

Butterfly Valve

# ISORIA 10/16



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ISORIA 10/16

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## Information

### Related documents

For more information refer to the documents listed below and to the KSB web site.

Information/documents

Document	Reference number
Operating manual	8449.8
ISORIA 10/16 type series booklet	8445.5

### Flow velocities

The following is a typical selection of actuators for butterfly valves handling lubricating fluids at the maximum flow velocities shown. Higher flow velocities and further actuator/valve combinations are possible, depending on the operating conditions and hydraulic characteristics. Contact KSB.

Overview table of maximum flow velocities for ISORIA 10

DN	Fluids handled		Gases
	Lubricating fluids	Non-lubricating fluids	
	[m/s]	[m/s]	[m/s]
40	3	3	50
50	3	3	50
65	3	3	50
80	3	3	50
100	3	3	50
125	3	3	50
150	3	3	50
200	3	3	50
250	3	3	50
300	3	3	50
350	3	3	50
400	3	3	50
450	2,5	2,5	50
500	2,5	2,5	50
550	2,5	2,5	50
600	2,5	2,5	50
650	2,5	2,5	50
700	2,5	2,5	50
750	2	2	50
800	2	2	50
900	2	2	50
1000	2	2	50

Overview table of maximum flow velocities for ISORIA 16

DN	Fluids handled		Gases
	Lubricating fluids	Non-lubricating fluids	
	[m/s]	[m/s]	[m/s]
40	3	3	50
50	3	3	50
65	3	3	50
80	3	3	50
100	3	3	50
125	3	3	50
150	3	3	50
200	3	3	50
250	3	3	50
300	3	3	50
350	3	3	50
400	3	3	50
450	2,5	2,5	50
500	2,5	2,5	50
550	2,5	2,5	50
600	2,5	2,5	50
650	2,5	2,5	50
700	2,5	2,5	50
750	2	2	50
800	2	2	50
900	2	2	50
1000	2	2	50

**Actuators**
**Levers**
**S/SR/SP (ISORIA 10)**

**Fig. 1: Unit comprising ISORIA 10/16 + S / SR lever**

Liners for lubricating fluids and non-lubricating fluids

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids		Non-lubricating fluids	
	s	h3		All liners		All liners	
				S/SR	SP	S/SR	SP
40	M11	24	10	180/260	260	180/260	260
50							
65							
80							
100	M14	24	330	330	330	330	330
125		30					
150							
200	M19	35		-	-	-	-
250							
300	M22	40		-	-	-	-

**S/SR/SP (ISORIA 16)**

Liners for lubricating fluids

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids	
	s	h3		All liners	
				S/SR	SP
40	M11	24	16	180/260	260
50					
65					
80					
100	M14	24	330	330	330
125		30			
150					
200	M19	35		-	-
250					
300	M22	40		-	-

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## CR/CM (ISORIA 10)



Fig. 2: Unit comprising ISORIA 10/16 + CR / CM lever

Liners for lubricating fluids and non-lubricating fluids

DN	Shaft end		Maximum pressure	Lubricating fluids		Non-lubricating fluids
	s	h3		XA/XC/XV/K liners	All other liners	All liners
			[bar]	CR/CM	CR/CM	CR/CM
40	M11	24	10	165/230	165/230	165/230
50						
65						
80						
100	M14	24		230/300	230/300	230/300
125		30				
150		300/510				
200	M19	35		510	510	510
250						
300	M22	40		-	-	-

## CR/CM (ISORIA 16)

Liners for lubricating fluids

DN	Shaft end		Maximum pressure	Lubricating fluids
	s	h3		All liners
			[bar]	CR/CM
40	M11	24	16	165/230
50				
65				
80				
100	M14	24		230/300
125		30		
150		300/510		
200	M19	35		510
250				
300	M22	40		-

