

Thermo™-expansion valve series T with exchangeable power assemblies and orifices

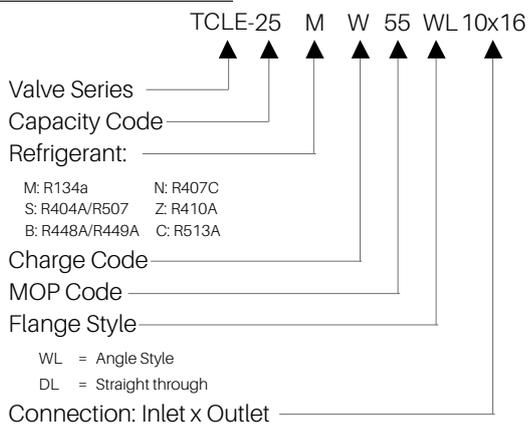
Features

- Modular design for economical logistics and easy assembly and servicing
- Very good stability due to large diaphragm diameter
- Constant superheat across a wide application range
- Superior partial load performance due to double seat orifice design (TJRE, TERE, TIRE & THRE)
- Bi-flow capability for applications in heat pumps
- Capillary tube length 1.5 m (TCLE, TJRE) and 3m (TERE, TIRE & THRE)
- Max. allowable pressure PS:
 - 46 bar with XB power assembly
 - 31 bar with XC power assembly
- Medium Temperature range TS: -45...+75°C
- Flanges: brazing ODF/ODM connection

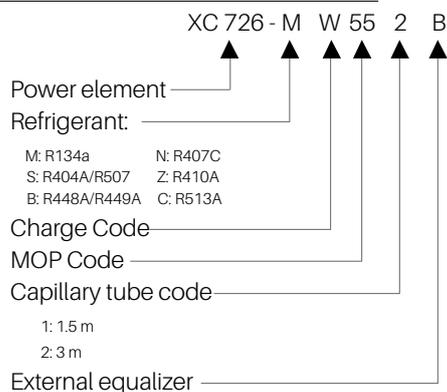


TCLE

Type code valve



Type code power element



Nominal capacities for orifices

| Valve Series | Type | Nominal Capacity (kW) | | | | | Type | Nominal Capacity (kW) | | Orifice Type | Power Element Type |
|--------------|-------|-----------------------|--------|--------|----------|----------|--------|-----------------------|--------|--------------|--------------------|
| | | R134a | R513A* | R450A* | R1234yf* | R1234ze* | | R404A / R507 | R452A* | | |
| TCLE- | 25MW | 1.5 | 1.3 | 1.3 | 1.1 | 1.1 | 25SW | 1.3 | 1.4 | X22440-B1B | XB1019 ...1B |
| | 75MW | 2.9 | 2.6 | 2.5 | 2.1 | 2.2 | 75SW | 2.6 | 2.8 | X22440-B2B | |
| | 150MW | 6.1 | 5.5 | 5.4 | 4.4 | 4.8 | 150SW | 5.6 | 6.0 | X22440-B3B | |
| | 200MW | 9.3 | 8.3 | 8.1 | 6.6 | 7.2 | 200SW | 8.4 | 9.0 | X22440-B3,5B | |
| | 250MW | 13.5 | 12.1 | 11.8 | 9.6 | 10.5 | 250SW | 12.2 | 13.1 | X22440-B4B | |
| | 350MW | 17.3 | 15.5 | 15.1 | 12.4 | 13.4 | 400SW | 15.7 | 16.8 | X22440-B5B | |
| | 550MW | 23.6 | 21.2 | 20.7 | 17.0 | 18.4 | 600SW | 21.5 | 23.0 | X22440-B6B | |
| | 750MW | 32.0 | 28.7 | 28.0 | 22.9 | 24.8 | 850SW | 29.0 | 31.1 | X22440-B7B | |
| | 900MW | 37.2 | 33.4 | 32.6 | 26.7 | 28.9 | 1000SW | 33.8 | 36.2 | X22440-B8B | |
| TJRE- | 11MW | 45.0 | 40.5 | 39.6 | 32.3 | 35.1 | 12SW | 40.0 | 43.9 | X11873-B4B | XB1019 ...1B |
| | 13MW | 57.0 | 51.7 | 50.5 | 41.3 | 44.7 | 14SW | 51.0 | 56.0 | X11873-B5B | |
| TERE- | 16MW | 71.0 | 63.5 | 62.1 | 50.7 | 55.0 | 18SW | 63.0 | 68.9 | X9117-B6B | XC726...2B |
| | 19MW | 81.0 | 72.6 | 70.9 | 58.0 | 62.9 | 20SW | 72.0 | 78.7 | X9117-B7B | |
| | 25MW | 112.0 | 99.8 | 97.5 | 79.7 | 86.4 | 27SW | 99.0 | 108.3 | X9117-B8B | |
| | 31MW | 135.0 | 121.5 | 118.7 | 97.0 | 105.2 | 34SW | 120.0 | 131.7 | X9117-B9B | |
| TIRE- | 45MW | 174.0 | 155.7 | 152.1 | 124.3 | 134.8 | 47SW | 154.0 | 168.8 | X9166-B10B | XC726...2B |
| THRE- | 55MW | 197.0 | 176.6 | 172.5 | 141.1 | 152.9 | 61SW | 174.0 | 191.5 | X9144-B11B | |
| | 68MW | 236.0 | 210.8 | 205.9 | 168.4 | 182.5 | 77SW | 209.0 | 228.6 | X9144-B13B | |

