

# 5/2-directional valve, Series TC15

- 5/2
- Qn = 1500 l/min
- Pilot valve width : 15 mm
- Plate connection Pipe connection
- Compressed air connection output : G 1/4
- Electrical connection : Plug, ISO 15217, form C
- Can be assembled into blocks
- Manual override : with detent without detent
- single solenoid double solenoid
- Pilot : External



|                                  |                                   |
|----------------------------------|-----------------------------------|
| Type                             | Spool valve, positive overlapping |
| Activation                       | Electrically                      |
| Pilot                            | External                          |
| Sealing principle                | Soft sealing                      |
| Blocking principle               | Plate principle                   |
| Working pressure min./max.       | -0,9 ... 10 bar                   |
| Control pressure min./max.       | See table below                   |
| Ambient temperature min./max.    | -10 ... 50 °C                     |
| Medium temperature min./max.     | -10 ... 50 °C                     |
| Medium                           | Compressed air                    |
| Max. particle size               | 5 µm                              |
| Nominal flow Qn                  | 1500 l/min                        |
| Connector standard               | ISO 15217                         |
| Protection class with connection | IP65                              |
| Duty cycle                       | 100 %                             |
| Rail mounting DIN EN 60715       | TH35 x 15                         |
| Weight                           | See table below                   |

## Technical data

| Part No.   | MO | Compressed air connection |      | Operational voltage |
|------------|----|---------------------------|------|---------------------|
|            |    | Output                    | DC   |                     |
| 0820058751 |    | G 1/4                     | 24 V |                     |
| 0820058761 |    | G 1/4                     | 24 V |                     |
| 0820058771 |    | G 1/4                     | 24 V |                     |
| R422103060 |    | G 1/4                     | -    |                     |
| 0820058851 |    | G 1/4                     | 24 V |                     |
| 0820058861 |    | G 1/4                     | 24 V |                     |
| R422103061 |    | G 1/4                     | -    |                     |
| 0820058871 |    | G 1/4                     | 24 V |                     |

| Part No.   | Voltage tolerance | Power consumption | Flow conductance | Flow conductance |
|------------|-------------------|-------------------|------------------|------------------|
|            | DC                | DC                | b                | C-value          |
| 0820058751 | -10% / +10%       | 2 W               | 0,33             | 6,8 l/(s*bar)    |
| 0820058761 | -10% / +10%       | 2 W               | 0,33             | 6,8 l/(s*bar)    |
| 0820058771 | -10% / +10%       | 2 W               | 0,33             | 6,8 l/(s*bar)    |
| R422103060 | -                 | -                 | 0,33             | 6,8 l/(s*bar)    |

| Part No.   | Voltage tolerance | Power consumption | Flow conductance | Flow conductance |
|------------|-------------------|-------------------|------------------|------------------|
|            | DC                | DC                | b                | C-value          |
| 0820058851 | -10% / +10%       | 2 W               | 0,33             | 6,8 l/(s*bar)    |
| 0820058861 | -10% / +10%       | 2 W               | 0,33             | 6,8 l/(s*bar)    |
| R422103061 | -                 | -                 | 0,33             | 6,8 l/(s*bar)    |
| 0820058871 | -10% / +10%       | 2 W               | 0,33             | 6,8 l/(s*bar)    |

| Part No.   | Nominal resistance | Control pressure min./max. | Typ. switch-on time | Typ. switch-off time |
|------------|--------------------|----------------------------|---------------------|----------------------|
| 0820058751 | 280 Ω              | 2,5 ... 10 bar             | 22 ms               | 20 ms                |
| 0820058761 | 280 Ω              | 3 ... 10 bar               | 12 ms               | 35 ms                |
| 0820058771 | 280 Ω              | 2 ... 10 bar               | 11 ms               | 11 ms                |
| R422103060 | -                  | 3 ... 10 bar               | 12 ms               | 35 ms                |
| 0820058851 | 280 Ω              | 2,5 ... 10 bar             | 22 ms               | 20 ms                |
| 0820058861 | 280 Ω              | 3 ... 10 bar               | 12 ms               | 35 ms                |
| R422103061 | -                  | 2 ... 10 bar               | 11 ms               | 11 ms                |
| 0820058871 | 280 Ω              | 2 ... 10 bar               | 11 ms               | 11 ms                |

| Part No.   | basic valve with electrical connector | Weight   |
|------------|---------------------------------------|----------|
| 0820058751 | -                                     | 0,201 kg |
| 0820058761 | -                                     | 0,201 kg |
| 0820058771 | -                                     | 0,229 kg |
| R422103060 | Basic valve without coil              | 0,201 kg |
| 0820058851 | -                                     | 0,201 kg |
| 0820058861 | -                                     | 0,201 kg |
| R422103061 | Basic valve without coil              | 0,229 kg |
| 0820058871 | -                                     | 0,229 kg |

Nominal flow Qn at 6 bar and  $\Delta p = 1$  bar, MO = Manual override

## Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

## Technical information

| Material         |  |
|------------------|--|
| Housing          | Polyamide fiber-glass reinforced                                     |
| Seals            | Acrylonitrile butadiene rubber Hydrogenated nitrile butadiene rubber |
| Front plate      | Polyamide fiber-glass reinforced                                     |
| Threaded bushing | Brass Die cast zinc, nickel-plated chrome-plated                     |



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