

# Self-operated Regulators

For cryogenic media



## Spare Parts and Accessories

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

### Application

Spare parts and accessories for Series 2357 Pressure 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 pipelines. The welding ends are welded at the site of installation.

- **Non-return units**

Prevents the medium from flowing back into the valve.

- **Service kits**

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

- **Conversion kits**

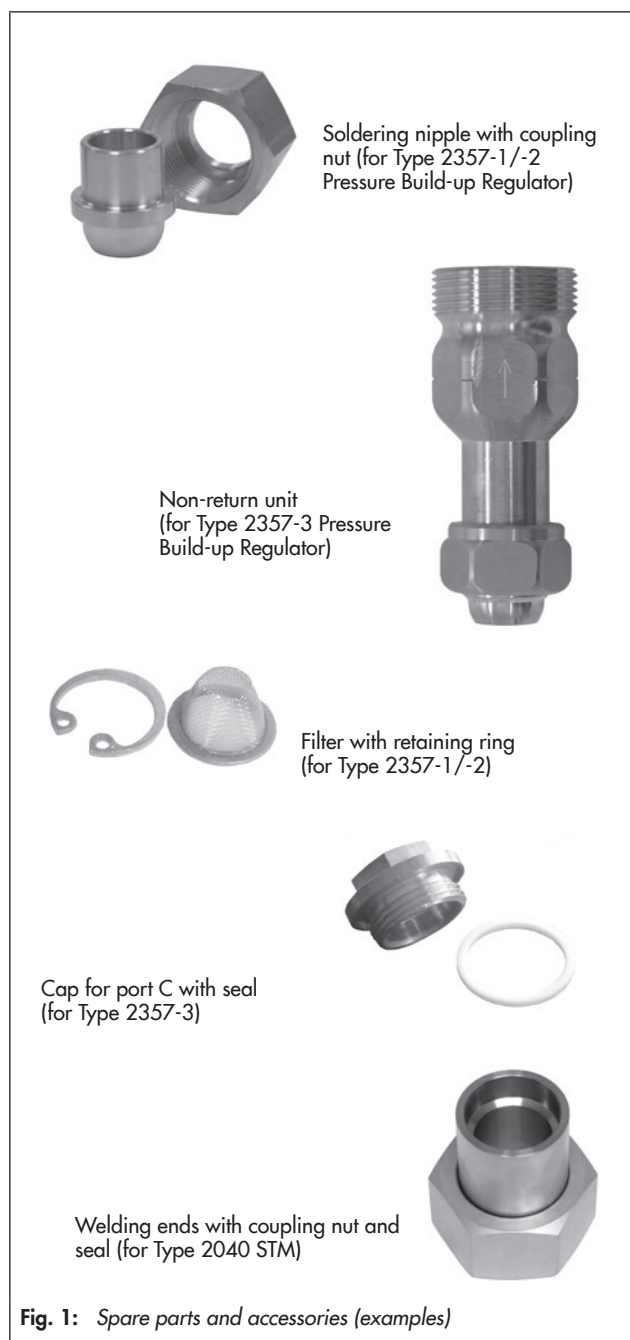
Springs, diaphragms or operating bellows to change the set point range of regulators

- **Others**

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

### Contents

Type	Page
Type 2357-1/-2	2
Type 2357-11/-21	3
Type 2357-3	4
Type 2040	5



Types 2357-1 and 2357-2 Pressure Regulators ▶ T 2557

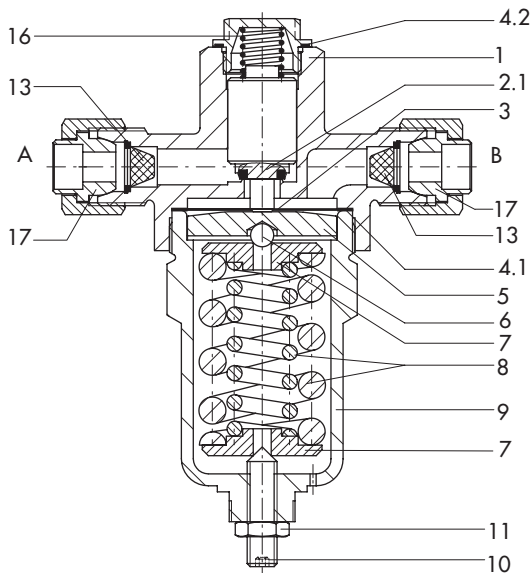


Fig. 2: Type 2357-1 Pressure Build-up Regulator or Pressure Reducing Valve (PN 50)

