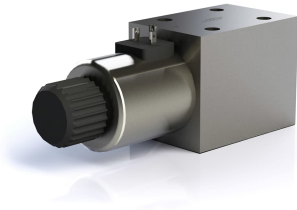


### 1 Product Description

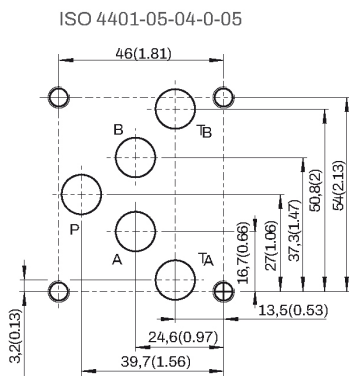


With directional control valves 4/3 or 4/2 double-acting consumers or piloting signals can be operated.  
 4/2: In the idle position, the consumer is enabled in one direction. In the activated position the consumer is operated in the other direction. The valves vary in the actuation (manual, electric or hydraulic), in the hydraulic connections and in the overlap position from the idle to the activated position.  
 4/3: In the center- position, the consumer usually is not activated. In the two activated positions the consumer is operated in one or the other direction. The valves vary by the actuation (manual, electric or hydraulic), by the hydraulic connections in the central position and the overlap positions from center-position to the activated positions.

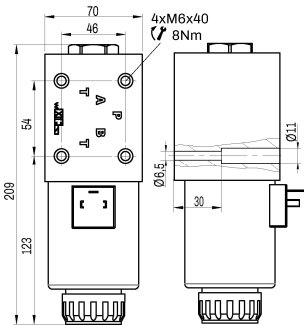
#### 1.1 Mounting location

Directional Control Valves 4/3 and 4/2 are to be flanged directly onto control valves or connected with special mounting plates.

### 2 Technical Data



Criterion	Unit	Value
Type		Directional Spool Valve
Installation position		any
Max. volume flow	l/min (GPM)	80 (21,1)
Max. operating pressure, port: P, A, B	bar (PSI)	350 (5080)
Max. operating pressure, port: T	bar (PSI)	210 (3050)
Weight	Kg (lbs)	1 Magnet: 4,8 (10,58) - 2 Magnete: 6,3 (13,89)
Nominal size		DIN NG10, CETOP 05, NFPA D05
Connection diagramm		ISO 4401, DIN 24340 (CETOP 05)
Fluid	Mineral oil (HL, HLP) conforming with DIN 51524, other fluids upon request Filtering conforming with NAS 1638, class 9, with minimum retention rate $\beta_{10} \geq 75$	
Fluid temperature range (NBR)	°C (°F)	-25 ... +70 (-13 ... +158)
Ambient temperature:	°C (°F)	-25 ... +50 (-13... +122)
Viscosity range permitted	mm <sup>2</sup> /s	2,8...400
Viscosity range recommended	mm <sup>2</sup> /s	30 ...80
Contamination grade	Filtering conforming with NAS 1638, class 9, with minimum retention rate $\beta_{10} \geq 75$	

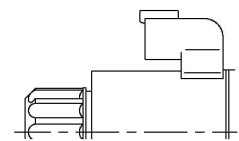
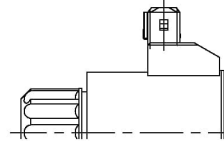
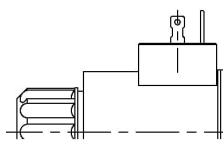


#### Electrical connection types:

Angled connector Typ EN 175301-803

Typ AMP JUNIOR plug on request

DEUTSCH plug DT04-2P on request



### 3 Ordering Information

part Nr.	description		Code	Volt	Special version
285.502.000.6	Directional Control Valve NG10, S4/2		104	12	DIN plug
285.501.000.6	Directional Control Valve NG10, S4/2		100	24	DIN plug
285.507.000.6	Directional Control Valve NG10, S4/2		100	24	DEUTSCH plug DT04-2P
285.903.000.6	Directional Control Valve NG10, S4/2		102	12	DIN plug
243.310.301.9	Directional Control Valve NG10, S4/2		103	24	DIN plug, 420 bar PLEASE NOTE: Only two connections may be loaded with 420 bar. The fastening screws must comply with 12.9. The clamping length of the screws is important for the calculation and should be maintained.

The versions listed below are available as standard. Further versions as part of the options given on the type code can be configured upon request.

## 4 Installation

### 4.1 General remarks

- Observe all installation and safety information of the construction machine manufacturer.
- Only technically permitted changes are to be made on the construction machine.
- The user has to ensure that the device is suitable for the respective application.
- Application exclusively for the range of application specified by the manufacturer.
- Before installation or dismantling, the hydraulic system is to be depressurized.
- Settings are to be made by qualified personnel only.
- The valve may only be opened with the approval of the manufacturer, otherwise the warranty is invalidated.

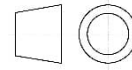
### Installation space

- Observe the connections.
- Observe the strength category and torque (see appendix) of the fastening bolts.
- Do not damage seals and flange surface.
- The air must be exhausted from the hydraulic system.
- The space necessary to remove the plug per EN 175301-803, design type AF is at least 15 mm.
- The torque for the screw M3 of the plug has to be 0.5 to 0.6 Nm.
- Cap screws: DIN912-12.9 Tightening torque: 13.2 Nm

## 5 Notes, Standards and Safety Requirements

### 5.1 General remarks

- The views in drawings are shown in accordance with the European normal projection variant
- A comma ( , ) is used as a decimal point in drawings
- All dimensions are given in mm



### 5.2 Standards

The following standards must be observed when installing and operating the valve:

- EN 563, Temperatures on accessible surfaces
- EN 982, Safety requirements for fluid power systems and their components.

### 5.3 Safety Requirements

- WESSEL-HYDRAULIK GmbH guarantees utilization of standard and proven safety principles in accordance with ISO 13849-2: 2003, Tables C.1 and C.2 for the construction of the valve described here.
- WESSEL-HYDRAULIK GmbH has a certified quality management system in accordance with DIN EN ISO 9001.
- 150 years may be assumed as MTTFd-value for the described product.
- Note: The user is therefore responsible for complying with the fundamental and proven safety principles according to ISO 13849-2: 2003, Tables C.1 and C.2 for the implementation and operation of the hydraulic component!

## 6 Accessories

- Angled plug ISO 4400, part No. 340.201.900.6 gray design
- Angled plug ISO 4400, part No. 340.202.900.6 black design