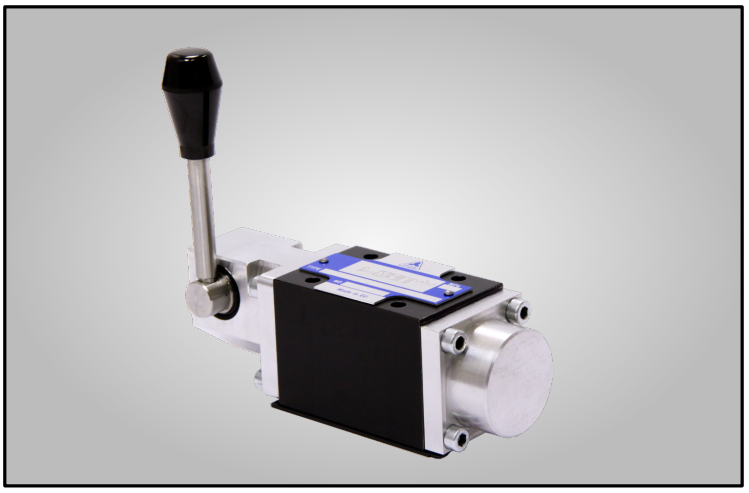
# RSP 7-06

**DIRECTIONAL CONTROL VALVES**

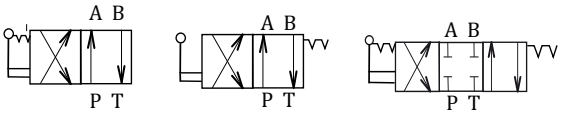
| KE 2053 | 07/13 |

**$D_n$ 06 | $p_{max}$ 32 MPa | $Q_{max}$ 80 dm³/min**



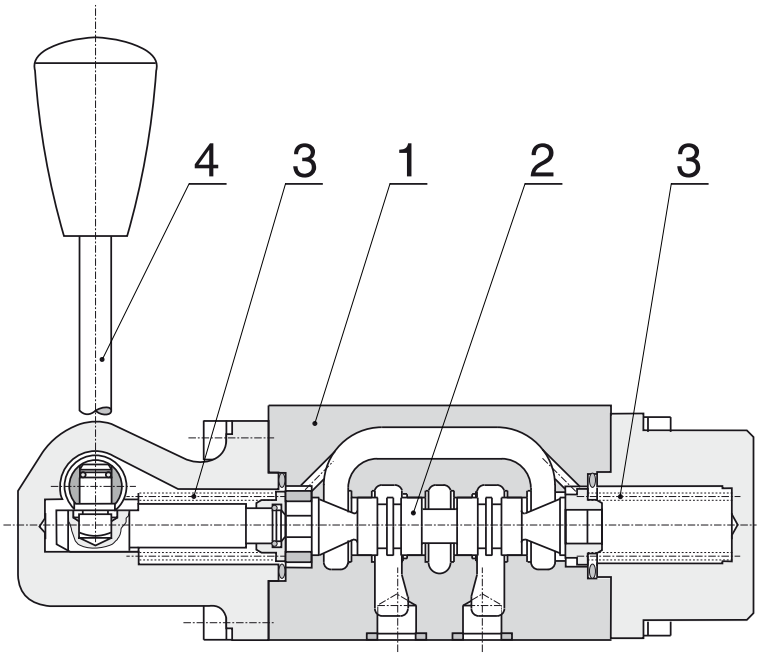
Manually operated directional control valves of type RSP7-06 operated by hand lever are used to control start, stop and direction of fluid in hydraulic systems.

Dn 06, NG 06 | Avaliable with detent assembly | Manually operated | Proven design | Installation dimensions according to: CETOP RP 121-H, ISO 4401, DIN 24340




## FUNCTIONAL DESCRIPTION

Hand operated directional control valves of type RSP7-06 are used to control start, stop and direction of fluid in hydraulic systems. They are being manufactured as two-or three-position valves (see Spool Symbols and Crossovers) and consist of valve housing **1** with control spool. The actuating section of the valve consists of the hand lever **4** and one (for 4/2 way) or two (for 4/3 way) springs **3** returning the control spool **2** to the default position. The surface treatment of the valve housing and actuating section is either phosphate coated or spray painted. The hand lever is always made from stainless steel.




