



baelz 353 / 354

DESCRIPTION

baelz 353 and baelz 354 are industrial 3-way control valves. The stainless steel housing allows utilization under demanding operating conditions.

TECHNICAL SPECIFICATIONS

Connection type: Flange EN 1092-2; EN 1092-1 Shapes D / E / F on request.
 Type of plug: parabolic plug with slot
 Control characteristic: linear
 Working fluids: liquids, water, thermal oil, steam, gases

| Leakage class (EN 1349) | |
|-------------------------|------------------------------------|
| Straight way (A-AB) | 0.004 % Kvs (better than class IV) |
| Angle way (B-AB) | 0.004 % Kvs (better than class IV) |

| Stroke (mm) | | | Spindle Ø (mm) |
|-------------|------------|----|----------------|
| baelz 353 | DN 15-25 | 12 | |
| baelz 353 | DN 32-65 | 22 | 10 |
| baelz 354 | DN 80-125* | 22 | |

* DN 150 with stroke 44 mm on request

| Options | | Designation |
|---------------------------|---|---------------------------|
| Plug | Parabolic plug with slot | baelz 353 / baelz 354 |
| Spindle seal | V-rings in PTFE (standard) | baelz 353 / baelz 354 |
| Additional options | Cooling tube | MP353-...-K / MP354-...-K |
| | V-shaped seal heating (for fluids at temperatures of - 10 to - 40°C) Pmax. 20 W; 12-24 V / 110-230 V AC/DC | baelz 85950... |
| | Version suitable for drinking water | MP353-Twg |

| T max. (°C) / P max. (bar) | | | | |
|----------------------------|----------------------------|--|-------------------------|-------------------------|
| Baelz Type | baelz 353 | | baelz 354 | |
| Housing material | X6CrNiMoTi17-12-2 - 1.4571 | | GX5CrNiMo19-11 - 1.4408 | |
| Nominal pressure | PN 16 / 25 / 40 | | PN 16 | PN 25 / PN 40 |
| Standard model | 240 / 35.7 ... 100 / 40 | | 240 / 12.8 ... 100 / 16 | 240 / 32.1 ... 100 / 40 |
| with cooling tube | 350 / 32.1 ... 100 / 40 | | 350 / 11.4 ... 100 / 16 | 350 / 28.5 ... 100 / 40 |

| baelz 353 / 354 Kvs values and weights | | | | | | | | | | | | | | | | |
|--|-----------------|---------|---------|-------------|-----------|-----------|-----------|------------|-------------|-------------|---------------|-----------|------------|-------------|-------------|-------------|
| Baelz Type | baelz 353 | | | | | | | baelz 354 | | | | | | | | |
| | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150* | 65 | 80 | 100 | 125 | 150* |
| PN | PN 16 / 25 / 40 | | | | | | | PN 16 | | | PN 25 / PN 40 | | | | | |
| Kvs (m³/h) | 5.6/ 5 | 7/ 6 | 9/ 8 | 15/ 13.5 | 25/ 22 | 42/ 36 | 63/ 55 | 100/ 90 | 130/ 115 | 200/ 180 | 360/ 320 | 63/ 55 | 100/ 90 | 130/ 115 | 200/ 180 | 360/ 320 |
| Weight approx. (kg) | 5.5 | 6.1 | 6.6 | 12.4 | 15.3 | 19.8 | 29.6 | 35.8 | 48.8 | 70.6 | 108 | 29.6 | 36.8 | 50.8 | 73.6 | 111 |

