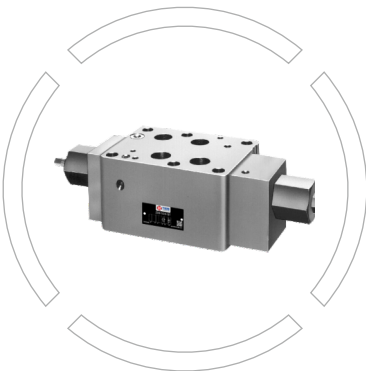


ZS*

Reducing Modular Valves
Size: NG16, NG22, Ng32
Max. operating pressure up to 350 bar
Max. flow up to 800 L/min



Index	Page No
• Specifications	01
• Ordering code	02
• Graphic Symbols	02
• Typical Performance Characteristic curves NG16	03
• Typical Performance Characteristic curves NG22	04
• Typical Performance Characteristic curves NG32	05
• Unit Dimensions NG16	06
• Unit Dimensions NG22	07
• Unit Dimensions Ng32	08

Specifications

Model Number	Max. Operating Pressure Kg/cm ²	Max. Flow L/min.
(F-) ZSA-16-*-10T	350	300
(F-) ZSB-16-*-10T	350	300
(F-) ZSW-16-*-10T	350	300
(F-) ZS*-22-*-30T	250	500
(F-) ZSA-32-*-30T/3090		800
(F-) ZSB-32-*-30T/3090		
(F-) ZSW-32-*-30T/3090		



Ordering code

Seals: Mineral oil Phosphate ester	= No code = F				
Throttle and Check Modular Valves for A-Line Throttle and Check Modular Valves for B-Line Throttle and Check Modular Valves for A, B-Line	= ZSA = ZSB = ZSW				
Valve Size NG16 NG22 NG32	= 16 = 22 = 32				
Direction of Flow: Meter - out Meter - in	= X = Y				
Design Number: For NG16 For NG22 For NG32	= 10T = 30T = 30T				
Design Standard: For NG22 For NG32	= H01 = Refer to *				

* Design Standards: NoneJapanese Standard "JIS" and European Design Standard
90.....N. American Design Standard

Graphic Symbols

Instructions:

To make flow rate adjustment, loosen the lock nut and turn the flow adjustment screw clockwise or anti-clockwise. To throttle the flow, turn the screw clockwise. Be sure to re-tighten the lock nut firmly after the adjustment of the flow rate is completed.

Graphic Symbols

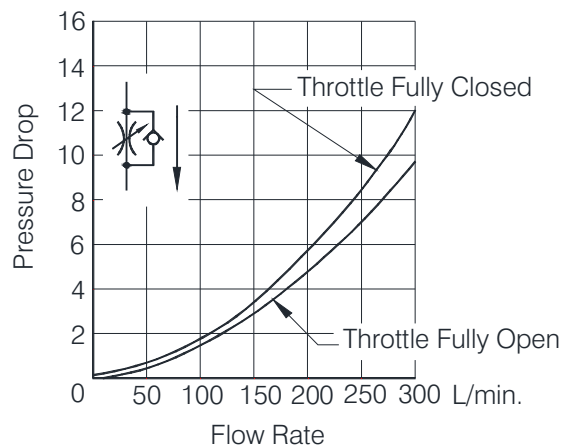
Metre-out	Metre-in
ZSA-**-X	ZSA-**-Y
ZSB-**-X	ZSB-**-Y
ZSW-**-X	ZSW-**-Y



