

**Extracted from RA 27 510/06.98**

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Issue: 01.01

 See Section 16 for applicable  
 Preferred/Spotlight part numbers  
 and unit price.

**Double throttle/check valve**  
**Model Z 2 FSK 6**

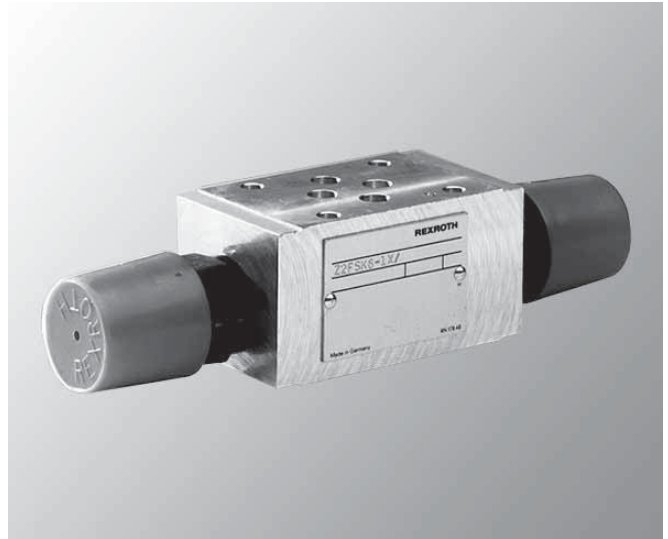
Size 6

Series 1X

Maximum operating pressure 210 bar (3000 PSI)

Maximum flow 40 L/min (10.5 GPM)

- Mounting pattern to ISO 4401-3, NFPA T3.5, MR1, and ANSI B 93.7 D 03
- Sandwich plate design
- Adjustment type:  
Screw adjustment with protective cap
- For throttling the flow to 2 actuator ports, example: control speed of an actuator in both directions
- For meter-in or meter-out control as required
  - O-ring plate included



Model Z 2 FSK 6 – 2–1X/2QV

**Ordering code**

<div style="display: flex; justify-content: space-around; border: 1px solid black; padding: 2px;"> <span>Z</span><span>2</span><span>FSK</span><span>6</span><span>-</span><span>2</span><span>1X/</span><span>V</span><span>*</span> </div>									
Sandwich plate	=Z								Further details to be written in clear text
Dual throttle/checks	=2								V = FPM seals suitable for petroleum oils (HM, HL, HLP) & phosphate ester fluids (HFD-R) Other seal materials on request
Combination throttle/check valve	=FSK								
Size 6 (D 03)		=6							
Throttle / check valve in ports A and B			= -						2Q = Throttling spool with two grooves (when used as a main throttle)
<b>Adjustment option</b>									
Screw adjustment with locknut and protective cap				=2					1X = Series 10 to 19 (10 to 19, externally interchangeable)

**Note:** Model Z 2 FS 6–...4X/.. uses the same adjustment mechanism on both sides (A and B).

**Technical data**

Operating pressure	bar (PSI)	... 210 (3050)
Maximum flow	L/min (GPM)	40 (10.5)
Weight (approx.)	kg (lbs.)	0.5 (1.1)

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Issue: 01.01

 See Section 16 for applicable  
 Preferred/Spotlight part numbers  
 and unit price.

**Double throttle/check valve**  
**Model Z 2 FS 6**

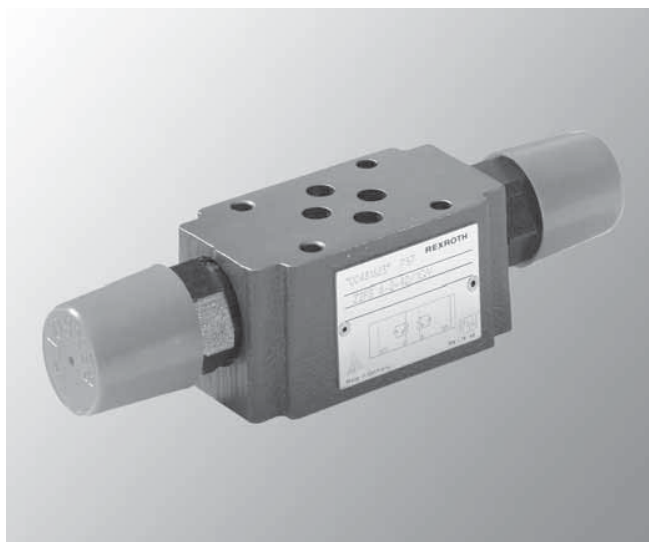
Size 6

Series 4X

Maximum operating pressure 315 bar (4600 PSI)

Maximum flow 80 L/min (21 GPM)

- Throttle valve with reverse free flow check valves
- Sandwich plate design for use in vertical stacking assemblies
- Used to reduce flow in actuator lines, example: control speed of the actuator in both directions
- Meter-in or meter-out control as required
  - O-ring plate included
- Porting pattern to ISO 4401-3, NFPA T3.4.1 MR1, and ANSI B 93.7 **D 03**



Model Z 2 FS 6 – 2-4X/...

