

## Proportional pressure reducing valve in 3-way version, pilot operated

### Type 3DRE(M) and 3DRE(M)E



- ▶ Sizes 10 and 16
- ▶ Component series 7X
- ▶ Maximum set pressure: 315 bar (size 10)  
250 bar (size 16)
- ▶ Flow: 125 l/min (size 10)  
300 l/min (size 16)

#### Features

- ▶ Pilot operated valves for pressure reduction (P to A) and limitation (A to T) of a system pressure
- ▶ Operation by means of proportional solenoid with rotatable coil
- ▶ For subplate mounting:  
Porting pattern according to DIN 24340-A and ISO 4401
- ▶ Maximum pressure limitation optional
- ▶ Valve and control electronics from a single source
- ▶ Integrated electronics (OBE) with type 3DRE(M)E:  
Little manufacturing tolerance of the command value  
pressure characteristic curve
- ▶ External control electronics with type 3DRE(M)
- ▶ Linear command value pressure characteristic curve

#### Contents

Features	1
Ordering code	2
Symbols	3
Dimensions	4, 5

**Ordering code**

01	02	03	04	05	06	07	08	09	10	11	12	13	14
<b>3DRE</b>				<b>P</b>	<b>-</b>	<b>7X</b>	<b>/</b>		<b>G24</b>				<b>*</b>

01	Proportional pressure reducing valve in 3-way version	<b>3DRE</b>
02	<b>Without</b> maximum pressure limitation	<b>no code</b>
	<b>With</b> maximum pressure limitation	<b>M</b>
03	For external control electronics	<b>no code</b>
	With integrated electronics (OBE)	<b>E</b>

**Size**

04	Size 10	<b>10</b>
	Size 16	<b>16</b>
05	Subplate mounting	<b>P</b>
06	Component series 70 to 79 (70 to 79: Unchanged installation and connection dimensions)	<b>7X</b>

**Pressure rating**

07	Up to 50 bar	<b>50</b>
	Up to 100 bar	<b>100</b>
	Up to 200 bar	<b>200</b>
	Up to 250 bar (only size 16)	<b>250</b>
	Up to 315 bar (only size 10)	<b>315</b>
08	Pilot oil supply internal, pilot oil return external	<b>Y</b>
	Pilot oil supply external, pilot oil return external	<b>XY</b>

**Supply voltage**

09	24 V DC voltage	<b>G24</b>
10	1600 mA coil	<b>no code</b>
	800 mA coil (only possible for external control electronics)	<b>-8</b>

**Electrical connection**

11	<b>For type 3DRE(M):</b>	
	<b>Without</b> mating connector; connector DIN EN 175301-803	<b>K4</b>
	<b>For type DBE(M)E:</b>	
	<b>Without</b> mating connector; connector DIN EN 175201-804	<b>K31</b>

**Electronics interface**

12	Command value 0 to 10 V	<b>A1</b>
	Command value 4 to 20 mA	<b>F1</b>
	With 3DRE for external control electronics	<b>no code</b>

**Seal material**

13	FKM seals	<b>V</b>
	NBR seals	<b>M</b>
14	Further details in the plain text	

**Symbols**

Pilot oil supply internal  
Pilot oil return external

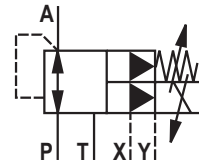
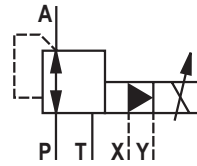
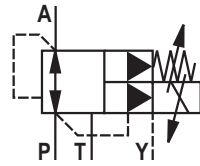
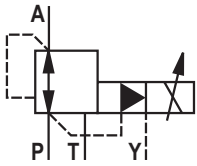
Pilot oil supply external  
Pilot oil return external

Type 3DRE...Y...

Type 3DREM...Y...

Type 3DRE...XY...

Type 3DREM...XY...



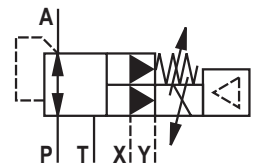
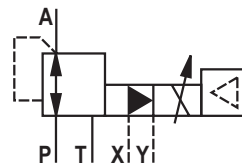
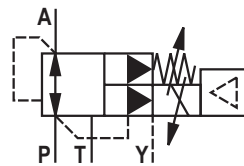
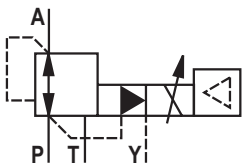
With integrated electronics:

Type 3DREE...Y...