Typical Performance Characteristics NG16

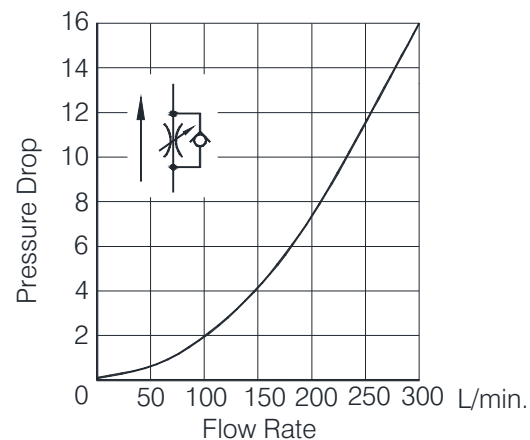
Pressure Drop For Free Flow

Kgf/cm²



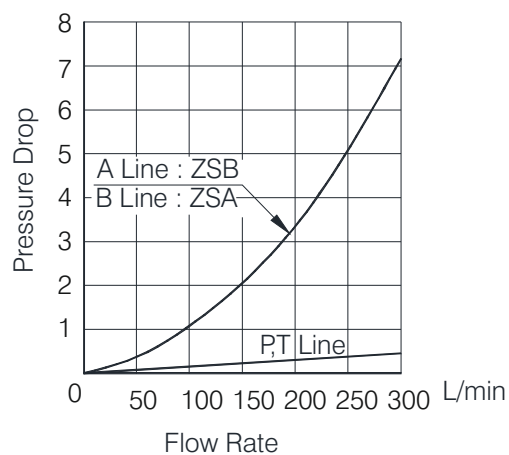
Pressure Drop At Throttle Fully Open

Kgf/cm²



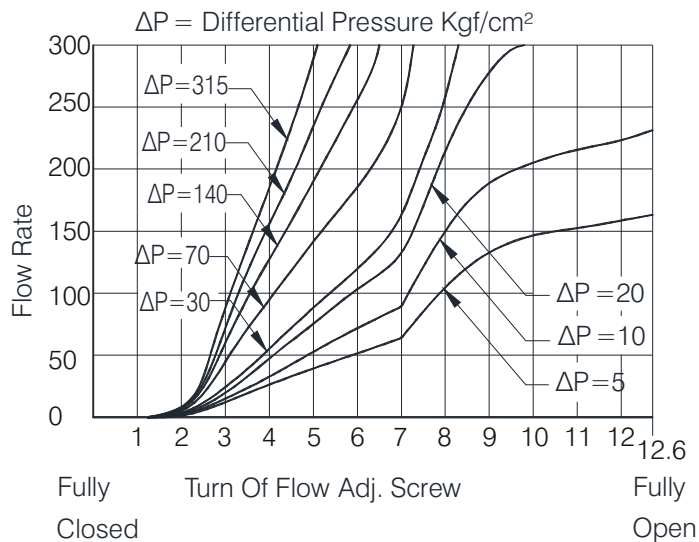
Pressure Drop

Kgf/cm²



Metered Flow Vs Screw Position

L/min

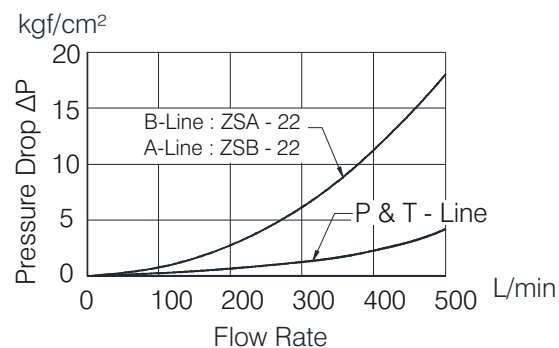




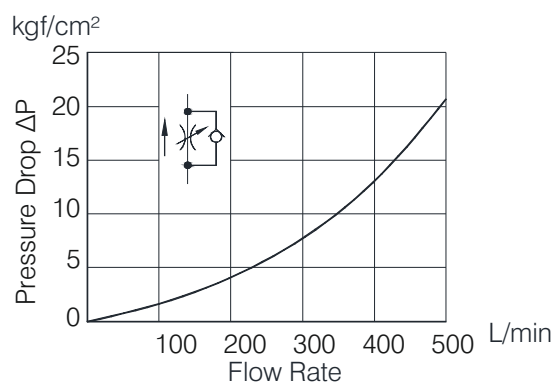
Typical Performance Characteristics NG22