Manual gearboxes

# MR/AB (ISORIA 10)



Fig. 3: Unit comprising ISORIA 10/16 + MR / AB manual gearbox

Shut-off function: liners for lubricating fluids and non-lubricating fluids

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids: XC/XU/K liners		Non-lubricating fluids: XC/XU/K liners All fluids: all other liners			
	s	h3		KSB	ROTORK	KSB	ROTORK		
				Type MR	Type AB	Type MR	Type AB		
40	M11	24	10	MR25	-	MR25	-		
50					-		-		
65					-		-		
80					-		-		
100	M14	24			-		-		
125		30			-		-		
150		-			-				
200	M19	35			-		-	-	-
250				-	-	MR50	-		
300				M22	40	MR50	-	-	-
350	C25	45		-	-	MR100	-	-	
400				C36	55	MR100	-	-	-
450						-	-	MR200	-
500	-	-				-	-	-	
550	C50	65		MR200	-	-	-		
600				-	-	-	-		
650			-	-	MR400	-	-		
700			-	-	-	-	AB2000		
750			MR400	AB2000	-	-	-		
800			-	-	-	-	-		
900	C60	80	-	AB1950/PR4	MR600	AB1950/PR4			
1000			MR600	-	-	-			

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## MR/AB (ISORIA 16)

Shut-off function: liners for lubricating fluids

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids					
	s	h3		KSB		ROTORK			
				XA/XC/XV/K liners Type MR	Y liner Type MR	XA/XC/XV/K liners Type AB			
40	M11	24	16	MR25	MR25	-			
50						-			
65						-			
80						-			
100	M14	24				-			
125		30				-			
150		-							
200	M19	35				-			
250				MR50	MR50	-			
300	M22	40		-					
350	C25	45		MR100	MR100	-			
400				-					
450	C36	55		MR200	MR200	-			
500						-			
550						C50	65	-	-
600								-	
650	MR400	-	AB2000						
700	-								
750	-								
800	-								
900	C60	80	MR600	-	AB1950/PR4				
1000						-			

Double-acting pneumatic actuator

# ACTAIR NG (ISORIA 10)



Fig. 4: Unit comprising ISORIA 10/16 + ACTAIR NG actuator

Shut-off function: liners for lubricating fluids and non-lubricating fluids

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids: XA/XC/XV/K liners			Non-lubricating fluids: XA/XC/XV/K liners All fluids: all other liners							
	s	h3		Control pressure			Control pressure							
				4 [bar]	5 [bar]	6 [bar]	4 [bar]	5 [bar]	6 [bar]					
40	M11	24	10	NG2	NG2	NG2	NG2	NG2	NG2					
50				NG5			NG5			NG5				
65					NG5	NG5		NG5						
80				NG10			NG10	NG10	NG10					
100	M14	24		NG15	NG15	NG10	NG15	NG15	NG15					
125							30			NG20	NG20	NG20		
150		35		NG30	NG20	NG30								
200						M19	35	NG40	NG40	NG30	NG40	NG40	NG40	
250	NG60	NG60		NG40	NG60									
300					M22						40			NG80
350	C25	45		NG120										
400					C36	55	NG160	NG160	NG160	NG160				
450										65	NG240	NG160	NG160	NG240
500					C50	65	NG340	NG240	NG160					NG240
550	700	NG340		NG240						NG240	NG340			
600											750	NG500	NG240	NG240
650	800	NG500	NG240	NG240						NG500				
700					C60	80	NG500	NG500	NG500	NG700				
750	NG700	NG700	NG700	NG700						NG700				
800										80	NG700	NG700	NG700	NG700
900	1000	80	NG700	NG700										NG700
1000					-	NG700	NG700	NG700	NG700					

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Throttling function: liners for all fluids