## ORDERING CODE

**R S P 7 – 0 6 □ □ □ □ – □**

**R S** directional control valve

MANNER OF THE CONTROL
**P** manually

**7** Innovation stage

**0 6** Nominal size

NUMBER OF VALVE POSTIONS
**2** two-position
**3** three-position

ENVIRONMENTAL RESISTANCE
**1** standard (cast-iron flanges, stainless steel lever)
**2** special (dural flanges, stainless steel lever)

VERSION
**1** with return springs
**5** with detent assembly

spool type
(see the Spool symbols and crossovers)

## INSTALLATION, SERVICE AND MAINTENANCE

Directional control valves RSP7-06 are designed for panel installation. They are being mounted by four screws M5x45 with torque 14Nm and can be installed in any working position. The reliability of the valves is conditional upon use of prescribed working fluid, especially its parameters such as cleanness and temperature.

## DELIVERY

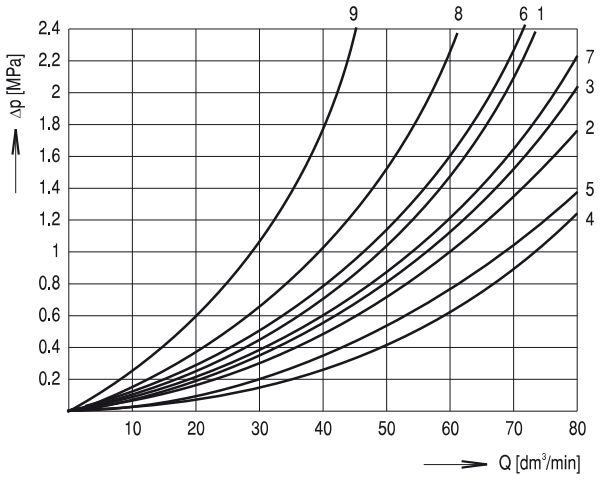
Directional control valves of type RSP7-06 operated by hand lever are delivered assembled. Spare parts and mounting screws are not included in the package. These must be ordered separetly.

## TECHNICAL DATA

| Technical data | Symbol | Unit | Value |
|---|---|---|---|
| Valve size | $D_n$ | mm | 6 |
| Maximal flow | $Q_{max}$ | $dm^3/min$ | curve $Q_{max} = f(p)$ |
| Maximal operating pressure in ports P, A, B | $p_{max,a}$ | MPa | 32 |
| Maximal operating pressure in port T | $p_{max,t}$ | MPa | 10 |
| Pressure drop | $\Delta p$ | MPa | see pressure drop curves |
| Viscosity range | $\nu$ | $m^2/s$ | $10 \cdot 10^{-6}$ up to $400 \cdot 10^{-6}$ |
| Maximum degree of fluid contamination | class 9 according to NAS 1638, 18/15 according to ISO 4406 | | |
| Fluid temperature range | $t_{po}$ | °C | –20 up to +70 |
| Ambient temperature range | $t_k$ | °C | –20 up to +60 |
| Type of climatic resistance IEC-721-2-1 | | | WT |
| Hydraulic medium | | Hydraulic oils of power class (HL,HLP) according to DIN 51524 | |
| Weight RSP7-06 xxxx -1 / RSP7-06 xxxx -2 | m | kg | 1.6/1.35 |
| Mounting position | unrestricted | | |
| Service life | $10^6$cycles | | |
| Installation dimensions | according to: DIN 24 340 / ISO 4401 / CETOP RP121-H | | |

## PRESSURE DROP

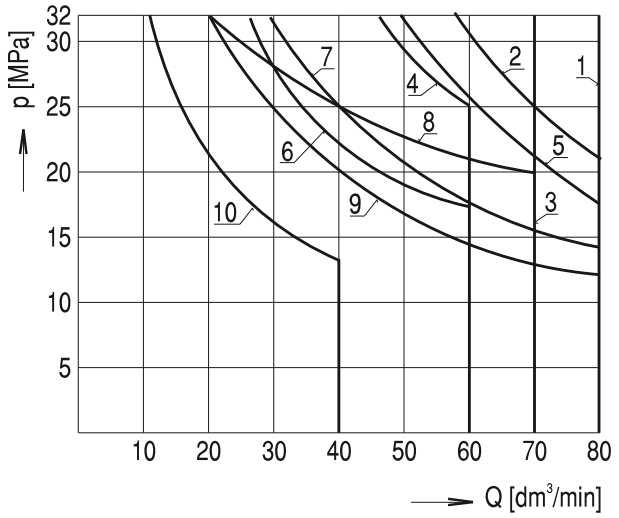
Measured at t = 50°C and $\nu$ = 35$mm^2/s$




