

Series 240

Type 3241-1 and Type 3241-7 Pneumatic Control Valves

Type 3241 Globe Valve

DIN version



Application

Control valve for process engineering and industrial applications

| | |
|-------------------------|-----------------------|
| Nominal size | DN 15 to 300 |
| Nominal pressure | PN 10 to 40 |
| Temperatures | -196 to 450 °C |



Type 3241 Globe Valve operated with

- Type 3271 Pneumatic Actuator (Type 3241-1 Control Valve) or
- Type 3277 Pneumatic Actuator (Type 3241-7 Control Valve)

Valve body made of

- Cast iron
- Spheroidal graphite iron
- Cast steel, cast stainless steel or cast cold-resisting steel
- Forged steel or forged stainless steel
- Special materials

Undivided valve bonnet up to DN 150

Valve plug

- Metal seal
- Soft seal
- High-performance metal seal

The control valves, designed according to the modular assembly principle, can be equipped with various accessories:

Positioners, limit switches, solenoid valves and other accessories according to IEC 60534-6-1 and NAMUR recommendation. Refer to Information Sheet ▶ T 8350 for more details.

Versions

Standard version for temperatures ranging from -10 to 220 °C

- **Type 3241-1** (Figs. 1 and 3) · DN 15 to 300 with Type 3271 Pneumatic Actuator (see Data Sheets ▶ T 8310-1, ▶ T 8310-2, ▶ T 8310-3)
- **Type 3241-7** (Fig. 2) · DN 15 to 150 with Type 3277 Pneumatic Actuator for integral positioner attachment (see Data Sheet ▶ T 8310-1)

Further versions

- **Welding ends**
- **Adjustable packing** · See Information Sheet ▶ T 8000-1
- **Flow divider or AC-1/AC-2 Trim** for noise reduction · See ▶ T 8081 and ▶ T 8082
- **Perforated plug** · See ▶ T 8086
- **Valve plug with pressure balancing** · See Technical data

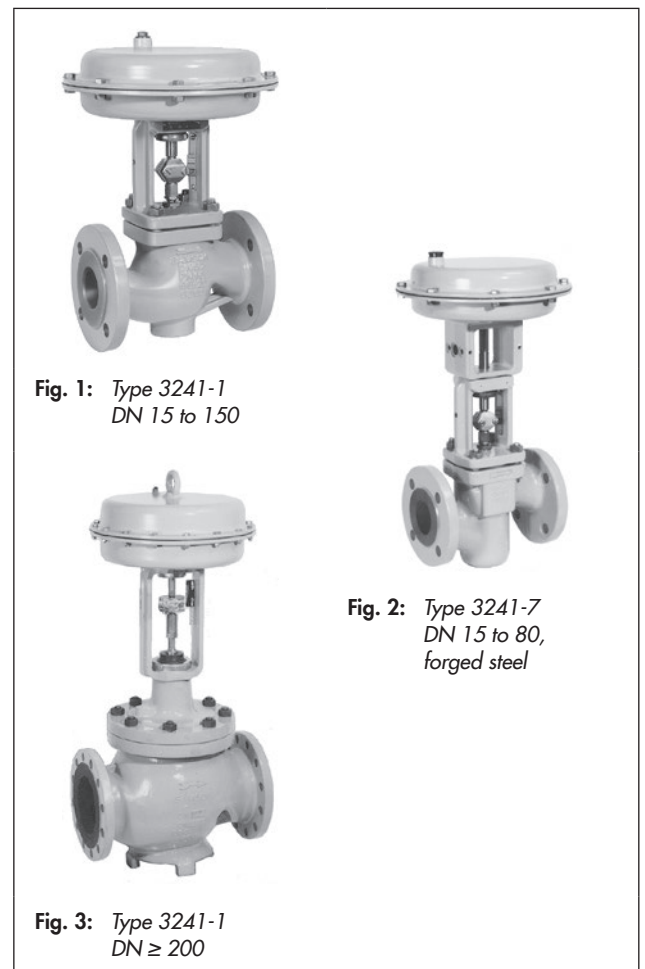


Fig. 1: Type 3241-1
DN 15 to 150

Fig. 2: Type 3241-7
DN 15 to 80,
forged steel

Fig. 3: Type 3241-1
DN ≥ 200

- **Insulating section or bellows seal** · See Technical data
- **Heating jacket** · On request
- **Stainless steel actuator** · See ▶ T 8310-1
- **Additional handwheel** · See ▶ T 8310-1, ▶ T 8310-2 and ▶ T 8310-3
- **Type 3241 PSA** · Version for pressure swing adsorption plants · See ▶ T 8015-1 and ▶ T 8012-1

Associated Information Sheet

T 8000-x

Edition October 2015

Associated Data Sheets for
pneumatic actuators

T 8310-x

Data Sheet

T 8015 EN

- **Typetested version** · For heating systems (see ▶ T 8016), DIN/DVGW-tested version for gas (see ▶ T 8020) or liquid fuels and liquefied petroleum gas in the liquid phase (see ▶ T 8022)
- **ANSI version** · See ▶ T 8012
- **Versions with dimensions according to Japanese Industry Standard (JIS)** · Details on request

Principle of operation

The medium flows through the valve in the direction indicated by the arrow on the body. The valve plug position determines the cross-sectional area between the seat and plug.