| Valve Series | Type | Nominal Capacity (kW) | | | Type | Nominal Capacity (kW) | | Type | Nominal Capacity (kW) | | Orifice Type | Power Element Type |
|--------------|--------|-----------------------|-------|--------|--------|-----------------------|-------|--------|-----------------------|-------|--------------|--------------------|
| | | R448A | R449A | R454A* | | R407C | R454C | | R410A | R32 | | |
| TCLE- | 55BW | 1.9 | 1.9 | 1.8 | 50NW | 2.1 | 1.6 | 50ZW | 2.2 | 3.3 | X22440-B1B | XB1019 ...1B |
| | 100BW | 3.7 | 3.6 | 3.5 | 100NW | 4.0 | 3.0 | 100ZW | 4.3 | 6.4 | X22440-B2B | |
| | 250BW | 7.9 | 7.8 | 7.5 | 200NW | 8.5 | 6.5 | 250ZW | 9.2 | 13.7 | X22440-B3B | |
| | 350BW | 11.9 | 11.7 | 11.3 | 300NW | 12.9 | 9.7 | 400ZW | 13.9 | 20.7 | X22440-B3,5B | |
| | 500BW | 17.3 | 17.0 | 16.4 | 400NW | 18.7 | 14.2 | 600ZW | 20.2 | 30.0 | X22440-B4B | |
| | 650BW | 22.1 | 21.8 | 21.0 | 550NW | 24.0 | 18.2 | 750ZW | 25.9 | 38.5 | X22440-B5B | |
| | 850BW | 30.3 | 29.9 | 28.8 | 750NW | 32.9 | 24.9 | 1000ZW | 35.5 | 52.8 | X22440-B6B | |
| | 1150BW | 41.0 | 40.4 | 38.9 | 1000NW | 44.4 | 33.6 | 1400ZW | 48 | 71.4 | X22440-B7B | |
| | 1350BW | 47.7 | 47.0 | 45.3 | 1150NW | 51.7 | 39.1 | 1600ZW | 55.8 | 83.0 | X22440-B8B | |
| TJRE- | 17BW | 57.8 | 57.0 | 54.9 | 14NW | 62.0 | 47.4 | 19ZW | 67.7 | 100.7 | X11873-B4B | XB1019 ...1B |
| | 21BW | 73.8 | 72.8 | 70.1 | 17NW | 80.0 | 60.5 | 25ZW | 86.4 | 128.5 | X11873-B5B | |
| TERE- | 26BW | 90.7 | 89.5 | 86.2 | 21NW | 99.0 | 74.4 | - | - | - | X9117-B6B | XC726...2B |
| | 30BW | 103.7 | 102.3 | 98.5 | 25NW | 112.0 | 85.1 | - | - | - | X9117-B7B | |
| | 41BW | 142.6 | 140.6 | 135.4 | 33NW | 155.0 | 117.0 | - | - | - | X9117-B8B | |
| | 50BW | 173.5 | 171.1 | 164.8 | 42NW | 188.0 | 142.3 | - | - | - | X9117-B9B | |
| TIRE- | 64BW | 222.4 | 219.3 | 211.2 | 52NW | 241.0 | 182.4 | - | - | - | X9166-B10B | XC726...2B |
| THRE- | 72BW | 252.3 | 248.8 | 239.6 | 71NW | 273.0 | 207.0 | - | - | - | X9144-B11B | |
| | 86BW | 301.1 | 297.0 | 286.0 | 94NW | 327.0 | 247.0 | - | - | - | X9144-B13B | |

Note 1: Nominal conditions: Evaporating Temperature +4°C (dew point), Condensing Temperature +38°C (bubble point), Subcooling 1 K

Note 2: *) Superheat readjustment required - see Operating Instruction

Note 3: For selection of other operation conditions, please use the "Select" tool.

