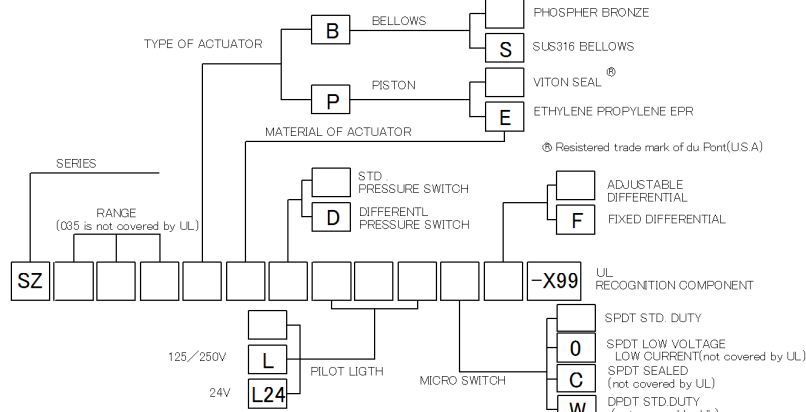


(1) TYPE DESIGNATION

Please refer type and specifications of the device in order to type designation as follows,



**RANGE:** Range of the Super Z pressure switches is adjustable operating pressure on decreasing pressure. Make sure applicable set point is within range of the device.  
**ADJUSTABLE DIFFERENTIAL:** Differential is the pressure difference between switch trip and reset point. Adjustable differential of the Super Z pressure switches is made to adjust operating pressure on increasing pressure without any change of operating pressure on decreasing. Make sure applicable differential is within adjustable differential.  
**RATED PRESSURE:** For the best life expectancy, applied pressure occasionally or continuously to the bellows should be limited less than rated pressure of each type.  
**PROOF PRESSURE:** Proof pressure is the max. momentary pressure, including, surge which may be applied to a pressure switch without permanent degradation.  
**CAUTION:** If the pressure switch is exposed to pressure, including surge, greater than proof pressure, reduction of the bellows life or leakage from the actuator or a shift of operating pressure may result.

**CAUTION:** RANGE, DIFFERENTIAL and PROOF PRESSURE are listed on the nameplate as range, differential and max. allowable pressure.

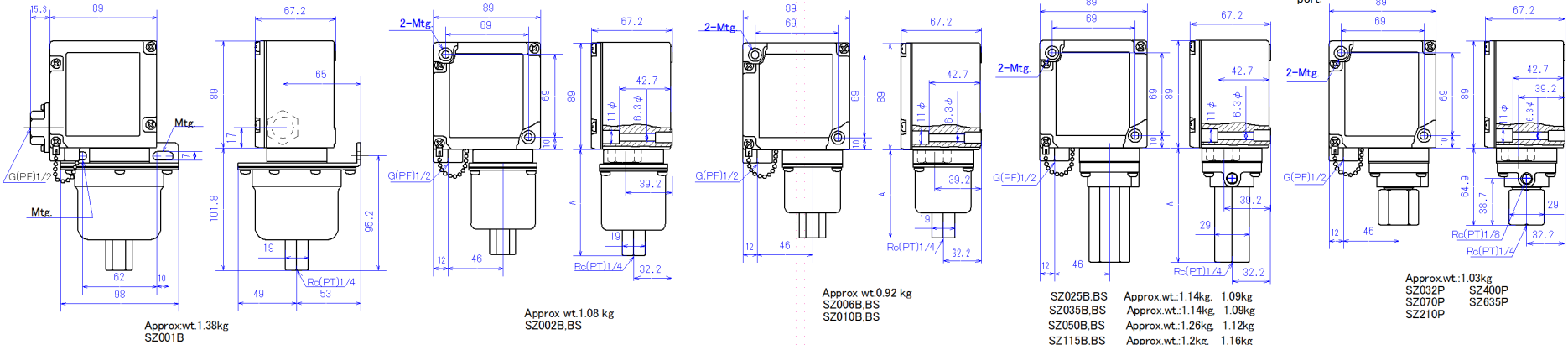
(2) MOUNTING

**CAUTION:** It is not recommended to support the pressure switch only by pressure piping. Securely mount the switch housing using 2(two)-6mm or 1/4" screws through mounting holes shown in drawing. Mounting screw is not attached.