Fail-safe position

Depending on how the springs are arranged in the pneumatic actuator (see Data Sheets ▶ T 8310-1 and ▶ T 8310-2), the valve has two different fail-safe positions effective upon air supply failure.

- **Actuator stem extends (fail-close)**
The valve closes when the supply air fails.
- **Actuator stem retracts (fail-open)**
The valve opens when the supply air fails.

Differential pressures

Permissible differential pressures are listed in Information Sheet ▶ T 8000-4.

Note

Fig. 4 to Fig. 7 show configuration examples.

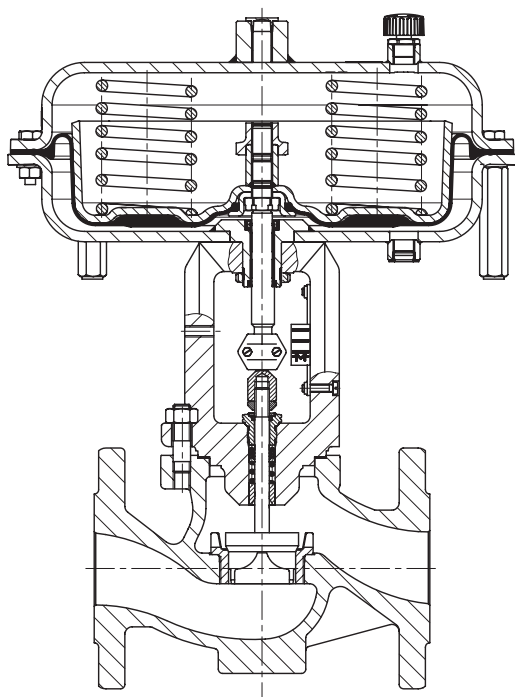


Fig. 4: Type 3241-1 Control Valve, DN 15 to 150, with Type 3271 Actuator

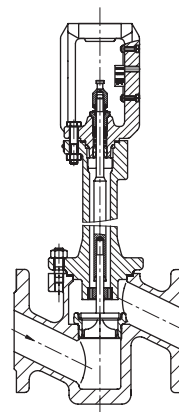


Fig. 5: Type 3241 Valve, forged steel version, DN 15 to 80, with insulating section