DN	Shaft end		Maximum pressure [bar]	All fluids: all liners		
	s	h3		Control pressure		
				4 [bar]	5 [bar]	6 [bar]
40	M11	24	10	NG2	NG2	NG2
50				NG5		
65				NG5		
80				NG5		
100	M14	24		NG10	NG10	NG10
125		30		NG15		
150		30		NG15		
200	M19	35		NG20	NG20	NG15
250				NG40	NG30	NG30
300	M22	40		NG60	NG60	NG60
350	C25	45		NG80	NG80	NG80
400	C36	55		NG120	NG120	NG120
450				NG160		
500				NG160	NG160	
550				C50	65	NG240
600	NG240	NG240				
650	NG340	NG340	NG240			
700	NG500	NG500	NG340			
750		NG500	NG340			
800	NG500	NG500				
900	C60	80	NG700	NG700	NG500	
1000			-		NG700	

## ACTAIR NG (ISORIA 16)

Shut-off function: liners for lubricating fluids

DN	Shaft end		Maximum pressure	Lubricating fluids					
				XA/XC/XV/K liners			Y liner		
	Control pressure			Control pressure					
	s	h3		4	5	6	4	5	6
[bar]			[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	
40	M11	24	16	NG2	NG2	NG2	NG2	NG2	NG2
50				NG5	NG5	NG2	NG5	NG5	NG2
65				NG10			NG5	NG10	
80					NG10	NG10	NG10		NG10
100	M14	24		NG10	NG10	NG10	NG10	NG10	NG10
125				NG15	NG15		NG15	NG15	
150		30		NG15	NG15	NG15	NG20	NG15	NG15
200	M19			35	NG20	NG20	NG15	NG30	NG20
250		NG40			NG30	NG20	NG40	NG40	NG30
300	M22	40		NG60	NG60	NG40	NG60	NG60	NG40
350	C25	45		NG80	NG80	NG60	NG120	NG80	NG60
400	C36	55		NG120	NG120	NG80		NG120	NG80
450				NG160	NG160	NG120	NG160	NG120	NG120
500				NG240		NG160	NG240	NG160	NG160
550					C50	65	NG240	NG240	NG160
600	NG500	NG240		NG340	NG340		NG340	NG240	NG240
650		NG500	NG340	NG340	NG340		NG500	NG340	NG340
700	NG500		NG500	NG500	NG500		NG500	NG500	NG500
750		NG700	NG700	NG700	NG700		NG700	NG700	NG700
800	C60		80	NG700	NG700		NG700	NG700	NG700
900		-		NG700	NG700		NG700	NG700	NG700
1000	-	-	-	-	-		-	-	

Throttling function: liners for lubricating fluids

DN	Shaft end		Maximum pressure	Lubricating fluids					
				XA/XC/XV/K liners			Y liner		
	Control pressure			Control pressure					
	s	h3		4	5	6	4	5	6
[bar]			[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	
40	M11	24	16	NG5	NG2	NG2	NG5	NG5	NG2
50				NG10	NG5	NG2	NG5	NG5	NG2
65					NG10	NG5	NG10	NG10	NG5
80				NG10		NG10	NG10	NG10	NG10
100	M14	24		NG10	NG10	NG10	NG15	NG15	NG10
125				NG15	NG15	NG15	NG20	NG15	
150		30		NG20	NG20	NG15	NG30	NG20	NG20
200	M19			35	NG30	NG30	NG20	NG40	NG30
250		NG60			NG60	NG40	NG60	NG60	NG40
300	M22	40		NG120	NG80	NG60	NG120	NG80	NG60
350	C25	45		NG120	NG120	NG80	NG160	NG120	NG120
400	C36	55			NG160	NG160	NG120	NG240	NG160
450				NG240	N240	NG160	NG240	NG160	NG160
500				NG340		NG240	NG340	NG240	NG340
550					C50	65	NG340	NG340	NG240
600	NG500	NG340		NG340	NG500		NG340	NG340	
650		NG700	NG500	NG500	NG700		NG500	NG500	
700	NG700		NG700	NG700	NG700		NG700	NG700	
750		-	-	-	-		-	-	
800	-	-	-	-	-		-	-	
900	C60	80	-	-	NG700		-	-	NG700
1000			-	-	-		-	-	-