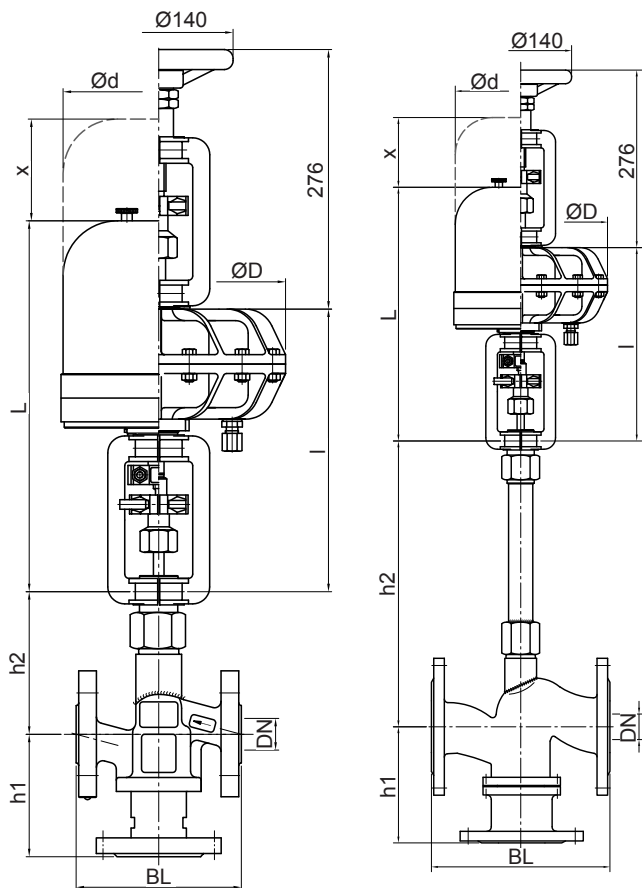
* DN 150 on request

Note: Kvs values given in this form: XX/YY, denote Kvs values for the straight way (XX) and the angle way (YY)

| baelz 353 / 354 dimensions (mm) | | | | | |
|---------------------------------|-----|-----|-----|-----|-------|
| Baelz Type | DN | BL | h1 | h2 | |
| | | | | 353 | 353-K |
| baelz 353 | 15 | 130 | 89 | 105 | 268 |
| | 20 | 150 | 89 | 105 | 268 |
| | 25 | 160 | 89 | 105 | 268 |
| | 32 | 180 | 160 | 145 | 381 |
| | 40 | 200 | 160 | 145 | 381 |
| | 50 | 230 | 170 | 150 | 386 |
| baelz 354 | 65 | 290 | 180 | 154 | 390 |
| | 80 | 310 | 190 | 157 | 393 |
| | 100 | 350 | 200 | 165 | 401 |
| | 125 | 400 | 220 | 175 | 411 |

| baelz actuators dimensions (mm) | | | | | |
|---------------------------------|-----|-----|-----|-----|-----|
| Designation | L | x | Ød | l | ØD |
| E07 | 320 | 145 | 129 | | |
| E45 | 560 | 150 | 175 | | |
| P11 | | | | 244 | 160 |
| P21 | | | | 268 | 242 |
| P21-V6 | | | | 304 | 242 |
| P22 | | | | 322 | 242 |

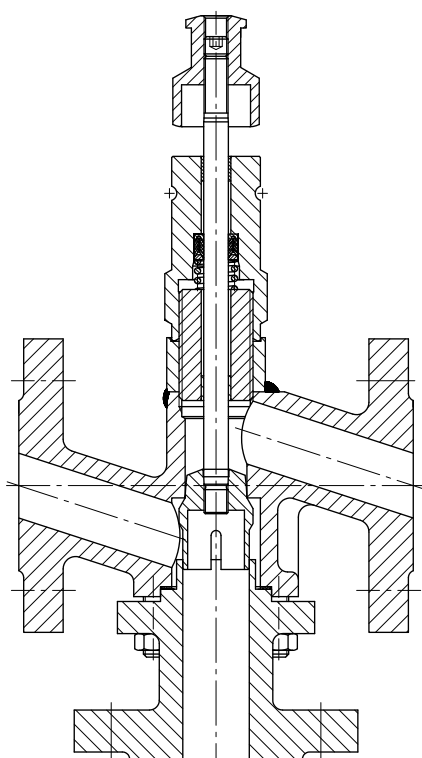
Electric actuators: baelz 373-E
 Pneumatic actuators: baelz 373-P



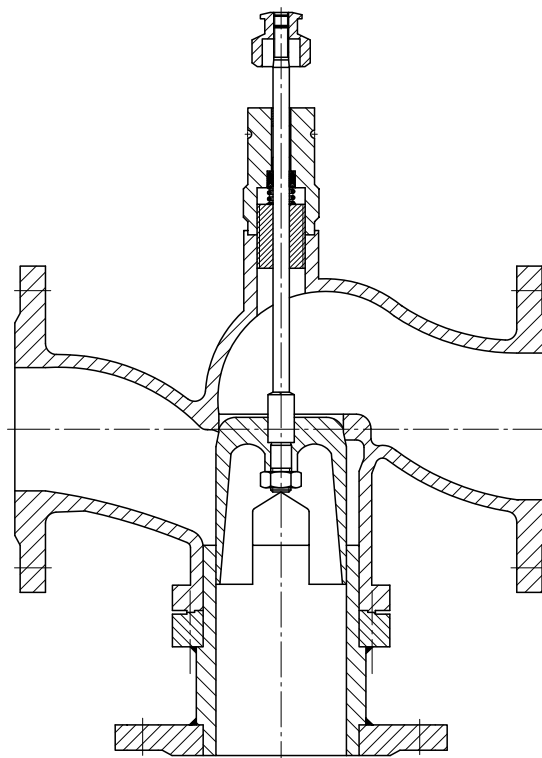
baelz 353 DN 15-65
 baelz 354 DN 80-125

baelz 353-K DN 15-65
 baelz 354-K DN 80-125

Sectional drawings of the baelz plug 353 / 354



Parabolic plug with slot
 baelz 353 DN 15-65



Parabolic plug with slot
 baelz 354 DN 80-125

Maximum differential pressure ΔP_{max} (bar) at which the actuator closes the valve completely
 The differential pressures specified here are limited by the nominal pressure of the housings, if this is lower.