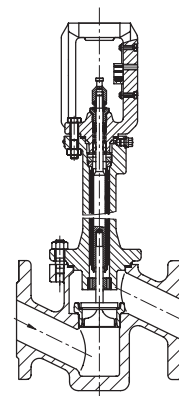


Fig. 6: Type 3241 Valve, forged steel version, DN 15 to 80, with bellows seal

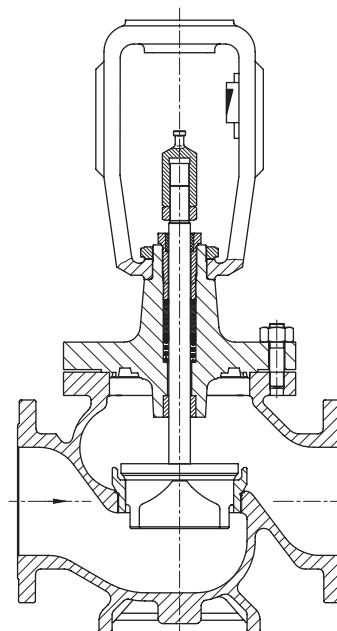


Fig. 7: Type 3241 Valve, DN 200 to 300

Table 1: Technical data for Type 3241

| Nominal size | DN | 15 to 250 | 15 to 150 | 15 to 300 | | | | 15 · 25 · 40 · 50 · 80 | | |
|--|---|---|---|----------------------|-------------------------------------|---------------------------------|-------------------------------------|---|-------------------------------------|-------------|
| Material | | Cast iron EN-JL1040 | Spheroidal graphite iron EN-JS1049 | Cast steel 1.0619 | Cast stain- less steel 1.4408 | Cast steel 1.6220/ 1.1138 | Cast stain- less steel 1.4308 | Forged steel 1.0460 | Forged stainless steel 1.4571 | |
| Nominal pressure | PN | 10 · 16 | 16 · 25 | 10 · 16 · 25 · 40 | | | | | | |
| Type of end connection | Flanges | All DIN versions | | | | | | | | |
| | Welding ends | - | | | | | | DIN EN 12627 only for DN 25, 40, 50, 80, 100, 150, 200, 250, 300 | | - |
| Seat/plug seal | Metal seal · Soft seal · High-performance metal seal | | | | | | | | | |
| Characteristic | Equal percentage · Linear (according to Information Sheet ► T 8000-3) | | | | | | | | | |
| Rangeability | 50:1 for DN 15 to 50 · 30:1 for DN 65 to 150 · 50:1 for DN 200 and larger | | | | | | | | | |
| Heating jacket | Up to DN 100 | PN 25 | | | | | | | | |
| | DN 125 and higher | PN 16 | | | | | | | | |
| Compliance | CE · EAC | | | | | | | | | |
| Temperature ranges in °C · Permissible operating pressures acc. to pressure-temperature diagrams (see Information Sheet ► T 8000-2) | | | | | | | | | | |
| Body without insulating section | | -10 to 220 °C | | | | | | | | |
| Body with | Insulating section | Short | -10 to 300 | -10 to 350 | -10 to 400 | -50 to 450 | -50 to 300 | -50 to 300 | -10 to 400 | -50 to 450 |
| | | Long | - | | | -196 to 450 | - | -196 to 300 | - | -196 to 450 |
| | Bellows seal | Short | -10 to 300 | -10 to 350 | -10 to 400 | -50 to 450 | -50 to 300 | -50 to 300 | -10 to 400 | -50 to 450 |
| | | Long | - | | | -196 to 450 | - | -196 to 300 | - | -196 to 450 |
| Valve plug | Standard | Metal seal | -196 to 450 °C | | | | | | | |
| | | Soft seal | -196 to 220 °C | | | | | | | |
| | Balanced | With PTFE ring | -50 to 220 °C · Lower temperatures on request | | | | | | | |
| | | With graphite ring | 220 to 450 °C | | | | | | | |
| Leakage class according to IEC 60534-4 | | | | | | | | | | |
| Valve plug | Metal seal | Standard: IV · High-performance metal seal: V | | | | | | | | |
| | Soft seal | VI | | | | | | | | |
| | Balanced Metal seal | Standard: IV · With PTFE or graphite pressure-balancing ring Special version: V · For high-performance metal seal (only with PTFE balancing ring) on request | | | | | | | | |

Table 2: Materials

| Standard version | | | | | | | | | |
|---------------------------|--|---|----------------------|--------------------------------------|---------------------------------|--------------------------------------|-------------------------------|--|--------|
| Valve body ¹⁾ | Cast iron EN-JL1040 | Spheroidal graphite iron EN-JS1049 | Cast steel 1.0619 | Cast stainless steel 1.4408 | Cast steel 1.6220/ 1.1138 | Cast stainless steel 1.4308 | Forged steel 1.0460 | Forged stainless steel 1.4571 | |
| Valve bonnet | 1.0460/ EN-JL1040 | 1.0460/1.0619 | | 1.4408/ 1.4401 | 1.0566 1.6220 | 1.4308 1.4301 | 1.0460 | 1.4401 | |
| Seat ²⁾ | 1.4006/1.4008 | | | 1.4404/ 1.4409 | 1.4006/ 1.4008 | 1.4301/ 1.4308 | 1.4006/ 1.4008 | 1.4404/ 1.4409 | |
| Plug ²⁾ | 1.4006 (1.4404)/1.4008 | | | 1.4404/ 1.4409 | 1.4006 (1.4404)/ 1.4008 | 1.4301/ 1.4308 | 1.4006 (1.4404)/ 1.4008 | 1.4404/ 1.4409 | |
| Plug seal | Seal ring for soft-seated plug: PTFE with glass fiber | | | | | | | | |
| | Seal ring for balanced plug: PTFE with carbon or graphite ring | | | | | | | - | |
| Guide bushing | 1.4104 | | | 1.4571 | 1.4571 | 1.4301 | 1.4104 | 1.4571 | |
| Packing ³⁾ | V-ring packing: PTFE with carbon · Spring: 1.4310 | | | | | | | | |
| Body gasket | Graphite on metal core | | | | | | | | |
| Insulating section | 1.0460 | | | 1.4401 | 1.0566 | 1.4301 | 1.0460 | 1.4401 | |
| Bellows seal | Intermediate piece | 1.0460 | | | 1.4401 | 1.0566 | 1.4301 | 1.0460 | 1.4401 |
| | Metal bellows | 1.4571 ⁴⁾ | | | | 1.4541 | | 1.4571 ⁴⁾ | |
| Heating jacket | - | | | 1.4404 | | | | | |

¹⁾ Special materials for applications with sea water: 1.4538, duplex 1.4470; nickel-based alloy: 9.4610; other special materials on request.