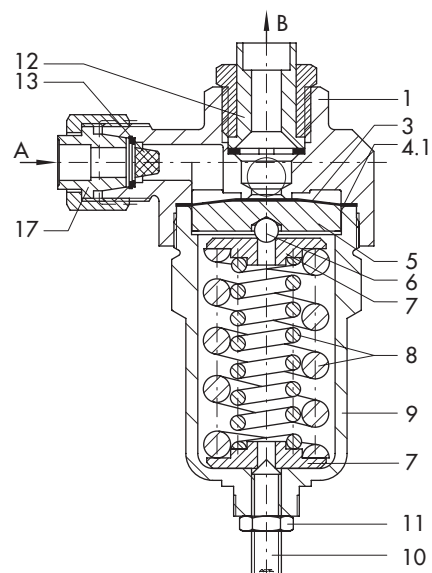


Fig. 3: Type 2357-2 Excess Pressure Valve (PN 50)

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

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

Item	Spare parts/accessories	Order no.				
		PN 40		PN 50		
Nominal pressure						
	Set point range [bar]	1 to 25	10 to 36	1 to 8	5 to 25	8 to 40
	Number of diaphragms	3	3	3	5	7
3	Service kit with 10 diaphragms	1400-7625		1400-7622		
	Service kit with 20 diaphragms	1400-7626		1400-7623		
4.2	Service kit with 20 seals	1402-1728				
4.1	Service kit with 20 seals	1402-0709		1402-0708		
4.1, 8	Conversion kit (set point range)	1402-0716	1402-0717	1402-0720	1402-0721	1402-0722
2.1, 4.2	Service kit (plug)	-		1402-0713		
2.1, 4.2	Service kit (hex plug)	-		1402-0714		
2.1, 3, 4.1, 4.2	Service kit (plug)	1402-0715		1402-0725		
12	Non-return unit for Type 2357-2 (used as economizer)	1402-0703 (Ø15 mm)				
	Soldering nipple with 1 mm hole to raise the downstream pressure for Type 2357-2 (used as pressure safeguard ( $\Delta p > 3$ bar), not a non-return unit)	1402-0704 (Ø16 mm)				
17	Soldering nipple	1400-9897 (1 x Ø12)				
		1400-5133 (1 x Ø15)				
		1400-5138 (1 x Ø16, standard for Type 2357-2)				
		1400-5134 (2 x Ø15)				
17	Soldering nipple without coupling nut	1400-5137 (2 x Ø16, standard for Type 2357-1)				
		1400-9560 (1 x Ø12)				
13	Filter	1400-9519 (2 x Ø21.3 x 1.6 mm)				
		1400-5136 (1 x 270 x 10 <sup>-6</sup> m mesh size)				
13	Orifice plate for Type 2357-1	1400-5126 (1 x 50 x 10 <sup>-6</sup> m mesh size)				
		1400-5130 (4 mm Ø hole, 1 x Ø15 mm)				
6	Ball	1400-5131 (blank, 1 x Ø15 mm)				
		1402-0726				