**Ordering code**

<div> <div>Z</div> <div>2</div> <div>FS</div> <div>6</div> <div></div> <div>-4X/</div> <div>V</div> <div>*</div> </div>									
Sandwich plate	=Z								Further details to be written in clear text
Dual throttle/checks	=2							V =	FPM seals suitable for petroleum oils (HM, HL, HLP) & phosphate ester fluids (HFD-R) Other seal materials on request
Combination throttle/check valve	=FS							1Q =	Throttling spool with one groove (when used as a pilot choke)
Size 6 (D 03)	=6							2Q =	Throttling spool with two grooves (when used as a main throttle)
Throttle / check valve in ports A and B	=-							4X =	Series 40 to 49 (40 to 49, externally interchangeable)
Throttle/check valve in port A	=A								
Throttle/check valve in port B	=B								
<b>Adjustment option</b>									
Screw adjustment with locknut and protective cap	=2								

**Note: Model Z 2 FS 6--4X/.. uses the same adjustment mechanism on both sides (A and B).**
**Technical data**

Operating pressure	bar (PSI)	... 315 (4600)
Maximum flow	L/min (GPM)	80 (21.1)
Weight (approx.)	kg (lbs.)	0.8 (1.8)

## Extracted from RA 27 524/06.98

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Issue: 01.01

See Section 16 for applicable  
Preferred/Spotlight part numbers  
and unit price.

## Double throttle/check valve Model Z 2 FSK 10

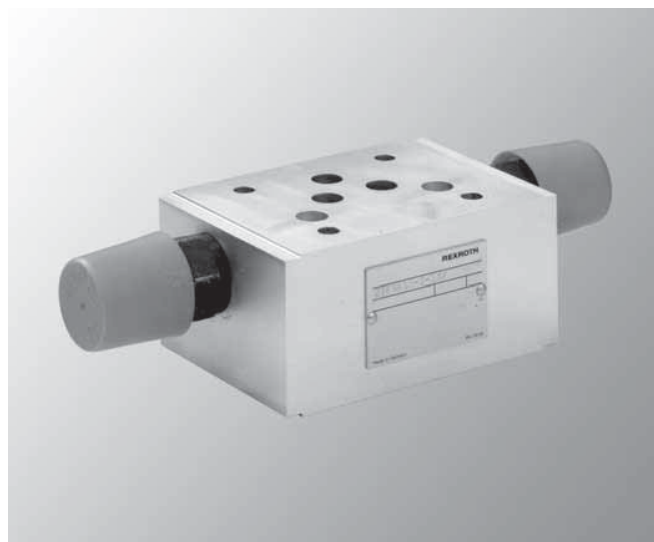
Size 10

Series 1X

Maximum operating pressure 210 bar (3050 PSI)

Maximum flow 80 L/miin (21 GPM)

- Mounting pattern to ISO 4401-5, NFPA T3.5, MR1, and ANSI B 93.7 D 05
- Sandwich plate design
- For throttling the flow to 2 actuator ports, example: control speed of an actuator in both directions
- Adjustment type: Screw adjustment with protective cap
- For meter-in or meter-out control as required
  - O-ring plate included



Model Z2FSK10-2-1X/2QV

## Ordering code

<table><tr><td>Z</td><td>2</td><td>FSK</td><td>10</td><td>-</td><td>2</td><td>-1X</td><td>/</td><td>V</td><td>*</td></tr></table>										Z	2	FSK	10	-	2	-1X	/	V	*
Z	2	FSK	10	-	2	-1X	/	V	*										
Sandwich plate		=Z							Further details to be written in clear text										
Dual throttle/checks		=2						V =	NBR seals suitable for petroleum oils (HM, HL, HLP) & phosphate ester fluids (HFD-R)										
Combination throttle/check valve		=FSK																	
Size 6 (D 03)		=10						2Q =	Throttling spool with two grooves (when used as a main throttle)										
Throttle / check valve in ports A and B		= -																	
<b>Adjustment option</b>								1X =	Series 10 to 19 (10 to 19, externally interchangeable)										
Screw adjustment with locknut and protective cap		=2																	

**Note:** For model Z 2 FS 10--3X/.. the same adjustment option is used on sides A and B.

## Technical data

Operating pressure	PSI	... 3050
Maximum flow	GPM	21
Weight (approx.)	lbs	2.6

**Extracted from RA 27 518/06.98**

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 Issue: 01.01

 See Section 16 for applicable  
 Preferred/Spotlight part numbers  
 and unit price.

