0726				



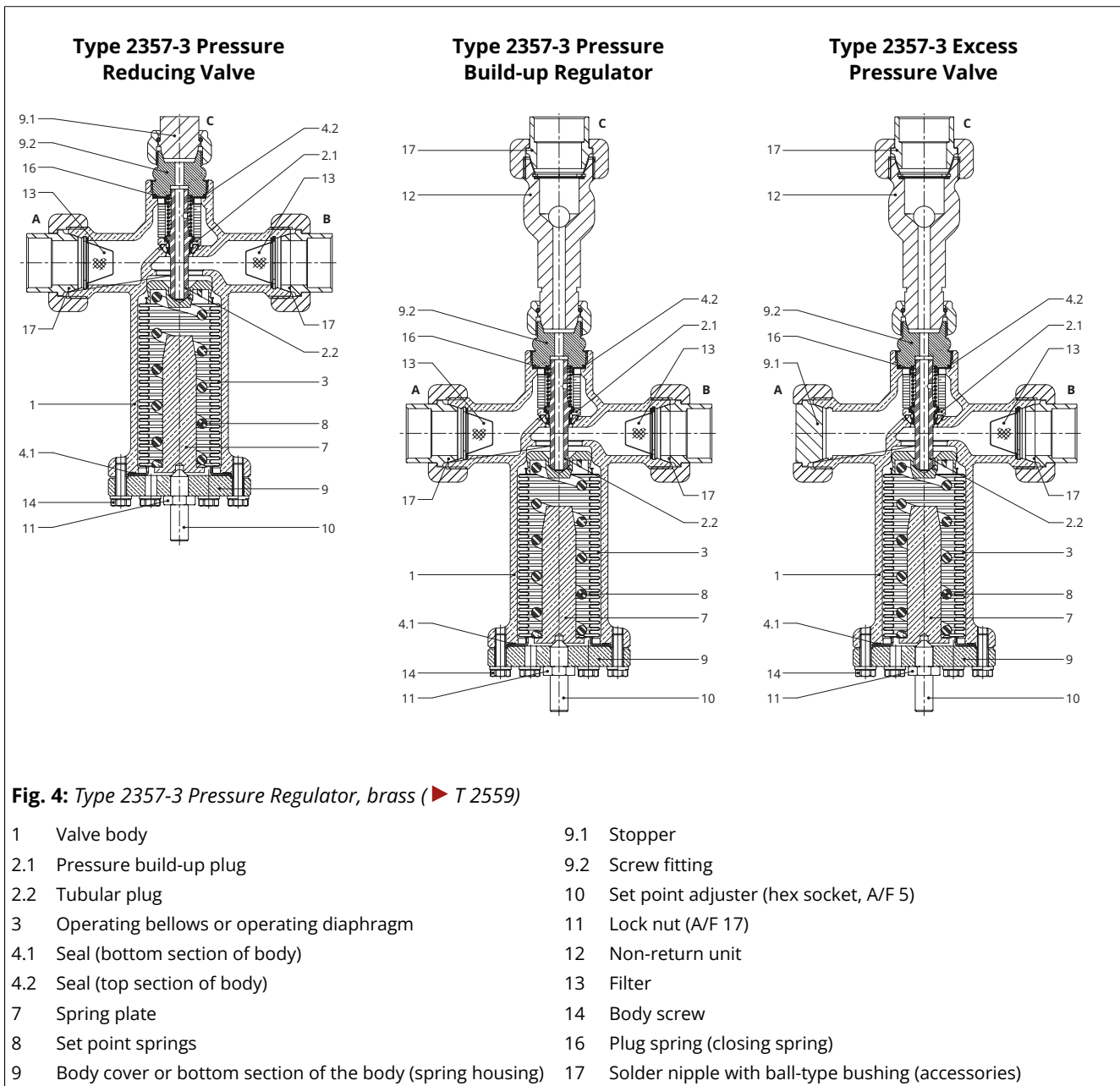
**Table 2: Spare parts and accessories · Type 2357-11 and Type 2357-21**

Item	Spare parts/accessories	Order no.		
		PN 63		
	Pressure rating			
	Set point range in bar	1 to 8	5 to 25	8 to 40
	Number of diaphragms Inside diaphragms made of CuBe Outer diaphragms made of 1.4404	3	5	7
4.1 · 8	Conversion kit (set point range)	1402-0720	1402-0721	1402-0722
3 · 4.1	Service kit with 7 + 2 diaphragms <sup>1)</sup>	1402-0649		
4.1	Service kit including 20 seals	1402-0708		
2.1 · 4.2	Service kit (plug)	1402-0878		
4.1 · 15	Service kit (seat)	1402-0879		
13	Filter	100310936 (1x 270x10 <sup>-6</sup> m mesh size)		