Types 2357-11 and 2357-21 Pressure Regulators ▶ T 2560

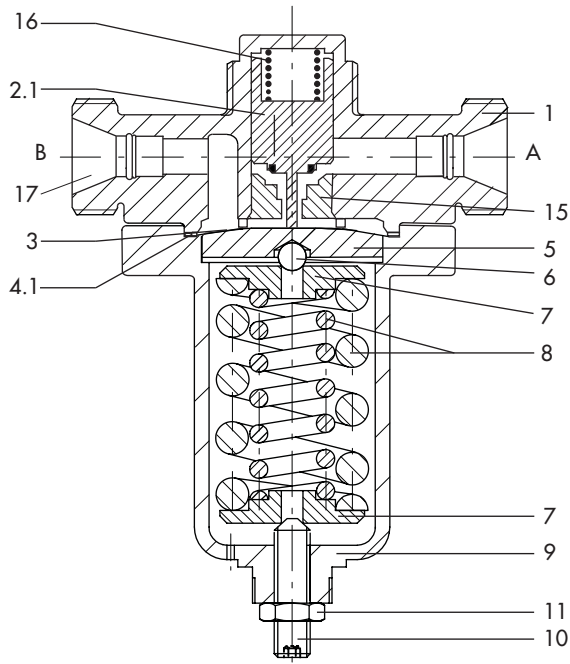


Fig. 4: Type 2357-11 Pressure Reducing Valve

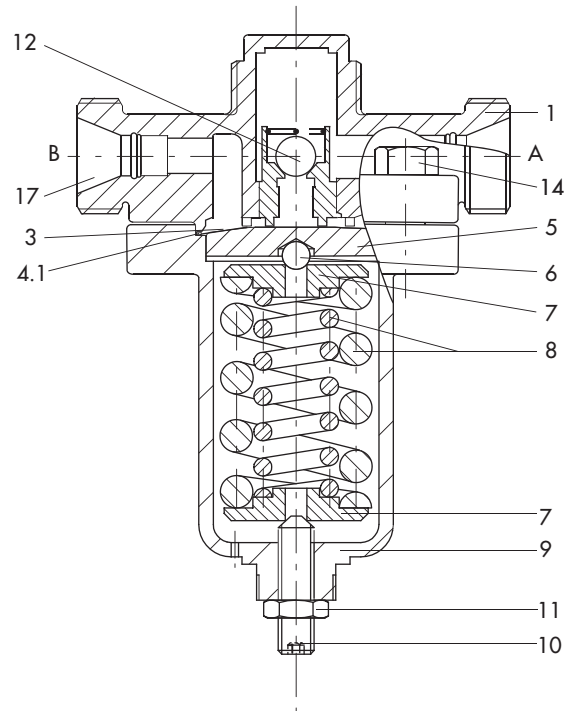


Fig. 5: Type 2357-21 Excess Pressure Valve

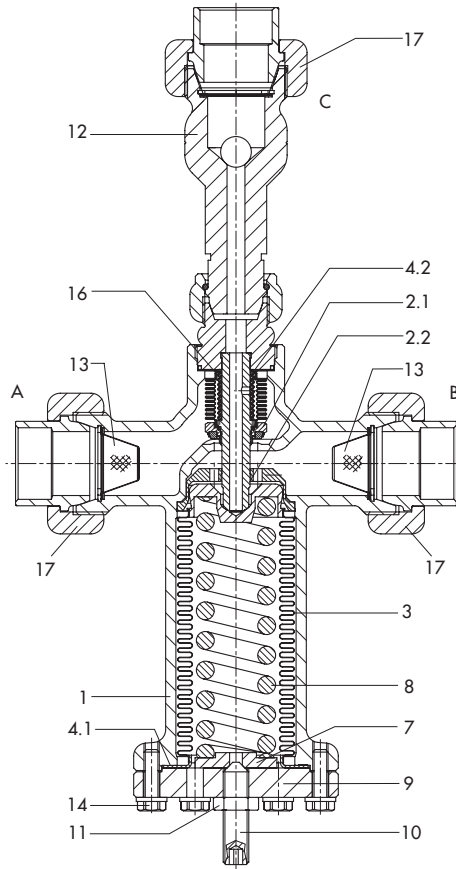
1	Valve body	7	Spring plate	14	Body screws
2.1	Plug	8	Set point springs	15	Seat
3	Operating diaphragm	9	Bottom section of the body (spring housing)	16	Plug spring
4.1	Seal (bottom section of body)	10	Set point adjuster (hexagon socket, SW 5)	17	Accessories (coupling nut with ball-type bushing and welding end or flange)
5	Diaphragm plate	11	Lock nut (SW 17)		
6	Ball	12	Integrated non-return unit		

