

For over 30 years, the ROCKY products have been marketed by AIRTEC and employed worldwide. Modern precision manufacturing methods and the very best materials guarantee ROCKY valves to be of the highest quality and reliability. TPC valves and accessories were primarily developed for the rationalization and automation of processes used in the tire, plastic and rubber manufacturing industries.

### Key features

- Stainless steel body, seats, stem and flanges
- Teflon® piston ring
- Carbon Teflon® disc rings
- Teflon® and Carbon Teflon® gland packings
- 2 or 3 way function by adding or removing a plug in port 3
- Normally open or normally closed function

### Technische Daten

#### Technical data

|                    |   |
|--------------------|---|
| Operating pressure | max. 580 psi  |
| Back pressure      | max. 362 psi  |
| Pilot pressure     | 36 - 51 psi   |
| Nominal pressure   | PN 40   |
| Temperature range  | - 22°F to + 446°F   |
| Connections        | Thread <b>BSPT, NPT, PT</b><br>Flange <b>DIN, ANSI, JIS</b>   |
| Media              | Steam, nitrogen and other inert gases, hot or cold water, air |



Order Code

TPC-2\*\*\*-\*\*\*\*

Series

TPC-2 Standard

Version

2 2/2-way  
3 3/2-way

Function

1 Normally closed (NC)  
2 Normally open (NO)

Connection

1 Thread  
2 Flange / thread  
3 Flange

Nominal size / thread

|     |       |        |
|-----|-------|--------|
| 08  | 8 mm  | 1/4"   |
| 10  | 10 mm | 3/8"   |
| 15  | 15 mm | 1/2"   |
| 20  | 20 mm | 3/4"   |
| 25  | 25 mm | 1"     |
| 32  | 32 mm | 1 1/4" |
| 40  | 40 mm | 1 1/2" |
| 50* | 50 mm | -      |

Material gland packing

Teflon® and Carbon Teflon®  
H Carbon Teflon® (up to + 482°F)