Electric actuators. 3-way valves as mixing valves. Plug closes against the flow.

| Actuator baelz 373- | Power (N) | DN (mm) / maximum differential pressure ΔP_{max} (bar) | | | | | | | | | | | | | | |
|------------------------|--------------|--|----|----|----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|--|
| | | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | |
| E07- OSX- | 700 | 14 | 14 | 10 | 5 | 2.5 | 1.2 | 0.3 | | | | | | | | |
| E07- 20- | 2000 | 40 | 40 | 32 | 20 | 12 | 8 | 4.8 | 3 | 2 | 1.2 | | | | | |
| E65- 11- | 1100 | 25 | 25 | 21 | 11 | 6.3 | 3.5 | 1.7 | 0.9 | 0.3 | | | | | | |
| E65- 20- | 2000 | 40 | 40 | 32 | 20 | 12 | 8 | 4.8 | 3 | 2 | 1.2 | | | | | |
| E45- 40- | 4000 | 40 | 40 | 40 | 40 | 25 | 16 | 10 | 6.9 | 4.4 | 2.8 | 1.7 | | | | |
| E66- 80- | 8000 | | | | | | | | | | | 3.1 | 1.6 | 0.9 | | |
| E66- 150- | 15000 | | | | | | | | | | | 7.1 | 3.8 | 2.3 | 1.5 | |
| E88- 100- | 10000 | | | | | | | 28 | 18 | 11 | 7.4 | 5 | 2.7 | 1.7 | 1.1 | |
| E88- 100- | 13000 | | | | | | | 37 | 24 | 15 | 9.8 | 6.7 | 3.7 | 2.3 | 1.5 | |
| E88- 100- | 16000 | | | | | | | 40 | 30 | 19 | 12 | 8.4 | 4.6 | 2.9 | 2 | |
| E88- 300- | 30000 | | | | | | | | | | | 15.3 | 9 | 5.8 | 3.9 | |
| E88- 300- | 35000 | | | | | | | | | | | 18.9 | 10.5 | 6.7 | 4.6 | |
| E88- 300- | 40000 | | | | | | | | | | | 21.7 | 12.1 | 7.7 | 5.3 | |

Pneumatic actuators. 3-way valves as mixing valves. Plug closes against the flow.

| Actuator baelz 373- | Power (N) | req. feed pressure (bar) | DN (mm) / maximum differential pressure ΔP_{max} (bar) | | | | | | | | | | | | | |
|------------------------|--------------|--------------------------------|--|------|------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
| P11- 1 | 950 | 6.0 | 18.6 | 18.6 | 13.9 | 5.6 | 3.4 | 1.9 | 0.9 | 0.4 | | | | | | |
| P21- 3 | 1020 | 1.2 | 7 | 7 | 4.5 | 2.8 | 1.7 | 1.1 | 0.7 | 0.4 | 0.3 | 0.2 | | | | |
| P21- 6 | 2040 | 3.0 | 40 | 40 | 33 | 20 | 13 | 8 | 5 | 3.3 | 2.1 | 1.3 | | | | |
| P21- 12 | 3390 | 6.0 | 40 | 40 | 40 | 35 | 22 | 14 | 8.5 | 5.6 | 3.6 | 2.3 | | | | |
| P21- 18 | 4030 | 6.0 | 40 | 40 | 40 | 40 | 27 | 17 | 10 | 7 | 4.3 | 2.7 | | | | |
| P21- V6 | 7590 | 6.0 | 40 | 40 | 29 | 18 | 11.5 | 7 | 4.3 | 2.8 | 1.8 | 1.2 | | | | |
| P31- 3 | 2480 | 1.2 | | | | | | | | | | | 0.6 | | | |
| P31- 6 | 4960 | 3.0 | | | | | | | | | | | 2.3 | | | |
| P31- 18 | 10560 | 6.0 | | | | | | | | | | | 5 | | | |
| P41- 3 | 3765 | 1.2 | | | | | | | | | | | 2.4 | 1 | 0.6 | 0.4 |
| P41- 6 | 7530 | 3.0 | | | | | | | | | | | 4.8 | 2 | 1.3 | 0.9 |
| P41- V6 | 31920 | 6.0 | | | | | | | | | | | 8.2 | 3.5 | 2.3 | 1.6 |