Selection table power element and recommended flanges

| Valve Series | Orifice Type | Angle Style Type | Straight Through Type | Connection (inlet x Outlet) | | Power Element Type |
|--------------|-------------------------------------|------------------|----------------------------------|----------------------------------|--|--------------------|
| | | | | Metric | Imperial | |
| TCLE | X22440-B1B / B2B/ B3B / B3.5B / B4B | C501-5 | 9761-3 | - | 3/8" x 5/8" ODF | XB1019...2B |
| | | C501-5mm | 9761-3mm | 10 x 16 mm ODF | - | |
| | X22440-B5B / B6B | C501-7 | 9761-4 | - | 1/2" x 5/8" ODF | |
| | | C501-7mm | 9761-4mm | 12 x 16 mm ODF | - | |
| | X22440-B7B / B8B | - | 6346-17 | 16 x 22 mm ODF | 5/8" x 7/8" ODF | |
| | | A576 | - | - | 5/8" x 7/8" ODF 7/8" x 1-1/8" ODM | |
| A576-mm | | - | 16 x 22 mm ODF 22 x 28 mm ODM | - | | |
| TJRE | X11873-B4B / B5B | 10331 | 10332 | 22 x 22 mm ODF | 7/8" x 7/8" ODF 1-1/8" x 1-1/8" ODM | |
| TERE | X9117-B6B / B7B / B8B / B9B | 9153 9153-mm | 9152 9152-mm | 22 x 22 mm ODF 22 x 28 mm ODM | 7/8" x 7/8" ODF 1-1/8" x 1-1/8" ODM | XC726...2B |
| TIRE | | | | | | |
| THRE | X9144-B11B / B13B | 9149 | 9148 | 22 x 22 mm ODF | 7/8" x 7/8" ODF 1-1/8" x 1-1/8" ODM | |

MOP charges T-series

| MOP | | Evaporating Temperature Range | | | | |
|------|------|-------------------------------|----------------|-------------|-------------|-----------------|
| Code | bar | R134a MW | R404A/ R507 SW | R407C NW | R410A ZW | R448A/ R449A BW |
| 15 | 1.0 | -45...-16°C | | | | |
| 30 | 2.1 | | | | | -45...-18°C |
| 35 | 2.4 | -45...0°C | | | | |
| 40 | 2.8 | | -45...-18°C | | | |
| 55 | 3.8 | -45...+11°C | -45...-10°C | | | |
| 75 | 5.2 | | -45...-2°C | | | |
| 80 | 5.5 | | -45...0°C | | | |
| 100 | 6.9 | | | -45...+14°C | | |
| 175 | 12.1 | | | | -45...+16°C | |

Accessories and spare parts

| Description | Type | Part No. |
|--|-------------|----------|
| Service Tool for T, ZZ, L and 935 Series valves | X 99999 | 800005 |
| Gasket sets for T, ZZ, L and 935 Series valves | X 13455-1 | 027579 |
| Steel Screws for flange types: C501, 9761, 6346, A576 | Screw ST 32 | 803573 |
| Steel Screws for flange types: 9148, 9149, 9152, 9153, 10331, 10332 | Screw ST 48 | 803574 |
| Bulb clamp for XB1019 | XA 1728-4 | 803260 |
| Bulb clamp for XC726 | XA 1728-5 | 803261 |

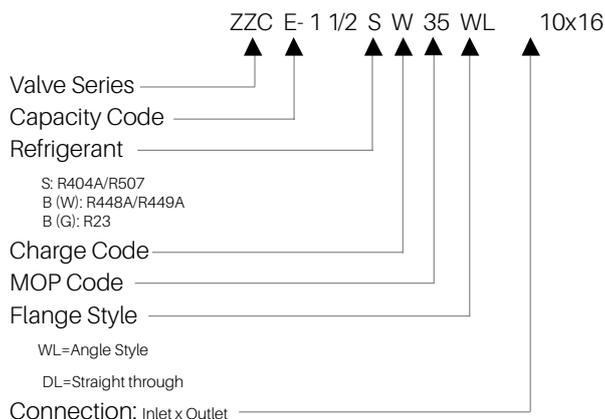
Thermo™ - expansion valve series ZZ for low evaporating temperatures between -45 and -100°C

