



# Centra Linear Valve XE/XI

## 3-way Linear Valve

### APPLICATION

Single seated control or shut-off 3-way linear valve for:

- Hot water
- Chilled water

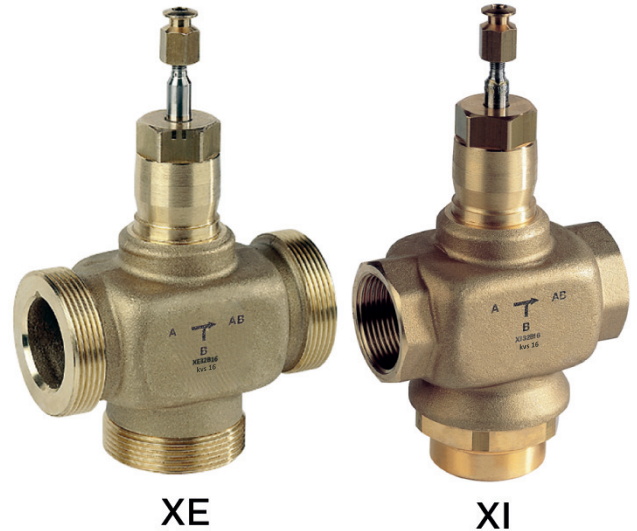
in heating, ventilation, air conditioning systems, and open circuits.

Operated by

- electric linear actuators series ML64... and ML74...

### SPECIAL FEATURES

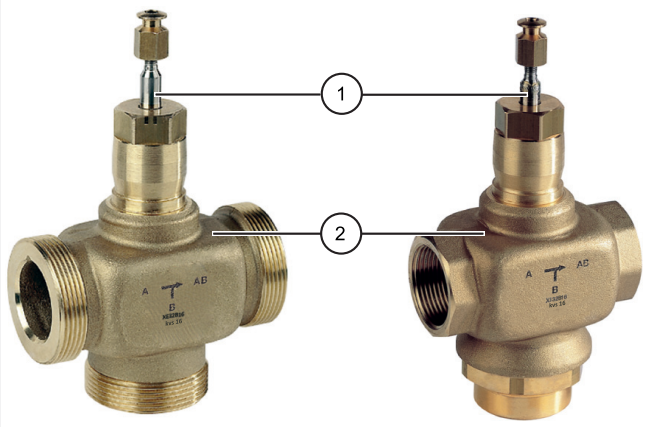
- Brass body with external threaded end connections (type XE)
- Brass body with internal threaded end connections (type XI)
- Low seat leakage rate
- Self-adjusting packing
- Accurate positioning to ensure state-of-the-art temperature control
- Constant total flow throughout full plug travel



### TECHNICAL DATA

| Media  |   |
|--|---|
| Medium:  | Water or glycol-water mixture, according to VDI 2035                    |
| Operating temperatures and operating pressure                    |   |
| 2 to 120 °C:   | max. 1600 kPa   |
| 120 to 170 °C:   | max. 1490 kPa   |
| Max. temperature differential in alternating hot/cold water use: | 60 K  |
| Connection/Sizes   |   |
| Pipe connection:   | Internal threading as per ISO 228<br>External threading as per DIN 2999 |
| Specifications   |   |
| Action:  | Stem up to close port A-AB  |
| Nominal pressure rating:   | PN16  |
| Flow characteristic:   | equal percentage: port A-AB<br>linear: port B-AB                        |
| Rangeability:  | 50:1  |
| Leakage rate:  | ≤0.05% of $k_{vs}$  |
| Stroke:  | 20 mm   |

## CONSTRUCTION

| Overview   | Components   | Materials  |
|--|--|--|
|  | <b>1</b> Stem                                      | Stainless steel                                    |
|  | <b>2</b> Valve body                                | Brass  |
|  | <b>Not depicted components:</b>                    |  |
|  | Seat   | DN15: stainless steel<br>DN20..50: body integrated |
| Plug   | Brass  |  |
| Packing  | Spring-loaded carbon fiber reinforced PTFE V-rings |  |