Hydraulic Fluid: Viscosity 35cSt, Specific Gravity 0.850

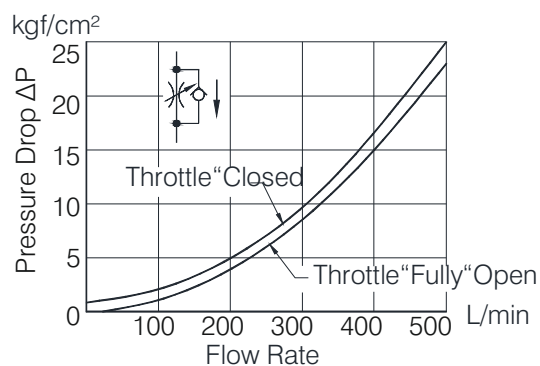
Pressure Drop



Pressure Drop at Throttle Fully Open

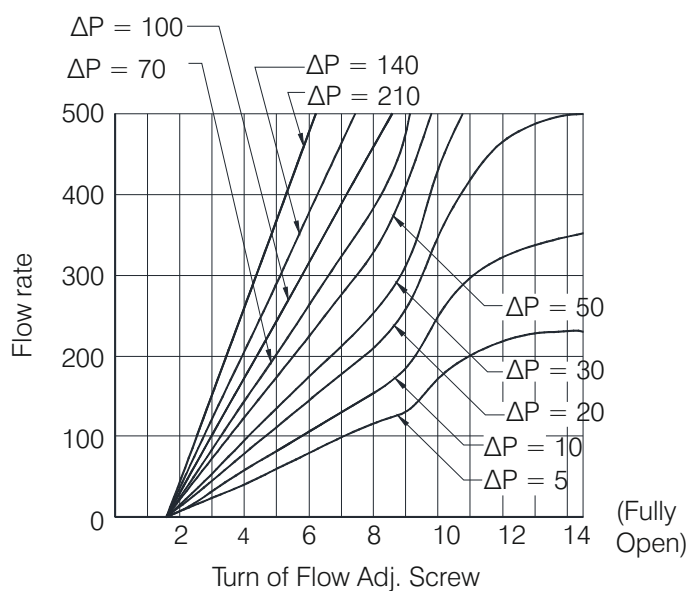


Pressure Drop for Free Flow



Metred Flow vs. Screw Position

ΔP : Differential Pressure Kgf/cm²

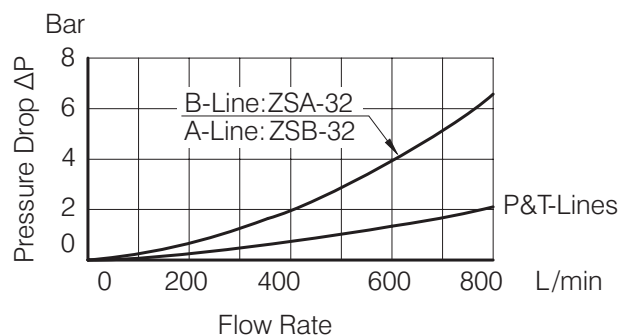




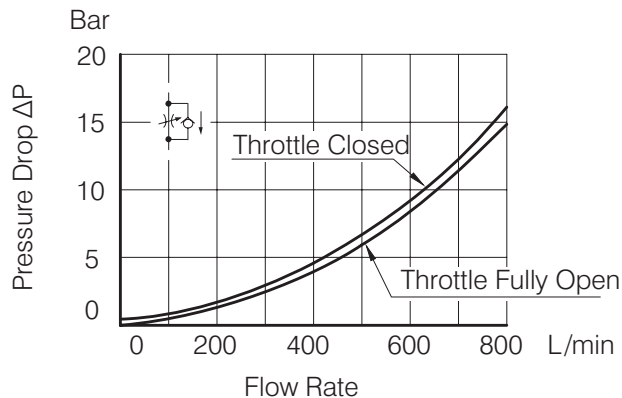
Typical Performance Characteristics NG32