**Double throttle/check valve**  
**Model Z 2 FS 10**

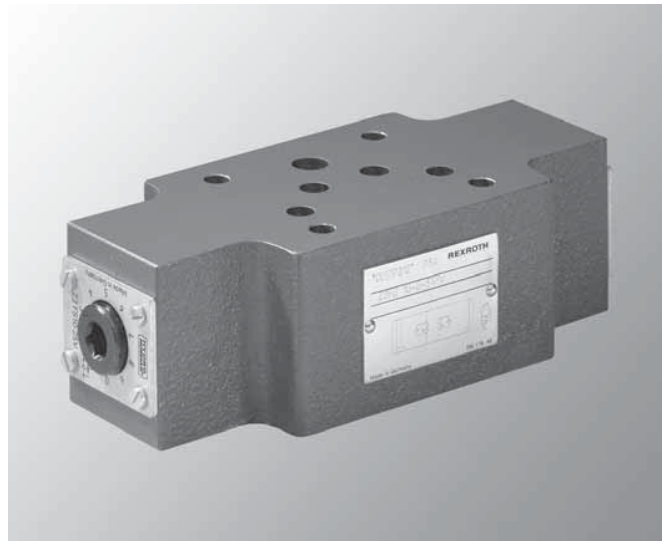
Size 10

Series 3X

Maximum operating pressure 210 bar (3050 PSI)

Maximum flow 120 L/min (32 GPM)

- Mounting pattern to ISO 4401-5, NFPA T3.5. MR1, and ANSI B 93.7 **D 05**
- Sandwich plate design
- For throttling the flow to 2 actuator ports, example:  
control speed of an actuator in both directions
- Adjustment type: Screw adjustment with protective cap
- For meter-in or meter-out control as required
  - O-ring plate included


**Ordering code**

Z 2 FS 10				-3X /		V	*
Dual throttle/check valve							Further details to be written in clear text
Size 10	= 10					V =	NBR seals, suitable for petroleum oils (HM, HL, HLP) and phosphate ester fluids (HFD-R)
Throttle/check valve side A and B	= -					no code =	(with dual throttle /check valves) meter-in or meter out control (this valve may be turned over)
<b>Adjustment option</b>						3X =	Series 30 to 39 (30 to 39, externally interchangeable)
Screw adjustment with locknut and protective cap	= 5						

**Technical data**

Flow direction		The same for both valves; throttle in one direction, reverse free flow across check valve in the other
Operating pressure	bar (PSI)	... 315 (4600)
Maximum flow	L/min (GPM)	120 (32)
Weight (approx.)	kg (lbs.)	3.1 (6.8)

**Extracted from RA 27 526/06.98**

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 Issue: 06.04

 See Section 16 for applicable  
 Preferred/Spotlight part numbers  
 and unit price.

**Double throttle/check valve**  
**Model Z 2 FS 16**

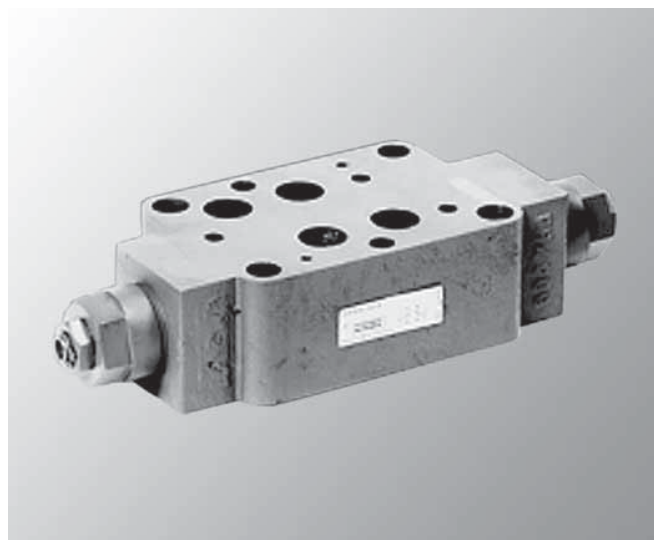
Size 16

Series 3X

Maximum operating pressure 350 bar (5100 PSI)

Maximum flow 250 L/min (66 GPM)

- Throttle valve with reverse free-flow valves
- Sandwich plate design for use in vertical stacking assemblies
- Control speed of the actuator in both directions
- Meter-in or meter-out control as required
- Porting pattern to ISO 4401-7, NFPA T 3.5.1 M R1 and NFPA/ANSI B 93.7 **D 07**


