



RSE 4-04

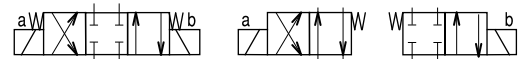
DIRECTIONAL CONTROL VALVES

| KE 2012 | 07/13 |

D_n 04 | p_{max} 32 MPa | Q_{max} 20 dm³/min

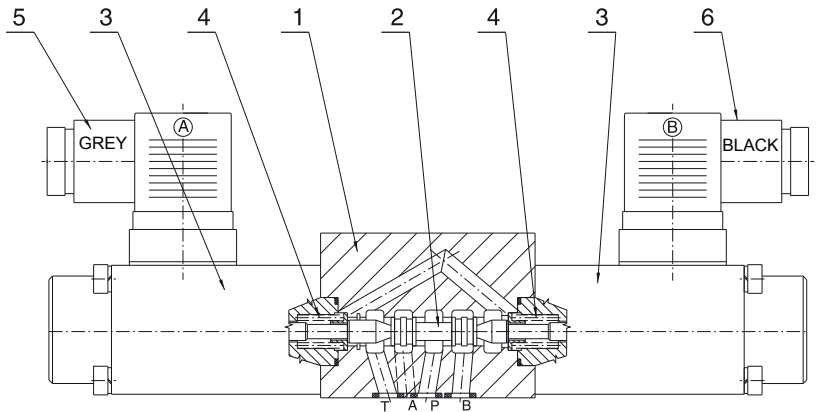
Solenoid operated directional control valves of type RSE4-04 are used to control start, stop and direction of fluid in hydraulic systems.

Dn 04, NG 04 | Solenoid operated | Manual override | Installation dimensions according to: CETOP RP 121H (CETOP 2), ISO 4401, DIN 24340