Features

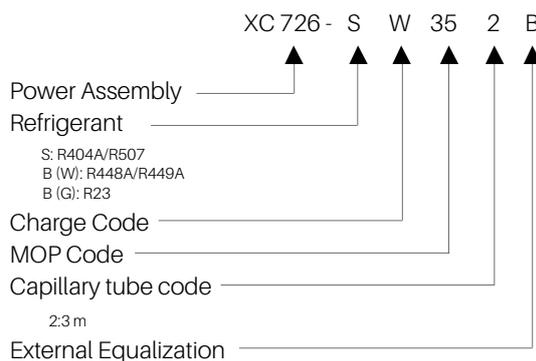
- Modular design for economical logistics and easy assembly and servicing
- Very good stability due to large diaphragm diameter
- High-quality materials and processes for high reliability and long lifetime
- To withstand stress at extremely low temperatures, ZZ-Series valves feature bronze bolts.
- Max. allowable pressure PS:
- 31 bar with XC power assembly



Type code valve



Type code power element



Selection table

| Valve Series | Type | Nominal Capacity (kW) | Type | Nominal Capacity (kW) | | Type | Nominal Capacity (kW) | | | Orifice | Power Assembly |
|--------------|------|-----------------------|---------|-----------------------|-------|------|-----------------------|-------|-------|---------|----------------|
| | | R23 | | R404A / R507 | R452A | | R448A / R449A | R454A | R455A | | |
| ZZCE | 2BG | 1.9 | 2/4SW | 1.2 | 1.3 | 1BW | 1.7 | 1.7 | 1.6 | X10-B01 | XC726...2B |
| | 6BG | 4.0 | 1-1/2SW | 2.6 | 2.8 | 2BW | 3.7 | 3.7 | 3.4 | X10-B02 | |
| | 8BG | 6.8 | 2-1/2SW | 4.4 | 4.6 | 3BW | 6.2 | 6.2 | 5.7 | X10-B03 | |
| | 12BG | 10.8 | 3-1/2SW | 7.0 | 7.4 | 5BW | 9.8 | 9.8 | 9.1 | X10-B04 | |
| | 17BG | 16.3 | 5SW | 10.6 | 11.1 | 6BW | 14.8 | 14.8 | 13.7 | X10-B05 | |
| | 25BG | 21.7 | 8SW | 14.1 | 14.8 | 10BW | 19.8 | 19.8 | 18.2 | X10-B06 | |
| | 31BG | 27.1 | 9SW | 17.6 | 18.5 | 12BW | 24.7 | 24.7 | 22.8 | X10-B07 | |

Note 1: Nominal conditions:

R23: Evaporating Temperature -60°C, Condensing Temperature -25°C, Subcooling 1 K

Other refrigerants: Evaporating Temperature -40°C (dew point), Condensing Temperature 25°C (bubble point), Subcooling 1 K"

Note 2: Attention - To withstand stress at extremely low temperatures, ZZ-Series valves feature bronze bolts. Please order separately Screw BZ 32 Part No. 803575

Selection table power element and recommended flanges

| Valve Series | Orifice type | Connection Standard Flange, Angle Style | | Connection (inlet x outlet) | | Power Element Type |
|--------------|--------------------|---|--------|-----------------------------|-------------------|--------------------|
| | | Type | Type | Metric | Imperial | |
| ZZCE | X 10-B01/ B02/ B03 | C501-5mm | | 10 X 16 mm ODF | | XC726 ... 2B |
| | | | C501-5 | | 3/8" X 5/8 ODF | |
| | X 10-B04/ B05 | C501-7 mm | | 12x16 mm ODF | | |
| | | | C501-7 | | 1/2" x 5/8" ODF - | |
| | X 10-B04/ B05 | A 576 mm | | 16x22 mm ODF | | |
| | | | A 576 | 22x28 mm ODM | 5/8" x 7/8" ODF | |

MOP charges ZZ-Series

| MOP Code | MOP | | Evaporating Temperature Range | | |
|----------|-----|------------------|-------------------------------|------------------|--------------------------|
| | bar | T _{max} | R23 | R404A/R507/R452A | R448A/ R449A/R545A/R455A |
| 20 | 1.4 | -66°C | -100 ... -71°C | | |
| 35 | 2.1 | -14°C | | | -75 ... -18°C |
| 40 | 2.8 | -14°C | | -75 ... -18°C | |
| 55 | 3.8 | -7°C | | -75 ... -10°C | |
| 60 | 4.1 | -48°C | -100 ... -51°C | | |
| 125 | 8.6 | -32°C | -100 ... -35°C | | |

Accessories and spare parts

| Description | Type | Part No. |
|--|-------------|----------|
| Service tool for T, ZZ, L and 935 series valves | X 99999 | 800005 |
| Gasket sets for T, ZZ, L and 935 series valves | X 13455-1 | 027579 |
| Bronze screw for flange types: C500, C501, 9761, X6346, X6669, A576 | Screw BZ 32 | 803575 |
| Bulb clamp for XC726 | XA 1728-5 | 803261 |

