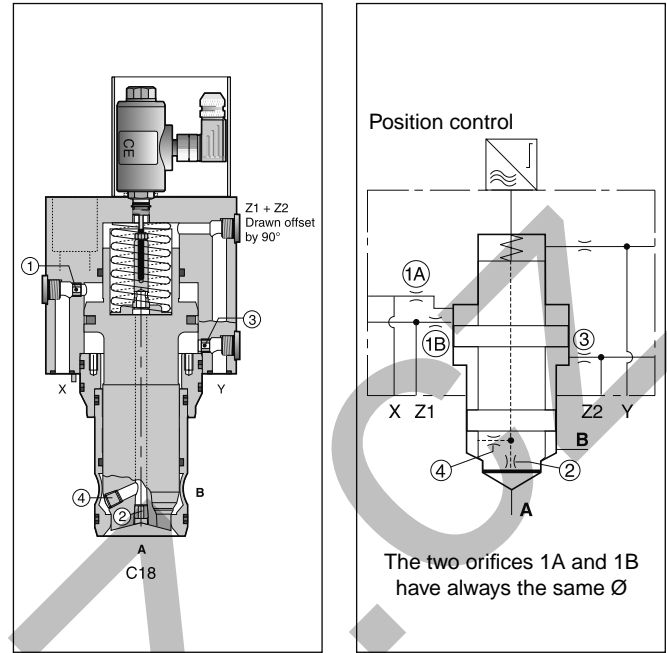


**Characteristics / Ordering Code**

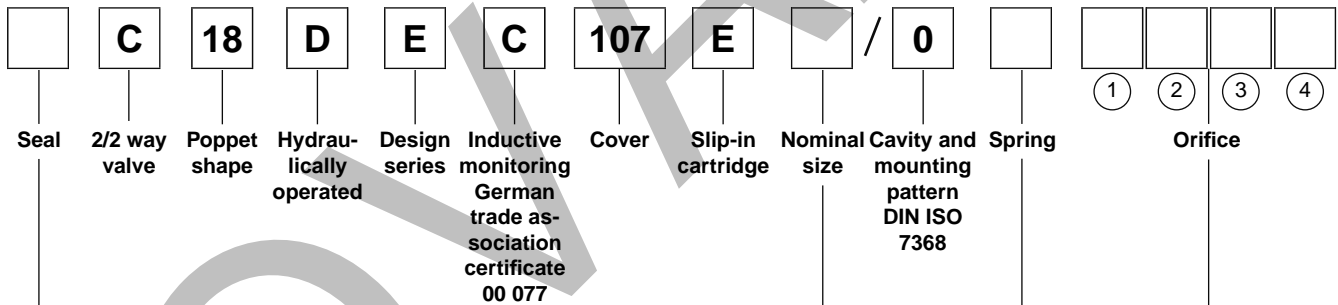
Active 2/2 way monitored seat valves with cartridge design according to ISO 7368 are preferably used for safety circuits: mainly for safety guards, mould form tools and locking mechanisms for presses and injection moulding machines. Pilot pressure actively opens and closes the main poppet - independently of the pressure in the main ports.

**Features**

- German trade association certificate, No. 00 078
- Cavity and mounting pattern acc. to ISO 7368
- Monitored closed position
- Inductive switch CE conform
- Active design with separate control surfaces
- Sealing between control surfaces and connection B
- 5 sizes NG25 up to NG63



**Ordering code**

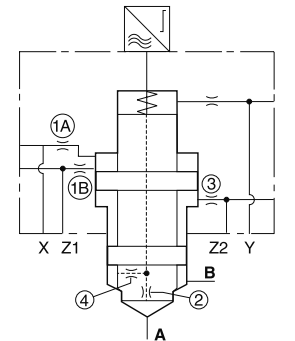


Code	Seal
omit	NBR
V	FPM

Code	Size
25	NG25
32	NG32
40	NG40
50	NG50
63	NG63

Code	Spring
S	Opening pressure 1.6 bar
U	Opening pressure 4.0 bar

Code	Orifice
99	Without orifice, open



○ Orifice (see accessories)