| Spool type | Respective pressure drop curve No.: | | | | |
|---|---|---|---|---|---|
| | P–A | P–B | A–T | B–T | P–T |
| Z1 | 1 | 1 | 2 | 2 | - |
| H1 | 3 | 3 | 4 | 4 | - |
| Y1 | 1 | 1 | 4 | 4 | - |
| Y2 | 1 | 1 | 5 | 5 | - |
| L2 | 3 | 1 | 4 | 2 | - |
| P1 | 3 | 3 | 2 | 2 | - |
| B1 | 1 | 1 | 2 | 4 | - |
| R1 | 6 | 6 | 2 | 2 | - |
| J1 | 6 | 6 | 2 | 2 | - |
| R2 | 7 | 1 | 5 | 4 | - |
| A5 | 1 | 1 | - | - | - |
| J7 | 1 | 1 | - | - | - |
| C1 | 3 | 3 | 2 | 2 | 9 |
| C2 | 8 | 8 | 6 | 6 | 9 |
| Z2 | 3 | 3 | - | 2 | - |
| P5 | - | 3 | 2 | - | - |
| Y5 | - | 1 | 4 | - | - |

## OPERATING LIMITS

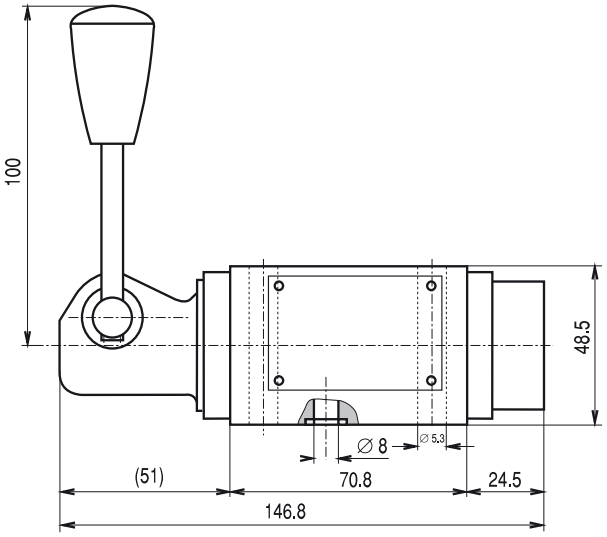
Measured at t = 50°C and ν = 35mm²/s



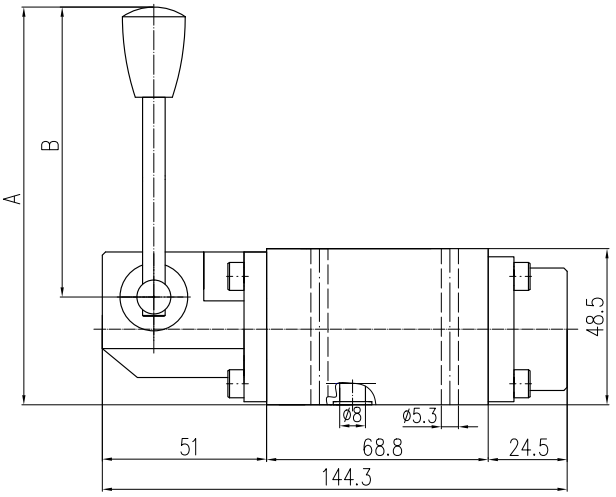

| Curve | Spoool type |
|---|---|
| 1 | Z1, B1, Y2, J1, J2, J7 |
| 2 | Y1, Y5 |
| 3 | R2 |
| 4 | R1 |
| 5 | A5 |
| 6 | Z2 |
| 7 | P1, P5 |
| 8 | H1 |
| 9 | C1, C2 |
| 10 | L2 |