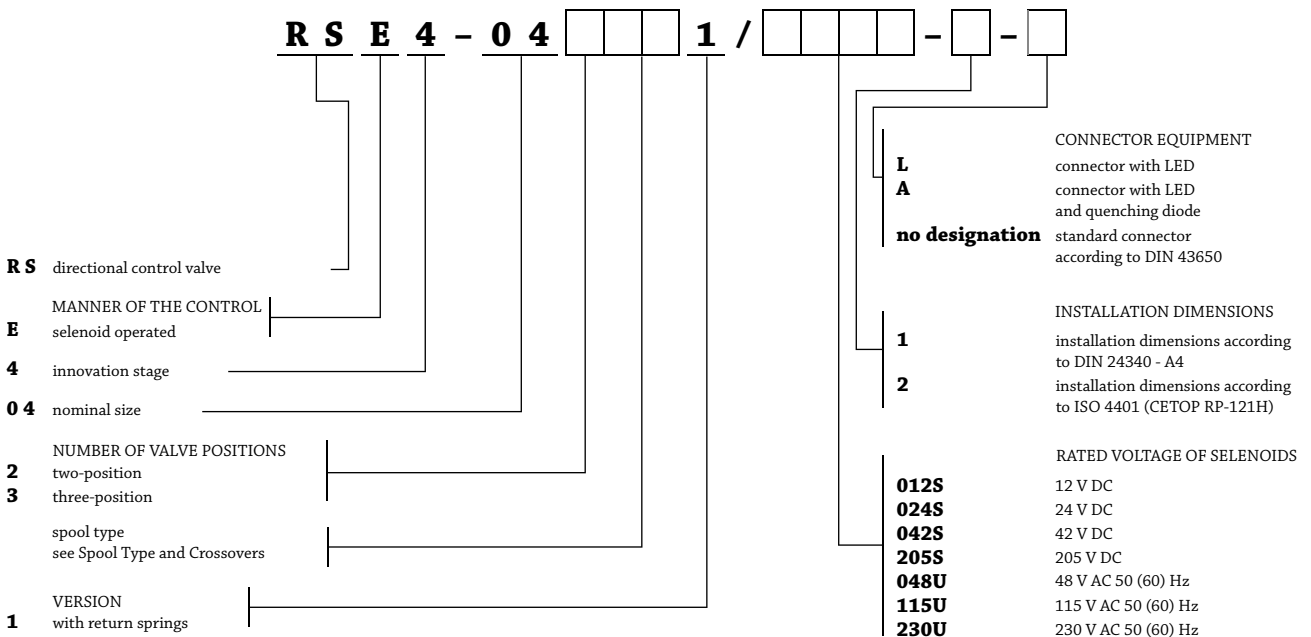


FUNCTIONAL DESCRIPTION

Solenoid operated directional control valves RSE4-04 consist of cast iron valve housing **1** with control spool **2**, centering springs **4** and operating solenoids **3**. They are being manufactured as two-position direction control valves with one solenoid and one spring or three-position directional control valves with two solenoid and two springs. DC solenoids are supplied through connectors A,B (**5,6**). For AC supply the solenoids are equipped with rectifiers integrated to the DIN connector socket as a part of the solenoids. The solenoid can be turned around its axis to any desired position. Solenoids are designed for manual override allowing the control spool to be repositioned in case of power supply failure or solenoids malfunction. Both the valve housing **1** and solenoids **3** are phosphate coated.



ORDERING CODE



INSTALLATION, SERVICE AND MAINTENANCE

Directional control valves RSE4-04 are designed for panel installation. They are being mounted by four screws M5x50 with torque 8Nm 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

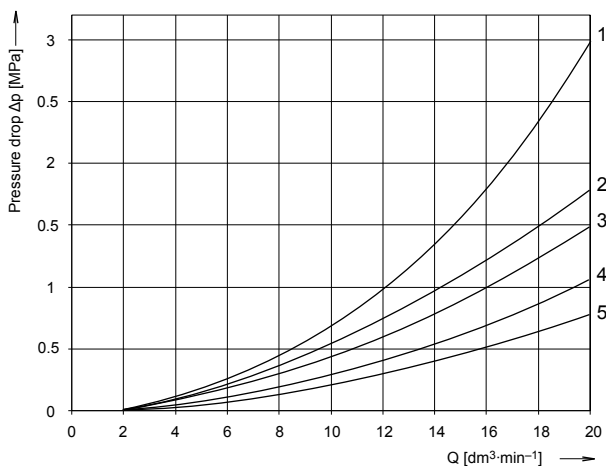
Solenoid operated directional control valves of type RSE4-04 are delivered assembled. Spare parts and mounting screws are not included in package. These must be ordered separately.

TECHNICAL DATA

Technical data	Symbol	Unit	Value
Valve size	D_n	mm	04
Maximal flow	Q_{max}	dm ³ /min	see Operating Limits
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	Δp	MPa	see Pressure Drop curves
Viscosity range	ν	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 +60
Ambient temperature range	t_k	°C	-20 up to +50
Enclosure type to EN 60 529	IP 65		
Hydraulic medium	Hydraulic oils of power class (HL,HLP) according to DIN 51524		
Weight - valve with 1 solenoid	m	kg	1.1
- valve with 2 solenoids			1.3
Service life	10^6 cycles		
Installation dimensions	according to: DIN 24 340 / ISO 4401 / CETOP RP121-H		
Duty cycle		%	100
Mounting position	as desired		

PRESSURE DROP $\Delta p = f(Q)$

Measured at $\theta = 50^\circ\text{C}$, $\nu = 35 \text{ mm}^2/\text{s}$



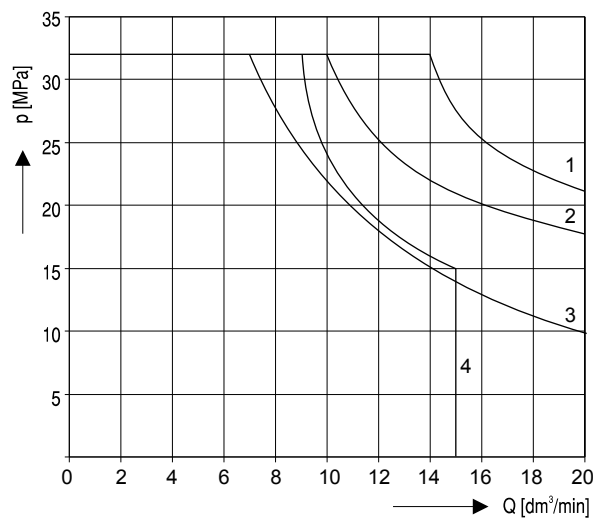
Respective pressure drop curve No.:

	R11	A51	V51	X11	J15	Z11	Y11	C11	P11	L11	H11
P-A	4	5	1	4	4	5	4	5	5	5	5
P-B	5	5	1	5	5	5	4	5	5	5	5
A-T	4	-	-	4	4	4	4	4	4	4	4
B-T	3	-	-	3	3	3	3	3	3	3	3
P-T	-	-	-	-	-	-	-	2	-	-	2

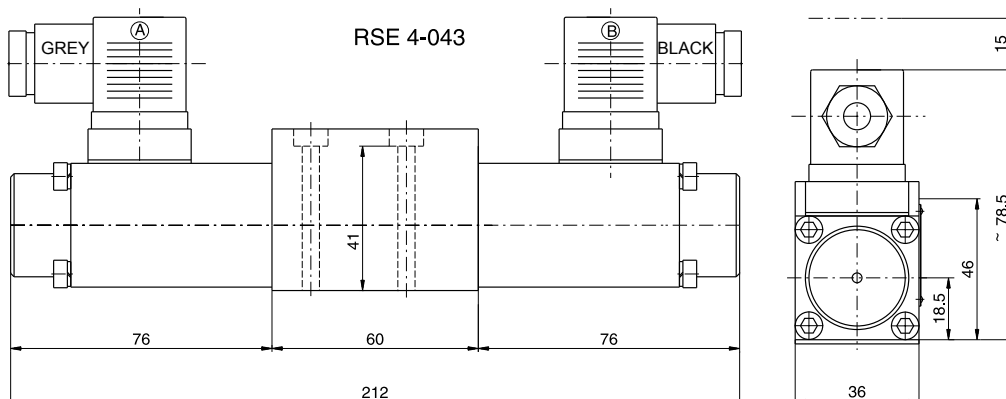
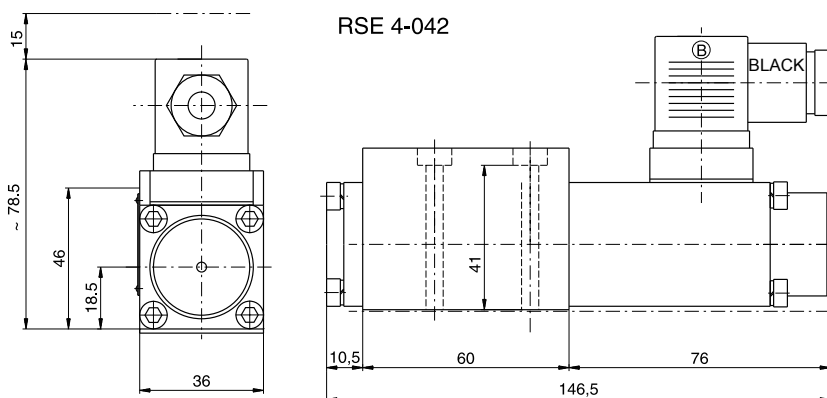
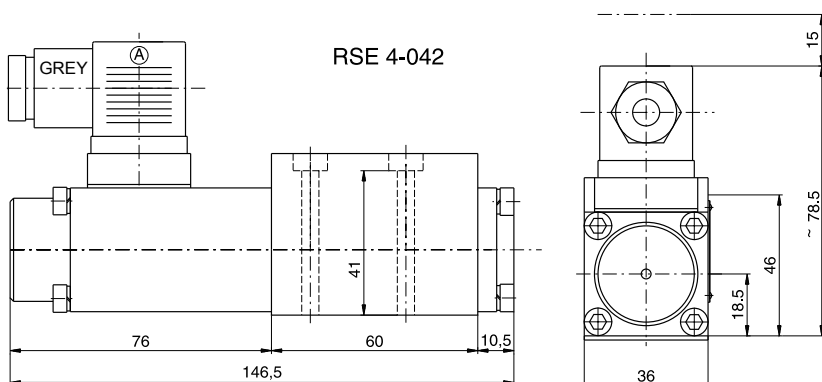
OPERATING LIMITS $Q_{max} = f(p)$