²⁾ All seats and metal-seated plug also with Stellite facing; for ≤ DN 100 plug up to seat bore 38 made of solid Stellite available.

³⁾ Other packings on request (see ► T 8000-1).

⁴⁾ Other materials on request.

Table 3: K_{VS} coefficients

Terms for control valve sizing according to IEC 60534, Parts 2-1 and 2-2: $F_L = 0.95$, $X_T = 0.75$

Table 3.1: Overview with flow divider St I ($K_{VS I}$), St II ($K_{VS II}$) or St III ($K_{VS III}$)

| K_{VS} | 0.1 0.16 0.25 | 0.4 | 0.63 | 1.0 | 1.6 | 2.5 | 4.0 | 6.3 | 10 | 16 | 25 | 40 | 60 | 80 | 63 | 100 | 160 | 200 | 260 | 250 | 360 | 630 | 1000 ¹⁾ | 1500 ¹⁾ |
|-------------------------|---------------------|-----|------|-----|------|-----|-----|-----|-----|------|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|--------------------|--------------------|
| $K_{VS I}$ | - | | | | 1.45 | 2.2 | 3.6 | 5.7 | 9 | 14.5 | 22 | 36 | 54 | 72 | 57 | 90 | 144 | 180 | 234 | 225 | 320 | 560 | 900 ¹⁾ | 1350 ¹⁾ |
| $K_{VS II}$ | - | | | | | | | | 8 | 13 | 20 | 32 | 48 | 63 | 50 | 80 | 125 | 160 | 210 | 200 | 290 | 500 | 800 | - |
| $K_{VS III}$ | - | | | | | | | | 7.5 | 12 | 20 | 30 | - | - | 47 | 75 | 120 | - | - | 190 | 270 | 480 | 750 | - |
| Seat \varnothing [mm] | 3 | 6 | | 12 | | | 24 | | 31 | 38 | 48 | 63 | 80 | 63 | 80 | 100 | 110 | 130 | 125 | 150 | 200 | 250 | 300 | |
| Travel [mm] | 15 | | | | | | | | | | | | 30 | | | | | | 60 | | | | 120 | |

¹⁾ Not available with valve body made of cast iron (EN-JL1040).

Table 3.2: Versions without flow divider · Areas highlighted in gray indicate versions also with pressure balancing

| K_{VS} | 0.1 0.16 0.25 | 0.4 | 0.63 | 1.0 | 1.6 | 2.5 | 4.0 | 6.3 | 10 | 16 | 25 | 40 | 60 | 80 | 63 | 100 | 160 | 200 | 260 | 250 | 360 | 630 | 1000 | 1500 |
|----------|---------------------|-----|------|-----|-----|-----|-----|-----|----|----|----|----|----|----|-----------------|-----|-----|-----|-----|-----|-----|-----|------|-----------------|
| DN | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | • | • | • | • | • | • | • | | | | | | | | | | | | | | | | | |
| 20 | • | • | • | • | • | • | • | • | | | | | | | | | | | | | | | | |
| 25 | • | • | • | • | • | • | • | • | • | | | | | | | | | | | | | | | |
| 32 | | • | • | • | • | • | • | • | • | • | | | | | | | | | | | | | | |
| 40 | | • | • | • | • | • | • | • | • | • | • | | | | | | | | | | | | | |
| 50 | | • | • | • | • | • | • | • | • | • | • | • | | | | | | | | | | | | |
| 65 | | | | | | | | | | | • | • | • | | | | | | | | | | | |
| 80 | | | | | | | | | | | • | • | • | • | • ¹⁾ | | | | | | | | | |
| 100 | | | | | | | | | | | | | | | • | • | • | | | | | | | |
| 125 | | | | | | | | | | | | | | | • | • | • | • | • | | | | | |
| 150 | | | | | | | | | | | | | | | • | • | • | • | • | • | | | | |
| 200 | | | | | | | | | | | | | | | | • | • | | | • | • | • | | |
| 250 | | | | | | | | | | | | | | | | • | • | | | • | • | • | • | • ²⁾ |
| 300 | | | | | | | | | | | | | | | | | • | | | • | • | • | • | • |

¹⁾ With 19 mm overtravel (not with bellows seal)

²⁾ DN 250 with $K_{VS} = 1000$ not available with valve body made of cast iron (EN-JL1040).