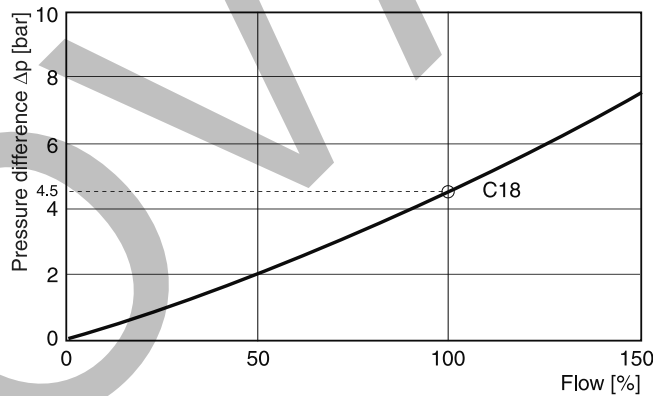
Technical Data / Flow Diagram

Technical data

General								
Size			NG25	NG32	NG40	NG50	NG63	
Interface	2 way slip-in cartridge valves DIN ISO 7368							
Mounting position	unrestricted							
Operation	Hydraulic							
Ambient temperature	[C°]	-40...+60						
MTTF <sub>D</sub> value	[years]	150						
Weight	[kg]	3.2	6.7	8.7	13.8	26.3		
Hydraulic								
Max. operating pressure, all connections	[bar]	350						
Nominal flow, Δp 5 bar	[L/min]	400	800	1250	1625	3400		
Fluid	Hydraulic oil acc. to DIN 51 524...525							
Fluid temperature	recommended [C°]	+30...+50						
	permitted [C°]	-20...+60						
Viscosity	recommended [cSt] / [mm²/s]	30...80						
	permitted [cSt] / [mm²/s]	20...380						
Filtration	ISO 4406 (1999); 18/16/13 (meet NAS 1638: 7)							
Control volume spring chamber, surface C	[cm³]	6.45	12.21	20.32	39.40	94.56		
Control surface	FC [%]	100						
	FSt [%]	123.8	108.6	121.5	117	121		
	FA/B [%]	approx. 60 / 40 related on surface C						
Opening pressure	flow direction B→A [bar]	Spring: L = 0.25; N = 1.25; S = 4.0; U = 10.0						
	flow direction A→B [bar]	Spring: L = 0.16; N = 0.85; S = 2.7; U = 6.6						
Electrical (inductive switch)	See position control							

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Flow diagram



Characteristic curve measured with HLP46 at 50°C.

Orifice thread

Orifice	NG25	NG32	NG40	NG50	NG63
①	M6	M6	M6	*1/16	*1/8
②	M6	M6	M6	*1/16	*1/16
③	M6	M6	M6	*1/16	*1/8
④	M6	M6	M6	*1/16	*1/16

\*Thread in NPT

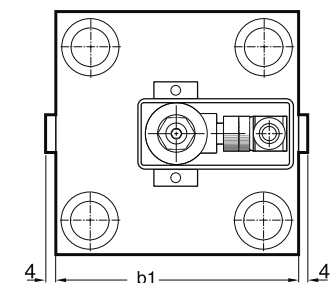
Recommended orifice diameter

Orifice	NG25	NG32	NG40	NG50	NG63
① - ④	Ø 1.2	Ø 1.5	Ø 2.0	Ø 2.5	Ø 3.0

Depending on function, plugs must be used.

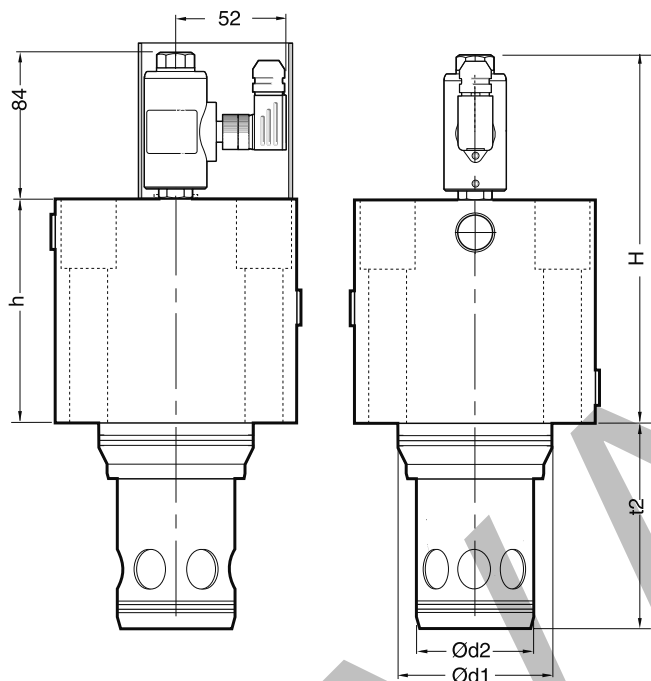
Dimensions / Connection Diagrams / Kits

Dimensions

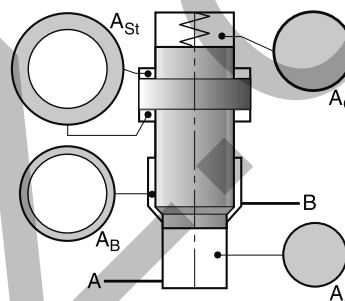


Cavity hole and mounting pattern acc. to ISO 7368. See series CE and C.