## INSTALLATION GUIDELINES

### Setup requirements

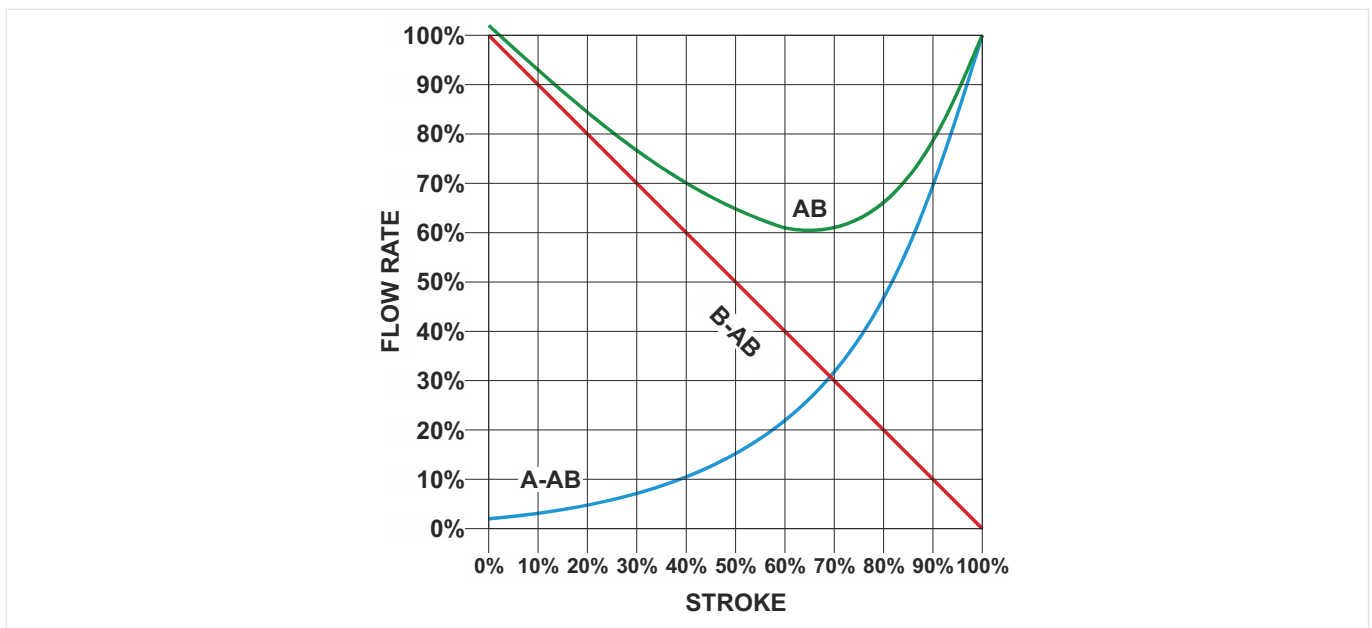
- Do not install valve with stem below the horizontal
- Fluid flow must correspond with the arrow direction on the valve body
- The installation of a strainer is strongly recommended