Table 3.3: Versions with flow divider St I ($K_{VS I}$) · Areas highlighted in gray indicate versions also with pressure balancing

| $K_{VS I}$ | - | 1.45 | 2.2 | 3.6 | 5.7 | 9 | 14.5 | 22 | 36 | 54 | 72 | 57 | 90 | 144 | 180 | 234 | 225 | 320 | 560 | 900 | 1350 | |
|------------|---|------|-----|-----|-----|---|------|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|------|-----------------|
| DN | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | • | • | • | | | | | | | | | | | | | | | | | | |
| 20 | | • | • | • | | | | | | | | | | | | | | | | | | |
| 25 | | • | • | • | | | | | | | | | | | | | | | | | | |
| 32 | | | | | • | • | • | | | | | | | | | | | | | | | |
| 40 | | | | | • | • | • | • | | | | | | | | | | | | | | |
| 50 | | | | | • | • | • | • | • | | | | | | | | | | | | | |
| 65 | | | | | | | | • | • | • | | | | | | | | | | | | |
| 80 | | | | | | | | • | • | • | • | | | | | | | | | | | |
| 100 | | | | | | | | | | | | • | • | • | • | | | | | | | |
| 125 | | | | | | | | | | | | • | • | • | • | • | | | | | | |
| 150 | | | | | | | | | | | | • | • | • | • | • | • | | | | | |
| 200 | | | | | | | | | | | | | • | • | | | | • | • | • | | |
| 250 | | | | | | | | | | | | | • | • | | | | • | • | • | • | • ¹⁾ |
| 300 | | | | | | | | | | | | | | • | | | | • | • | • | • | • |

¹⁾ DN 250 with $K_{VS I} = 900$ not available with valve body made of cast iron (EN-JL1040).

Table 3.1: Overview with flow divider St I ($K_{VS I}$), St II ($K_{VS II}$) or St III ($K_{VS III}$)

| K_{VS} | 0.1 0.16 0.25 | 0.4 | 0.63 | 1.0 | 1.6 | 2.5 | 4.0 | 6.3 | 10 | 16 | 25 | 40 | 60 | 80 | 63 | 100 | 160 | 200 | 260 | 250 | 360 | 630 | 1000 ¹⁾ | 1500 ¹⁾ |
|--------------|---------------------|-----|------|------|-----|-----|-----|-----|------|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-------------------|--------------------|--------------------|
| $K_{VS I}$ | - | | | 1.45 | 2.2 | 3.6 | 5.7 | 9 | 14.5 | 22 | 36 | 54 | 72 | 57 | 90 | 144 | 180 | 234 | 225 | 320 | 560 | 900 ¹⁾ | 1350 ¹⁾ | |
| $K_{VS II}$ | - | | | | | | | | 8 | 13 | 20 | 32 | 48 | 63 | 50 | 80 | 125 | 160 | 210 | 200 | 290 | 500 | 800 | - |
| $K_{VS III}$ | - | | | | | | | | 7.5 | 12 | 20 | 30 | - | - | 47 | 75 | 120 | - | - | 190 | 270 | 480 | 750 | - |
| Seat Ø [mm] | 3 | 6 | | 12 | | | 24 | | 31 | 38 | 48 | 63 | 80 | 63 | 80 | 100 | 110 | 130 | 125 | 150 | 200 | 250 | 300 | |
| Travel [mm] | 15 | | | | | | | | | | | | 30 | | | 60 | | | 120 | | | | | |

¹⁾ Not available with valve body made of cast iron (EN-JL1040).

Table 3.4: Versions with flow divider St II ($K_{VS II}$) · Areas highlighted in gray indicate versions also with pressure balancing

| $K_{VS II}$ | - | | | | | | | | 8 | 13 | 20 | 32 | 48 | - | 50 | 80 | 125 | 160 | 210 | 200 | 290 | 500 | 800 | - |
|-------------|---|--|--|--|--|--|--|---|---|----|----|----|----|---|----|----|-----|-----|-----|-----|-----|-----|-----|---|
| DN | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | | | | | | | | | • | • | | | | | | | | | | | | | | |
| 40 | | | | | | | | • | • | • | | | | | | | | | | | | | | |
| 50 | | | | | | | | • | • | • | | | | | | | | | | | | | | |
| 65 | | | | | | | | | • | • | • | | | | | | | | | | | | | |
| 80 | | | | | | | | | • | • | • | | | | | | | | | | | | | |
| 100 | | | | | | | | | | | | | | • | • | • | | | | | | | | |
| 125 | | | | | | | | | | | | | | | • | • | • | | | | | | | |
| 150 | | | | | | | | | | | | | | • | • | • | | • | | | | | | |
| 200 | | | | | | | | | | | | | | | • | • | | | • | • | • | | | |
| 250 | | | | | | | | | | | | | | | • | • | | | • | • | • | | | |
| 300 | | | | | | | | | | | | | | | | • | | | • | • | • | • | | |