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

Item	Spare parts/accessories	Order no.		
		1 to 8	5 to 25	8 to 40
	Set point range [bar]			
	Number of diaphragms			
	Internal diaphragms made of CuBe · External diaphragms made of 1.4404	3	5	7
3, 4.1	Service kit with 7+2 diaphragms <sup>1)</sup>	1402-0649		
4.1	Service kit with 20 seals	1402-0708		
4.1, 8	Conversion kit (set point range)	1402-0720	1402-0721	1402-0722
2.1, 4.2	Service kit (plug)	1402-0878		
4.1, 15	Service kit (seat)	1402-0879		
17	Screwed-on flanges	1402-0434 (2 x DN 25, PN 40) 1402-0594 (2 x NPS 1, Class 300)		
	Welding ends	1400-9519 (2 x Ø21.3 x 1.6 mm)		
	Welding ends (outlet side with 1 mm hole) to raise the downstream pressure (for Type 2357-21) used as pressure safeguard ( $\Delta p > 3$ bar)	1402-0514		
	Welding ends (outlet side with 2.5 mm hole) to raise the downstream pressure (for Type 2357-21)	1402-0685 (2 x Ø21.3 x 1.6 mm)		
Not shown	Cap for leakage line connection	1402-0687		
Not shown	Service kit with 10 seals for leakage line connection	1402-0880		
6	Ball	1402-0726		

<sup>1)</sup> Industrial gas applications.

**Type 2357-3 Pressure Build-up Regulator ▶ T 2559**



- 1 Valve body
- 2.1 Pressure build-up plug
- 2.2 Tubular plug
- 3 Operating bellows
- 4.1 Seal (body cover)
- 4.2 Seal (top section of body)
- 7 Spring plate
- 8 Set point springs
- 9 Body cover
- 10 Set point adjuster (hexagon socket, SW 5)
- 11 Lock nut (SW 17)
- 12 Non-return unit (accessories)
- 13 Filter
- 14 Body screws
- 16 Closing spring
- 17 Soldering nipple with ball-type bushing (accessories)

**Fig. 6:** Type 2357-3 Pressure Build-up Regulator

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

Item	Spare parts/accessories	Order no.			Index <sup>1)</sup>
	Operating bellows	Single wall	Single wall	Double wall	
	Set point range [bar]	2 to 10	8 to 26	25 to 40	
<b>2.1, 4.2, 16</b>	Service kit (plug) for regulators made of Brass Stainless steel	1402-0861 (process medium in the liquid state) 1402-0865 (process medium in the gas state) 1402-0872 (process medium in the gas state)			6
<b>2.1, 4.2, 16</b>	Service kit (plug) for regulators made of Brass	1402-1831 (process medium in the liquid state) 1402-0925 (process medium in the gas state)			7
<b>4.1</b>	Service kit with 10 seals	1402-1085			All
<b>4.1, 7, 8</b>	Conversion kit (section A of set point range)	1402-0706	1402-0707	1402-0710	6, 7
<b>3, 4.1</b>	Conversion kit (section B of set point range)	1402-0711	1402-0711	1402-0712	6, 7
<b>12</b>	Non-return unit for regulator made of Brass Stainless steel	1402-0705 1402-0718			All
<b>13</b>	Filter	1400-7634 (1 x 270 x 10 <sup>-6</sup> m mesh size) 1402-0339 (1 x 50 x 10 <sup>-6</sup> m mesh size) 1402-0258 (2 x 270 x 10 <sup>-6</sup> m mesh size 1.4404, filter contains non-ferrous metal)			All
<b>17</b>	Soldering nipple	1402-1053 (2 x Ø28 mm) · 1402-1054 (1 x Ø28 mm) 1400-7091 (1 x Ø18 mm) · 1400-9823 (1 x Ø12 mm)			All
	Welding ends	1402-1055 (3 x Ø18 x 1.6 mm; for brass version) 1402-0550 (3 x Ø18 x 1.6 mm; for stainless steel version) 1402-1256 (2 x Ø18 x 1.6 mm; for B and C, stainless steel version as excess pressure valve)			All
	Cap for Port A Port C	1402-1249 1400-7297			All