## TECHNICAL CHARACTERISTICS

### Close off pressure ratings in kPa

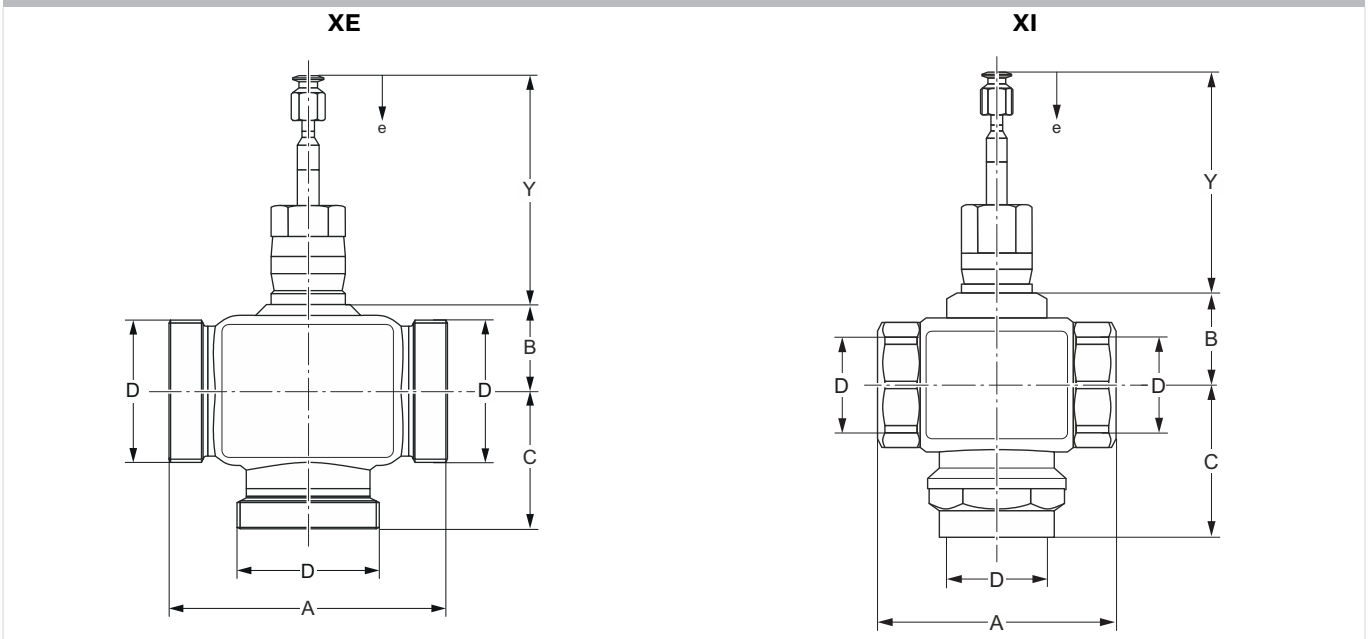
| Actuator                         |        | Valve Size |          |          |          |          |         |
|----------------------------------|--------|------------|----------|----------|----------|----------|---------|
| Model                            | Force  | DN15       | DN20     | DN25     | DN32     | DN40     | DN50    |
| ML6420, ML6425<br>ML7420, ML7425 | 600 N  | 1600 kPa   | 1000 kPa | 1000 kPa | 700 kPa  | 460 kPa  | 260 kPa |
| ML6421, ML7421                   | 1800 N | -          | -        | 1600 kPa | 1600 kPa | 1300 kPa | 850 kPa |

### Characteristic curves



## DIMENSIONS

### Overview



| DN        | D                                  | A   | B  | C    | Stem up | Stroke |
|-----------|------------------------------------|-----|----|------|---------|--------|
|           |                                    |     |    |      | Y       | e      |
| <b>XE</b> |                                    |     |    |      |         |        |
| 15        | G 1 <sup>1</sup> / <sub>8</sub> "  | 80  | 40 | 55   | 107     | 20     |
| 20        | G 1 <sup>1</sup> / <sub>4</sub> "  | 80  | 40 | 55   |         |        |
| 25        | G 1 <sup>1</sup> / <sub>2</sub> "  | 110 | 40 | 55   |         |        |
| 32        | G 2"                               | 120 | 40 | 55   |         |        |
| 40        | G 2 <sup>1</sup> / <sub>4</sub> "  | 130 | 40 | 60   |         |        |
| 50        | G 2 <sup>3</sup> / <sub>4</sub> "  | 150 | 40 | 65   |         |        |
| <b>XI</b> |                                    |     |    |      |         |        |
| 15        | Rp 1/2"                            | 83  | 40 | 65   | 107     | 20     |
| 20        | Rp 3/4"                            | 83  | 40 | 65   |         |        |
| 25        | Rp 1"                              | 103 | 40 | 66.5 |         |        |
| 32        | Rp 1 <sup>1</sup> / <sub>4</sub> " | 106 | 40 | 72.5 |         |        |
| 40        | Rp 1 <sup>1</sup> / <sub>2</sub> " | 120 | 40 | 77   |         |        |
| 50        | Rp 2"                              | 134 | 40 | 83.5 |         |        |

Note: All dimensions in mm unless stated otherwise.

## ORDERING INFORMATION

The following tables contain all the information you need to make an order of an item of your choice. When ordering, please always state the type, the ordering or the part number.