Material

X Lower seat stainless steel  
Y Flange stainless steel

Type of thread lower seat

N NPT thread  
B\* BSPT thread  
P\* PT thread

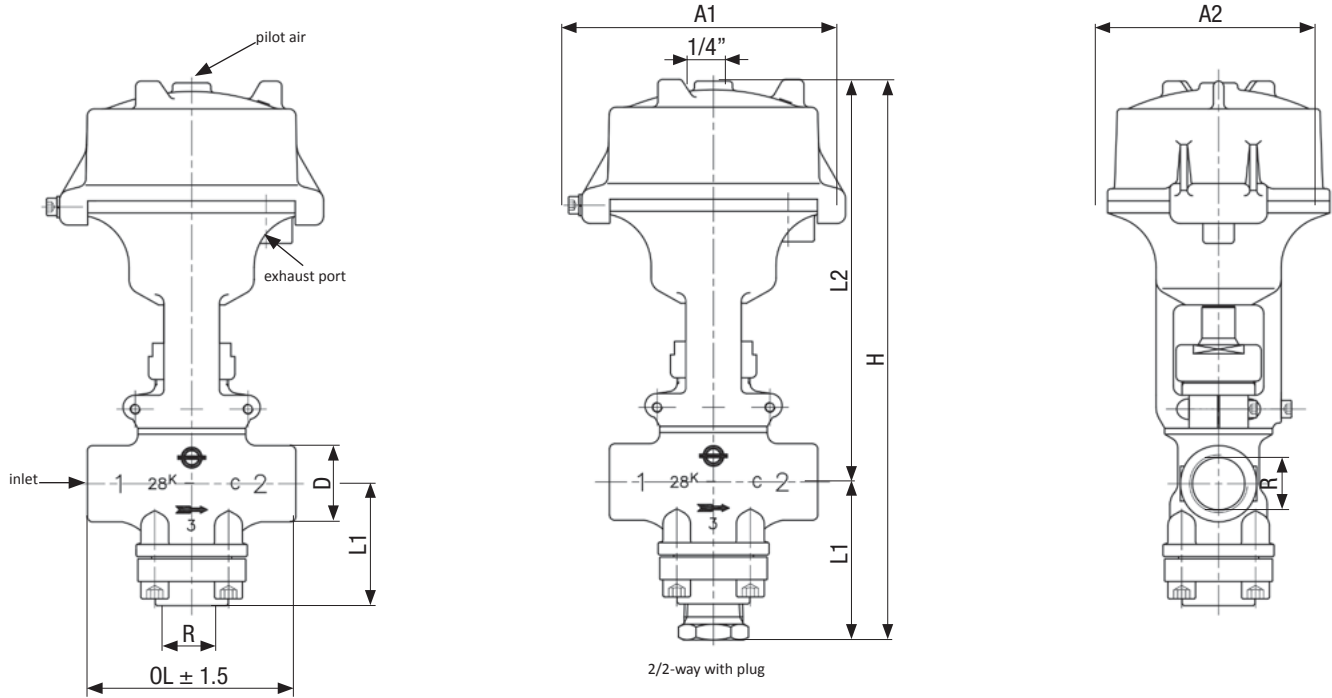
Type of thread / flange

N NPT thread  
B\* BSPT thread  
P\* PT thread  
A ANSI flange  
D\* DIN flange  
J\* JIS flange

\* Available on Request. Not a stock item.



**Dimensions (mm)**



**TPC valve, tapped, 2/2-way, NC**

| Model No.     | DN | Internal thread* | D  | OL  | L1    | L2    | H     | A1  | A2  | Stroke | Weight (lbs) |
|---------------|----|------------------|----|-----|-------|-------|-------|-----|-----|--------|--------------|
| TPC-2211-08BX | 8  | 1/4"             | 30 | 85  | 61.3  | 163.5 | 224.8 | 120 | 82  | 9.3    | 5.9          |
| TPC-2211-10BX | 10 | 3/8"             | 30 | 85  | 64    | 163.5 | 227.5 | 120 | 82  | 9.3    | 5.9          |
| TPC-2211-15BX | 15 | 1/2"             | 30 | 85  | 65.1  | 163.5 | 228.6 | 120 | 82  | 9.3    | 5.9          |
| TPC-2211-20BX | 20 | 3/4"             | 38 | 110 | 84.8  | 193   | 277.8 | 139 | 100 | 12     | 9.5          |
| TPC-2211-25BX | 25 | 1"               | 44 | 120 | 90.9  | 232   | 322.9 | 169 | 128 | 18     | 15.0         |
| TPC-2211-32BX | 32 | 1 1/4"           | 55 | 145 | 112.6 | 250   | 362.6 | 185 | 142 | 20     | 21.6         |
| TPC-2211-40BX | 40 | 1 1/2"           | 62 | 150 | 115.6 | 302   | 417.6 | 211 | 170 | 23     | 35.3         |