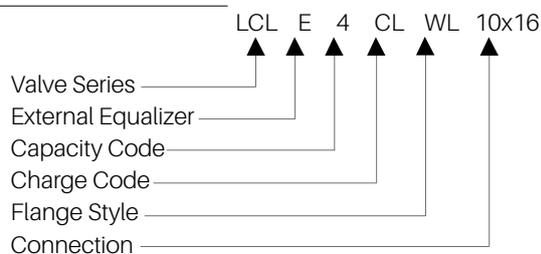
Thermo™-expansion valves L-series with exchangeable power assemblies and orifices

Features

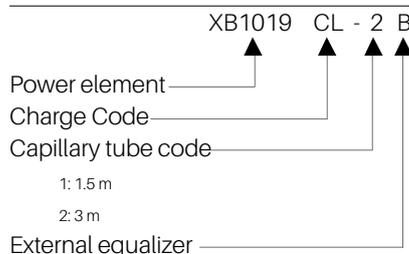
- Applications for series L valves include superheat control (desuperheating of suction gas i.e., in hotgas bypass systems and interstage cooling in multiple stage compressors)
- Modular design for economical logistics and easy assembly and servicing
- Very good stability is attained because of the large forces generated by the large diaphragm diameter
- High-quality materials and processes for high reliability and long lifetime
- Superior partial load performance due to seat orifice design (LJRE, LERE & LIRE)
- Max. allowable pressure PS
 - 46 bar with XB power assembly
 - 31 bar with XC power assembly.
- Medium temperature range TS: -45...+65°C



Type code valve



Type code power assembly



Nominal capacities for cages

| Valve Series | Capacity Code* | Nominal Capacity Q _n (kW) | | | | | | | | | | | | | | Orifice Type | Power Assembly Type |
|--------------|----------------|--------------------------------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|---------|-------|---------------|---------------------|
| | | R134a | R404A/R507 | R407C | R450A | R613A | R448A | R449A | R410A | R32 | R454A | R454C | R1234yf | R1234ze | R455A | | |
| LCLE | 1 * | 1.5 | 1.3 | 2.1 | 1.3 | 1.3 | 1.9 | 1.9 | 2.2 | 3.3 | 1.9 | 1.6 | 1.1 | 1.1 | 1.8 | X 22440-B1B | XB1019 ...2B |
| | 2 * | 2.9 | 2.6 | 4.0 | 2.5 | 2.6 | 3.7 | 3.6 | 4.3 | 6.4 | 3.6 | 3.0 | 2.1 | 2.2 | 3.5 | X 22440-B2B | |
| | 3 * | 6.1 | 5.6 | 8.5 | 5.4 | 5.5 | 7.9 | 7.7 | 9.2 | 13.7 | 7.8 | 6.5 | 4.4 | 4.8 | 7.5 | X 22440-B3B | |
| | 3.5 * | 9.3 | 8.4 | 12.9 | 8.1 | 8.3 | 11.9 | 11.6 | 13.9 | 20.7 | 11.7 | 9.7 | 6.6 | 7.2 | 11.3 | X 22440-B3.5B | |
| | 4 * | 13.5 | 12.2 | 18.7 | 11.8 | 12.1 | 17.3 | 16.9 | 20.2 | 30.0 | 17.0 | 14.2 | 9.6 | 10.5 | 16.4 | X 22440-B4B | |
| | 6 * | 17.3 | 15.7 | 24.0 | 15.1 | 15.5 | 22.1 | 21.6 | 25.9 | 38.5 | 21.8 | 18.2 | 12.4 | 13.4 | 21.0 | X 22440-B5B | |
| | 7 * | 23.6 | 21.5 | 32.9 | 20.7 | 21.2 | 30.3 | 29.6 | 35.5 | 52.8 | 29.9 | 24.9 | 17.0 | 18.4 | 28.8 | X 22440-B6B | |
| | 10 * | 37.2 | 33.8 | 51.7 | 32.6 | 33.4 | 47.7 | 46.6 | 55.8 | 83.0 | 47.0 | 39.1 | 26.7 | 28.9 | 45.3 | X 22440-B8B | |
| LJRE | 11 * | 45.0 | 40.0 | 62.0 | 40.0 | 40.0 | 57.8 | 56.5 | 67.7 | 100.7 | 57.0 | 47.4 | 32.3 | 35.1 | 54.9 | X 11873-B4B | XB1019 ...2B |
| | 12 * | 57.0 | 51.0 | 80.0 | 50.0 | 52.0 | 73.8 | 72.1 | 86.4 | 128.5 | 72.8 | 60.5 | 41.3 | 44.7 | 70.1 | X 11873-B5B | |
| LERE | 13 * | 71.0 | 63.0 | 99.0 | 62.0 | 64.0 | 90.7 | 88.6 | - | - | 89.5 | 74.4 | 50.7 | 55.0 | 86.2 | X 9117-B6B | XC726...2B |
| | 14 * | 81.0 | 72.0 | 112.0 | 71.0 | 73.0 | 103.7 | 101.3 | - | - | 102.3 | 85.1 | 58.0 | 62.9 | 98.5 | X 9117-B7B | |
| | 15 * | 112.0 | 99.0 | 155.0 | 98.0 | 100.0 | 142.6 | 139.3 | - | - | 140.6 | 117.0 | 79.7 | 86.4 | 135.4 | X 9117-B8B | |
| LIRE- | 16 * | 135.0 | 120.0 | 188.0 | 119.0 | 121.0 | 173.5 | 169.5 | - | - | 171.1 | 142.3 | 97.0 | 105.2 | 164.8 | X 9117-B9B | XC726...2B |
| | 17 * | 174.0 | 154.0 | 241.0 | 152.0 | 156.0 | 222.4 | 217.2 | - | - | 219.3 | 182.4 | 124.3 | 134.8 | 211.2 | X 9166-B10B | |