Measured at $\vartheta = 50^{\circ}\text{C}$, $v = 35 \text{ mm}^2/\text{s}$

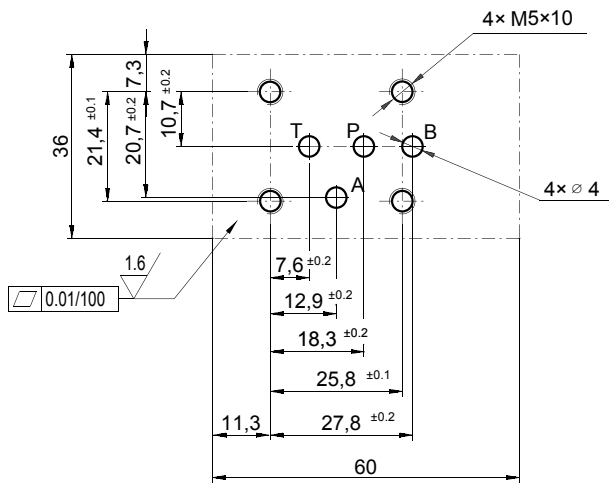
R11	A51	V51	X11	J15	Z11	Y11	C11	P11	L11	H11
3	2	2	3	4	1	1	4	3	4	3



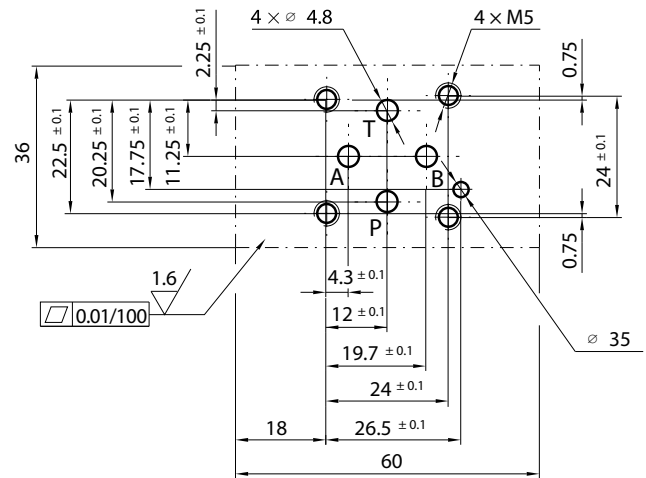
VALVE DIMENSIONS



INSTALLATION DIMMENSIONS



DIN 24 340



ISO 4401 (CETOP-RP 121H)

SPOOL TYPES AND CROSSOVERS

Type	Symbol	Crossover
Two-position valves		
R11		
A51		
V51		
AC11		
AP11		
AZ11		
AY11		
AL11		

Type	Symbol	Crossover
Two-position valves		
BC11		
BP11		
BZ11		
BY11		
BL11		
X11		
J15		

Type	Symbol	Crossover
Three-position valves		
Z11		
Y11		
C11		
P11		
L11		
H11		



SPARE PARTS

Seal kit

Type	Dimensions and quantity	
	O-ring	
Standard NBR 80	5.28 x 1.78 (4pcs)	15.6 x 1.78 mm (2pcs)

Bolt kit

Dimensions and quantity	Torque
M5x50 DIN 912-10.9 (4pcs)	8 [Nm]

NOTES

Consultancy service is provided by: **PQS Technology, Ltd.**

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