

4/2 and 4/3 proportional directional valves, direct operated, with electrical position feedback, without/with integrated electronics (OBE)

RE 29061/11.12
Replaces: 05.12

1/22

Type 4WRE and 4WREE

Size 6 and 10
Component series 2X
Maximum operating pressure 315 bar
Maximum flow: 80 l/min (size 6)
180 l/min (size 10)

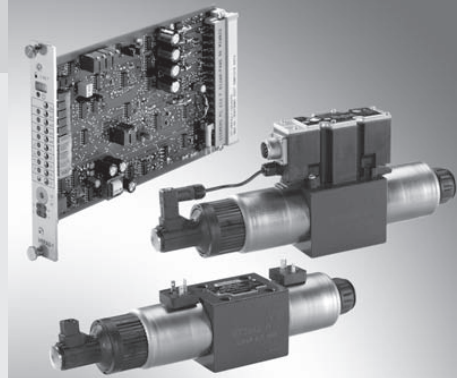


Table of contents

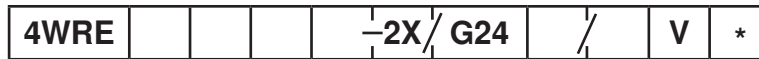
| Contents | Page |
|--|----------|
| Features | 1 |
| Ordering code | 2 |
| Symbols | 3 |
| Function, section | 4, 5 |
| Technical data | 6, 7 |
| Electrical connection, mating connectors | 8, 9 |
| Block diagram of the integrated electronics (OBE) for type 4WREE | 10 |
| Characteristic curves | 11 to 17 |
| Unit dimensions | 18 to 22 |

Features

- Direct operated proportional directional valve with electrical position feedback and integrated electronics (OBE) with type 4WREE
- Control of flow direction and size
- Operation by means of proportional solenoids with central thread and detachable coil
- For subplate mounting: Porting pattern according to ISO 4401
- Spring-centered control spool
- Control electronics
 - Type 4WREE: integrated electronics (OBE) with voltage or current input (A1 and/or F1)
 - Type 4WRE (4/3 version), separate order:
 - digital and analog amplifier in Euro-card format
 - analog amplifier in modular design
 - Type 4WRE...A (4/2 version), separate order:
 - analog amplifier in modular design

Information on available spare parts:
www.boschrexroth.com/spc

Ordering code



Without integrated electronics (OBE)

= no code

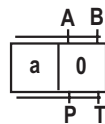
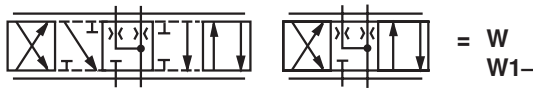
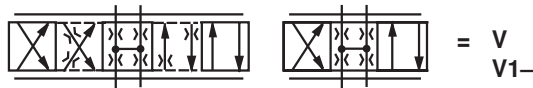
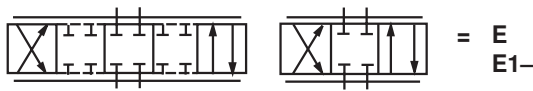
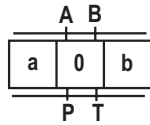
With integrated electronics (OBE)

= E

Size 6 = 6

Size 10 = 10

Control spool symbols



With symbol E1-, V1- and W1-:

P → A: $q_{V \max}$ B → T: $q_V/2$

P → B: $q_V/2$ A → T: $q_{V \max}$

Notice:

In the zero position, spools W and WA have a connection from A to T and B to T with approx. 3 % of the relevant nominal cross-section.

Further details in the plain text

Seal material

FKM seals ¹⁾

V =

Electronic interface

A1 = Command value ±10 V

F1 = Command value 4 to 20 mA

no code = Type 4WRE

Electrical connection

Type 4WRE:

K4 = Without mating connector, with connector according to DIN EN 175301-803

Mating connector (solenoid, position transducer), separate order, see page 8

Type 4WREE:

K31 = Without mating connector, with connector according to DIN EN 175201-804

Mating connector – separate order, see page 9

Supply voltage

G24 = Direct voltage 24 V

2X = 20 to 29
(20 to 29: unchanged installation and connection dimensions)

Rated flow at valve pressure differential $\Delta p = 10$ bar

Size 6

04 = 4 l/min

08 = 8 l/min

16 = 16 l/min

32 = 32 l/min

Size 10

25 = 25 l/min

50 = 50 l/min

75 = 75 l/min

¹⁾ Design SO660 with NBR seals at the valve connection surface