### Naming key linear valves

| X               | E                            | 15                               | B        | 2.5                                       |
|-----------------|------------------------------|----------------------------------|----------|---|
| 3-way valve     | Type of thread               | DN (mm)                          | PN (bar) | K <sub>VS</sub> -value                    |
| X = 3-way valve | E = External<br>I = Internal | 15<br>20<br>25<br>32<br>40<br>50 | B = 16   | 2.5<br>4.0<br>6.3<br>10<br>16<br>25<br>40 |

**Options**

**Valve with external threads (XE)**

| DN | k <sub>vs</sub> -value | Connection      | Nominal pressure | Description                                  | OS.-No.  |
|----|------------------------|-----------------|------------------|--|----------|
| 15 | 2.5                    | External thread | PN16             | 3-way valve, ext. thread, DN15, PN16, kvs2.5 | XE15B2.5 |
| 15 | 4.0                    |                 |                  | 3-way valve, ext. thread, DN15, PN16, kvs4.0 | XE15B4.0 |
| 20 | 6.3                    |                 |                  | 3-way valve, ext. thread, DN20, PN16, kvs6.3 | XE20B6.3 |
| 25 | 10                     |                 |                  | 3-way valve, ext. thread, DN25, PN16, kvs10  | XE25B10  |
| 32 | 16                     |                 |                  | 3-way valve, ext. thread, DN32, PN16, kvs16  | XE32B16  |
| 40 | 25                     |                 |                  | 3-way valve, ext. thread, DN40, PN16, kvs25  | XE40B25  |
| 50 | 40                     |                 |                  | 3-way valve, ext. thread, DN50, PN16, kvs40  | XE50B40  |

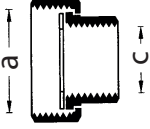
**Valve with internal threads (XI)**

| DN | k <sub>vs</sub> -value | Connection      | Nominal pressure | Description                                  | OS.-No.  |
|----|------------------------|-----------------|------------------|--|----------|
| 15 | 2.5                    | Internal thread | PN16             | 3-way valve, int. thread, DN15, PN16, kvs2.5 | XI15B2.5 |
| 15 | 4.0                    |                 |                  | 3-way valve, int. thread, DN15, PN16, kvs4.0 | XI15B4.0 |
| 20 | 6.3                    |                 |                  | 3-way valve, int. thread, DN20, PN16, kvs6.3 | XI20B6.3 |
| 25 | 10                     |                 |                  | 3-way valve, int. thread, DN25, PN16, kvs10  | XI25B10  |
| 32 | 16                     |                 |                  | 3-way valve, int. thread, DN32, PN16, kvs16  | XI32B16  |
| 40 | 25                     |                 |                  | 3-way valve, int. thread, DN40, PN16, kvs25  | XI40B25  |
| 50 | 40                     |                 |                  | 3-way valve, int. thread, DN50, PN16, kvs40  | XI50B40  |

**Accessories**

|   | Description   | Voltage     | Runtime | Part No.    |
|---|---|-------------|---------|-------------|
|   | <b>ML6420A Actuator: 3-point / floating</b>                     |             |         |             |
|   | 20 mm effective stroke, 600N                                    | 230 V AC    | 60 s    | ML6420A3015 |
|   |   |             | 30 s    | ML6420A3031 |
|   |   | 24 V AC     | 60 s    | ML6420A3007 |
|   |   |             | 30 s    | ML6420A3023 |
|  | <b>ML7420A Actuator: modulating 0/2 ... 10 V</b>                |             |         |             |
|   | 20 mm effective stroke, 600N                                    | 24 V AC     | 60 s    | ML7420A6009 |
|   |   |             | 30 s    | ML7420A6017 |
|  | <b>ML6421 Actuator: 3-point / floating</b>                      |             |         |             |
|   | 20 mm effective stroke, 1800N                                   | 230 V AC    | 114 s   | ML6421A3013 |
|  | <b>ML7421 Actuator: modulating 0/2 ... 10 V</b>                 |             |         |             |
|   | 20 mm effective stroke, 1800N                                   | 24 V AC     | 114 s   | ML7421A3004 |
|  | <b>ML6425 Actuator: 3-point / floating (spring return)</b>      |             |         |             |
|   | 20 mm effective stroke, 600N, spring return direct              | 230 V AC    | 108 s   | ML6425A3014 |
|   |   | 24 V AC     |         | ML6425A3006 |
|   | 20 mm effective stroke, 600N, spring return reverse             | 230 V AC    | 108 s   | ML6425B3021 |
|   | 24 V AC   | ML6425B3005 |         |             |
|  | <b>ML7425 Actuator: modulating 0/2 ... 10 V (spring return)</b> |             |         |             |
|   | 20 mm effective stroke, 600N                                    | 24 V AC     | 108 s   | ML7425A6008 |
|   | 20 mm effective stroke, 600N, spring return reverse             |             |         | ML7425B6007 |