Nominal size	25	32	40	50	63
H	174	174	194	214	234
h	90	90	110	130	150
b1	85	102	125	140	180
d1	45	60	75	90	120
d2	34	45	55	68	90
t2 +0.1	72	85	105	122	155

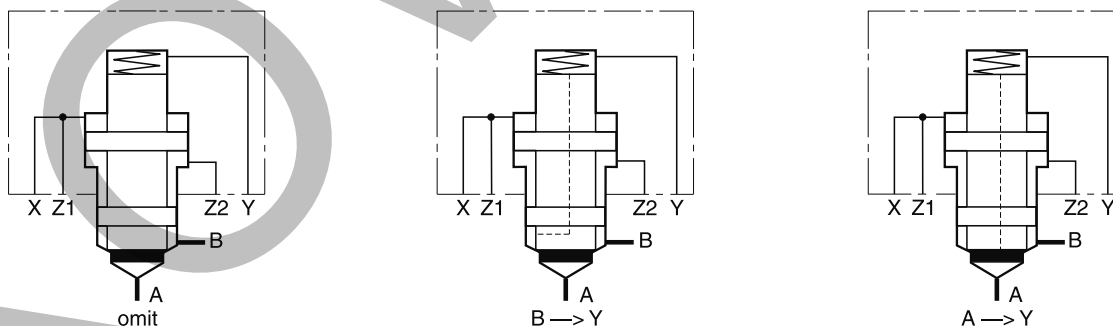


Control surfaces



NG	AA [%]	AB [%]	AC [%]	Ast [%]
25	60	40	100	124
32	60	40	100	109
40	60	40	100	121
50	60	40	100	117
63	60	40	100	121

Pilot guide inside the poppet



Seal and bolt kits

Nominal size		25	32	40	50	63
Seal kit	FPM	SK-C13DB10-E25V	SK-C13DB10-32V	SK-C13DB-E40V	SK-C13DB10-E50V	SK-C13DB10-E63V
	NBR	SK-C13DB10-E25	SK-C13DB10-32	SK-C13DB10-E40	SK-C13DB10-E50	SK-C13DB10-E63
Bolt kit	[DIN 912 12.9]	BK523, 4x M12x90	BK511, 4x M16x90	BK481, 4x M20x110	BK513, 4x M20x120	BK518, 4x M30x160
Recommended torque	[Nm]	94	234	460	460	1570

Attention!

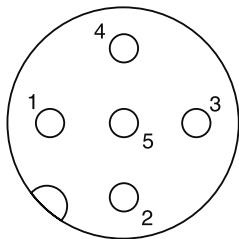
The switch may only be adjusted by the valve manufacturer. The exchange of individual modules is not permitted.

**Position Control**

**Electrical characteristics of position control as per IEC 61076-2-101 (M12x1)**

Protection class		IP 65 in accordance with EN 60529 (with correctly mounted plug-in connector)
Ambient temperature	[°C]	0...+50
Supply voltage / ripple	[V]	18...42 / 10%
Current consumption without load	[mA]	≤ 30
Max. output current per channel, ohmic	[mA]	400
Min. output load per channel, ohmic	[kOhm]	100
Max. output drop at 0.2A	[V]	≤ 1.1
Max. output drop at 0.4A	[V]	≤ 1.6
EMC		EN50081-1 / EN50082-2
Max. tolerance ambient field strength	[A/m]	<1200
Min. distance to next AC solenoid	[m]	>0.1
Interface		M12x1
Wiring min.	[mm²]	5 x 0.25 brad shield recommended
Wiring length max.	[m]	50 recommended

**M12 pin assignment**



- 1 + Supply 18...42V
- 2 Normally open
- 3 0V
- 4 Normally closed
- 5 Earth ground



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**Extract from the German trade association certificate**

