

Series C18D*C 2/2 way, monitored seat valves with cartridge design according to ISO 7368 are preferably used for safety circuits: mainly for safety guards, mold form tools and locking mechanisms for presses and injection moulding machines. Pilot pressure actively opens and closes the main poppet independent of pressure in the main ports.

- German trade association certificate, No. 00 078.
- Cavity and mounting pattern according 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.

The diagram shows a solenoid valve with various components labeled with callouts corresponding to the code positions:

- Seals**: Callout to the top seal area.
- 2/2 Way Valve**: Callout to the valve body.
- Poppet Shape**: Callout to the poppet.
- Hydraulically Operated**: Callout to the solenoid coil.
- Design Series**: Callout to the valve body.
- Inductive Monitoring German Trade Association Certificate 00 078**: Callout to the valve body.
- Cover**: Callout to the top cover.
- Slip-in Cartridge**: Callout to the cartridge.
- Valve Size**: Callout to the valve body.
- Cavity and Mounting Pattern ISO 7368**: Callout to the mounting pattern.
- Spring**: Callout to the spring.
- Orifice**: Callout to the orifice.

Code Description

Code	Description
Omit	Nitrile
V	Fluorocarbon

Weight:

Code	Weight
C18DEC*25	3.2 kg (7.1 lbs.)
C18DEC*32	6.7 kg (14.8 lbs.)
C18DEC*40	8.7 kg (19.2 lbs.)
C18DEC*50	13.8 kg (30.4 lbs.)
C18DEC*63	26.3 kg (58.0 lbs.)

Code Description

Code	Description
S	1.6 Bar (23.2 PSI)
U	4.0 Bar (58.0 PSI)

Code Description

Code	Description
99	Without Orifice, Open

Code Description

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

Orifice (See Accessories)

Diagram of the valve showing the orifice location (1A) and the orifice size (1B).

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

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.

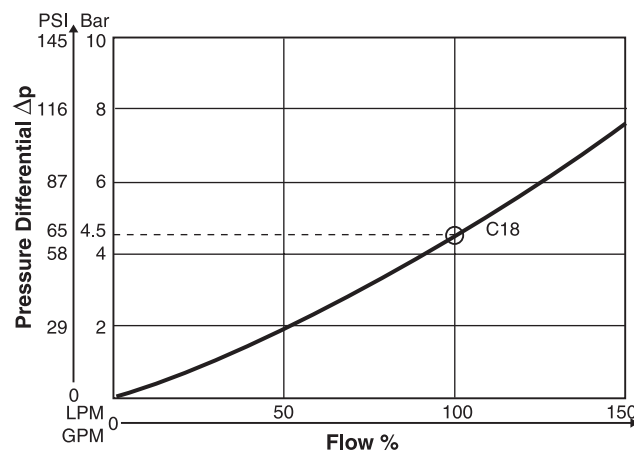
Nominal Size		25	32	40	50	63
Seal Kit	Fluorocarbon	SK-C13DB10-E25V	SK-C13DB10-32V	SK-C13DB-E40V	SK-C13DB10-E50V	SK-C13DB10-E63V
	Nitrile	SK-C13DB10-E25	SK-C13DB10-32	SK-C13DB10-E40	SK-C13DB10-E50	SK-C13DB10-E63
Bolt Kit		BK-M12x90-4pcs	BK-M16x90-4pcs	BK-M20x110-4pcs	BK-M20x120-4pcs	BK-M30x160-4pcs
Recommended Torque	Nm (lb.-ft.)	94 (69.3)	234 (172.6)	460 (39.3)	460 (339.3)	1570 (1157.9)