Note 1: Nominal conditions: Evaporating Temperature +4°C (dew point), Condensing Temperature +38°C (bubble point), Subcooling 1 K

Note 2: For selection of other operating conditions, please use "Select" software.

Note 3: *) Please indicate designation character for desired superheat.

Selection table power assembly and recommended flanges

| Valve Series | Orifice Type | Connection Standard Flange, Angle Style | | Connection (Inlet x Outlet) | | Power Element Type |
|--------------|--------------------------------------|---|--------|------------------------------|--|--------------------|
| | | Type | Type | Metric | Imperial | |
| LCLE | X22440-B1B / B2B / B3B / B3.5B / B4B | | C501-5 | - | 3/8" x 5/8" ODF | XB1019...2B |
| | | C501-5mm | | 10x16 mm ODF | | |
| | X22440-B5B / B6B | | C501-7 | | 1/2" x 5/8" ODF | |
| | | C501-7mm | | 12x16 mm ODF | | |
| | | | A576 | | 5/8" x 7/8" ODF 7/8" x 1 1/8" ODF | |
| A576-mm | | 16x22 mm ODF 22x28 mm ODM | - | | | |
| LJRE | X11873-B4B / B5B | 10331 | 10331 | 22x22 mm ODF | 7/8" x 7/8" ODF 1 1/8" x 1 1/8" ODM | XC726...2B |
| LERE/ LIRE | X9117-B6B / B7B / B8B / B9B / B10B | | 9153 | - | 7/8" x 7/8" ODF 1 1/8" x 1 1/8" ODM | |
| | | 9153-mm | | 22x22 mm ODF 22x28 mm ODM | | |

Suction gas superheat selection:

| * Charge Code | Refrigerant | | | | | | | | | | | | |
|---------------|-------------|--------------|-------|-------|---------------|-------|-------|-------|-------|---------|---------|-----|-------|
| | R134a | R404A / R507 | R407C | R410A | R448A / R449A | R450A | R513A | R454A | R454C | R1234yf | R1234ze | R32 | R455A |
| CL | - | 22K | 13K | 30K | 17K | - | - | 19K | 13K | - | - | 31K | 15K |
| GL | 14K | - | 25K | - | 30K | 10K | 17K | 32K | 27K | 16K | - | - | 28K |
| UL | 30K | - | - | - | - | 26K | - | - | - | - | 22K | - | - |

Note: *) Please Indicate Designation Character for Desired Superheat.

Accessories and spare parts

| Description | Type | Part No. |
|--|-------------|----------|
| Service Tool for T, ZZ, L and 935 Series valves | X 99999 | 027 579 |
| Gasket sets for T, ZZ, L and 935 Series valves | X 13455 -1 | 800 005 |
| Gasket sets for T, ZZ, L and 935 Series valves Steel Screws for flange types: C500, C501, 9761, X6346, X6669, A576 | Screw ST 32 | 803 573 |
| Steel Screws for flange types: 9148, 9149, 9152, 9153, 10331, 10332 | Screw ST 48 | 803 574 |
| Bulb clamp for XB1019 | XA 1728-4 | 803260 |
| Bulb clamp for XC726 | XA 1728-5 | 803261 |

