

# 5/2-directional valve, Series CD02-AL

- ISO 15407-1
- 18 mm
- 5/2
- With spring/air spring return
- single solenoid double solenoid
- Qn = 450 l/min
- Compressed air connection output VDMA 02 base plate
- Electrical connection Plug, ISO 15217, form C
- Manual override with detent



|                                  |                                   |
|----------------------------------|-----------------------------------|
| Type                             | Spool valve, positive overlapping |
| Pilot                            | Internal                          |
| Sealing principle                | Soft sealing                      |
| Blocking principle               | Base plate principle, multiple    |
| Connection type                  | Plate connection                  |
| Standards                        | ISO 15407-1, 18 mm                |
| Connector standard               | ISO 15217                         |
| Working pressure min./max.       | See table below                   |
| Control pressure min./max.       | See table below                   |
| Ambient temperature min./max.    | 0 ... 50 °C                       |
| Medium temperature min./max.     | 0 ... 60 °C                       |
| Medium                           | Compressed air                    |
| Max. particle size               | 5 µm                              |
| Oil content of compressed air    | 0 ... 5 mg/m³                     |
| Nominal flow Qn                  | 450 l/min                         |
| Protection class with connection | IP65                              |
| Duty cycle                       | 100 %                             |
| Typ. switch-on time              | See table below                   |
| Typ. switch-off time             | See table below                   |
| Mounting screw                   | M3                                |
| Weight                           | See table below                   |

## Technical data

| Part No.   |                                                                                   | MO                                                                                | Operational voltage DC | Operational voltage AC 50 Hz |
|------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------|------------------------------|
| 0820038178 |  |  | -                      | 24 V                         |
| 0820038176 |  |  | 24 V                   | -                            |
| 0820038177 |  |  | 24 V                   | -                            |
| 0820038179 |  |  | -                      | 110 V                        |
| 0820038175 |  |  | -                      | 230 V                        |
| 0820038955 |  | -                                                                                 | -                      | -                            |
| 0820038678 |  |  | -                      | 24 V                         |
| 0820038676 |  |  | 24 V                   | -                            |
| 0820038677 |  |  | 24 V                   | -                            |
| 0820038679 |  |  | -                      | 110 V                        |
| 0820038675 |  |  | -                      | 230 V                        |
| 0820038957 |  | -                                                                                 | -                      | -                            |

| Part No.   | Operational voltage AC 60 Hz | Voltage tolerance DC | Voltage tolerance AC 50 Hz | Voltage tolerance AC 60 Hz |
|------------|------------------------------|----------------------|----------------------------|----------------------------|
| 0820038178 | 24 V                         | -                    | -10% / +10%                | -10% / +10%                |
| 0820038176 | -                            | -10% / +10%          | -                          | -                          |
| 0820038177 | -                            | -10% / +10%          | -                          | -                          |
| 0820038179 | 110 V                        | -                    | -10% / +10%                | -10% / +10%                |
| 0820038175 | 230 V                        | -                    | -10% / +10%                | -10% / +10%                |
| 0820038955 | -                            | -                    | -                          | -                          |
| 0820038678 | 24 V                         | -                    | -10% / +10%                | -10% / +10%                |
| 0820038676 | -                            | -10% / +10%          | -                          | -                          |
| 0820038677 | -                            | -10% / +10%          | -                          | -                          |
| 0820038679 | 110 V                        | -                    | -10% / +10%                | -10% / +10%                |
| 0820038675 | 230 V                        | -                    | -10% / +10%                | -10% / +10%                |
| 0820038957 | -                            | -                    | -                          | -                          |

| Part No.   | Power consumption DC | Holding power AC 50 Hz | Holding power AC 60 Hz | Switch-on power AC 50 Hz |
|------------|----------------------|------------------------|------------------------|--------------------------|
| 0820038178 | -                    | 1,6 VA                 | 1,4 VA                 | 2,2 VA                   |
| 0820038176 | 2 W                  | -                      | -                      | -                        |
| 0820038177 | 1 W                  | -                      | -                      | -                        |
| 0820038179 | -                    | 1,6 VA                 | 1,4 VA                 | 2,2 VA                   |
| 0820038175 | -                    | 1,6 VA                 | 1,4 VA                 | 2,2 VA                   |
| 0820038955 | -                    | -                      | -                      | -                        |
| 0820038678 | -                    | 1,6 VA                 | 1,4 VA                 | 2,2 VA                   |
| 0820038676 | 2 W                  | -                      | -                      | -                        |
| 0820038677 | 1 W                  | -                      | -                      | -                        |
| 0820038679 | -                    | 1,6 VA                 | 1,4 VA                 | 2,2 VA                   |
| 0820038675 | -                    | 1,6 VA                 | 1,4 VA                 | 2,2 VA                   |
| 0820038957 | -                    | -                      | -                      | -                        |