Fachausschuss Maschinenbau,  
Hebezeuge, Hütten- und  
Walzwerksanlagen  
**Prüf- und Zertifizierungsstelle**  
im BG-PRÜFZERT

Hauptverband der gewerblichen  
Berufsgenossenschaften

**00 078**

Bescheinigungs-Nummer

Name und Anschrift  
des Bescheinigungsinhabers:  
(Auftraggeber)

**Parker Hannifin GmbH**  
Hydraulic Controls Division  
Gutenbergstr. 38 - 40, D- 41564 Kaarst

Name und Anschrift  
des Herstellers:

**Parker Hannifin GmbH**  
Hydraulic Controls Division  
Gutenbergstr. 38 - 40, D- 41564 Kaarst

Zeichen des Auftraggebers:

Zeichen der Prüf- und Zertifizierungsstelle:  
MHHW 612.1:612.28-UB Gb/bt

Produktbezeichnung:

**2/2- Wegesitzventil mit Überwachung**  
**aktiv gesteuerte Einbauventile nach DIN 24342 (entspricht DIN ISO 7368)**

Typ:

C18 DEC 107.....

Das geprüfte Baumuster entspricht den einschlägigen Bestimmungen der EG-Maschinenrichtlinie 2006/42/EG.

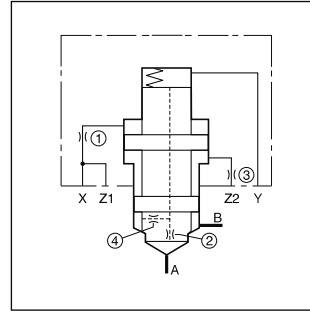
**Characteristics**

Active 2/2 way seat valves with cartridge design according to ISO 7368 are preferably used where opening and closing should be controlled by pilot pressure only - independently of the pressure in the main ports.

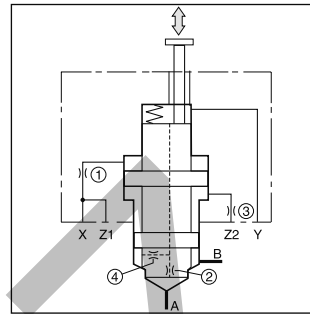
The C18 DB series is offered as hydraulically controlled valve (C18 DB 107), with additional stroke limiter (C18 DBN 112) and with the mounting pattern for a pilot valve (C18 DB 121).

**Features**

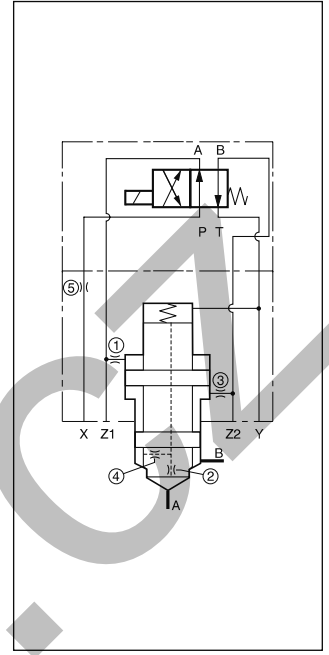
- Cavity and mounting pattern acc. to ISO 7368
- Active design with separate control areas
- Sealing between control surfaces and connection B
- Up to 5 sizes:
  - C18 DB 107            5 sizes NG25 up to NG63
  - C18 DBN 112        3 sizes NG25 up to NG40
  - C18 DB 121         2 sizes NG32 up to NG40