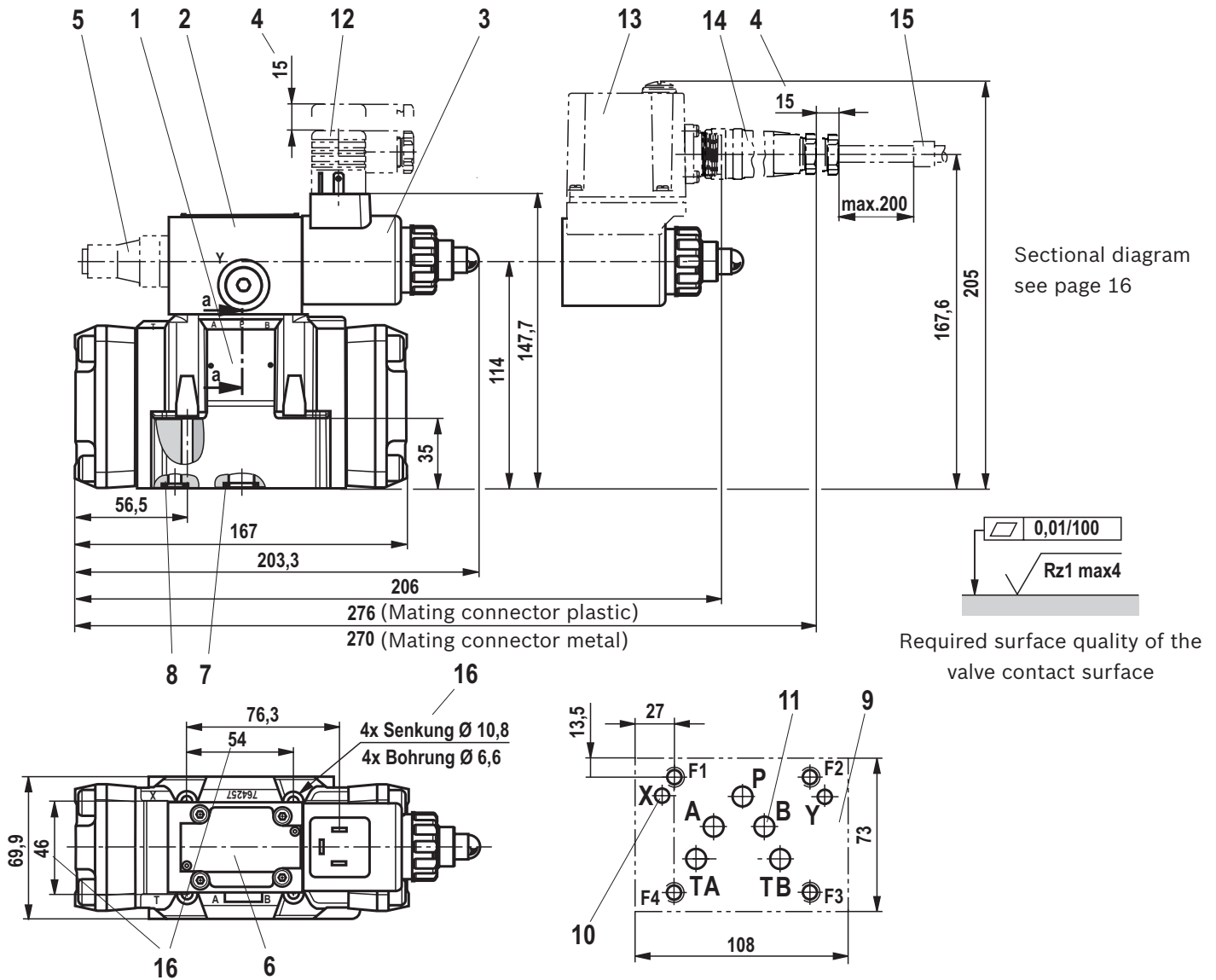
Type 3DREME...Y...

Type 3DREE...XY...

Type 3DREME...XY...