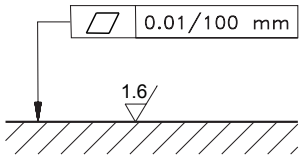
## VALVE DIMENSIONS

**Environmental resistance: standard (RSP7-06 xxxx - 1)**
**width: 45mm**




**Environmental resistance: special (RSP7-06 xxxx - 2)**
**width: 45mm**



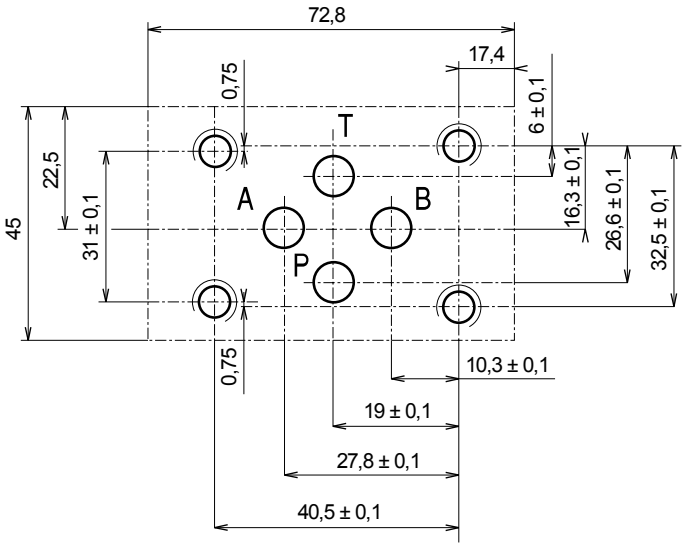




Required surface finish
of subplate.

**Note:** RSP7-06 with special environmental resistance can be ordered with longer hand lever (upon request). Default lenght B = 100mm

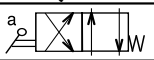
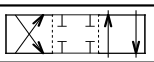
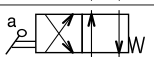
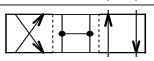
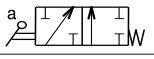
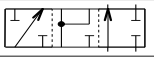
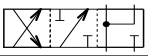
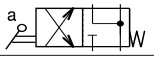
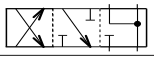
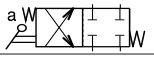
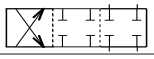
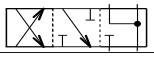
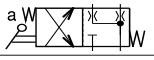
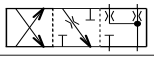
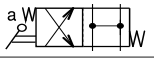
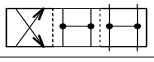
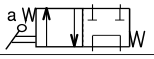
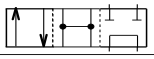
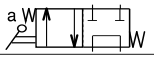
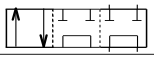
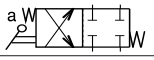
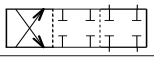
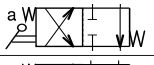
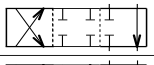
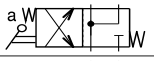
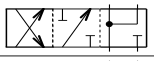
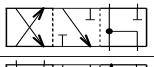
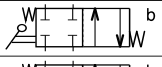
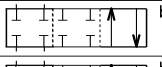
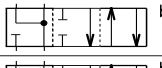
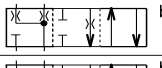
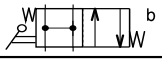
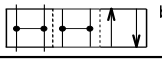
| | | | |
|---|---|---|---|
| A | 125 | 150 | 175 |
| B | 100 | 125 | 150 |

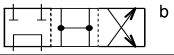
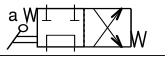
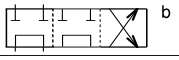
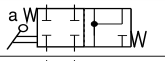
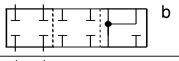
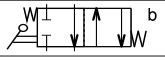
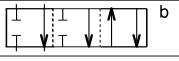
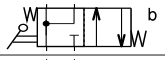
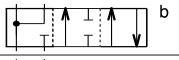
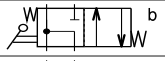
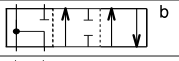
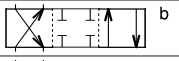
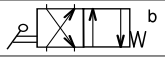
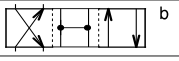
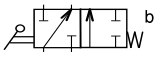
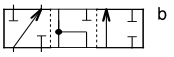
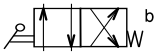
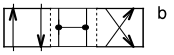
## INSTALLATION DIMENSIONS




