



2-year warranty

**Type overview**

|             |           |
|-------------|-----------|
| <b>Type</b> | <b>DN</b> |
| ZONE220N-50 | 20        |

**Technical data**

|                           |                                |  |
|---------------------------|--------------------------------|--|
| <b>Functional data</b>    | Valve size [mm]                | 0.75" [20]                             |
|                           | Fluid                          | chilled or hot water, up to 50% glycol |
|                           | Fluid Temp Range (water)       | 32...212°F [0...100°C]                 |
|                           | Body Pressure Rating           | 300 psi                                |
|                           | Close-off pressure $\Delta ps$ | 25 psi                                 |
|                           | Flow characteristic            | on/off                                 |
|                           | Flow Pattern                   | 2-way                                  |
|                           | Leakage rate                   | ANSI Class III 0.1%                    |
|                           | Cv                             | 5                                      |
| <b>Materials</b>          | Valve body                     | forged brass                           |
|                           | Housing seal                   | EPDM                                   |
|                           | Spindle                        | stainless steel                        |
|                           | Seat                           | EPDM                                   |
|                           | Pipe connection                | NPT female ends                        |
| <b>Suitable actuators</b> | Spring                         | ZONE                                   |

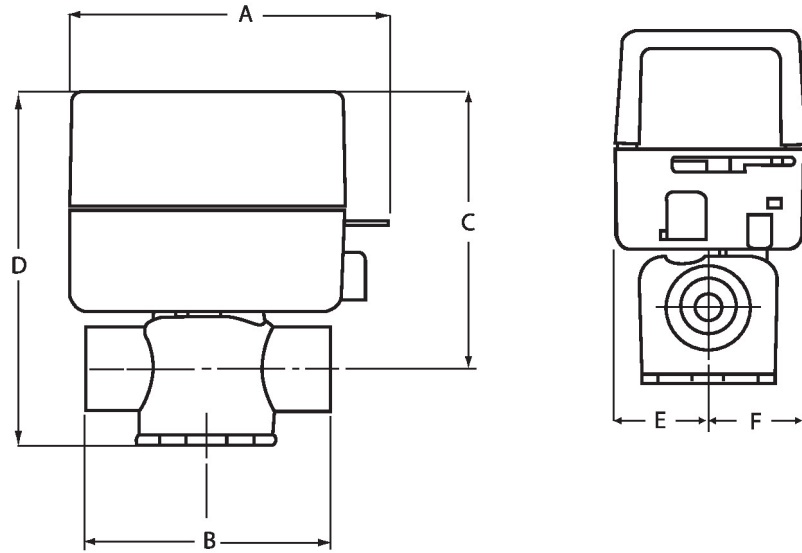
**Product features**

**Application** This valve is typically used on fan coil units, baseboards or other hydronic applications where fail safe operation on 2-wire control is required. This valve is suitable for use in a hydronic system with variable or constant flow.

This valve is designed to fit in compact areas where on/off or control is required using 24 VAC or 120 VAC.

**Dimensions**

|             |           |
|-------------|-----------|
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| A          | B         | C         | D          | E         | F         |
|------------|-----------|-----------|------------|-----------|-----------|
| 4.0" [102] | 2.8" [70] | 3.5" [89] | 4.4" [113] | 1.2" [30] | 1.2" [31] |



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**Technical data**

|                        |                                |                             |
|------------------------|--------------------------------|-----------------------------|
| <b>Electrical data</b> | Nominal voltage                | AC 24 V                     |
|                        | Nominal voltage frequency      | 50/60 Hz                    |
|                        | Power consumption in operation | 6.5 W                       |
|                        | Transformer sizing             | 7 VA (class 2 power source) |
|                        | Electrical Connection          | 18" wire leads              |
| <b>Functional data</b> | Manual override                | hand lever                  |
|                        | Angle of rotation              | 90°                         |
|                        | Running time fail-safe         | <5 s                        |
|                        | Noise level, motor             | 35 dB(A)                    |
|                        | Noise level, fail-safe         | 35 dB(A)                    |
|                        | Position indication            | Mechanically (integrated)   |
| <b>Safety data</b>     | Degree of protection IEC/EN    | IP20                        |
|                        | Degree of protection NEMA/UL   | NEMA 1                      |
|                        | Enclosure                      | UL Enclosure Type 1         |
|                        | Agency Listing                 | CE, cULus                   |
|                        | Quality Standard               | ISO 9001                    |
|                        | Ambient temperature            | 32...104 [0...40°C]         |
|                        | Storage temperature            | -40...176°F [-40...80°C]    |
|                        | Ambient humidity               | Max. 95% RH, non-condensing |
| <b>Materials</b>       | Service                        | maintenance-free            |
|                        | Housing material               | galvanized steel            |

**Electrical installation**
**INSTALLATION NOTES**

- Meets cULus requirements without the need of an electrical ground connection.
- One built-in auxiliary switch, 1x SPST 0.4A @ 24 VAC (resistive and inductive loads).

**Wiring diagrams**

Built-in Auxiliary Switch (optional) (only on -S models)

