



Instruction manual

Manual Butterfly Valve Z

Please read this document before using these valves.

GENERAL

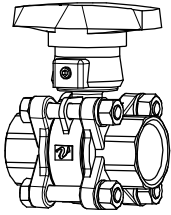
This series is suitable for main or bypass valve in piping system.

Manual operation

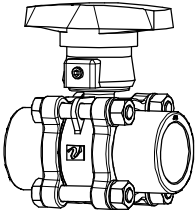
Push lever

Valve

Z type It is small, light weight and economical butterfly valve. This type designed for 3 piece structure and it is easy to maintenance.



Threaded End Rc



Socket End

PRODUCT CODE

Z type	Threaded End Rc	MACZ - Y - 5 T U	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>
	Socket End (PVC)	MACZ - Y - 7 T P	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>
	(C-PVC)	MACZ - Y - 7 T H	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>
		(1) (2) (3) (4) (5) (6) (7) (8)			(9)				(10)
(1) Actuator	(6) Body material	(10) Option							
MAC	T : SCS13A								
(2) Valve	(7) Cap material								
Z-	U : SCS14A								
(3) Operation	(7) Socket material								
Y : Push lever	P : PVC								
	H : C-PVC								
(4) Hyphen	(8) Seat material								
	E : EPDM								
(5) Connection	B : NBR								
5 : Threaded End Rc	V : FKM								
7 : Socket End	(9) Size [mm]								
	ex. 25A → 025								

VALVES SPECIFICATIONS

Water
 Oil
 Air, Gas
 Steam
 Chemicals
 Sea water
 Slurry
 Negative pressure

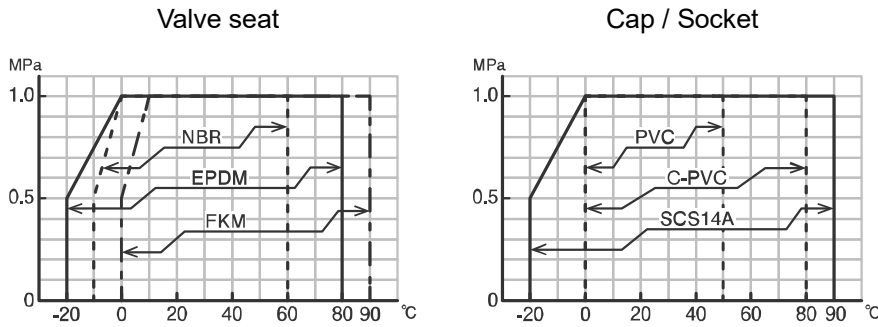
Valve type	Z		
Design	3 piece structure		
Connection	Threaded End Rc	Socket End	
Fluid			
Max pressure	1 MPa		
Size [mm]	015 to 050		
Material	Body	SCS13A	
	Disc	PPS	
	Cap	SCS14A	-
	Socket	-	PVC C-PVC
	Seat	EPDM NBR FKM	
Stem seal	O-ring	Depend on seat material	

SEAT MATERIAL GUIDE

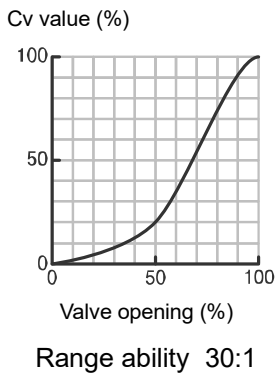
Seat material	Fluid temp.	Use
EPDM	-20 to +80 °C	
NBR	-10 to +60 °C	
FKM	-0 to +90 °C	

Note) • EPDM seat cannot be used for oil.
 • Unsuitable for steam or hot water over 80 °C.
 • Can flow the seawater with PVC socket and EPDM sheet.

PRESSURE & TEMPERATURE RATING



INHERENT FLOW CHARACTERISTIC



INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS**HANDLING & STORAGE**

①HANDLING

Do not drop or throw the product as it may break.

②STORAGE

- Store away from dust, moisture and direct sunlight. If possible, store in the original package.
- Do not remove a dust proof cap until the piping.

③CHECKING

Please check the product code before installation.

INSTALLATION

①PRECAUTIONS

- Flush the pipeline carefully before installing the valve. Foreign particles, such as sand or pieces of welding electrode, will damage the disk and seats.
- When piping the valve disk should be closed before mounting.
- Avoid oil or grease when using EPDM seat.

②PIPING

- Using a pipe with too long a thread will damage the valve.
- If sealing tape or sealant gets inside the valve, the valve seat leaks or malfunctions.
- When connecting a pipe or fitting to a valve, use a tool on the octagonal or hexagonal part of the insertion side and screw it.
- Refer to the recommended tightening torque table and do not apply excessive torque.

Valve size [mm]	Torque [N·m]
015	25 to 35
020	40 to 50
025	50 to 60
032	60 to 80
040	75 to 85
050	90 to 110

③Socket End

Should use adhesive suitable for valve materials.

④ENVIRONMENT

If there is a possibility that the fluid and drive part freeze, please take measures to prevent freezing.

④POSITIONING

Should be positioned through 90° upward from horizontal. Provide space around the product to allow manual operation, inspection and replacement work.

MANUAL OPERATION

Please open and close the valve while pushing the lever handle.

Excessive force may damage the lever handle.

MAINTENANCE

Do the routine maintenance at least once in half a year.

Inspection items

- Confirm operation of opening and closing.
- Confirm whether screws are loose or not.
- Confirm the leak from valve stem.
- Confirm the fluid temperature or pressure.

TROUBLE SHOOTING

Problem	Cause	Solution
Stop in the mid position.	Biting of valve seat.	Remove a foreign object.
Leakage from valve seat	Seat is worn or damaged.	Replace the valve.
Leakage from valve stem	Packing is worn or distorted.	

For more information contact NIPPON VALVE CONTROLS, INC. for consultation.