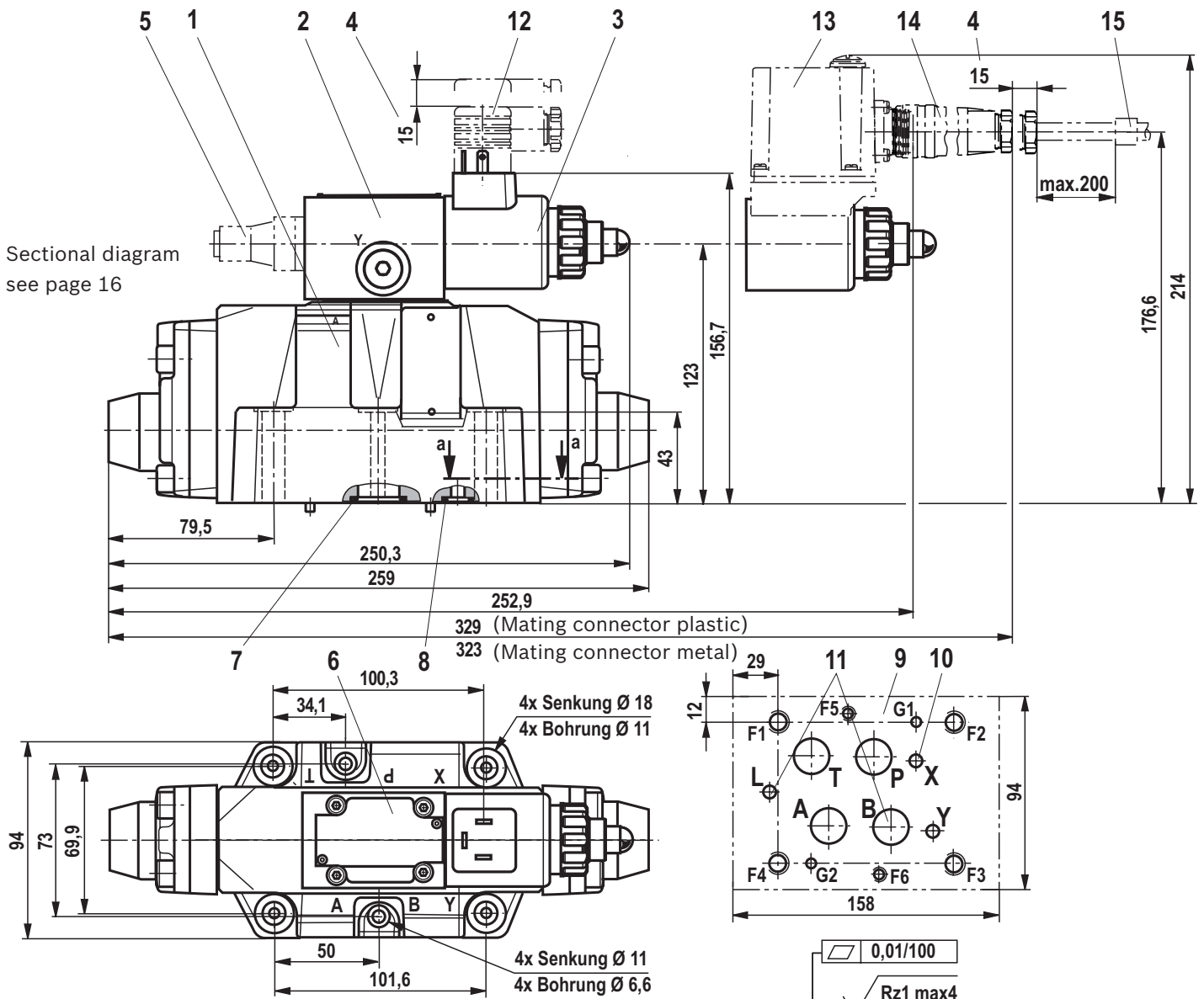
**Dimensions: Size 10**  
(dimensions in mm)



- 1** Main valve
- 2** Pilot valve
- 3** Proportional solenoid
- 4** Space required for removing the mating connector
- 5** Maximum pressure limitation (type 3DREM...)
- 6** Name plate
- 7** Identical seal rings for port A, B, P, TA and TB
- 8** Identical seal rings for ports X and Y
- 9** Processed installation surface, porting pattern according to DIN 24340-A10 and ISO 4401-05-05-0-05
- 10** With "internal" pilot oil supply (version Y), port X in the subplate must be closed.
- 11** Port B must be closed in the subplate
- 12** Mating connector for type 3DRE(M) (separate order)
- 13** Integrated electronics (type 3DREE, 3DREME) with connector
- 14** Mating connector for type 3DRE(M)E, plastic or metal version (separate order)
- 15** Cable fastening
- 16** Connection diagram mounting screws

**Notice!**  
The dimensions are nominal dimensions which are subject to tolerances.

**Dimensions: Size 16**  
(dimensions in mm)



Required surface quality of the valve contact surface

- 1 Main valve
- 2 Pilot valve
- 3 Proportional solenoid
- 4 Space required for removing the mating connector
- 5 Maximum pressure limitation (type 3DREM...)
- 6 Name plate
- 7 Identical seal rings for ports A, B, P and T
- 8 Identical seal rings for ports X and Y
- 9 Processed installation surface, porting pattern according to DIN 24340-A16 and ISO 4401-05-07-0-05
- 10 With "internal" pilot oil supply (version Y), port X in the subplate must be closed.
- 11 Port B must be closed in the subplate
- 12 Mating connector for type 3DRE(M) (separate order)

- 13 Integrated electronics (type 3DREE, 3DREME) with connector
- 14 Mating connector for type 3DRE(M)E, plastic or metal version (separate order)
- 15 Cable fastening

**Notice!**

The dimensions are nominal dimensions which are subject to tolerances.