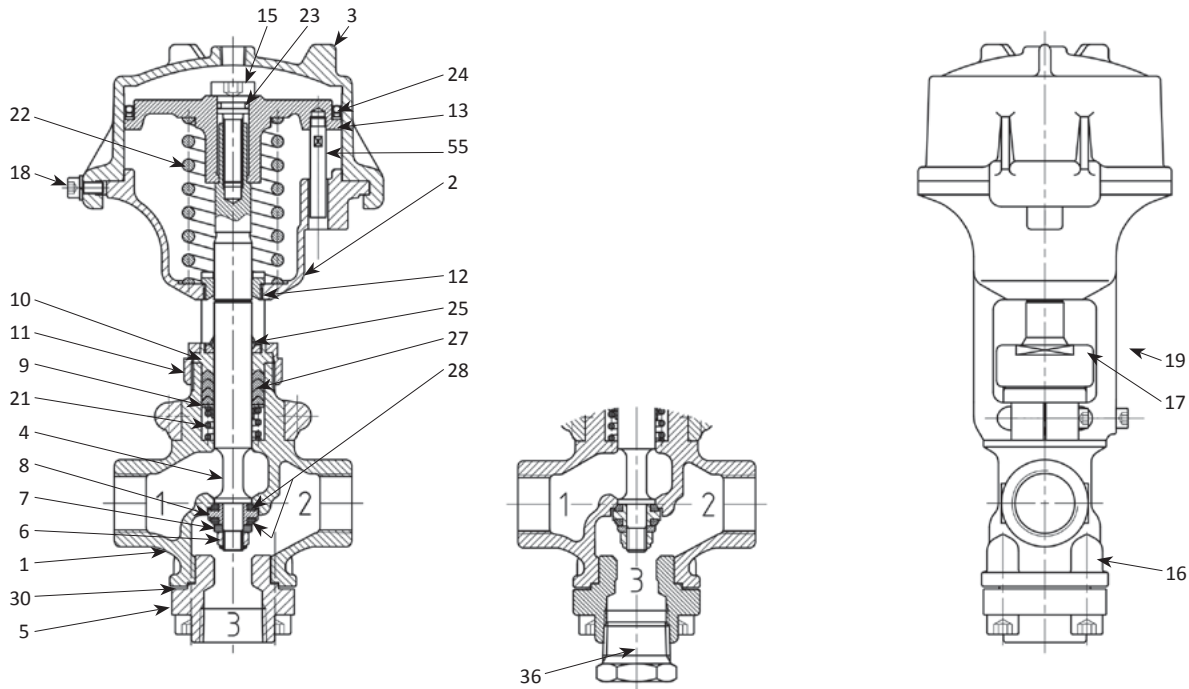
**TPC valve, tapped, 3/2-way, NC**

| Model No.     | DN | Internal thread* | D  | OL  | L1   | L2    | H     | A1  | A2  | Stroke | Weight (lbs) |
|---------------|----|------------------|----|-----|------|-------|-------|-----|-----|--------|--------------|
| TPC-2311-08BX | 8  | 1/4"             | 30 | 85  | 48.3 | 163.5 | 211.8 | 120 | 82  | 9.3    | 5.9          |
| TPC-2311-10BX | 10 | 3/8"             | 30 | 85  | 48.3 | 163.5 | 211.8 | 120 | 82  | 9.3    | 5.9          |
| TPC-2311-15BX | 15 | 1/2"             | 30 | 85  | 48.3 | 163.5 | 211.8 | 120 | 82  | 9.3    | 5.9          |
| TPC-2311-20BX | 20 | 3/4"             | 38 | 110 | 66.3 | 193   | 259.3 | 139 | 100 | 12     | 9.5          |
| TPC-2311-25BX | 25 | 1"               | 44 | 120 | 71.3 | 232   | 303.3 | 169 | 128 | 18     | 15.0         |
| TPC-2311-32BX | 32 | 1 1/4"           | 55 | 145 | 91.3 | 250   | 341.3 | 185 | 142 | 20     | 21.6         |
| TPC-2311-40BX | 40 | 1 1/2"           | 62 | 150 | 91.3 | 302   | 393.3 | 211 | 170 | 23     | 35.3         |

\*Thread type BSPT (Rc) according to ISO 7-1 DIN EN 10226/1. Valves with NPT or PT thread are available on request. (The dimensions are identical to the standard BSPT version.)

The order number please see the ordering number code on page 3.