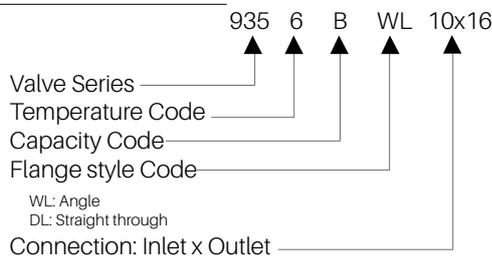
Liquid injection valves series 935 with exchangeable power assemblies and orifices

Features

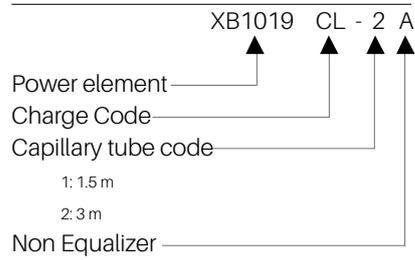
- Modular design for economical logistics and easy assembly and servicing
- Very good stability is attained because of the large forces generated by the large diaphragm diameter
- High-quality materials and processes for high reliability and long lifetime
- Combinations of different charges with various orifice springs cover a very large application range
- Max. allowable pressure PS:
 - 46 bar with XB power assembly
- Medium Temperature Range TS: -45...+65°C



Type code valve



Type code power assembly



Nominal capacities for cages

| Valve Series | Capacity code* | Nominal Capacity Q _n (kW) | | | | | | | | | | | | | | Orifice Type | Power Element Type |
|--------------|----------------|--------------------------------------|-------|------------|-------|-------|-------------|-------|-------|-------|-------|-------|-------|---------|---------|--------------|--------------------|
| | | R134a | R32 | R404A/R507 | R407C | R410A | R448A/R449A | R450A | R454A | R454C | R455A | R513A | R452a | R1234yf | R1234ze | | |
| 935- * - | A | 4.0 | 9.0 | 3.8 | 5.6 | 6.1 | 5.2 | 3.5 | 5.1 | 4.3 | 4.9 | 3.6 | 3.9 | 2.9 | 3.1 | X10-**-01 | XB1019-***-2A |
| | B | 7.8 | 17.5 | 7.4 | 10.9 | 11.8 | 10.1 | 6.9 | 9.9 | 8.3 | 9.6 | 7.1 | 7.6 | 5.6 | 6.1 | X10-**-02 | |
| | C | 11.1 | 24.7 | 10.3 | 15.4 | 16.6 | 14.2 | 9.7 | 14.0 | 11.6 | 13.4 | 9.9 | 10.8 | 7.9 | 8.6 | X10-**-03 | |
| | D | 16.3 | 36.6 | 15.6 | 22.8 | 24.6 | 21.0 | 14.4 | 20.7 | 17.3 | 20 | 14.7 | 16.0 | 11.8 | 12.8 | X10-**-04 | |
| | E | 22.5 | 50.2 | 21.0 | 31.2 | 33.7 | 28.8 | 19.7 | 28.4 | 23.6 | 27.4 | 20.2 | 21.9 | 16.1 | 17.5 | X10-**-05 | |
| | G | 32.0 | 71.5 | 29.9 | 44.5 | 48.1 | 41.1 | 28.1 | 40.5 | 33.7 | 39.0 | 28.8 | 31.2 | 23.0 | 24.9 | X10-**-06 | |
| | X | 46.6 | 104.2 | 43.5 | 64.9 | 70.0 | 59.8 | 40.9 | 59.0 | 49.1 | 56.8 | 41.9 | 45.4 | 33.5 | 36.3 | X10-**-07 | |

| *) Temperature Code | Temperature Range | **) Spring code | ***) Charge code |
|----------------------|-------------------|------------------|-------------------|
| 3 | -1 ... +17°C | B | UL |
| 6 | +14 ... +38°C | C | KL |
| 105 | +44 ... +70°C | C | YL |
| 106 | +66 ... +94°C | C | JL |
| 100 | +94 ... +121°C | C | LL |

Note: Nominal conditions: Evaporating Temperature +4°C (dew point), Condensing Temperature +38°C (bubble point), Subcooling 1 K
For selection of other operating conditions, please use "Select" program.