Hydraulic Fluid: Viscosity 35cSt, Specific Gravity 0.850

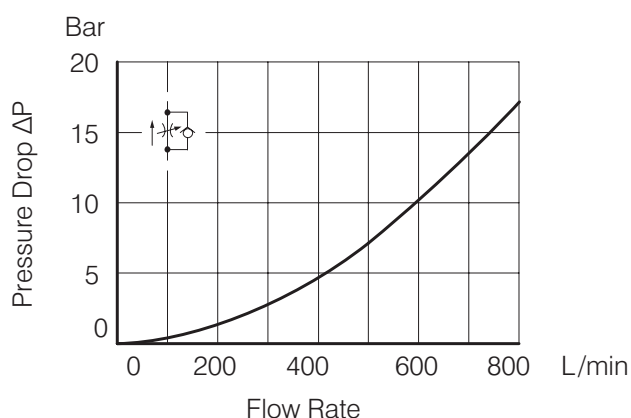
Pressure Drop



Pressure Drop for Free Flow

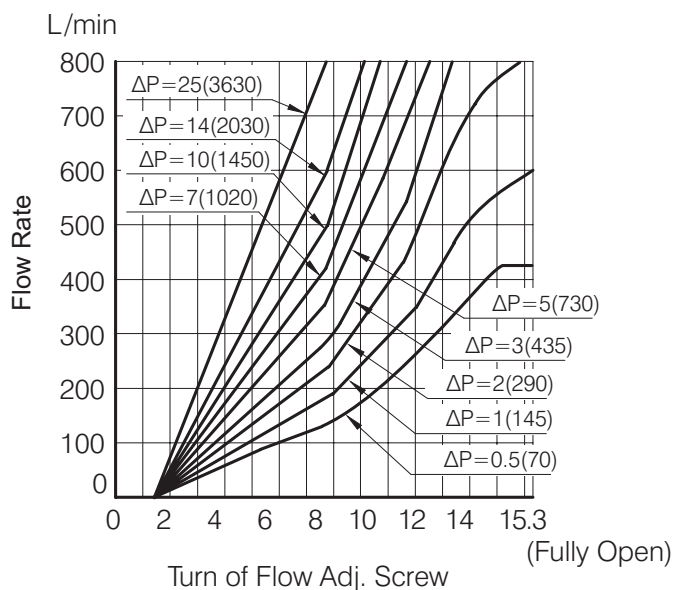


Pressure Drop at Throttle Fully Open



Metred Flow vs. Screw Position

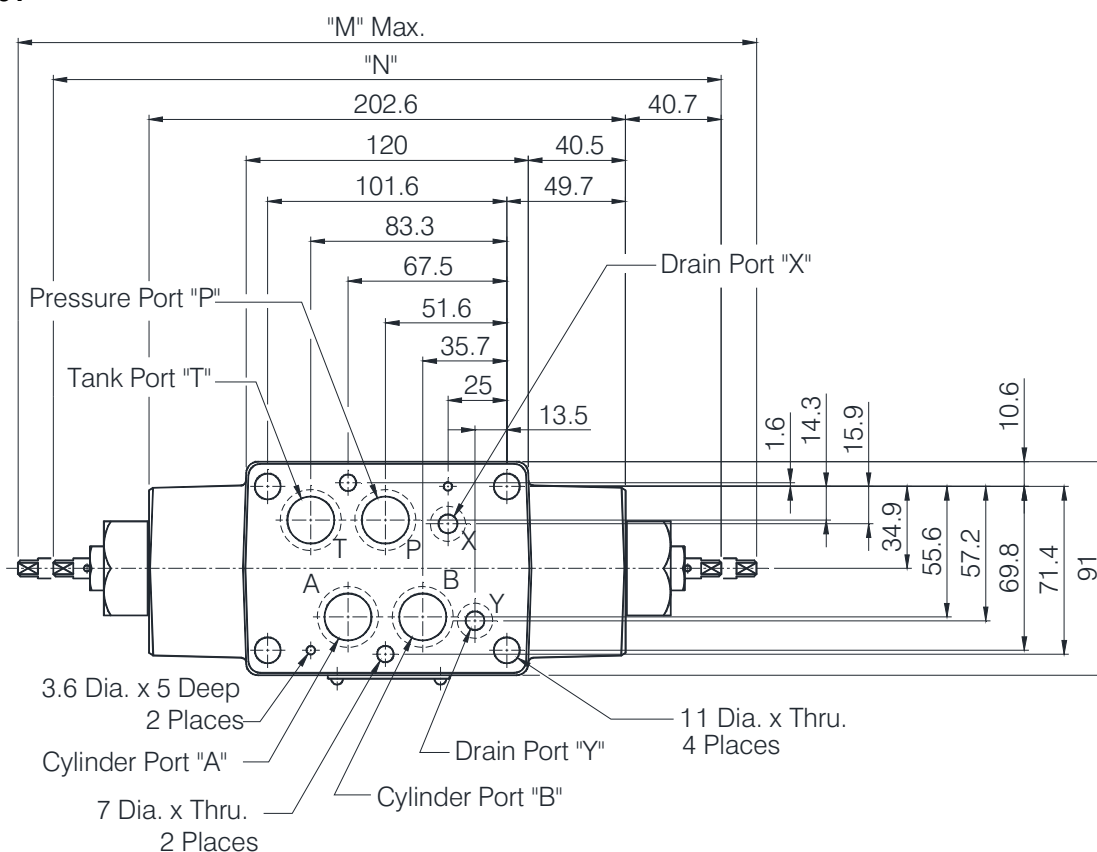
ΔP : Differential Pressure MPa (PSI)