Item	Spare parts/accessories	Order no.		
	Pressure rating	PN 63		
	Set point range in bar	1 to 8	5 to 25	8 to 40
	Number of diaphragms Inside diaphragms made of CuBe Outer diaphragms made of 1.4404	3	5	7
17	Screwed-on flanges	1402-0434 (2x DN 25, PN 40) 1402-0594 (2x NPS 1, Class 300)		
	Welding ends	1400-9519 (2x Ø21.3x1.6 mm)		
	Welding ends (outlet side with 1 mm hole) to raise the downstream pressure (for Type 2357-21), used for pressure relief ( $\Delta p > 3$ bar; reduction of $K_{vs}$ to 0.02)	1402-0514		
	Welding ends (outlet side with 2.5 mm hole) to raise the downstream pressure (for Type 2357-21)	1402-0685 (2x Ø21.3x1.6 mm)		
Undefined <sup>2)</sup>	Cap for leakage line connection	1402-0687		
Undefined <sup>2)</sup>	Service kit including 10 seals for leakage line connection	1402-0880		
6	Ball	1402-0726		

1) Application for industrial gases

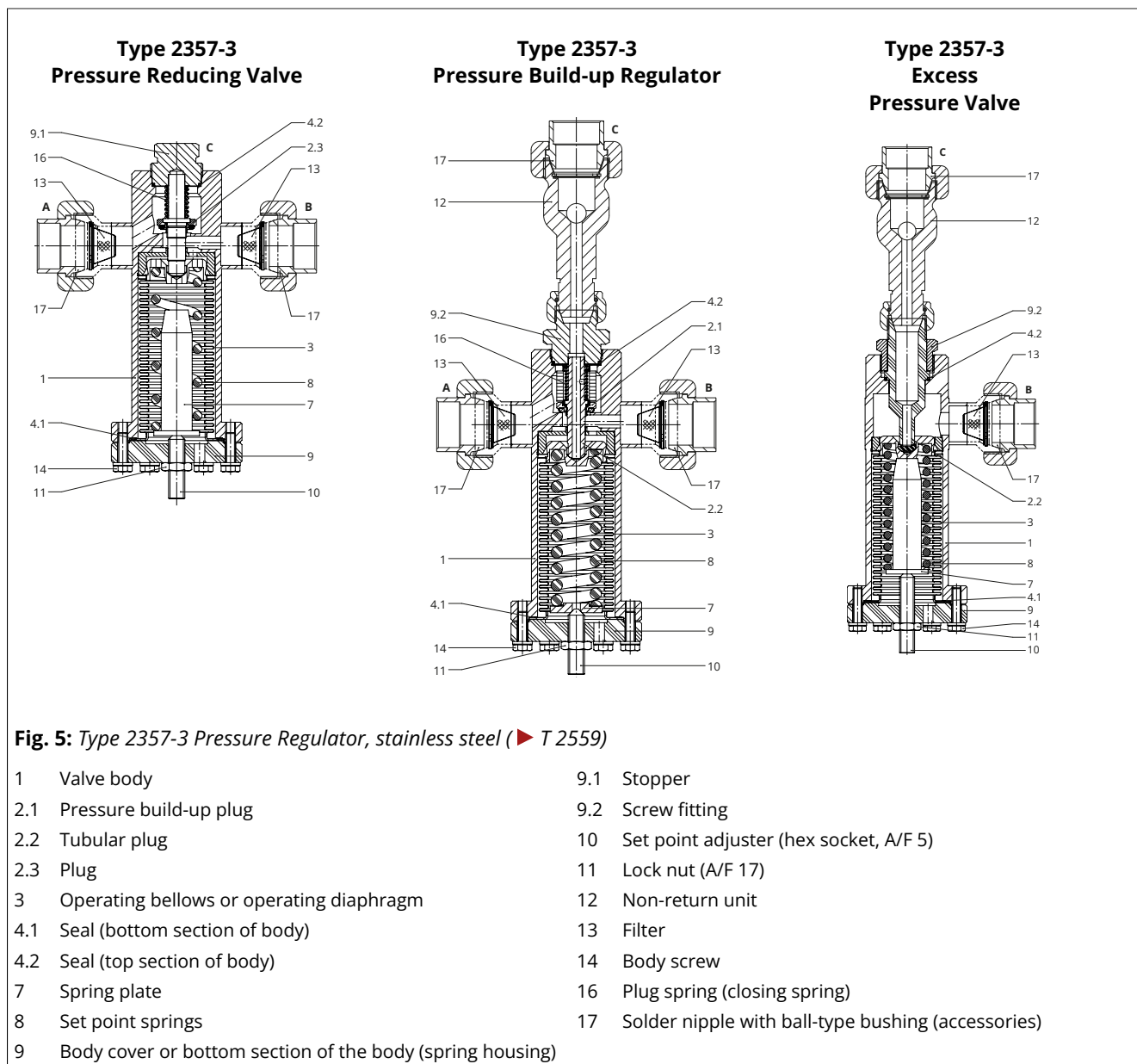
2) Not shown



**Table 3: Spare parts and accessories · Type 2357-3 (brass)**

Item	Spare parts/accessories	Order no.			Index <sup>1)</sup>
	<b>Pressure rating</b>	<b>PN 40</b>			
	<b>Version with operating bellows</b>	<b>Single wall</b>		<b>Double wall</b>	