Spare parts



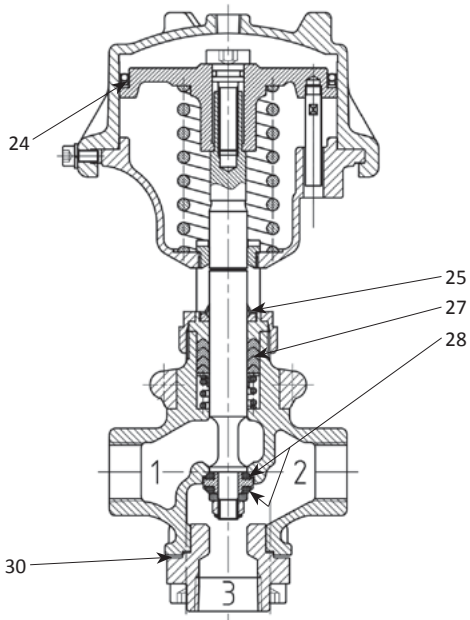
| No. | Name              | Valve | TPC-2211-08*X<br>TPC-2311-08*X | TPC-2211-10*X<br>TPC-2311-10*X | TPC-2211-15*X<br>TPC-2311-15*X | TPC-2211-20*X<br>TPC-2311-20*X | TPC-2211-25*X<br>TPC-2311-25*X | TPC-2211-32*X<br>TPC-2311-32*X | TPC-2211-40*X<br>TPC-2311-40*X |
|-----|-------------------|-------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| 1   | Body              |       | C-21108 - 01 *                 | C-21110 - 01 *                 | C-21115 - 01 *                 | C-21120 - 01 *                 | C-21125 - 01 *                 | C-21132 - 01 *                 | C-21140 - 01 *                 |
| 2   | Yoke              |       | C-21115 - 02                   | C-21115 - 02                   | C-21115 - 02                   | C-21120 - 02                   | C-21125 - 02                   | C-21132 - 02                   | C-21140 - 02                   |
| 3   | Cylinder          |       | C-21115 - 03 *                 | C-21115 - 03 *                 | C-21115 - 03 *                 | C-21120 - 03 *                 | C-21125 - 03 *                 | C-21132 - 03 *                 | C-21140 - 03 *                 |
| 4   | Stem              |       | C-21115 - 04                   | C-21115 - 04                   | C-21115 - 04                   | C-21120 - 04                   | C-21125 - 04                   | C-21132 - 04                   | C-21140 - 04                   |
| 5   | Lower seat        |       | C-21108 - 05 *X                | C-21110 - 05 *X                | C-21115 - 05 *X                | C-21120 - 05 *X                | C-21125 - 05 *X                | C-21132 - 05 *X                | C-21140 - 05 *X                |
| 6   | U-nut             |       | C-21115 - 06                   | C-21115 - 06                   | C-21115 - 06                   | C-21120 - 06                   | C-21125 - 06                   | C-21132 - 06                   | C-21140 - 06                   |
| 7   | Guide washer      |       | C-21115 - 07                   | C-21115 - 07                   | C-21115 - 07                   | C-21120 - 07                   | C-21125 - 07                   | C-21132 - 07                   | C-21140 - 07                   |
| 8   | Disc adapter      |       | C-21115 - 08                   | C-21115 - 08                   | C-21115 - 08                   | C-21120 - 08                   | C-21125 - 08                   | C-21132 - 08                   | C-21140 - 08                   |
| 9   | Ring washer       |       | C-21115 - 09                   | C-21115 - 09                   | C-21115 - 09                   | C-21120 - 09                   | C-21125 - 09                   | C-21132 - 09                   | C-21140 - 09                   |
| 10  | Gland             |       | C-21115 - 10                   | C-21115 - 10                   | C-21115 - 10                   | C-21120 - 10                   | C-21125 - 10                   | C-21132 - 10                   | C-21140 - 10                   |
| 11  | Gland nut         |       | C-21115 - 11                   | C-21115 - 11                   | C-21115 - 11                   | C-21120 - 11                   | C-21125 - 11                   | C-21132 - 11                   | C-21140 - 11                   |
| 12  | Guide bushing     |       | C-21115 - 12                   | C-21115 - 12                   | C-21115 - 12                   | C-21120 - 12                   | C-21125 - 12                   | C-21132 - 12                   | C-21140 - 12                   |
| 13  | Piston            |       | C-21115 - 13                   | C-21115 - 13                   | C-21115 - 13                   | C-21120 - 13                   | C-21125 - 13                   | C-21132 - 13                   | C-21140 - 13                   |
| 15  | Tension bolt      |       | C-21115 - 15                   | C-21115 - 15                   | C-21115 - 15                   | C-21120 - 15                   | C-21125 - 15                   | C-21132 - 15                   | C-21140 - 15                   |
| 16  | Socket cap screw  |       | C-21115 - 16                   | C-21115 - 16                   | C-21115 - 16                   | C-21120 - 16                   | C-21125 - 16                   | C-21132 - 16                   | C-21140 - 16                   |
| 17  | Socket cap screw  |       | C-21115 - 17                   | C-21115 - 17                   | C-21115 - 17                   | C-21120 - 17                   | C-21125 - 17                   | C-21132 - 17                   | C-21140 - 17                   |
| 18  | Wing bolt         |       | C-21115 - 18                   | C-21115 - 18                   | C-21115 - 18                   | C-21120 - 18                   | C-21125 - 18                   | C-21132 - 18                   | C-21140 - 18                   |
| 19  | Socket cap screw  |       | C-21115 - 19                   | C-21115 - 19                   | C-21115 - 19                   | C-21120 - 19                   | C-21125 - 19                   | C-21132 - 19                   | C-21140 - 19                   |
| 21  | Packing spring    |       | C-21115 - 21                   | C-21115 - 21                   | C-21115 - 21                   | C-21120 - 21                   | C-21125 - 21                   | C-21132 - 21                   | C-21140 - 21                   |
| 22  | Piston Spring     |       | C-21115 - 22                   | C-21115 - 22                   | C-21115 - 22                   | C-21120 - 22                   | C-21125 - 22                   | C-21132 - 22                   | C-21140 - 22                   |
| 23  | O-ring            |       | C-21115 - 23                   | C-21115 - 23                   | C-21115 - 23                   | C-21120 - 23                   | C-21125 - 23                   | C-21132 - 23                   | C-21140 - 23                   |
| 24  | Piston ring       |       | C-21115 - 24                   | C-21115 - 24                   | C-21115 - 24                   | C-21120 - 24                   | C-21125 - 24                   | C-21132 - 24                   | C-21140 - 24                   |
| 25  | Dust seal         |       | C-21115 - 25                   | C-21115 - 25                   | C-21115 - 25                   | C-21120 - 25                   | C-21125 - 25                   | C-21132 - 25                   | C-21140 - 25                   |
| 27  | Gland packing     |       | C-21115 - 27                   | C-21115 - 27                   | C-21115 - 27                   | C-21120 - 27                   | C-21125 - 27                   | C-21132 - 27                   | C-21140 - 27                   |
| 28  | Disc ring (2x)    |       | C-21115 - 28                   | C-21115 - 28                   | C-21115 - 28                   | C-21120 - 28                   | C-21125 - 28                   | C-21132 - 28                   | C-21140 - 28                   |
| 30  | Lower seat gasket |       | C-21115 - 30                   | C-21115 - 30                   | C-21115 - 30                   | C-21120 - 30                   | C-21125 - 30                   | C-21132 - 30                   | C-21140 - 30                   |
| 36  | Plug              |       | C-21108 - 36 *X                | C-21110 - 36 *X                | C-21115 - 36 *X                | C-21120 - 36 *X                | C-21125 - 36 *X                | C-21132 - 36 *X                | C-21140 - 36 *X                |
| 55  | Pin gauge         |       | C-21108 - 55                   | C-21119 - 55                   | C-21115 - 55                   | C-21120 - 55                   | C-21125 - 55                   | C-21132 - 55                   | C-21140 - 55                   |