(3) PIPING

**CAUTION:** When piping, use a wrench onto the hexagonal connector of the actuator and don't apply any force to the actuator and switch housing. Pressure port of the Super Z is 1/4Rc male(JIS). A 1/4Rc male VS. 1/4NPT female adaptor is available upon request.

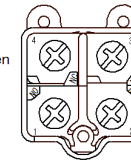
TYPE	A
SZ002B.BS	99.6
SZ006B.BS	73.6
SZ010B.BS	73.6
SZ025B.035B	95.4
SZ025B.S035BS	85.4
SZ050B	125.4
SZ050BS	104.4
SZ115B	108
SZ115BS	93



(4) WIRING

SPDT

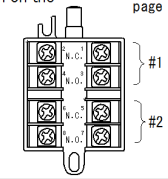
SPDT single pole double throw switch has each one normally open contact and one normally closed contact. These contacts are electrically separated from the other, but not control different voltage or invert phase.



DPDT switch of contact composition is shown on the micro switch as follows.

Solderless terminals "NICHIFU FT-1-3" 8 pieces attached.  
(Tool: NICHIFU NH-20)

#1 and #2 switch has each one normally open contact and one normally closed contact. These contacts are electrically separated from the other, but not control different voltage or invert phase.



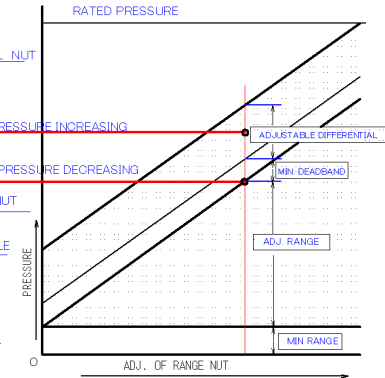
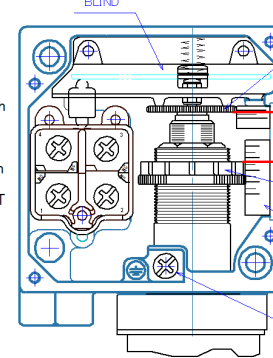
(5) OPERATING POINT ADJUSTMENT

Wiring of -X25, -X27 and -X28 please refer to the instruction manual enclosed.

Before adjustment of operating point, please refer "factory setting point" on the label attached on outside of the housing. Differential of the standard device has been set at min. of the device if special setting requirement has not been specified when ordering.

**WARNING:** Don't touch terminal screws when alive.

**CAUTION:** Don't touch or loosen any parts except of RANGE NUT and DIFFERENTIAL NUT during this adjustment. Don't remove the BLIND in any case.



- It is recommended, to set, first of all, operating point on decreasing pressure by the RANGE NUT. The nut can be rotated with a screw driver blade. It is required to use a suitable screw driver just fit to the slot of the nut to prevent damage.
- Operating point on increasing pressure can be adjusted by the DIFFERENTIAL NUT. This adjustment can be made by fingers without any change of shift of decreasing operating point once has been set at step 1.
- Fixed differential devices which are identified by type designation letter(F) can not be made to adjust differential. Adjust and set operating point on decreasing pressure by the RANGE NUT according to requirement of your application.

Both of RANGE NUT and DIFFERENTIAL NUT are self locked by the lock spring.

**CAUTION:** DRAIN PIPING: The piston actuated devices of the Super Z pressure switch don't require drain piping, but have a drain port 1/8Rc to prevent environmental contamination with very slight seepage for long term.

**CAUTION:** Allowable back pressure for the drain port is limited less than 0.1MPa(15 P.S.I.). Don't plug the drain port.