	<b>Set point range in bar</b>	<b>2 to 10</b>	<b>8 to 26</b>	<b>25 to 40</b>	
<b>4.1 · 7 · 8</b>	Conversion kit (set point range), part A	<b>1402-0706</b>	<b>1402-0707</b>	<b>1402-0710</b>	6 to 9
<b>3 · 4.1</b>	Conversion kit (set point range), part B	<b>1402-0711</b>	<b>1402-0711</b>	<b>1402-0712</b>	6 to 9
<b>2.1 · 4.2 · 16</b>	Service kit (plug)	<b>1402-0925</b> (process medium in the liquid phase) <b>1402-1831</b> (process medium in the gas phase)			7 to 9
<b>4.1</b>	Service kit including 10 seals	<b>1402-1085</b>			All
<b>12</b>	Non-return unit	<b>1402-0705</b>			
<b>13</b>	Filter	<b>100310936</b> (1x 270x10 <sup>-6</sup> m mesh size)			
<b>17</b>	Solder nipple	<b>1402-1053</b> (2x Ø28 mm) · <b>1402-1054</b> (1x Ø28 mm) <b>1400-7091</b> (1x Ø18 mm) · <b>1400-9823</b> (1x Ø12 mm)			
	Welding ends	<b>1402-1055</b> (3x Ø18x1.6 mm)			
	Cap for port <b>A</b> (Fig. 5/9.1)	<b>1402-1249</b>			
	Cap for port <b>C</b> (Fig. 5/9.1)	<b>1400-7297</b>			

<sup>1)</sup> See nameplate (entry according to type designation)



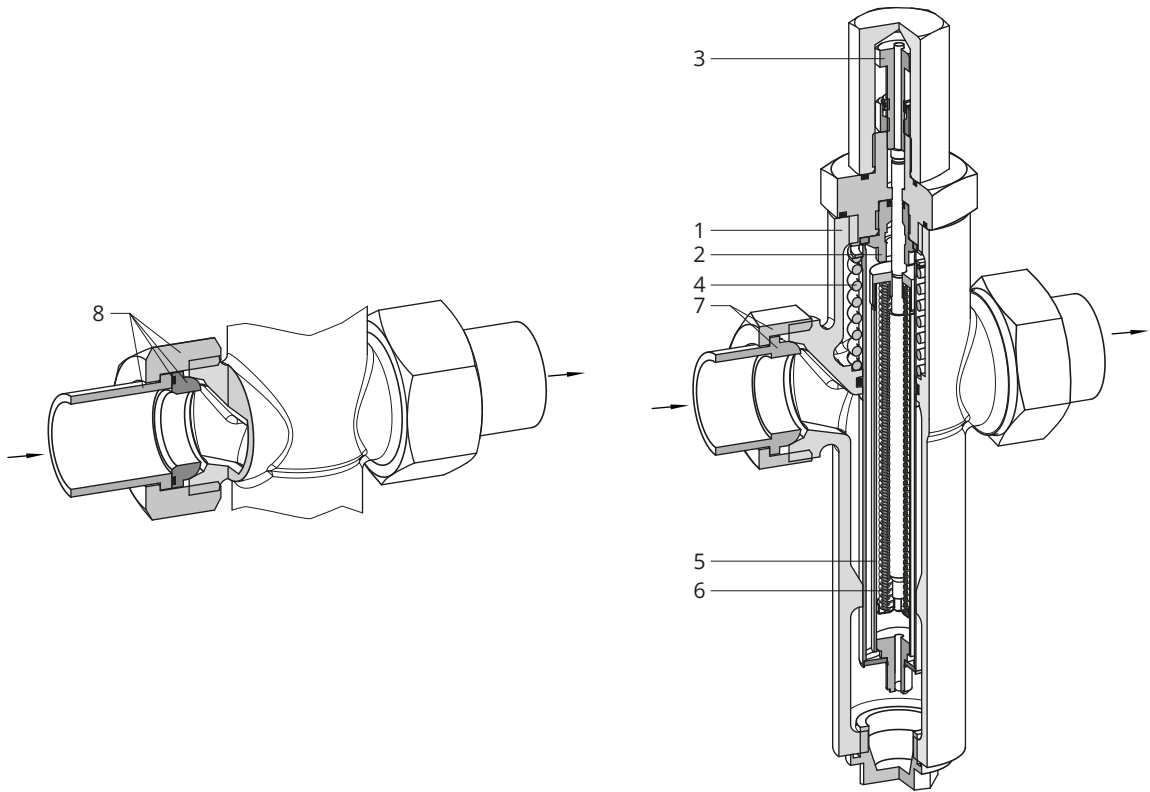
**Fig. 5:** Type 2357-3 Pressure Regulator, stainless steel (► T 2559)