Table 3.5: Versions with flow divider St III ($K_{VS III}$) · Areas highlighted in gray indicate versions also with pressure balancing

| $K_{VS III}$ | - | | | | | | | | 7.5 | 12 | 20 | 30 | - | - | 47 | 75 | 120 | - | - | 190 | 270 | 480 | 750 | - |
|--------------|---|--|--|--|--|--|--|-----------------|-----|----|----|----|---|---|----|----|-----|---|---|-----|-----|-----|-----|---|
| DN | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | | | | | | | | • ¹⁾ | | | | | | | | | | | | | | | | |
| 65 | | | | | | | | | • | • | • | | | | | | | | | | | | | |
| 80 | | | | | | | | | • | • | • | | | | | | | | | | | | | |
| 100 | | | | | | | | | | | | | | • | | | | | | | | | | |
| 125 | | | | | | | | | | | | | | | • | | | | | | | | | |
| 150 | | | | | | | | | | | | | | • | • | • | | | | | | | | |
| 200 | | | | | | | | | | | | | | | • | • | | | • | • | • | | | |
| 250 | | | | | | | | | | | | | | • | • | • | | | • | • | • | • | | |
| 300 | | | | | | | | | | | | | | | | • | | | • | • | • | • | | |

¹⁾ Not with bellows seal or insulating section

Table 4: Dimensions in mm for standard version of Type 3241-1 and Type 3241-7 with flanges or welding ends**Table 4.1:** Dimensions for Type 3241 Valve up to DN 150 · Without actuator

| Valve | DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | |
|-----------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Length L | mm | 130 | 150 | 160 | 180 | 200 | 230 | 290 | 310 | 350 | 400 | 480 | |
| H1 for actuator | ≤ 750 cm ² | 222 | | | 223 | | | 262 | | 354 | 363 | 390 | |
| | 1000 cm ² 1400-60 cm ² | - | | | | | | | | | 413 | 423 | 450 |
| | 1400-120 cm ² 2800 cm ² | - | | | | | | | | | | | |
| H2 for | Cast steel | 44 | | | 72 | | | 98 | | 118 | 144 | 175 | |
| | Forged steel | 53 | - | 70 | - | 92 | 98 | - | 128 | - | | | |

Table 4.2: Dimensions for Type 3241 Valve, DN 200 and higher · Without actuator

| Valve | DN | 200 | 250/cast iron | 250 up to 200 mm seat bore | 250 seat bore 250 mm and larger | 300 |
|-------------------------------|--------------------------|-----|---------------|----------------------------------|---------------------------------------|-----|
| Length L | mm | 600 | 730 | 730 | 730 | 850 |
| H4 | mm | 390 | 390 | 451 | 451 | 652 |
| H8 ¹⁾ for actuator | 1000 cm ² | 418 | 418 | 418 | 503 | 503 |
| | 1400-60 cm ² | | | | | |
| | 1400-120 cm ² | 503 | 503 | 503 | 650 | 650 |
| | 2800 cm ² | | | | | |
| H2 | mm | 245 | 270 | 310 | 310 | 370 |

¹⁾ Add 170 mm to H8 for valves with K_{V5} 250, 360 or 630 and 60 mm rated travel operating with overtravel.

Table 4.3: Dimensions in mm for Type 3271 and Type 3277 Pneumatic Actuators

| Actuator area | | cm ² | 120 | 175 | 240 | 350 | 355 | 700 | 750 | 1000 | 1400-60 | 1400-120 | 2800 |
|------------------|-----------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--|--|
| Diaphragm ØD | | mm | 168 | 215 | 240 | 280 | 280 | 390 | 394 | 462 | 530 | 534 | 770 |
| H ¹⁾ | | mm | 69 | 78 | 62 | 82 | 121 | 199 | 236 | 403 | 287 | 490 ³⁾ / 580 ⁴⁾ | 630 ³⁾ / 695 ⁴⁾ |
| H3 ²⁾ | | mm | 110 | 110 | 110 | 110 | 110 | 190 | 190 | 610 | 610 | 650 | 650 |
| H5 | Type 3277 | mm | 88 | 101 | 101 | 101 | 101 | 101 | 101 | - | - | - | - |
| Thread | Type 3271 | M30 x 1.5 | | | | | | | | M60 x 1.5 | | M100 x 2 | |
| | Type 3277 | M30 x 1.5 | | | | | | | | - | - | - | - |
| α | Type 3271 | G 1/8 (1/8 NPT) | G 1/4 (1/4 NPT) | G 1/4 (1/4 NPT) | G 3/8 (3/8 NPT) | G 3/8 (3/8 NPT) | G 3/8 (3/8 NPT) | G 3/8 (3/8 NPT) | G 3/8 (3/8 NPT) | G 3/4 (3/4 NPT) | G 3/4 (3/4 NPT) | G 1 (1 NPT) | G 1 (1 NPT) |
| α2 | Type 3277 | - | G 3/8 | G 3/8 | G 3/8 | G 3/8 | G 3/8 | G 3/8 | G 3/8 | - | - | - | - |