Approx wt.0.92 kg  
SZ006B.BS  
SZ010B.BS

SZ025B.BS  
SZ035B.BS  
SZ050B.BS  
SZ115B.BS

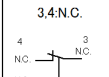
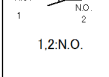
Approx wt.:1.14kg, 1.09kg  
Approx wt.:1.14kg, 1.09kg  
Approx wt.:1.26kg, 1.12kg  
Approx wt.:1.2kg, 1.16kg

Approx wt.:1.03kg  
SZ032P  
SZ070P  
SZ210P

SZ400P  
SZ635P

(6) ELECTRICAL RATINGS

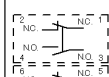
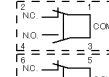
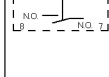
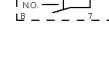
SPDT STANDARD DUTY

1 CURRENT ON THIS TABLE IS CONTINUOUS CARRING AMPERES.		2 INDUCTIVE LOAD:POWER FACTOR >0.4 A.C. TIME CONST. <0.7 D.C.		3 LAMP LOAD:INCLUDE 10 TIMES INRUSH CURRENT.		4 MOTOR LOAD:INCLUDE 6 TIMES INRUSH CURRENT.		DESCRIPTION ON THE NAMEPLATE ELECTRICAL CONTACT RATINGS 10A-125/250 or 480V A.C. 0.8A-125V D.C./0.4A-250V D.C.			
CONTACT SPDT	VOLT V	RESISTIVE LOAD		LAMP LOAD		INDUCTIVE LOAD		MOTOR LOAD		RECOMMENDED LOAD	DC 5~30V
		N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.		
 3.4:N.C. 4 N.C. 3 N.C. NO. 1 NO. 2	AC 125	10A	10A	3A	1.5A	10A	3A	5A	2.5A	0.5~100mA	
	250	10	10	2	1	10	1	3	1.5		
	480	10	10	1.5	0.8	3	1.5	1.5	0.8		
 1.2:N.O.	DC 8	10	6A	3A	10A	6A	6	4	0.2		
	14	10	8	3	10	6	3	1.5	0.8		
	30	6	4	3	6	4	0.2	0.2	0.1		
	125	0.8	0.2	0.2	0.8	0.2	0.2	0.2	0.1		
	250	0.4	0.1	0.1	0.4	0.1	0.1	0.1	0.1		

SPDT Low Voltage, Low Current

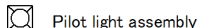
CONTACT SPDT	RATINGS	RECOMMENDED LOAD
3.4:N.C.	125V AC 0.1A	DC 5~30V
1.2:N.O.	30V DC 0.1A	0.5~100mA

DPDT STANDARD DUTY

1 CURRENT ON THIS TABLE IS CONTINUOUS CARRING AMPERES.		2 INDUCTIVE LOAD:POWER FACTOR >0.4 A.C. TIME CONST. <0.7 D.C.		3 LAMP LOAD:INCLUDE 10 TIMES INRUSH CURRENT.		4 MOTOR LOAD:INCLUDE 10 TIMES INRUSH CURRENT.		DESCRIPTION ON THE NAMEPLATE ELECTRICAL CONTACT RATINGS AC 125V-5A, 250V-3A DC 125V-0.4A, 250V-0.2A				CONTACT -X25 -X27 -X28	
CONTACT DPDT	VOLT V	RESISTIVE LOAD		LAMP LOAD		INDUCTIVE LOAD		MOTOR LOAD		The right common is formed.			
		N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.				
	AC 125	5A	2A	4A	3A	5A	2A	4A	3A				
	250	3	1	2	1.5	3	1	2	1.5				
	480	1.5	0.5	1	1	1.8	0.5	0.5	0.5				
	DC 8	-	-	-	-	-	-	-	-				
	14	5	2	4	3	5	2	4	3				
	30	3.4	1	2	2	1.5	1	1.5	1.5				
	125	0.4	0.1	0.4	0.1	0.4	0.1	0.1	0.1				
	250	0.2	0.05	0.2	0.05	0.2	0.05	0.05	0.05				

(7) PILOT LIGHT(type designation letter:L and L24)

Please wire the Lamp Assembly according to wiring diagram listed below.  
L24 Lamp Assembly is Light on without polarities, because the assembly includes a rectifier.