| Part No.   | Switch-on power<br>AC 60 Hz | Working pressure min./max. | Control pressure min./max. |
|------------|-----------------------------|----------------------------|----------------------------|
| 0820038178 | 2 VA                        | 2 ... 10 bar               | 2 ... 10 bar               |
| 0820038176 | -                           | 2 ... 10 bar               | 2 ... 10 bar               |
| 0820038177 | -                           | 2 ... 10 bar               | 2 ... 10 bar               |
| 0820038179 | 2 VA                        | 2 ... 10 bar               | 2 ... 10 bar               |
| 0820038175 | 2 VA                        | 2 ... 10 bar               | 2 ... 10 bar               |
| 0820038955 | -                           | 2 ... 10 bar               | 2 ... 10 bar               |
| 0820038678 | 2 VA                        | 1,5 ... 10 bar             | 1,5 ... 10 bar             |
| 0820038676 | -                           | 1,5 ... 10 bar             | 1,5 ... 10 bar             |
| 0820038677 | -                           | 1,5 ... 10 bar             | 1,5 ... 10 bar             |
| 0820038679 | 2 VA                        | 1,5 ... 10 bar             | 1,5 ... 10 bar             |
| 0820038675 | 2 VA                        | 1,5 ... 10 bar             | 1,5 ... 10 bar             |
| 0820038957 | -                           | 1,5 ... 10 bar             | 1,5 ... 10 bar             |

| Part No.   | Typ. switch-on time | Typ. switch-off time | Electrical connection<br>Pilot valve |
|------------|---------------------|----------------------|--------------------------------------|
| 0820038178 | 11 ms               | 14 ms                | Plug ISO 15217, form C               |
| 0820038176 | 11 ms               | 14 ms                | Plug ISO 15217, form C               |
| 0820038177 | 12 ms               | 16 ms                | Plug ISO 15217, form C               |
| 0820038179 | 11 ms               | 14 ms                | Plug ISO 15217, form C               |
| 0820038175 | 11 ms               | 14 ms                | Plug ISO 15217, form C               |
| 0820038955 | -                   | -                    | Plug ISO 15217, form C               |
| 0820038678 | 8 ms                | 8 ms                 | Plug ISO 15217, form C               |
| 0820038676 | 8 ms                | 8 ms                 | Plug ISO 15217, form C               |
| 0820038677 | 10 ms               | 10 ms                | Plug ISO 15217, form C               |
| 0820038679 | 8 ms                | 8 ms                 | Plug ISO 15217, form C               |
| 0820038675 | 8 ms                | 8 ms                 | Plug ISO 15217, form C               |
| 0820038957 | -                   | -                    | Plug ISO 15217, form C               |

| Part No.   | basic valve with electrical connector | Weight  |    |
|------------|---------------------------------------|---------|----|
| 0820038178 | -                                     | 0,11 kg | -  |
| 0820038176 | -                                     | 0,11 kg | -  |
| 0820038177 | -                                     | 0,11 kg | 1) |
| 0820038179 | -                                     | 0,11 kg | -  |
| 0820038175 | -                                     | 0,11 kg | -  |
| 0820038955 | Basic valve without pilot valve       | 0,08 kg | -  |
| 0820038678 | -                                     | 0,16 kg | -  |
| 0820038676 | -                                     | 0,16 kg | -  |
| 0820038677 | -                                     | 0,16 kg | 1) |
| 0820038679 | -                                     | 0,16 kg | -  |
| 0820038675 | -                                     | 0,16 kg | -  |
| 0820038957 | Basic valve without pilot valve       | 0,1 kg  | -  |