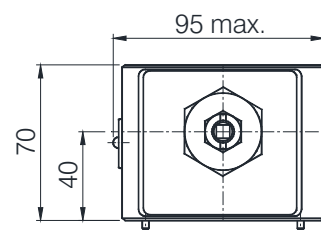
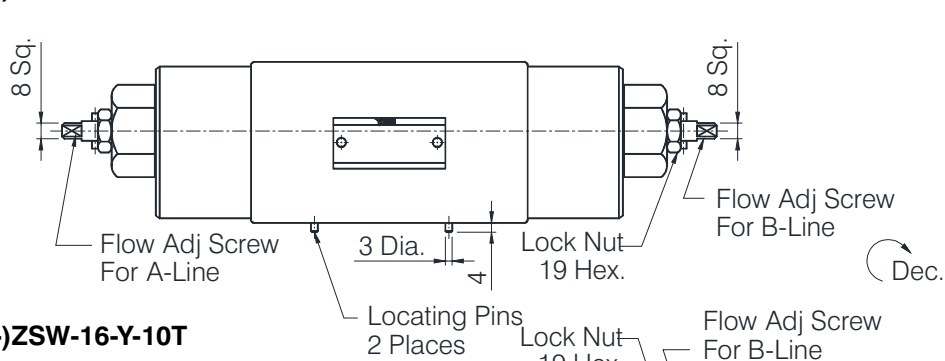
Unit Dimensions NG16

(F-)ZSW-16- $\frac{X}{Y}$ -10T

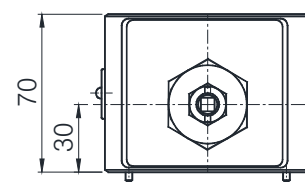
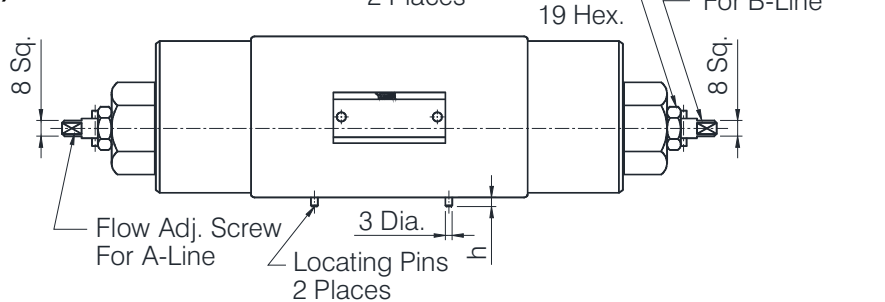


Sl no.	Model Numbers	"M"	"N"
1	ZSA-16	268	253
2	ZSB-16	268	284
3	ZSW-16	314	284

(F-)ZSW-16-X-10T



(F-)ZSW-16-Y-10T

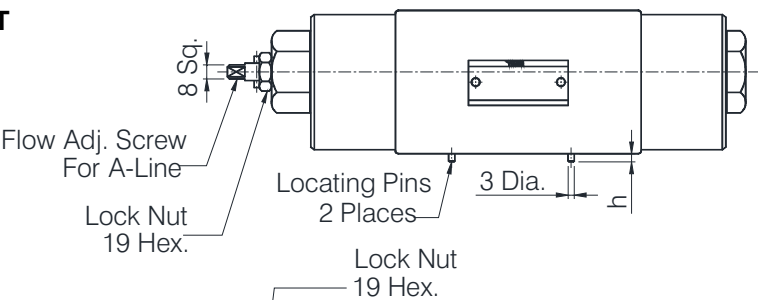


Mass 7.6 Kg. (Approx.)!