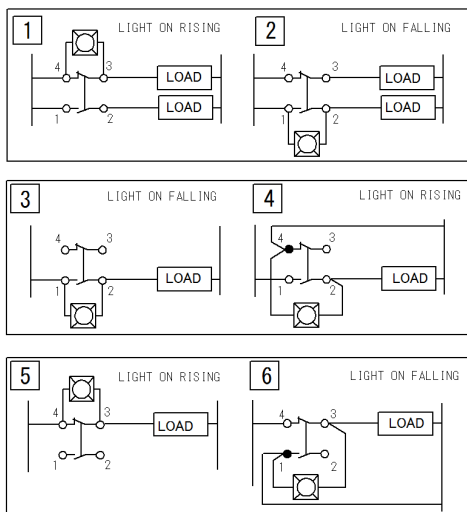
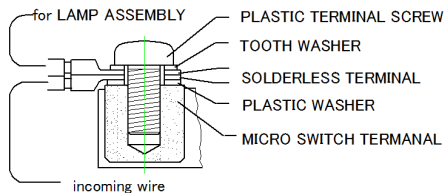


CAUTION

Use an attached plastic terminal screw onto ● marked on the wiring diagram.

The plastic terminal screw set is not attached for UL approved devices with suffix-X99 and so, #4 and #6 wiring is prohibited.

USE OF TERMINAL SET



(8) ENGINEERING DATA

Ambient Temperature: -20°C ~ +80°C(without icing) (-4°F ~ +176°F) Media Temperature: phospher bronze bellows: -40 °C ~ 125°C (-40°F ~ +257°F) stainless steel bellows: -40 °C ~ 250°C (-40°F ~ +482°F) piston actuator: -20 °C ~ 120°C (-4°F ~ +248°F) Max. Allow. Cycle Speed: 120 C.P.M. Insulating Resistance: between terminals and housing > 100Mohms at D.C.500V Dielectric Strength: between terminals and housing 2200V A.C. for 1 min. Orifice: bellows: 1.5mm dia piston: 1mm dia Enclosure type: IP65
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

(9)REPLACEMENT PARTS

BELLOWS ASSEMBLY

TYPE	P/N
SZ001B	001B
SZ002B,BS	002B,BS
SZ006B,BS	006B,BS
SZ010B,BS	010B,BS
SZ025B,BS	025B,BS
SZ035B,BS	035B,BS
SZ050B,BS	050B,BS
SZ115B,BS	115B,BS

006B: phospher bronze bellows  
010BS: stainless steel bellows

PISTON ASSEMBLY

TYPE	P/N
SZ032P,PE	032P,PE
SZ070P,PE	070P,PE
SZ210P,PE	210P,PE
SZ400P,PE	400P,PE
SZ635P,PE	635P,PE

070P: Viton seal  
PISTON ASSEMBLY  
210PE: Ethylene Propylene EPR  
PISTON ASSEMBLY

MICRO SWITCH

MICRO SWITCH	P/N
SPDT standard duty	SPDT
SPDT low voltage	SPDT-0
low current	SPDT-0
SPDT sealed	SPDT-C

PILOT LIGHT

PILOT LIGHT	P/N
125/250V	L
24V	L24
Kit of 125/250V	KL
Kit of 24V	KL24

To convert standard devices to UL approved devices with pilot light is not permitted.  
KL and KL24 include a pilot light assembly and a cover assembly. Let us know type of the pressure switch and also DATE CODE on the nameplate which you have for an information of nameplate imprinting.



Bellows assembly and micro switch are field replaceable, but it is needed to make re-adjustment of the device itself. Further investigations at our factory is required for final guarantee after replacement of these assemblies.

WARNING



Hazardous voltage on the switch terminals can cause severe injury or death.  
To prevent the hazardous electrical shock, always disconnect power before installing, wiring, adjusting, or maintenance.

SOLE AGENT:TAIHEI BOEKI CO.,LTD  
2-2-2,Nihonbashi Honcho, Chuo-ku,Tokyo  
Phone 03-3270-4821 Facsimile 03-3245-1767  
MANUFACTURER:TAIHEI SYSTEM KOGYO CO.,LTD