- |   |   |
|---|---|
| 1 Valve body  | 9.1 Stopper   |
| 2.1 Pressure build-up plug                                  | 9.2 Screw fitting                                     |
| 2.2 Tubular plug  | 10 Set point adjuster (hex socket, A/F 5)             |
| 2.3 Plug  | 11 Lock nut (A/F 17)                                  |
| 3 Operating bellows or operating diaphragm                  | 12 Non-return unit                                    |
| 4.1 Seal (bottom section of body)                           | 13 Filter   |
| 4.2 Seal (top section of body)                              | 14 Body screw   |
| 7 Spring plate  | 16 Plug spring (closing spring)                       |
| 8 Set point springs   | 17 Solder nipple with ball-type bushing (accessories) |
| 9 Body cover or bottom section of the body (spring housing) |   |

**Table 4:** Spare parts and accessories · Type 2357-3 (stainless steel)

Item	Spare parts/accessories	Order no.			Index <sup>1)</sup>
		PN 40			
	Pressure rating				
	Version with operating bellows	Single wall		Double wall	
	Set point range in bar	2 to 10	8 to 26	25 to 40	
4.1 · 7 · 8	Conversion kit (set point range), part A	1402-0706	1402-0707	1402-0710	6 to 9
3 · 4.1	Conversion kit (set point range), part B	1402-0711	1402-0711	1402-0712	6 to 9
2.1 · 4.2 · 16	Service kit (plug)	1402-0872 (process medium in the gas phase)			6 to 9
4.1	Service kit including 10 seals	1402-1085			All
12	Non-return unit	1402-0718			
13	Filter	100310936 (1x 270x10 <sup>-6</sup> m mesh size)			
17	Welding ends	1402-0550 (3x Ø18x1.6 mm) 1402-1256 (2x Ø18x1.6 mm; for ports B and C, version as excess pressure valve)			
	Screwed-on flanges	1402-0595 (2x NPS 1, Class 300) · (2x DN 25, PN 40) on request			
	Cap for port C (Fig. 5/9.1)	1402-1249			

<sup>1)</sup> See nameplate (entry according to type designation)



**Fig. 6:** Type 2040 Safety Temperature Monitor (► T 2090)

- |   |                               |   |                    |   |  |
|---|-------------------------------|---|--------------------|---|--|
| 1 | Valve body                    | 4 | Set point springs  | 7 | Screw fitting with ball-type bushing (solder nipple) |
| 2 | Valve seat with soft seal     | 5 | Tubular plug       | 8 | Screw fitting with gasket (welding ends)             |
| 3 | Set point adjuster with cover | 6 | Temperature sensor |   |  |

**Table 5:** Spare parts and accessories · Type 2040

Item	Spare parts/accessories		Order no.	
	Pressure rating		PN 40	
7	Screw fitting with ball-type bushing	Solder nipple	Red brass, DN 25	1400-6840
			Brass, DN 15	1400-9182
		Welding ends	Stainless steel, DN 25	1400-9129
			Stainless steel, DN 15	1400-9183
8	Screw fitting with seal	Solder nipple	Brass, DN 25	1400-9131
			Brass, DN 15	1400-9130
		Welding ends	Stainless steel, DN 25	1400-9181
			Stainless steel, DN 15	1400-9180