## Only for XE

|  | Description   |  | Dimension                  |  | Part No.      |
|--|---|--|----------------------------|--|---------------|
|  |  | <b>ASV-CS-xx-I-F</b>   | <b>Flat connection set</b> |  |               |
|  |   | consisting of  | DN15                       | a: G 1 <sup>1</sup> / <sub>8</sub> "<br>c: G 1 <sup>1</sup> / <sub>2</sub> " | ASV-CS-15-I-F |
|  |   | <ul style="list-style-type: none"> <li>1 union nut</li> <li>1 tailpiece</li> <li>1 gasket</li> </ul> | DN20                       | a: G 1 <sup>1</sup> / <sub>4</sub> "<br>c: G 3 <sup>3</sup> / <sub>4</sub> " | ASV-CS-20-I-F |
|  |   |  | DN25                       | a: G 1 <sup>1</sup> / <sub>2</sub> "<br>c: G 1"                              | ASV-CS-25-I-F |
|  |   |  | DN32                       | a: G 2<br>c: G 1 <sup>1</sup> / <sub>4</sub> "                               | ASV-CS-32-I-F |
|  |   |  | DN40                       | a: G 2 <sup>1</sup> / <sub>4</sub> "<br>c: G 1 <sup>1</sup> / <sub>2</sub> " | ASV-CS-40-I-F |
|  |   |  | DN50                       | a: G 2 <sup>3</sup> / <sub>4</sub> "<br>c: G 2"                              | ASV-CS-50-I-F |

## Naming key accessories

| ASV                                     | -CS                 | -15                              | -I                  | -F               |
|---|---------------------|----------------------------------|---------------------|------------------|
| Accessories and spares for valves       | Connection Set      | Type                             | Type of thread      |                  |
| ASV = Accessories and spares for valves | CS = Connection Set | 15<br>20<br>25<br>32<br>40<br>50 | I = Internal Thread | F = Flat Sealing |

| DN   | Description   | OS-No.        |
|------|---|---------------|
| DN15 | Connection set type 13, DN15, internal thread, flat | ASV-CS-15-I-F |
| DN20 | Connection set type 13, DN20, internal thread, flat | ASV-CS-20-I-F |
| DN25 | Connection set type 13, DN25, internal thread, flat | ASV-CS-25-I-F |
| DN32 | Connection set type 13, DN32, internal thread, flat | ASV-CS-32-I-F |
| DN40 | Connection set type 13, DN40, internal thread, flat | ASV-CS-40-I-F |
| DN50 | Connection set type 13, DN50, internal thread, flat | ASV-CS-50-I-F |

**Spare Parts**

| Overview | Description               | Dimension   | Part No.  |
|----------|---------------------------|-------------|-----------|
|          | <b>1 Stem button assy</b> |             |           |
|          |                           | DN15 - DN50 | ASV-SBA-1 |
|          | <b>2 Packing nut</b>      | DN15 - DN50 | ASV-PN-7  |
|          | <b>3 Packing</b>          | DN15 - DN50 | ASV-PAC-2 |

**Naming key spare parts**

| ASV                                     | -PAC   | -2          |
|---|--|-------------|
| Accessories and spares for valves       | Range  | Type        |
| ASV = Accessories and spares for valves | PAC = Packing, complete<br>PN = Packing, nut<br>SBA = Stem button assy | 1<br>2<br>7 |



Strandvejen 42 ♦ Saksild ♦ 8300 Odder  
 86 62 63 64 ♦ [www.automatikcentret.dk](http://www.automatikcentret.dk)  
[info@automatikcentret.dk](mailto:info@automatikcentret.dk)



Manufactured for  
 and on behalf of  
 Pittway Sàrl, Z.A., La Pièce 4  
 1180 Rolle, Switzerland

For more information  
[homecomfort.resideo.com/europe](http://homecomfort.resideo.com/europe)  
 Ademco 1 GmbH, Hardhofweg 40,  
 74821 MOSBACH, GERMANY  
 Phone: +49 6261 810  
 Fax: +49 6261 81309

This document contains proprietary information of Pittway Sàrl and its affiliated companies and is protected by copyright and other international laws.  
 Reproduction or improper use without specific written authorization of Pittway Sàrl is strictly forbidden.