\* please complete: N = NPT thread, B = BSPT thread

**Repair kit**

| DN         | Model no.: |
|------------|------------|
| 08, 10, 15 | RK-21115   |
| 20         | RK-21120   |
| 25         | RK-21125   |
| 32         | RK-21132   |
| 40         | RK-21140   |

**Content**



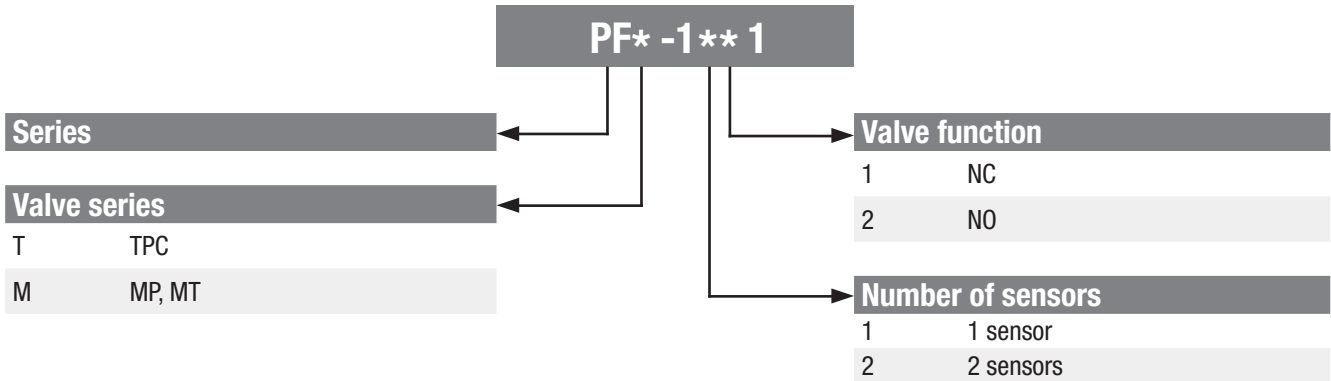
| No.                           | Name              |   |
|-------------------------------|-------------------|---|
| 25                            | Dust seal         |    |
| 27                            | Gland packing     |   |
| 28                            | Disc ring (2x)    |  |
| 30                            | Lower seat gasket |  |
| <b>Recommended spare part</b> |                   |   |
| 24                            | Piston ring       |  |

### Electrical valve feedback sensor series PF

Valve position feedback for all types of ROCKY PISTON VALVES.  
Sturdy and robust the cylinder contains contactless magnetic sensors and monitors the valve stem position.  
Top and bottom guided for smooth trouble free operation. Easy to retro fit to existing valves.