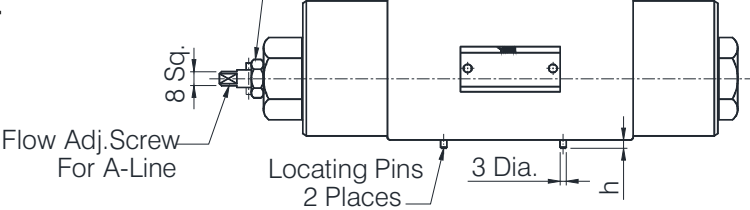


Unit Dimensions NG16

(F-) ZSA-16-X-10T



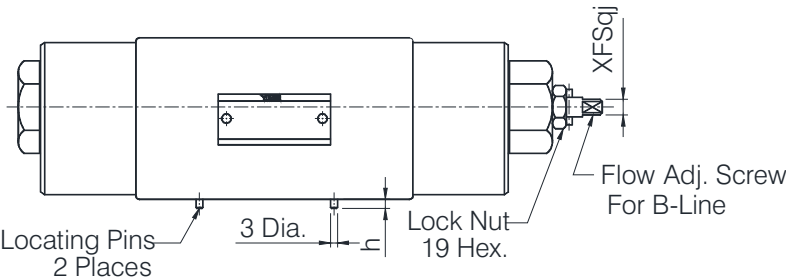
(F-) ZSA-16-Y-10T



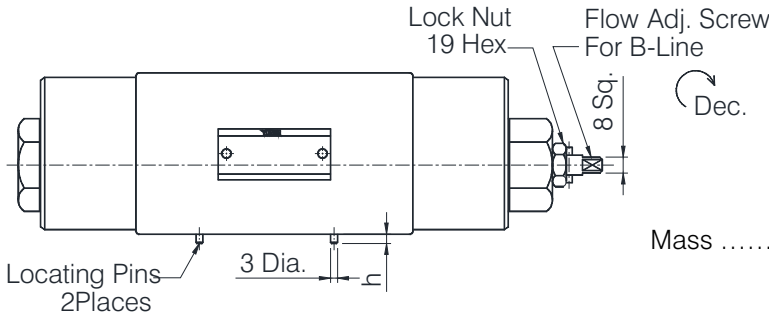
Mass 7.4 Kg. (Approx.)

Note : For all other dimensions refer ZSW-16-^X/_Y-10 accordingly.

(F-) ZSB-16-X-10T



(F-) ZSB-16-Y-10T



Mass 7.4 Kg. (Approx.)

Note : For all other dimensions refer ZSW-16-^X/_Y-10 accordingly.

Spare Parts List

List of Seals

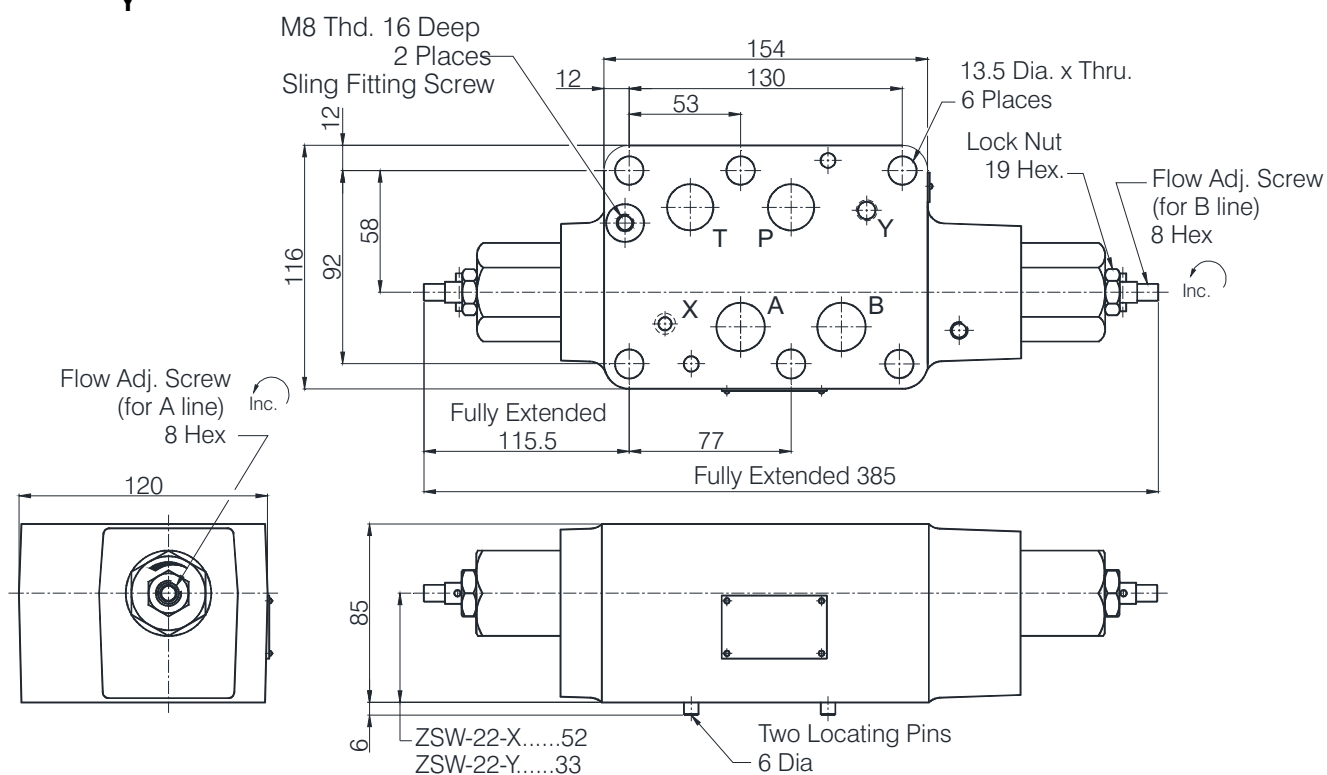
Sl no.	Name of parts	Parts Numbers	Qty.		
			ZSA-16	ZSB-16	ZSW-16
1	O-Ring	SO-NB-P26	2	2	2
2	O-Ring	SO-NB-P22	4	4	4
3	O-Ring	SO-NB-P9	2	2	2
4	O-Ring	SO-NA-P10A	1	1	2
5	Backup-Ring	SO-BB-P10A	1	1	2