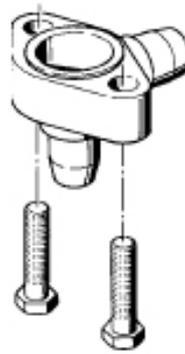
Selection table power assembly and recommended flanges

| Valve Series | Orifice Type | Connection Standard Flange, Angle Style | | Connection (inlet x outlet) | | Power Element Type |
|--------------|--------------------|--|--------|----------------------------------|--------------------------------------|--------------------|
| | | Type | Type | Metric | Imperial | |
| 935 | X 10-*01/ *02/ *03 | C501-5 mm | | 10 x 16 mm ODF | | XB1019-***-2A |
| | | | C501-5 | | 3/8" x 5/8 ODF | |
| | X 10-*04/ *05 | C501-7 mm | | 12 x 16 mm ODF | | |
| | | | C501-7 | | 1/2" x 5/8" ODF - | |
| | X 10-*06/ *07 | A 576 mm | | 16 x 22 mm ODF 22 x 28 mm ODM | | |
| | | | A 576 | | 5/8" x 7/8" ODF 7/8" x 1-1/8" ODM | |

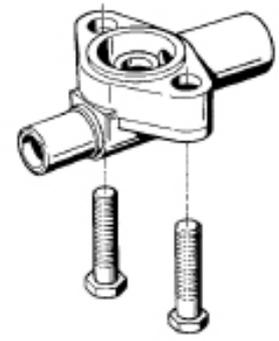
Accessories and spare parts

| Description | Type | Part No. |
|--|-------------|----------|
| Service tool for T, ZZ, L and 935 series valves | X 99999 | 800005 |
| Gasket sets for T, ZZ, L and 935 Series valves | X 13455-1 | 027579 |
| Steel screws for flange types: C500, C501, 9761, X6346, X6669, A576 | Screw ST 32 | 803573 |
| Bulb clamp for XB1019 | XA 1728-4 | 803260 |

Overview flange for take apart valves



Angle Style Flange
(WL)



Straight Through Flange
(DL)

| Flanges: T- / L-Series | | | | | | | |
|----------------------------|--|-------------|----------|------------------|----------|------------------------------|------------------------------------|
| Valve Series | Orifice Type | Angle Style | | Straight Through | | Connection (Inlet x Outlet) | |
| | | Type | Part No. | Type | Part No. | Metric | Imperial |
| TCLE / LCLE | X22440-B1B / B2B / B3B / B3.5B / B4B | C501-5 | 803232 | 9761-3 | 803240 | - | 3/8"x5/8" ODF |
| | | C501-5mm | 803233 | 9761-3mm | 803241 | 10x16 mm ODF | |
| | X22440-B5B / B6B | C501-7 | 803234 | 9761-4 | 803350 | | 1/2"x5/8" ODF |
| | | C501-7mm | 803235 | 9761-4mm | 803243 | 12x16 mm ODF | - |
| | X22440-B7B / B8B | - | - | 6346-17 | 803330 | 16x22 mm ODF | 5/8"x7/8" ODF |
| | | A576 | 803238 | - | - | - | 5/8"x7/8" ODF |
| | | A576-mm | 803239 | - | - | 16x22 mm ODF | 7/8"x1-1/8" ODM |
| | | | | | | 22x28 mm ODM | - |
| TJRE / LJRE | X11873-B4B / B5B | 10331 | 803338 | 10332 | 803324 | 22x22 mm ODF | 7/8"x7/8" ODF 1-1/8"x1-1/8" ODM |
| TERE / TIRE LERE / LIRE | X9117-B6B / B7B / B8B / B9B / X9166-B10B | 9153 | 803244 | 9152 | 803286 | - | 7/8"x7/8" ODF 1-1/8"x1-1/8" ODM |
| | | 9153-mm | 803245 | 9152-mm | 803287 | 22x22 mm ODF 28x28 mm ODM | |
| THRE | X9144-B11B / B13B | 9149 | 803284 | 9148 | 803283 | 22x22 mm ODF | 7/8"x7/8" ODF 1-1/8"x1-1/8" ODM |

| Flanges: 935- / ZZ-Series | | | | | | | |
|---------------------------|---------------------|-------------|----------|------------------|----------|-----------------------------|-----------------|
| Valve Series | Orifice Type | Angle Style | | Straight Through | | Connection (Inlet x Outlet) | |
| | | Type | Part No. | Type | Part No. | Metric | Imperial |
| 935 / ZZ | X10-*01 / *02 / *03 | C501-5 | 803232 | 9761-3 | 803240 | - | 3/8"x5/8" ODF |
| | | C501-5mm | 803233 | 9761-3mm | 803241 | 10x16 mm ODF | |
| | X10-*04 / *05 | C501-7 | 803234 | 9761-4 | 803350 | | 1/2"x5/8" ODF |
| | | C501-7mm | 803235 | 9761-4mm | 803243 | 12x16 mm ODF | - |
| | X10-*06 / *07 | | | 6346-17 | 803330 | 16x22 mm ODF | 5/8"x7/8" ODF |
| | | A576 | 803238 | - | - | - | 5/8"x7/8" ODF |
| | | A576-mm | 803239 | - | - | 16x22 mm ODF | 7/8"x1-1/8" ODM |
| | | | | | | 22x28 mm ODM | - |