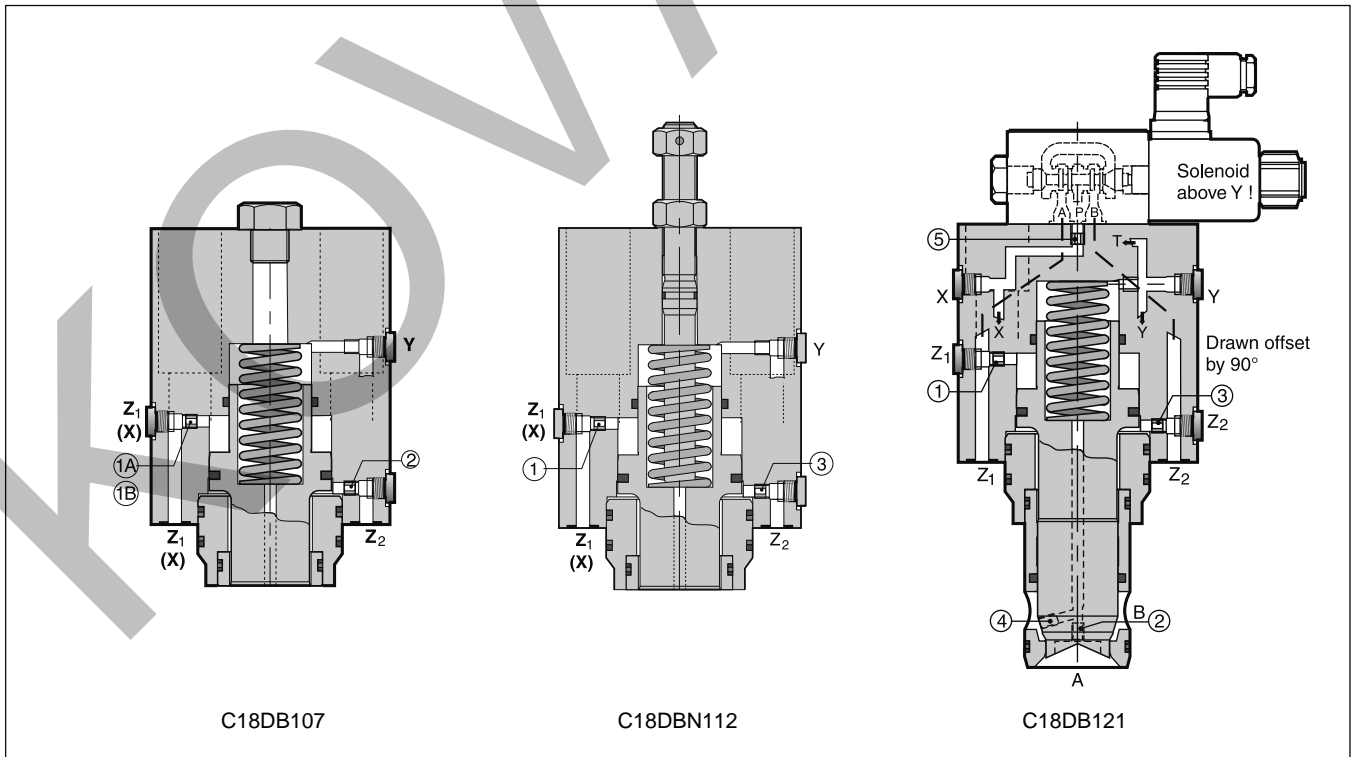
C18DB107



C18DBN112



C18DB121



C18DB107

C18DBN112

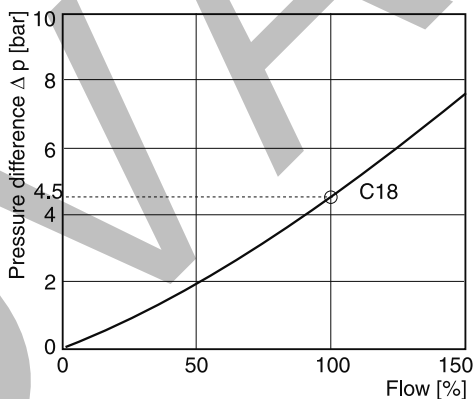
C18DB121



**Technical data**

General							
Size			NG25	NG32	NG40	NG50	NG63
Design type	2 way slip-in cartridge valves DIN ISO 7368						
Mounting position	unrestricted						
Operation	Hydraulic						
Ambient temperature	[C°]	-40...+60					
MTTF <sub>D</sub> value	[years]	150					
Weight	[kg]	3.2	6.7	8.7	13.8	26.3	
Hydraulic							
Operating pressure, all connections	[bar]	350					
Nominal flow, Δp 5 bar	[L/min]	450	900	1300	1800	3600	
Fluid	Hydraulic oil according to DIN 51524...51525						
Fluid temperature	recommended [C°]	+30...+50					
	permitted [C°]	-20...+60					
Viscosity	recommended [cSt] / [mm²/s]	30...80					
	permitted [cSt] / [mm²/s]	20...380					
Contamination	ISO 4406 (1999); 18/16/13 (meet NAS 1638: 7)						
Control volume spring chamber, surface C	[cm³]	6.45	12.21	20.32	39.40	94.56	
Control surface	FC	100					
	FSt	123.8	108.6	121.5	117	121	
	FA/B	approx. 60 / 40 related on surface C					
Opening pressure	flow direction B→A	[bar]	Spring: L = 0.25; N = 1.25; S = 4.0; U = 10.0				
	flow direction A→B	[bar]	Spring: L = 0.16; N = 0.85; S = 2.7; U = 6.6				

**Flow diagram**



Characteristic curve measured with HLP46 at 50°C.