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Single-acting pneumatic actuator

## DYNACTAIR NG (ISORIA 10)



Fig. 5: Unit comprising ISORIA 10/16 + DYNACTAIR NG actuator

Shut-off function: liners for lubricating fluids

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids: XA/XC/XV/K liners		
	s	h3		Control pressure		
				4 [bar]	5 [bar]	6 [bar]
40	M11	24	10	NG2/4	NG2	NG2
50				NG4/4		
65				NG6/4	NG4	NG4
80				NG8/4	NG6	NG6
100	M14	24		NG12/4	NG8	NG8
125		30		NG16/4	NG12	NG12
150		NG25/4		NG16	NG16	
200	M19	35		NG35/4	NG25	NG25
250				NG50/4	NG50	NG50
300	M22	40		NG80/4	NG80	NG80
350	C25	45		NG120/4		
400	C36	55		NG160/4	NG120	NG120
450				NG240/4	NG160	NG160
500				NG350/4	NG240	NG240
550				-	NG350	NG350
600	C50	65		-	-	-
650			-			
700			-			
750			-	-	-	
800			-	-	-	
900			C60	80	-	-
1000	-	-			-	

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Shut-off function: liners for non-lubricating fluids

DN	Shaft end		Maximum pressure [bar]	Non-lubricating fluids: XA/XC/XV/K liners All fluids: all other liners		
	s	h3		Control pressure		
				4 [bar]	5 [bar]	6 [bar]
40	M11	24	10	NG4/4	NG2	NG2
50				NG4	NG4	
65				NG6/4	NG6	NG6
80					NG8/4	NG8
100	M14	24		NG12/4	NG12	NG12
125		30		NG16/4	NG16	NG16
150	M19	35		NG25/4	NG25	NG25
200				NG50/4	NG35	NG35
250				NG80/4	NG50	NG50
300				NG120/4	NG120	NG120
350	C25	45		NG160/4		
400	C36	55		NG240/4	NG240	NG240
450				NG350/4		
500				-	NG350	NG350
550				C50	65	-
600	-	-				-
650	-	-	-			
700	-	-	-			
750	C60	80	-	-	-	
800			-	-	-	
900			-	-	-	
1000			-	-	-	

Throttling function: liners for all fluids

DN	Shaft end		Maximum pressure [bar]	All fluids: all liners		
	s	h3		Control pressure		
				4 [bar]	5 [bar]	6 [bar]
40	M11	24	10	NG4/4	NG2	NG2
50				NG4	NG4	
65				NG6/4	NG6	NG6
80					NG8/4	NG8
100	M14	24		NG12/4	NG12	NG12
125		30		NG16/4	NG16	NG16
150	M19	35		NG25/4	NG25	NG25
200				NG50/4	NG35	NG35
250				NG80/4	NG50	NG50
300				NG120/4	NG120	NG120
350	C25	45		NG160/4		
400	C36	55		NG240/4	NG240	NG240
450				NG350/4		
500				-	NG350	NG350
550				C50	65	-
600	-	-				-
650	-	-	-			
700	-	-	-			
750	C60	80	-	-	-	
800			-	-	-	
900			-	-	-	
1000			-	-	-	

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## DYNACTAIR NG (ISORIA 16)