C18D_C.indd, ddp

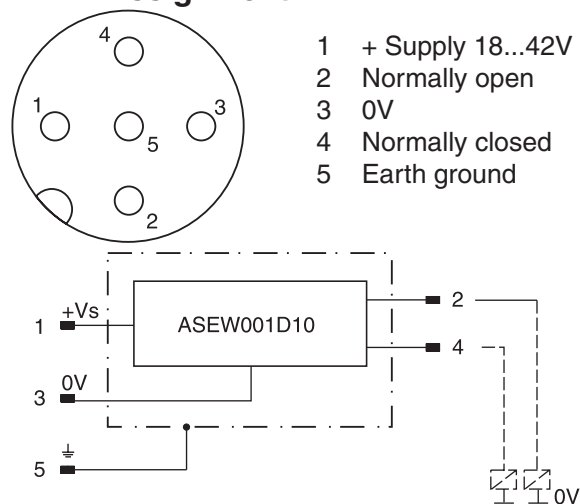
Specifications

General						
Size	NG25		NG32	NG40	NG50	NG63
Interface	2-way slip-in cartridge valve according to ISO 7368					
Mounting Position	Unrestricted					
Operation	Hydraulic					
Ambient Temperature	-40°C to +60°C (-40°F to +140°F)					
Hydraulic						
Maximum Operating Pressure	350 Bar (5075 PSI)					
Nominal Flow, Δp = 5 Bar (73 PSI)	400 LPM (105.7 GPM)	800 LPM (211.3 GPM)	1250 LPM (330.2 GPM)	1625 LPM (429.3 GPM)	3400 LPM (898.2 GPM)	
Fluid	Hydraulic oil according to DIN 51524 ... 525					
Viscosity Recommended	30 to 80 cSt (mm²/s)					
Viscosity Permitted	20 to 380 cSt (mm²/s)					
Fluid Temperature Recommended	+30°C to +50°C (+86°F to +122°F)					
Fluid Temperature Permitted	-20°C to +60°C (-4°F to +140°F)					
Filtration	NAS 1638 class 9, to be achieved by β10 > 75 ISO 18/16/13					
Control Volume Spring Chamber Surface C	6.45 (cm³)	12.21 (cm³)	20.32 (cm³)	39.40 (cm³)	94.56 (cm³)	
Control Surface	F/C	100%				
	FSt	123.8%	108.6%	121.5%	117.0%	121.0%
	FA/B	Approximately 60% / 40% related on surface C				
Opening Pressure Flow Direction B to A	L=0.25 Bar (3.6 PSI), N=1.25 Bar (18.1 PSI), S=4.0 Bar (58.0 PSI), U=10.0 Bar (5=145.0 PSI)					
Opening Pressure Flow Direction A to B	L=0.16 Bar (2.3 PSI), N=0.85 Bar (12.3 PSI), S=2.7 Bar (39.2 PSI), U=6.6 Bar (95.7 PSI)					
Electrical (Position Control per IEC 61076-2-101 (M12x1))						
Protection Class	IP65 in accordance with EN60529 (plugged and mounted)					
Ambient Temperature	0°C to +50°C (+32°F to +122°F)					
Supply Voltage / Ripple	18V to 42V / 10%					
Current Consumption without Load	≤ 30mA					
Output Current per Channel, Ohmic	400mA, maximum					
Output Load per Channel, Ohmic	100k Ohm, minimum					
Output Drop at 0.2A	≤1.1V, maximum					
Output Drop at 0.4A	≤1.6V, maximum					
EMC	EN50081-1 / EN50082-2					
Ambient Field Strength	<1200A/m, maximum tolerance					
Distance to Next AC Solenoid	>0.1 m (3.9 in.), minimum					
Interface	Mx12x1					
Wiring	5 x 0.25 mm² minimum, brad shield recommended					
Wiring Length	50 m (164 ft.), maximum recommended					