¹⁾ Height with welded-on lifting eyelet or height of eyebolt according to DIN 580. Height of the swivel lifting hook may differ. Actuators up to 355 cm² without lifting eyelet

²⁾ Minimum clearance required to remove the actuator

³⁾ Height for version with welded-on lifting eyelet (material EN-JS1030)

⁴⁾ Height for version with female thread (material 1.5638/A352 LC3)

Table 4.4: Weights in kg for standard version of Type 3241-1 and Type 3241-7

| Valve | DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 cast iron | 250 -60/-120 | 300 |
|-------------------------------|----|----|-----|----|----|----|----|----|----|-----|-----|-----|-----|---------------|--------------|-----|
| Weight without actuator in kg | | 6 | 7.5 | 8 | 12 | 14 | 18 | 29 | 34 | 52 | 81 | 108 | 430 | 468 | 858 | 920 |

| Actuator | cm ² | 120 | 240 | 350 | 355 | 700 | 750 | 1000 | 1400-60 | 1400-120 | 2800 |
|--------------------|---------------------------|-----|-----|-----|-----|-----|-----|------|---------|----------|------|
| Type 3271 Actuator | Without hand-wheel | 2.5 | 5 | 8 | 15 | 22 | 36 | 80 | 70 | 175 | 450 |
| | Handwheel ≤ 80 mm travel | - | 9 | 13 | 20 | 27 | 41 | 180 | 175 | 300 | 575 |
| | Handwheel ≤ 160 mm travel | - | | | | | | | | 425 | 700 |
| Type 3277 Actuator | Without hand-wheel | 3.2 | 9 | 12 | 19 | 26 | 40 | - | | | |
| | Handwheel | - | 13 | 17 | 24 | 31 | 45 | - | | | |

Table 5: Dimensions and weights for Type 3241 with insulating section or bellows seal · Without actuator**Table 5.1:** Type 3241 Valve, up to DN 150 · Without actuator

| Nominal size DN | | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | |
|---------------------------------|--|-------|------|----|----|-----|----|----|-----|-----|-----|-----|-----|
| Insulating section/bellows seal | | | | | | | | | | | | | |
| H4 for actuator | ≤ 750 cm ² | Short | 409 | | | 410 | | | 451 | | 636 | 645 | 672 |
| | | Long | 713 | | | 714 | | | 755 | | 877 | 886 | 913 |
| | 1000 cm ² / 1400-60 cm ² | Short | - | | | | | | | | 695 | 705 | 732 |
| | | Long | - | | | | | | | | 936 | 946 | 973 |
| | 1400-120 cm ² / 2800 cm ² | Short | - | | | | | | | | | | |
| | | Long | - | | | | | | | | | | |
| Weight in kg | Short with bellows | 9 | 10.5 | 11 | 18 | 20 | 24 | 37 | 42 | 70 | 106 | 138 | |
| | Long with bellows | 13 | 14.5 | 15 | 22 | 24 | 28 | 41 | 46 | 78 | 114 | 146 | |

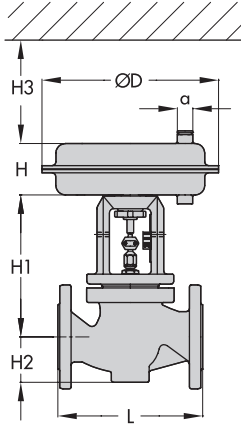
Table 5.2: Dimensions and weights for Type 3241 Valve, DN 200 and larger · Without actuator

| Version with | | Insulating section | | | | | Metal bellows | | | | |
|-------------------|--------------------------|--------------------|-----------------|----------------------------|----------------------|------|---------------|-----------------|----------------------------|----------------------|------|
| Valve DN (travel) | mm | 200 | 250 (cast iron) | 250 up to 200 mm seat bore | 250 250 mm seat bore | 300 | 200 | 250 (cast iron) | 250 up to 200 mm seat bore | 250 250 mm seat bore | 300 |
| Height H4 | mm | 830 | 830 | 1065 | 1065 | 1150 | 1036 | 1036 | 1492 | 1492 | 1520 |
| H8 for actuator | 1000 cm ² | 418 | 418 | 418 | 503 | 503 | 418 | 418 | 418 | 503 | 503 |
| | 1400-60 cm ² | | | | | | | | | | |
| | 1400-120 cm ² | 503 | 503 | 503 | 650 | 650 | 503 | 503 | 503 | 650 | 650 |
| | 2800 cm ² | | | | | | | | | | |
| Weight | approx. kg | 478 | 928 | | | 963 | 520 | 975 | | | 1010 |