Shut-off function: liners for lubricating fluids

DN	Shaft end		Maximum pressure	Lubricating fluids						
				XA/XC/XV/K liners			Y liner			
	Control pressure			Control pressure						
	s	h3		[bar]	4	5	6	4	5	6
		[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	
40	M11	24	16	NG4/4	NG2	NG2	NG4/4	NG2	NG2	
50					NG4	NG4	NG6/4	NG4	NG4	
65				NG6/4	NG6	NG6	NG8/4	NG6	NG6	
80					NG8/4	NG8	NG8	NG8	NG8	
100	M14	30		NG12/4	NG8	NG8	NG16/4	NG12	NG12	
125				NG16/4	NG12	NG12	NG25/4	NG16	NG16	
150				NG25/4	NG25	NG25	NG35/4	NG25	NG25	
200	M19	35		NG50/4	NG35	NG35	NG50/4	NG50	NG50	
250				NG80/4	NG50	NG50	NG120/4	NG80	NG80	
300	M22	40		16	NG120/4	NG120	NG120	NG160/4	NG120	NG120
350	C25	45								
400	C36	55			NG240/4	NG240	NG240	NG240/4	NG160	NG160
450					NG240	NG240	NG350/4	NG240	NG240	
500								NG350/4	NG350	NG350
550	C50	65			-	-	-	-	-	-
600					-	-	-	-	-	-
650			-		-	-	-	-	-	
700			-		-	-	-	-	-	
750			-		-	-	-	-	-	
800			-	-	-	-	-	-		
900	C60	80	-	-	-	-	-	-		
1000			-	-	-	-	-	-		

Throttling function: liners for lubricating fluids

DN	Shaft end		Maximum pressure	Lubricating fluids						
				XA/XC/XV/K liners			Y liner			
	Control pressure			Control pressure						
	s	h3		[bar]	4	5	6	4	5	6
		[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	[bar]	
40	M11	24	16	NG4/4	NG4	NG4	NG6/4	NG4	NG4	
50					NG6/4	NG6	NG6	NG6	NG6	
65				NG6/4	NG6	NG6	NG8/4	NG6	NG6	
80					NG8/4	NG8	NG8	NG8	NG8	
100	M14	30		NG12/4	NG8	NG8	NG16/4	NG12	NG12	
125				NG16/4	NG12	NG12	NG25/4	NG16	NG16	
150				NG25/4	NG16	NG16	NG35/4	NG25	NG25	
200	M19	35		NG35/4	NG25	NG25	NG50/4	NG35	NG35	
250				NG80/4	NG50	NG50	NG120/4	NG80	NG80	
300	M22	40		16	NG160/4	NG120	NG120	NG160/4	NG120	NG120
350	C25	45								
400	C36	55			NG240/4	NG240	NG240	NG240/4	NG240	NG240
450					NG240	NG240	NG350/4	NG240	NG240	
500								NG350/4	NG350	NG350
550	C50	65			-	-	-	-	-	-
600					-	-	-	-	-	-
650			-		-	-	-	-	-	
700			-		-	-	-	-	-	
750			-		-	-	-	-	-	
800			-	-	-	-	-	-		
900	C60	80	-	-	-	-	-	-		
1000			-	-	-	-	-	-		

## Electric actuators

**AQ/AQL - BERNARD CONTROLS (ISORIA 10)**


Fig. 6: Unit comprising ISORIA 10/16 + AQ/AQL actuator

Shut-off function: liners for lubricating fluids and non-lubricating fluids

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids: XA/XC/XV/K liners		Non-lubricating fluids: XA/XC/XV/K liners All fluids: all other liners			
	s	h3		AQL	AQ	AQL	AQ		
40	M11	24	10	AQL AQ7L	AQ5	AQ7L	AQ5		
50									
65									
80									
100	M14	24	-	-	-	-	AQ10		
125		30							
150	M19	35	-	-	AQ10	-	-		
200								AQ15	AQ25
250								AQ25	AQ50
300	M22	40	-	-	-	-	-		
350	C25	45	-	-	-	-	-		
400	C36	55	-	-	-	-	-		

Throttling function: liners for all fluids

DN	Shaft end		Maximum pressure [bar]	All fluids: all liners			
	s	h3		AQL	AQ		
40	M11	24	10	AQ7L	AQ5		
50							
65							
80							
100	M14	24	-	-	AQ10		
125		30					
150	M19	35	-	-	-		
200						AQ15	AQ25
250						AQ25	AQ50
300	M22	40	-	-	-		
350	C25	45	-	-	-		
400	C36	55	-	-	-		