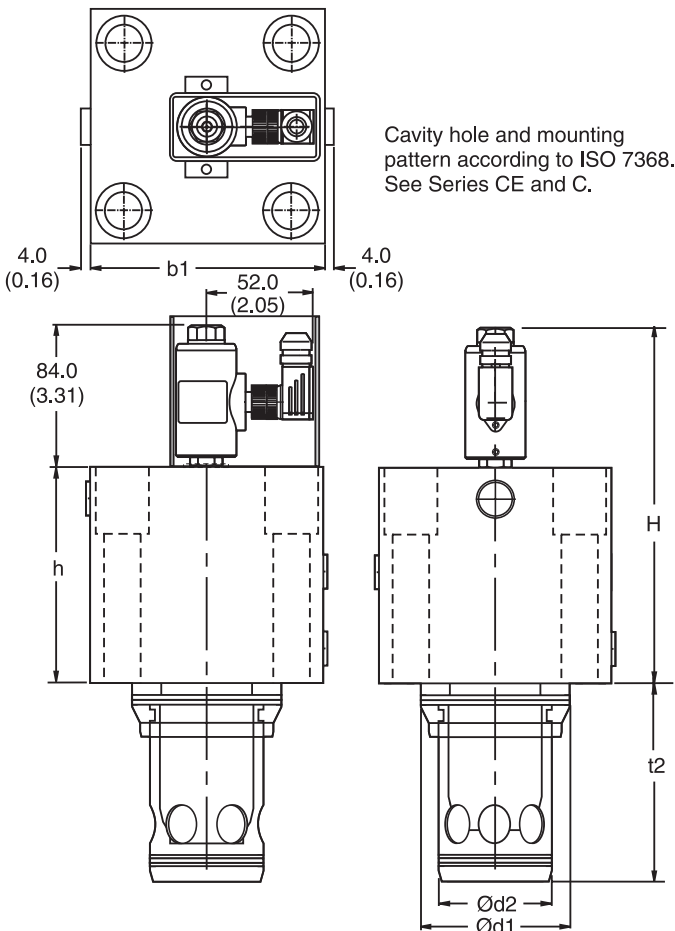
Performance Curve



M12 Pin Assignment

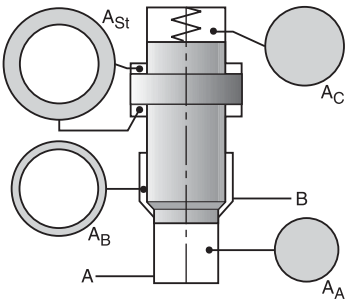


Inch equivalents for millimeter dimensions are shown in (**)



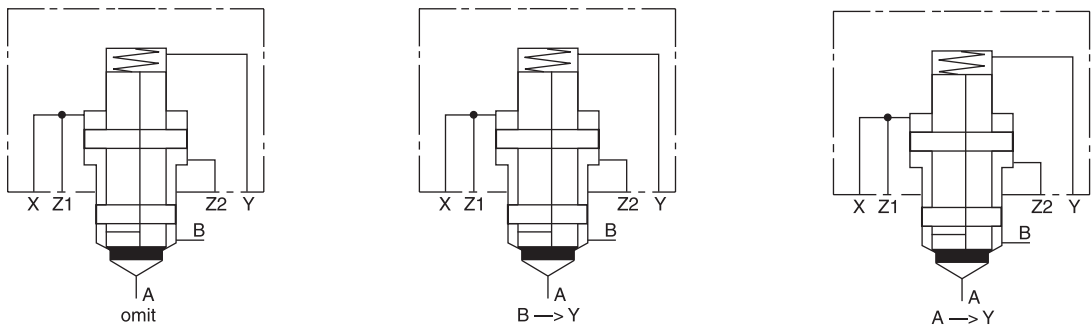
Nominal Size	25	32	40	50	63
H	174.0 (6.85)	174.0 (6.85)	194.0 (7.64)	214.0 (8.14)	234.0 (9.21)
h	90.0 (3.54)	90.0 (3.54)	110.0 (4.33)	130.0 (5.12)	150.0 (5.91)
b1	85.0 (3.35)	102.0 (4.02)	125.0 (4.92)	140.0 (5.51)	180.0 (7.09)
d1	45.0 (1.77)	60.0 (2.36)	75.0 (2.95)	90.0 (3.54)	120.0 (4.72)
d2	34.0 (1.34)	45.0 (1.77)	55.0 (2.17)	68.0 (2.68)	90.0 (3.54)
12 +0.1	72.0 (2.83)	85.0 (3.35)	105.0 (4.13)	122.0 (4.80)	155.0 (6.10)

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



Extract from the German Trade Association Certificate



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

Hauptverband der gewerblichen
Berufsgenossenschaften

Name und Anschrift
des Bescheinigungsinhabers:
(Auftraggeber)

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

00 078

Bescheinigungs-Nummer

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.