Model Numbers	Seal Kit Numbers
ZSA-16	KS-ZSA-16-10
ZSB-16	
ZSW-16	KS-ZSW-16-10

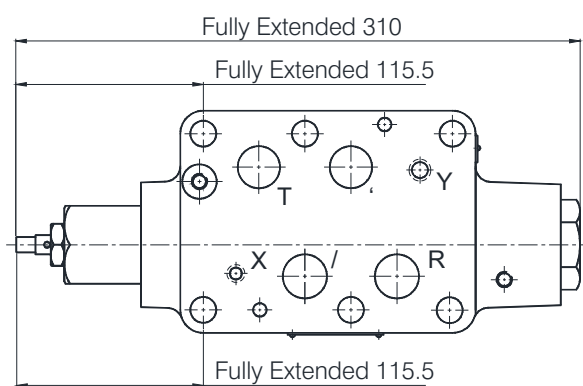


Unit Dimensions NG22

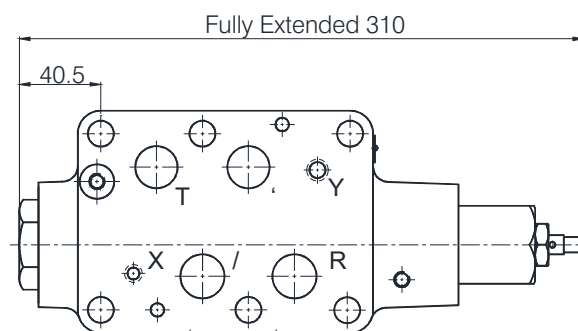
ZSW-22-^X_Y-30T-H01



ZSA-22-^X_Y-30T-H01



ZSB-06-^X_Y-30H01



Mass 12Kg(Approx)

For other dimensions, refer to above (ZSW-22) drawing.

For other dimensions, refer to above (ZSW-22) drawing.

Spare Parts List

List of Seals

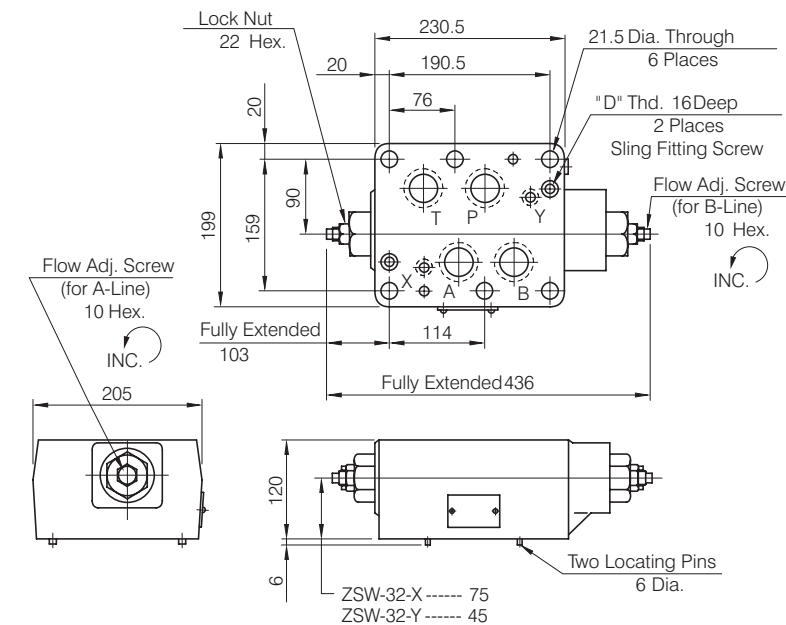
Sl no.	Name of parts	Parts Numbers	Qty.		
			ZSA-06	ZSB-06	ZSW-06
1	O-Ring	SO-NA-P14	1	1	2
2	O-Ring	SO-NB-P14	2	2	2
3	O-Ring	SO-NB-P28	4	4	4
4	O-Ring	SO-NB-P32	1	1	2
5	Backup-Ring	SO-BB-P14	1	1	2