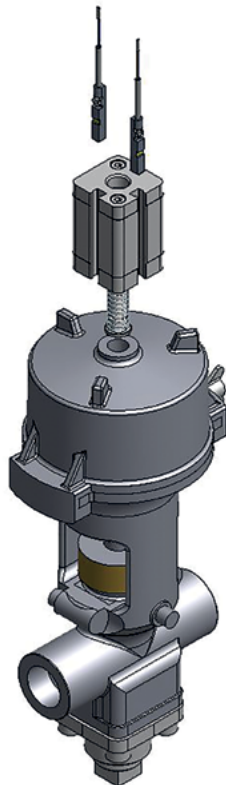


Order Code

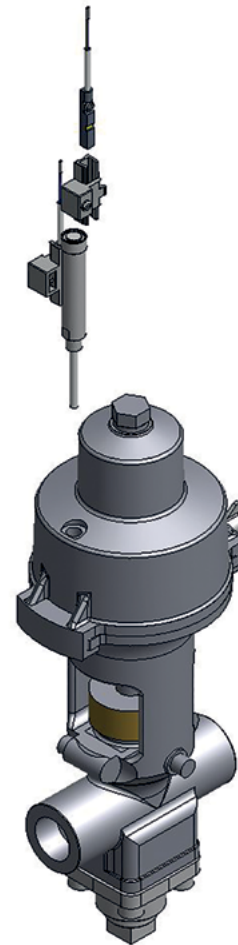


Installation

normally closed



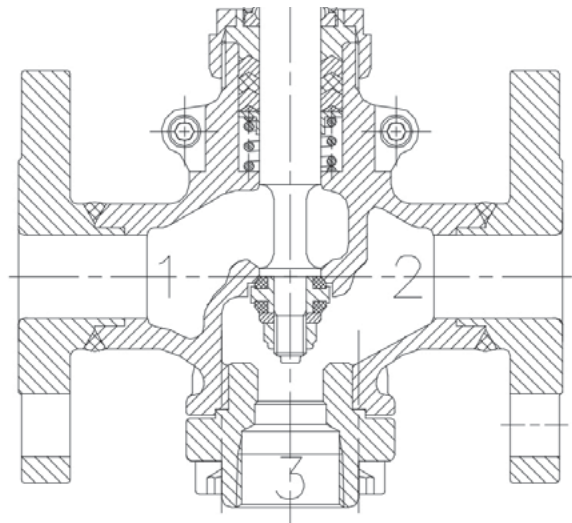
normally open



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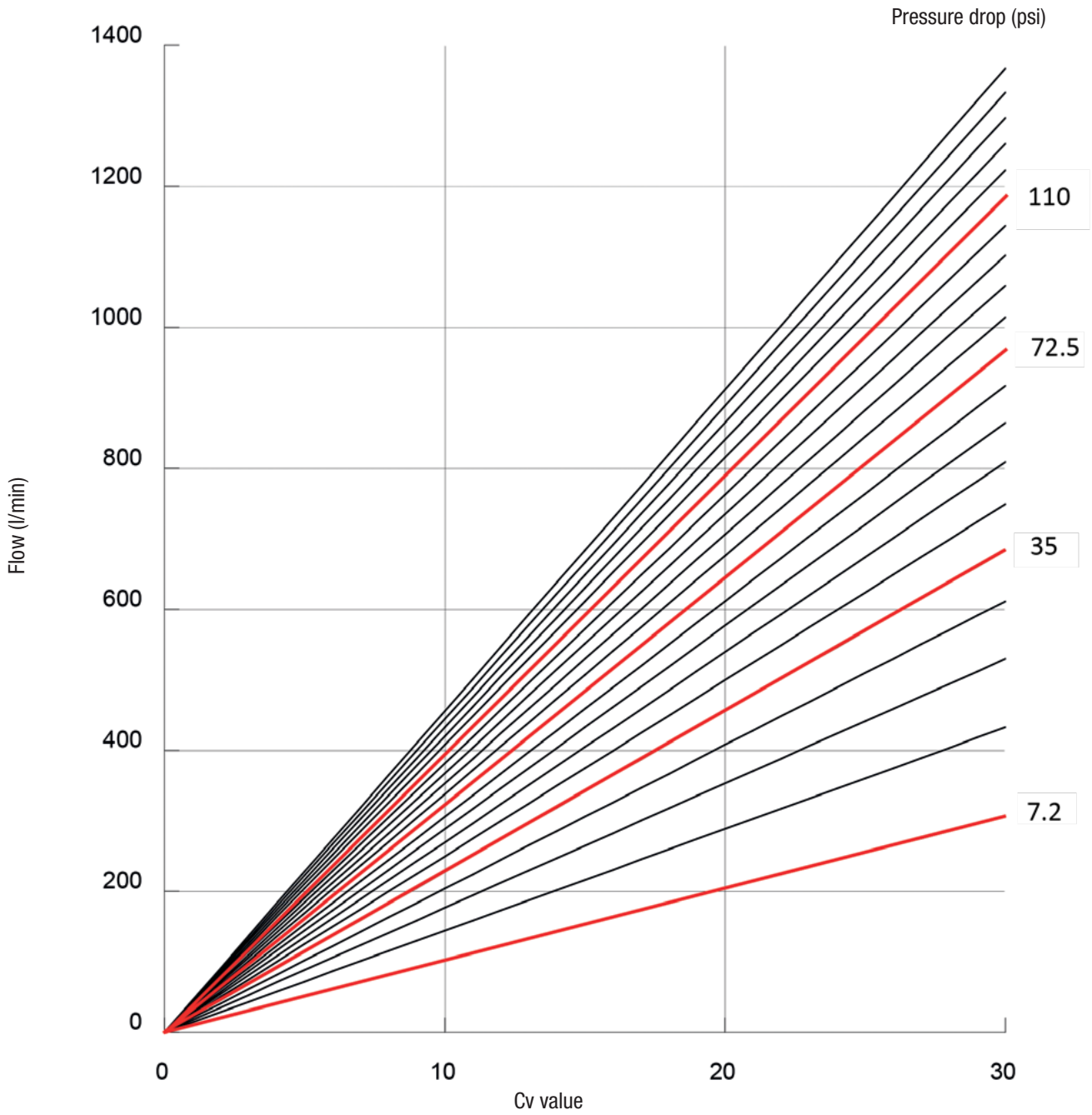
| DN | Flow direction | Kv Value | Cv Value | Pressure drop (MPa) | Flow (l/min) |
|----|----------------|----------|----------|---------------------|--------------|
| 15 | 1⇒2            | 2.6      | 2.9      | 0.1                 | 42           |
|    |                |          |          | 0.2                 | 59           |
|    |                |          |          | 0.3                 | 72           |
|    | 2⇒1            | 2.6      | 2.9      | 0.1                 | 42           |
|    |                |          |          | 0.2                 | 59           |
|    |                |          |          | 0.3                 | 72           |
|    | 2⇒3            | 2.5      | 2.8      | 0.1                 | 40           |
|    |                |          |          | 0.2                 | 57           |
|    |                |          |          | 0.3                 | 70           |
|    | 3⇒2            | 2.15     | 2.4      | 0.1                 | 35           |
|    |                |          |          | 0.2                 | 49           |
|    |                |          |          | 0.3                 | 60           |
| 20 | 1⇒2            | 4.8      | 5.4      | 0.1                 | 78           |
|    |                |          |          | 0.2                 | 110          |
|    |                |          |          | 0.3                 | 135          |