## SPOOL TYPES AND CROSSOVERS
## TWO POSITION

**Version: with return springs**

| Type | | Symbol | Crossover |
|---|---|---|---|
| RSP 7-062 | AR11 |  |  |
| RSP 7-062 | AR21 |  |  |
| RSP 7-062 | AA51 |  |  |
| RSP 7-062 | AP51 |  |  |
| RSP 7-062 | AY51 |  |  |
| RSP 7-062 | AZ11 |  |  |
| RSP 7-062 | AY11 |  |  |
| RSP 7-062 | AY21 |  |  |
| RSP 7-062 | AH11 |  |  |
| RSP 7-062 | AC11 |  |  |
| RSP 7-062 | AC21 |  |  |
| RSP 7-062 | AZ21 |  |  |
| RSP 7-062 | AB11 |  |  |
| RSP 7-062 | AP11 |  |  |
| RSP 7-062 | AL21 |  |  |
| RSP 7-062 | BZ11 |  |  |
| RSP 7-062 | BY11 |  |  |
| RSP 7-062 | BY21 |  |  |
| RSP 7-062 | BH11 |  |  |

| Type | | Symbol | Crossover |
|---|---|---|---|
| RSP 7-062 | BC11 |  |  |
| RSP 7-062 | BC21 |  |  |
| RSP 7-062 | BZ21 |  |  |
| RSP 7-062 | BB11 |  |  |
| RSP 7-062 | BP11 |  |  |
| RSP 7-062 | BL21 |  |  |
| RSP 7-062 | BX11 |  |  |
| RSP 7-062 | BX21 |  |  |
| RSP 7-062 | BV11 |  |  |
| RSP 7-062 | BX31 |  |  |

**Version with detent assembly**

| Type | | Symbol | Crossover |
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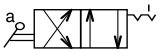
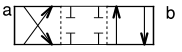
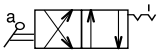
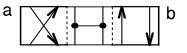
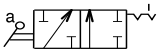
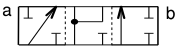
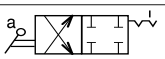
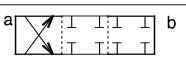
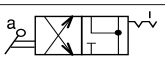
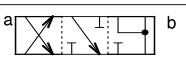
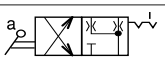
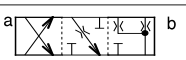
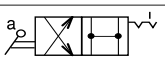
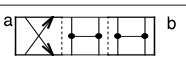
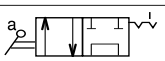
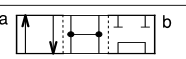
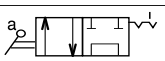
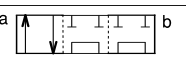
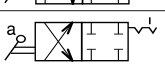
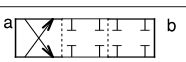
| RSP 7-062 | AJ15 |  |  |
| RSP 7-062 | AJ25 |  |  |
| RSP 7-062 | AJ75 |  |  |
| RSP 7-062 | AZ15 |  |  |
| RSP 7-062 | AY15 |  |  |
| RSP 7-062 | AY25 |  |  |
| RSP 7-062 | AH15 |  |  |
| RSP 7-062 | AC15 |  |  |
| RSP 7-062 | AC25 |  |  |
| RSP 7-062 | AZ25 |  |  |
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| RSP 7-062 | AP15 |  |  |
| RSP 7-062 | AL25 |  |  |
| RSP 7-062 | BJ15 |  |  |
| RSP 7-062 | BJ25 |  |  |
| RSP 7-062 | BJ75 |  |  |
| RSP 7-062 | BJ85 |  |  |
| RSP 7-062 | BZ15 |  |  |
| RSP 7-062 | BY15 |  |  |
| RSP 7-062 | BY25 |  |  |