<sup>1)</sup> See nameplate, written after the type designation

Type 2040 Safety Temperature Monitor ▶ T 2090

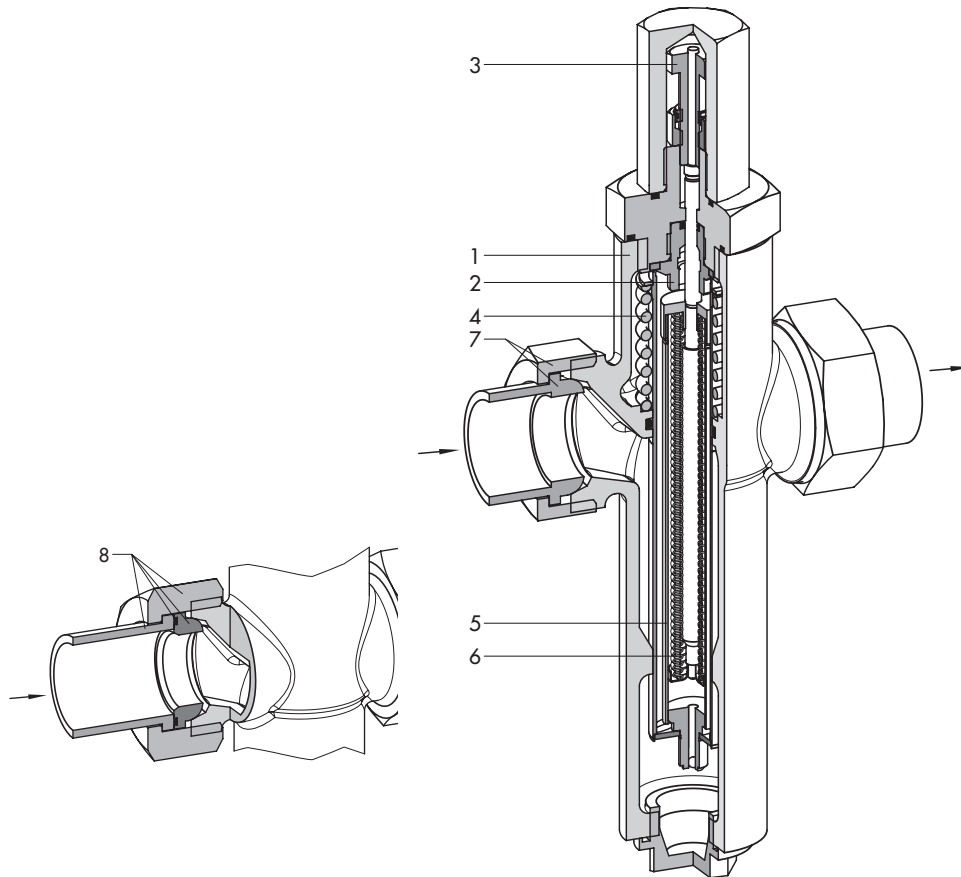


Fig. 7: Type 2040 Safety Temperature Monitor

- |   |                               |   |                                         |
|---|-------------------------------|---|-----------------------------------------|
| 1 | Body                          | 5 | Tubular plug                            |
| 2 | Soft-seated valve seat        | 6 | Temperature sensor                      |
| 3 | Set point adjuster with cover | 7 | Soldering nipple with ball-type bushing |
| 4 | Set point spring              | 8 | Welding ends with seal                  |

Table 4: Spare parts and accessories · Type 2040

Item	Spare parts/accessories	Order no.
7	End connection with ball-type bushing	
	Soldering 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	End connection with seal	
	Soldering 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





Specifications subject to change without notice



SAMSON AG · MESS- UND REGELTECHNIK  
Weismüllerstraße 3 · 60314 Frankfurt am Main, Germany  
Phone: +49 69 4009-0 · Fax: +49 69 4009-1507  
samson@samson.de · www.samson.de

**T 2570 EN**

2018-04-04 · English