|    | 2⇒1            | 5.0      | 5.6      | 0.1                 | 81           |
|    |                |          |          | 0.2                 | 114          |
|    |                |          |          | 0.3                 | 140          |
|    | 2⇒3            | 5.4      | 6        | 0.1                 | 86           |
|    |                |          |          | 0.2                 | 122          |
|    |                |          |          | 0.3                 | 150          |
|    | 3⇒2            | 4.5      | 5        | 0.1                 | 72           |
|    |                |          |          | 0.2                 | 102          |
|    |                |          |          | 0.3                 | 125          |
| 25 | 1⇒2            | 7.7      | 8.6      | 0.1                 | 124          |
|    |                |          |          | 0.2                 | 175          |
|    |                |          |          | 0.3                 | 215          |
|    | 2⇒1            | 8.0      | 8.9      | 0.1                 | 128          |
|    |                |          |          | 0.2                 | 181          |
|    |                |          |          | 0.3                 | 222          |
|    | 2⇒3            | 10.5     | 11.7     | 0.1                 | 169          |
|    |                |          |          | 0.2                 | 238          |
|    |                |          |          | 0.3                 | 292          |
|    | 3⇒2            | 9.6      | 10.7     | 0.1                 | 154          |
|    |                |          |          | 0.2                 | 218          |
|    |                |          |          | 0.3                 | 267          |