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## AQ/AQL - BERNARD CONTROLS (ISORIA 16)

Shut-off function: liners for lubricating fluids

DN	Shaft end		Maximum pressure	Lubricating fluids							
				XA/XC/XV/K liners		Y liner					
	s	h3	[bar]	AQL	AQ	AQL	AQ				
40	M11	24	16	AQ7L	AQ5	AQ7L	AQ5				
50											
65											
80											
100	M14	24	-	-	AQ10	-	AQ10				
125		30									
150		30									
200	M19	35	-	-	AQ25	-	AQ25				
250								-	AQ30	-	AQ50
300									AQ50	-	-
350	C25	45	-	-	-	-	-				
400	C36	55	-	-	-	-	-				

Throttling function: liners for lubricating fluids

DN	Shaft end		Maximum pressure	Lubricating fluids							
				XA/XC/XV/K liners		Y liner					
	s	h3	[bar]	AQL	AQ	AQL	AQ				
40	M11	24	16	AQ7L	AQ5	AQ7L	AQ5				
50											
65											
80								-	-	AQ10	
100	M14	24	-	-	AQ10	-	-				
125		30						-	AQ15		
150		30						-	AQ25		
200	M19	35	-	-	AQ25	-	AQ50				
250								-	AQ50	-	-
300									-	-	-
350	C25	45	-	-	-	-	-				
400	C36	55	-	-	-	-	-				

## SQ - BERNARD CONTROLS (ISORIA 10)



Fig. 7: Unit comprising ISORIA 10/16 + SQ - BERNARD CONTROLS actuator

Shut-off function: liners for lubricating fluids and non-lubricating fluids

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids: XA/XC/XV/K liners	Non-lubricating fluids: XA/XC/XV/K liners All fluids: all other liners
	s	h3		SQ	SQ
40	M11	24	10	SQ6	SQ6
50					
65					
80					
100	M14	24		SQ10	SQ10
125		30			
150					
200	M19	35		SQ15	SQ25
250				SQ25	SQ60
300	M22	40		SQ60	
350	C25	45			SQ80
400	C36	55		SQ120	SQ120
450			-		
500			-		

Throttling function: liners for all fluids

DN	Shaft end		Maximum pressure [bar]	All fluids: all liners	
	s	h3		SQ - Intel+	
40	M11	24	10	SQ10	
50					
65					
80					
100	M14	24			
125		30			
150					
200	M19	35			SQ15
250					SQ25
300	M22	40			SQ60
350	C25	45			SQ80
400	C36	55			SQ120
450			-		
500			-		

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## SQ - BERNARD CONTROLS (ISORIA 16)

Shut-off function: liners for lubricating fluids

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids				
	s	h3		XA/XC/XV/K liners	Y liner			
				SQ	SQ			
40	M11	24	16	SQ6	SQ6			
50								
65								
80								
100	M14	24		16	SQ10	SQ10		
125								
150								
200	M19	35			16	SQ25	SQ25	
250								
300	M22	40				16	SQ60	SQ60
350								
400	C25	45					16	SQ80
450								
500								
500								
400	C36	55	16					SQ120
450								
500								
500								

Throttling function: liners for lubricating fluids

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids				
	s	h3		XA/XC/XV/K liners	Y liner			
				SQ - Intel+	SQ - Intel+			
40	M11	24	16	SQ10	SQ10			
50								
65								
80								
100	M14	24		16	SQ10	SQ15		
125								
150								
200	M19	35			16	SQ25	SQ60	
250								
300	M22	40				16	SQ80	SQ80
350								
400	C25	45					16	SQ120
450								
500								
500								
400	C36	55	16					-
450								
500								
500								