| Type | | Symbol | Crossover |
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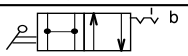
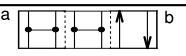
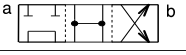
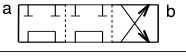
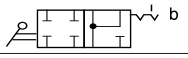
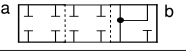
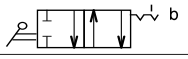
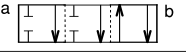
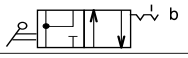
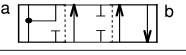
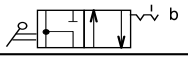
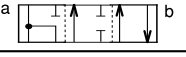
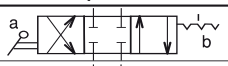
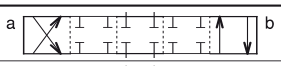
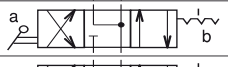
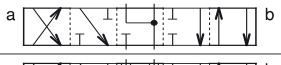
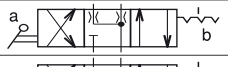
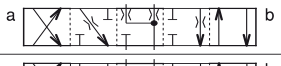
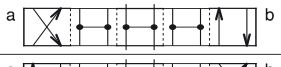
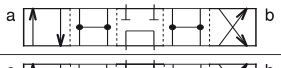
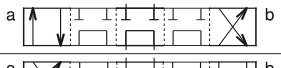
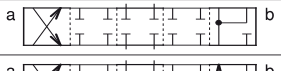
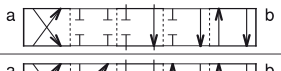
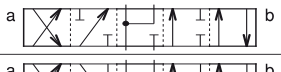
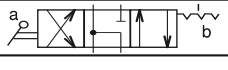
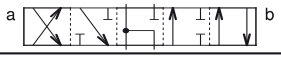
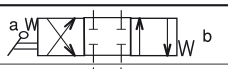
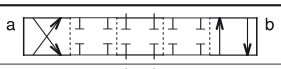
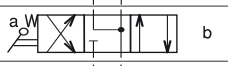
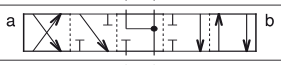
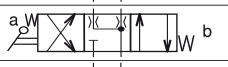
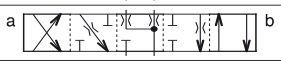
| RSP 7-062 | BH15 |  |  |
| RSP 7-062 | BC15 |  |  |
| RSP 7-062 | BC25 |  |  |
| RSP 7-062 | BZ25 |  |  |
| RSP 7-062 | BB15 |  |  |
| RSP 7-062 | BP15 |  |  |
| RSP 7-062 | BL25 |  |  |

## SPOOL TYPES AND CROSSOVERS - THREE POSITION

### Version: with detent assembly

| Type | | Symbol | Crossover |
|---|---|---|---|
| RSP 7-063 | Z15 |  |  |
| RSP 7-063 | Y15 |  |  |
| RSP 7-063 | Y25 |  |  |
| RSP 7-063 | H15 |  |  |
| RSP 7-063 | C15 |  |  |
| RSP 7-063 | C25 |  |  |
| RSP 7-063 | Z25 |  |  |
| RSP 7-063 | B15 |  |  |
| RSP 7-063 | P15 |  |  |
| RSP 7-063 | L25 |  |  |

### Version: with return springs

| Type | | Symbol | Crossover |
|---|---|---|---|
| RSP 7-063 | Z11 |  |  |
| RSP 7-063 | Y11 |  |  |
| RSP 7-063 | Y21 |  |  |
| RSP 7-063 | H11 |  |  |
| RSP 7-063 | C11 |  |  |
| RSP 7-063 | C21 |  |  |
| RSP 7-063 | Z21 |  |  |
| RSP 7-063 | B11 |  |  |
| RSP 7-063 | P11 |  |  |
| RSP 7-063 | L21 |  |  |

## SPARE PARTS

### Seal kit

| Type | Dimensions and quantity | |
|---|---|---|
| | O-ring | O-ring |
| Standard NBR 70 | 15.6x1.78 mm (2pcs) | 9.25x1.68 mm (4pcs) |

### Bolt kit

| Dimensions and quantity | Torque |
|---|---|
| M5x45 DIN 912-10.9 (4pcs) | 14 [Nm] |

## NOTES

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