**Orifice thread**

Orifice	NG25	NG32	NG40	NG50	NG63
①	M6	M6	M6	*1/16	*1/8
②	M6	M6	M6	*1/16	*1/16
③	M6	M6	M6	*1/16	*1/8
④	M6	M6	M6	*1/16	*1/16
⑤	—	M6	M6	—	—

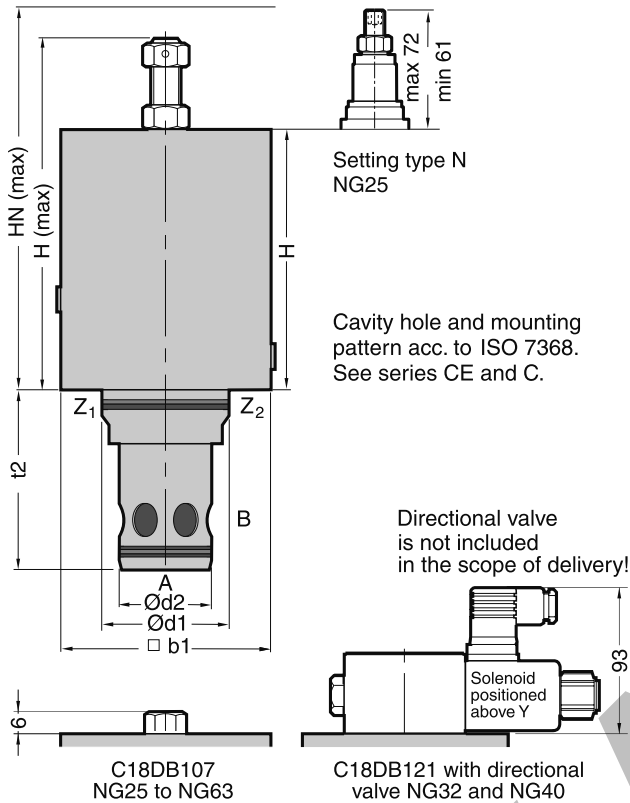
\*Thread in NPT

**Recommended orifice diameter**

Orifice	NG25	NG32	NG40	NG50	NG63
① - ⑤	∅ 1.2	∅ 1.5	∅ 2.0	∅ 2.5	∅ 3.0

Depending on function, plugs and orifices must be used (code 00).

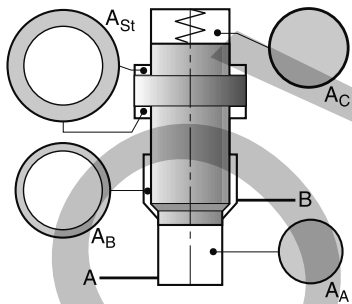
**Dimensions**



Nominal size	25	32	40	50	63
H max	234	142	208	189	241
HN max	162	197	227	202	222
h	90	125	140	130	150
b1	85	102	125	140	180
d1	45	60	75	90	120
d2	34	45	55	68	90
t2 + 0.1	72	85	105	122	155

8

**Control surfaces**



NG	Aa [%]	Ab [%]	Ac [%]	Ast [%]
25	60	40	100	124
32	60	40	100	109
40	60	40	100	121
50	60	40	100	117
63	60	40	100	121

**Seal kits**

Nominal size		25	32	40	50	63
Seal kit	FPM	SK-C13DB10-E25V	SK-C13DB10-32V	SK-C13DB-E40V	SK-C13DB10-E50V	SK-C13DB10-E63V
	NBR	SK-C13DB10-E25	SK-C13DB10-32	SK-C13DB10-E40	SK-C13DB10-E50	SK-C13DB10-E63

**Mounting kits**

Nominal size		25	32	40	50	63
Cover code 107 consisting of:	[DIN 912 12.9]	BK523, 4x M12x90-	BK529, 4x M16x100	BK481, 4x M20x110	BK513, 4x M20x120	BK518, 4x M30x160
Cover code 112 consisting of:	[DIN 912 12.9]	BK523, 4x M12x90-	BK529, 4x M16x100	BK481, 4x M20x110	—	—
Cover code 121 consisting of:	[DIN 912 12.9]	—	BK529, 4x M16x100	BK481, 4x M20x110	—	—
Recommended torque	[Nm]	94	234	460	460	1570

C18DB.UK.INDD CM 07.09.11