Nominal flow Q<sub>n</sub> at 6 bar and Δp = 1 bar, MO = Manual override

1) Low power consumption

## Technical information

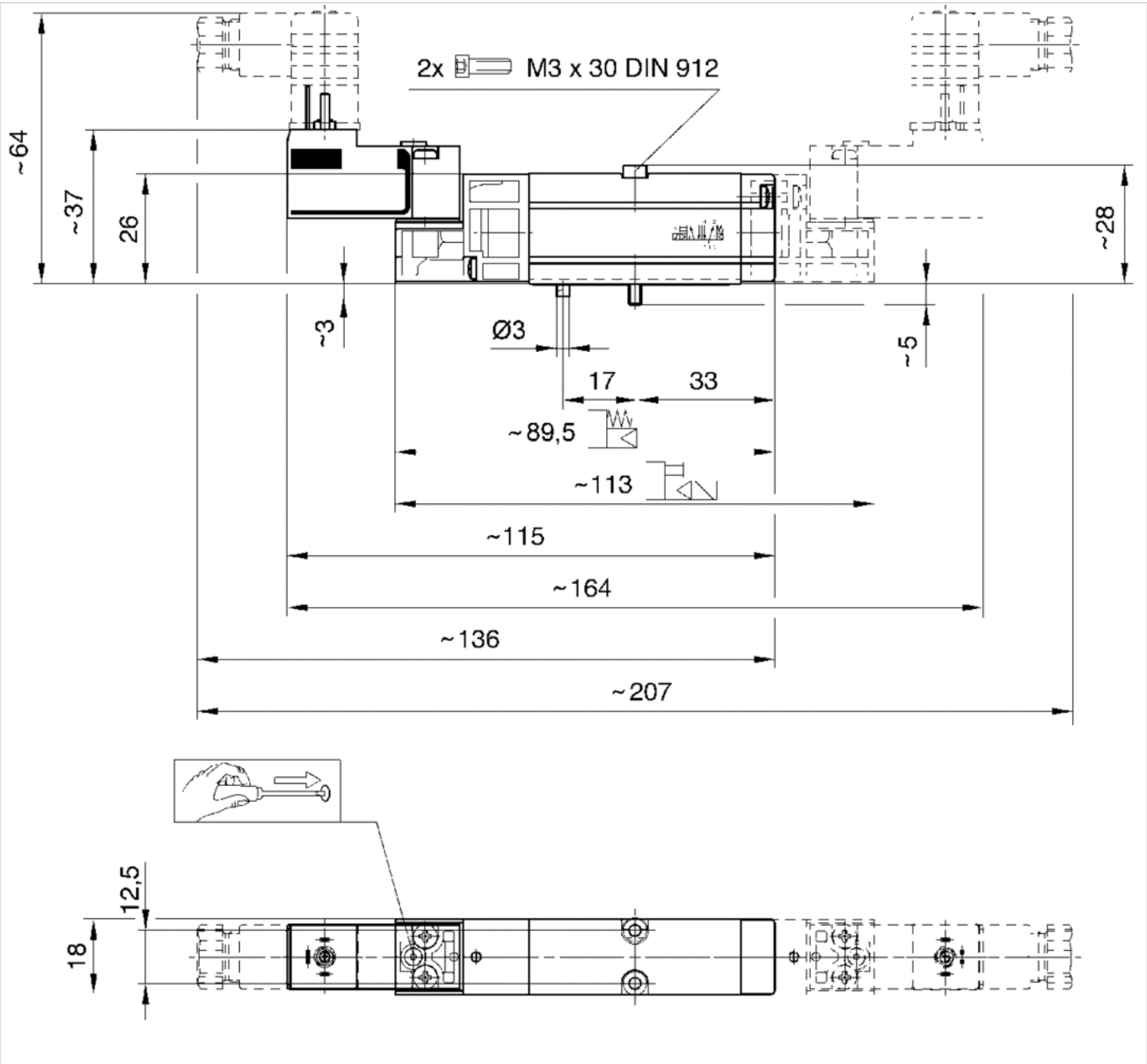
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!  
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
The oil content of compressed air must remain constant during the life cycle.  
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

## Technical information

|             |                                                                            |
|-------------|----------------------------------------------------------------------------|
|             |                                                                            |
| Housing     | Aluminum, anodized                                                         |
| Seals       | Acrylonitrile butadiene rubber Hydrogenated acrylonitrile butadiene rubber |
| Front plate | Polyamide                                                                  |

Dimensions

Dimensions



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