Model Numbers	Seal Kit Numbers
ZSA-22	KS-ZSA-22-30T
ZSB-22	
ZSW-22	KS-ZSW-22-30T



Unit Dimensions NG32

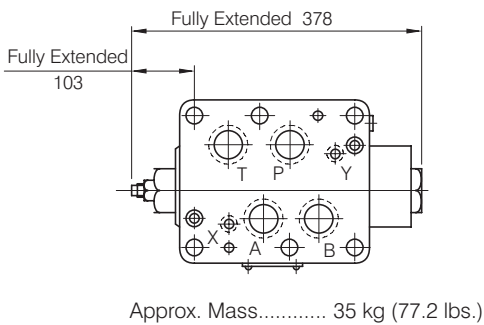
ZSW-32-X-30/3090



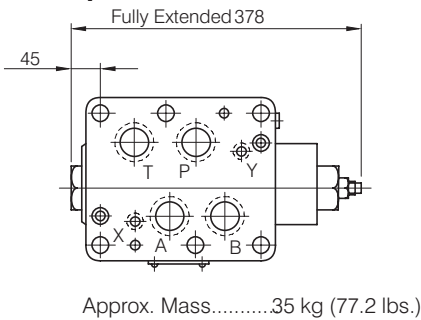
Model Numbers	"D" Thd.
ZS *-32-*-30T	M8
ZS *-32-*-3090T	5/16-18 UNC

Approx. Mass.....35.7 kg (78.7 lbs.)

ZSA-32-X-30/3090



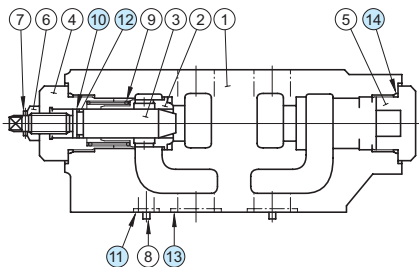
ZSB-32-X-30/3090



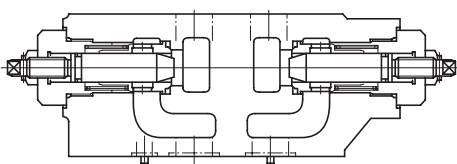
For other dimensions, refer to "ZSW-32" drawing left.

Spare Part List

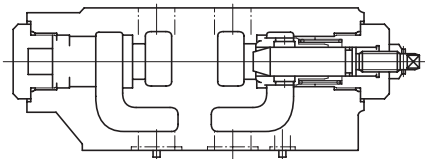
ZSA-32-*-30/3090T



ZSW-32-*-30/3090T



ZSB-32-*-30/3090T



List of Seals

Item	Name of parts	Parts Numbers	Qty.		
			ZSA-10	ZSB-10	ZSW-10
10	Backup-Ring	SO-BB-P20	1	1	2
11	O-Ring	SO-NB-P16	2	2	2
12	O-Ring	SO-NA-P20	1	1	2
13	O-Ring	SO-NB-P40	4	4	4
14	O-Ring	SO-NB-P44	2	2	2

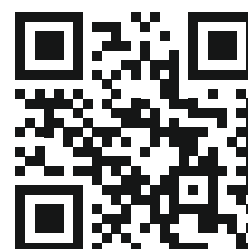
Model Numbers	Seal Kit Numbers
ZSA-32	KS-ZSA-32-10
ZSB-32	
ZSW-32	KS-ZSW-32-10

The specified data is for product description purposes only and may not be deemed to be guaranteed unless expressly confirmed in the contract.



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