

# 2/2, 3/2 and 4/2 directional seat valve with solenoid actuation

**RE 22049/07.09**  
Replaces: 07.06

1/14

## Type M-.SED

Size 6  
Component series 1X  
Maximum operating pressure 350 bar [5100 psi]  
Maximum flow 25 l/min [6.6 gpm]



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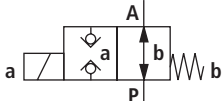
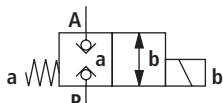
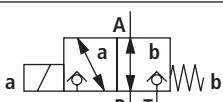
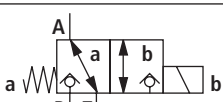
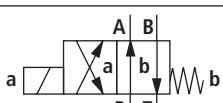
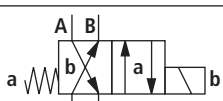
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## Features

- Direct operated directional seat valve with solenoid actuation
- Porting pattern according to DIN 24340 form A (**without** locating hole)
- Porting pattern according to ISO 4401-03-02-0-05 and NFPA T3.5.1 R2-2002 D03 (**with** locating hole)
- Safe switching also with longer standstill periods under pressure
- Wet-pin DC voltage solenoids with detachable coil (AC voltage possible by means of a rectifier)
- Solenoid coil can be rotated by 90°
- The coil can be changed without having to open the pressure-tight chamber
- Electrical connection as individual connection (for more electrical connections, see RE 08010)
- With concealed manual override, optional
- Inductive position switch (contactless), see RE 24830

Information on available spare parts:  
[www.boschrexroth.com/spc](http://www.boschrexroth.com/spc)

Ordering code

		M	SED	6	-1X/350	C	
2 main ports		= 2					
3 main ports		= 3					
4 main ports		= 4					
Seat valve							
Size 6				= 6			
Main ports		2	3	4			
Symbols		●	–	–	= PK		
		●	–	–	= NK		
		–	●	–	= UK		
		–	●	–	= CK		
		–	–	●	= D		
		–	–	●	= Y		
		● = Available					
Component series 10 to 19 (10 to 19: unchanged installation and connection dimensions)					= 1X		
Operating pressure 350 bar [5100 psi]					= 350		
Solenoid, wet-pin with detachable coil						= C	
DC voltage 24 V							= G24
DC voltage 205 V							= G205 <sup>1)</sup>
DC voltage 96 V							= G96
For further ordering codes for other voltages, see page 6							

AC voltage mains (permissible voltage tolerance ± 10%)	Nominal voltage of the DC voltage solenoid in case of operation with AC voltage	Ordering code
110 V - 50/60 Hz	96 V	G96
120 V - 60 Hz	110 V	G110
230 V - 50/60 Hz	205 V	G205

**Technical data** (For applications outside these parameters, please consult us!)**general**

Weight	– 2/2 directional seat valve	kg [lbs]	1.5 [3.3]
	– 3/2 directional seat valve	kg [lbs]	1.5 [3.3]
	– 4/2 directional seat valve	kg [lbs]	2.3 [5.1]
Installation position			Any
Ambient temperature range		°C [°F]	–30 to +50 [–22 to +122] (NBR seals) –20 to +50 [–4 to +122] (FKM seals)

**hydraulic**

Maximum operating pressure	bar [psi]	See performance limit page 8
Maximum flow	l/min [gpm]	25 [6.6]
Hydraulic fluid	Mineral oil (HL, HLP) according to DIN 51524 <sup>1)</sup> ; fast biodegradable hydraulic fluids according to VDMA 24568 (see also RE 90221); HETG (rape seed oil) <sup>1)</sup> ; HEPG (polyglycols) <sup>2)</sup> ; HEES (synthetic esters) <sup>2)</sup> ; other hydraulic fluids upon request	
Hydraulic fluid temperature range	°C [°F]	–30 to +80 [–22 to +176] (NBR seals) –20 to +80 [–4 to +176] (FKM seals)
Viscosity range	mm <sup>2</sup> /s [SUS]	2.8 to 500 [35 to 2320]
Maximum permitted degree of contamination of the hydraulic fluid - cleanliness class according to ISO 4406 (c)		Class 20/18/15 <sup>3)</sup>

**electrical**

Type of voltage		Direct voltage	Alternate voltage
Available voltages <sup>4)</sup>	V	12, <b>24</b> , 42, 96, 110, 205, 220	Only possible via rectifier (see page 13)
Voltage tolerance (nominal voltage)	%	±10	
Power consumption	W	30	
Duty cycle	%	100	
Switching time according to ISO 6403	– ON	ms	40 to 70
	– OFF	ms	10 to 20 (without rectifier) 30 to 45 (with rectifier)
Maximum switching frequency	– Operating pressure ≤ 350 bar	1/h	15000
	– Operating pressure > 350 bar	1/h	3600
Type of protection according to DIN EN 60529		IP 65 with mating connector mounted and locked	
Maximum surface temperature of the spool <sup>5)</sup>		°C [°F]	120 [248]

<sup>1)</sup> Suitable for NBR and FKM seals<sup>2)</sup> Only suitable for FKM seals<sup>3)</sup> The cleanliness classes specified for the components must be adhered to in hydraulic systems. Effective filtration prevents malfunction and at the same time increases the service life of the components.

For selecting the filters, see data sheets RE 50070, RE 50076, RE 50081, RE 50086, RE 50087 and RE 50088.

<sup>4)</sup> Special voltages upon request<sup>5)</sup> Due to the temperatures occurring at the surfaces of the solenoid coils, the standards ISO 13732-1 and EN 982 need to be adhered to!

**When establishing the electrical connection, the protective earth conductor (PE  $\frac{1}{2}$ ) has to be connected properly.**