| DN  | Flow direction | Kv Value | Cv Value | Pressure drop (MPa) | Flow (l/min) |
|-----|----------------|----------|----------|---------------------|--------------|
| 32  | 1⇒2            | 11.8     | 13.2     | 0.1                 | 190          |
|     |                |          |          | 0.2                 | 269          |
|     |                |          |          | 0.3                 | 330          |
|     | 2⇒1            | 13.1     | 14.6     | 0.1                 | 210          |
|     |                |          |          | 0.2                 | 298          |
|     |                |          |          | 0.3                 | 364          |
|     | 2⇒3            | 14.1     | 15.8     | 0.1                 | 228          |
|     |                |          |          | 0.2                 | 322          |
|     |                |          |          | 0.3                 | 394          |
| 3⇒2 | 16.4           | 18.3     | 0.1      | 264                 |              |
|     |                |          | 0.2      | 373                 |              |
|     |                |          | 0.3      | 457                 |              |
| 40  | 1⇒2            | 19.8     | 22.1     | 0.1                 | 319          |
|     |                |          |          | 0.2                 | 450          |
|     |                |          |          | 0.3                 | 552          |
|     | 2⇒1            | 19.1     | 21.4     | 0.1                 | 308          |
|     |                |          |          | 0.2                 | 436          |
|     |                |          |          | 0.3                 | 534          |
|     | 2⇒3            | 24.7     | 27.6     | 0.1                 | 398          |
|     |                |          |          | 0.2                 | 563          |
|     |                |          |          | 0.3                 | 689          |
| 3⇒2 | 25.2           | 28.2     | 0.1      | 406                 |              |
|     |                |          | 0.2      | 575                 |              |
|     |                |          | 0.3      | 704                 |              |





Flow chart of Cv value / pressure drop



1