## SQ - AUMA (ISORIA 10)



Fig. 8: Unit comprising ISORIA 10/16 + SQ - AUMA actuator

Shut-off function: liners for lubricating fluids and non-lubricating fluids

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids: XA/XC/XV/K liners	Non-lubricating fluids: XA/XC/XV/K liners All fluids: all other liners		
	s	h3		SQ - AUMA	SQ - AUMA		
40	M11	24	10	SQ05.2	SQ05.2		
50							
65							
80							
100	M14	24					
125		30					
150							
200	M19	35				SQ07.2	SQ07.2
250							
300	M22	40				SQ10.2	SQ10.2
350	C25	45				SQ12.2	SQ12.2
400	C36	55					
450							
500			-				

Throttling function: liners for all fluids

DN	Shaft end		Maximum pressure [bar]	All fluids: all liners	
	s	h3		SQ - AUMA	
40	M11	24	10	SQ05.2	
50					
65					
80					
100	M14	24			
125		30			
150					
200	M19	35			SQ07.2
250					
300	M22	40			SQ10.2
350	C25	45			SQ12.2
400	C36	55			
450					
500			-		

## SQ - AUMA (ISORIA 16)

Shut-off function: liners for lubricating fluids

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids					
	s	h3		XA/XC/XV/K liners	Y liner				
				SQ - AUMA	SQ - AUMA				
40	M11	24	16	SQ05.2	SQ05.2				
50									
65									
80									
100	M14	24		16	SQ07.2	SQ07.2			
125		30					SQ10.2		
150									
200	M19	35			16	SQ10.2	SQ12.2		
250									
300	M22	40				16	-	-	
350	C25	45							
400	C36	55					16	-	-
450									
500									

Throttling function: liners for lubricating fluids

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids					
	s	h3		XA/XC/XV/K liners	Y liner				
				SQ - AUMA	SQ - AUMA				
40	M11	24	16	SQ05.2	SQ05.2				
50									
65									
80									
100	M14	24		16	SQ07.2	SQ10.2			
125		30					SQ12.2		
150									
200	M19	35			16	-	-		
250									
300	M22	40				16	-	-	
350	C25	45							
400	C36	55					16	-	-
450									
500									

Single-acting or double-acting hydraulic actuator

# HQ (ISORIA 10)



Fig. 9: Unit comprising ISORIA 10/16 + HQ actuator

Shut-off function: liners for lubricating fluids and non-lubricating fluids

DN	Shaft end		Maximum pressure [bar]	Lubricating fluids: XA/XC/XV/K liners			Non-lubricating fluids: XA/XC/XV/K liners All fluids: all other liners		
	s	h3		Hydraulic pressure			Hydraulic pressure		
				80 [bar]	90 [bar]	120/135 [bar]	80 [bar]	90 [bar]	120/135 [bar]
40	M11	24	10	10	10	10	10	10	
50									
65									
80									
100	M14	24	10	10	10	10	10	10	
125		30							
150									
200	M19	35	10	10	10	10	25	25	25
250									
300	M22	40	10	10	10	10	50	50	50
350							C25		
400	C36	55	10	10	10	10	100	100	100
450							200		
500								200	200
550							C50		
600									
650									
700									
750									
800									
900	C60	80	10	10	10	10	400	400	400
1000									

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## HQ (ISORIA 16)

Shut-off function: liners for lubricating fluids

DN	Shaft end		Maximum pressure	Lubricating fluids						
				XA/XC/XV/K liners			Y liner			
				Hydraulic pressure			Hydraulic pressure			
	s	h3		80	90	120/135	80	90	120/135	
			[bar]	[bar]	[bar]	[bar]	[bar]	[bar]		
40	M11	24	16	10	10	10	10	10	10	
50										
65										
80										
100	M14	24		25	25	25	25	25	25	25
125		30								
150										
200	M19	35		50	50	50	50	50	50	50
250										
300	M22	40		100	100	100	100	100	100	100
350	C25	45								
400	C36	55		200	200	200	200	200	200	200
450										
500										
550										
600	C50	65		400	400	400	400	400	400	400
650										
700										
750										
800										
850										
900	C60	80	400	400	400	400	400	400	400	
1000										









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