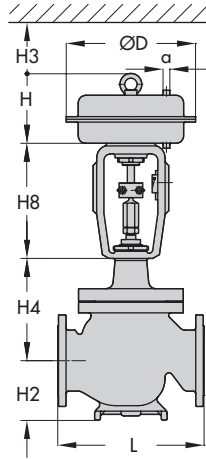
Table 6: Dimensions in mm for Type 3241 with heating jacket - Not for valves with body materials EN-JL1040 or EN-JS1049

| Nominal size | DN | 25 | 40/50 | 80 | 100 | 150 | 200 to 300 |
|--------------|----|-----|-------|-----|-----|-----|------------|
| a | mm | 110 | 140 | 180 | 200 | 265 | On request |
| b | mm | 15 | 20 | 35 | 50 | 80 | |
| c | mm | 140 | 170 | 215 | 255 | 130 | |
| d | mm | 190 | 190 | 230 | 320 | 355 | |

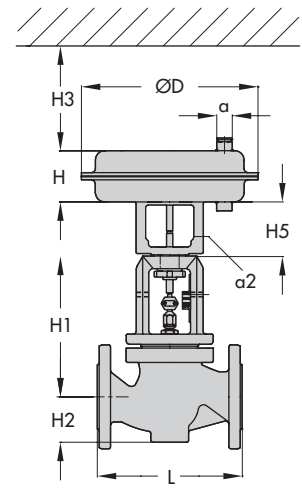
Dimensional drawings



Type 3241-1 · DN 15 to 150

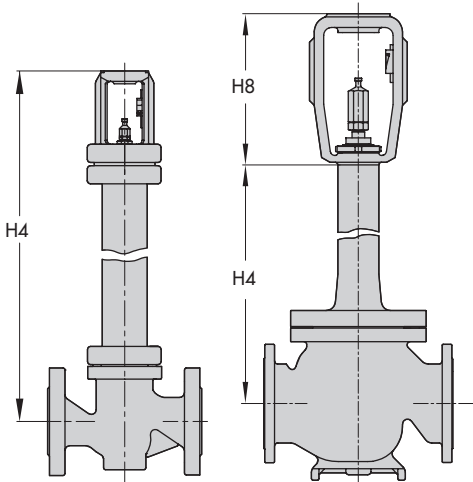


Type 3241-1 · DN 200 to 300



Type 3241-7 · DN 15 to 150

Type 3241 with insulating section or bellows seal

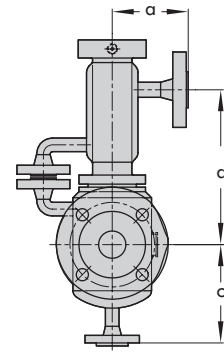
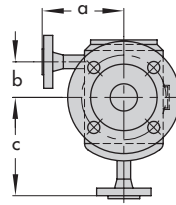
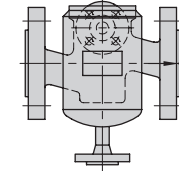


DN 15 to 150

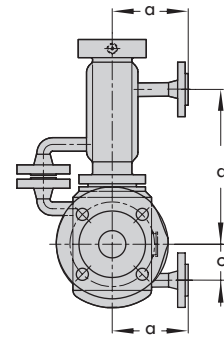
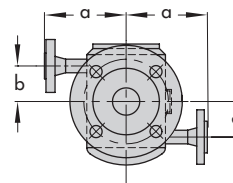
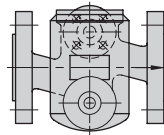
DN 200 to 300

Type 3241 with heating jacket

DN 25 to 100



DN 150 to 300



Flanges, DIN 2635

Bellows seal version with heating jacket

Ordering text

| | |
|------------------------|--|
| Globe valve | Type 3241, DN ..., PN ... |
| Body material | According to Table 2 |
| Type of end connection | Flanges or welding ends |
| Seat and plug | Metal seal/soft seal/ high-performance metal seal |
| Characteristic | Equal percentage or linear |
| Pneumatic actuator | Type 3271 or Type 3277 |
| Fail-safe position | Fail-close or fail-open |

Process medium

Max. flow rate

Pressure

Accessories

Density and temperature

in kg/h oder m³/h

p₁ and p₂ in bar (absolute pressure)

Positioner/limit switch

Specifications subject to change without notice



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