**Ordering code**

<div> <div>Z</div> <div>2</div> <div>FS</div> <div>16</div> <div>– 3X /</div> <div></div> <div>*</div> </div>					
Sandwich plate	=Z				Further details to be written in clear text
Dual throttle/checks	=2				no code = NBR seals, suitable for petroleum oils (HM, HL, HLP)
Combination throttle/check valve		=FS			V = FPM seals (standard) suitable for phosphate-ester fluids (HFD-R)
Size 16 (D 07)			=16		
Series 3X				=3X	S = Throttle control meter-in
(30 to 39: externally interchangeable)					S2 = Throttle control meter-out

**Technical data**

Flow direction		The same for both valves; throttled in one direction, reverse free-flow across check valve in the other
Hydraulic fluid		Petroleum oils (HM, HL, HLP) Phosphate-ester fluids (HFD-R)
Fluid temperature range	°C (°F)	NBR seals: –30 to +80 (–22 to +176) FPM seals: –20 to +80 (–4 to +176)
Maximum degree of fluid contamination		Class 18/15 according to ISO 4406. Therefore, we recommend a filter with a retention rate of $\beta_{10} \leq 75$ .
Operating pressure	bar (PSI)	... 350 (5100)
Maximum flow	L/min (GPM)	250 (66)
Weight (approx.)	kg (lbs.)	4.7 (10.4)

**Extracted from RA 27 536/06.98**

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Issue: 06.04

 See Section 16 for applicable  
 Preferred/Spotlight part numbers  
 and unit price.

**Double throttle/check valve**  
**Model Z 2 FS 22**

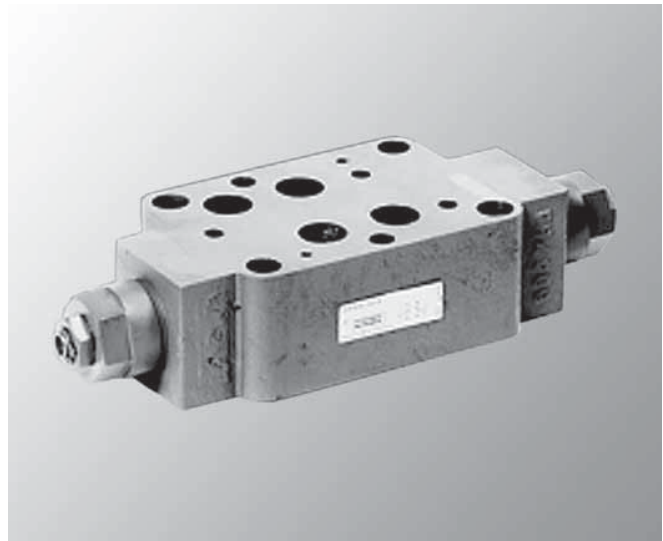
Size 22

Series 3X

Maximum operating pressure 350 bar (5100 PSI)

Maximum flow 360 L/min (95 GPM)

- Throttle valve with reverse free-flow valves
- Sandwich plate design for use in vertical stacking assemblies
- Control speed of the actuator in both directions
- Meter-in or meter-out control as required
- Porting pattern to ISO 4401-8, NFPA T 3.5.1 M R1 and NFPA/ANSI B 93.7 D 08


**Ordering code**

<div> <div>Z</div> <div>2</div> <div>FS</div> <div>22</div> <div>3X</div> <div>/</div> <div></div> <div>*</div> </div>					
Sandwich plate	=Z				Further details to be written in clear text
Dual throttle/checks	=2				no code = NBR seals, suitable for petroleum oils (HM, HL, HLP)
Combination throttle/check valve	=FS				V = FPM seals (standard) suitable for phosphate-ester fluids (HFD-R)
Size 22/25 (D 08)		=22			
Series 3X			=3X		S = Throttle control meter-in
(30 to 39: externally interchangeable)					S2 = Throttle control meter-out

**Technical data**

Flow direction		The same for both valves; throttled in one direction, reverse free-flow across check valve in the other
Hydraulic fluid		Petroleum oils (HM, HL, HLP) Phosphate-ester fluids (HFD-R)
Fluid temperature range	°C (°F)	NBR seals: -30 to +80 (-22 to +176) FPM seals: -20 to +80 (-4 to +176)
Maximum degree of fluid contamination		Class 18/15 according to ISO 4406. Therefore, we recommend a filter with a retention rate of $\beta_{10} \leq 75$ .
Operating pressure	bar (PSI)	... 350 (5100)
Maximum flow	L/min (GPM)	360 (95)
Weight (approx.)	kg (lbs.)	8 (17.6)