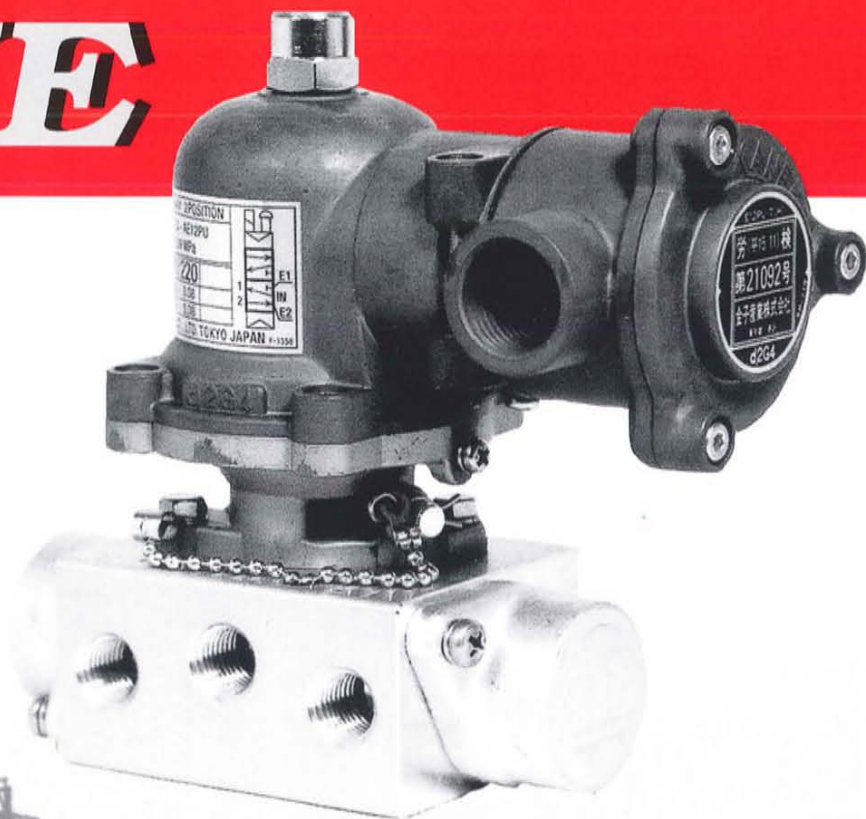


# PNEUMATIC SOLENOID VALVE

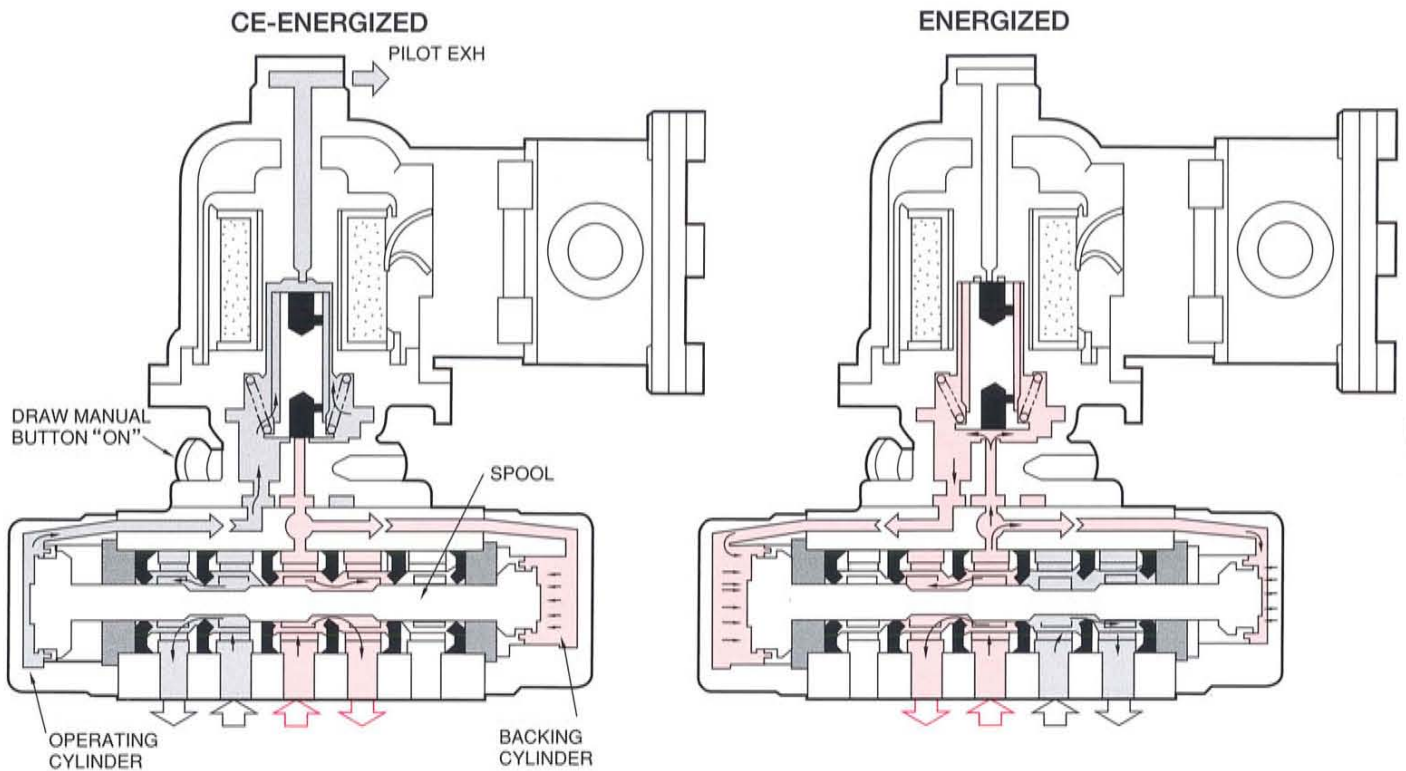
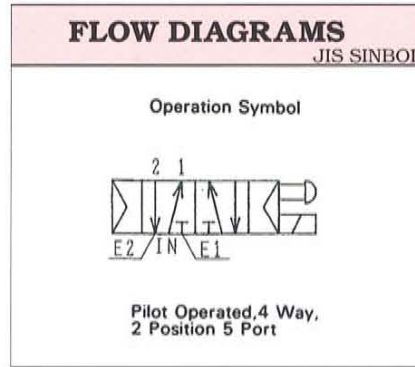
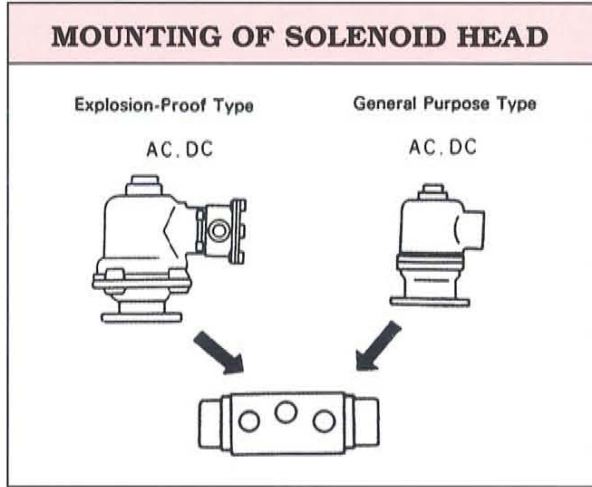
## KANEKO'S

3Way,4Way Solenoid Valve  
Manual Reset Solenoid Valve  
General Purpose & Explosion-  
proof Type



Silent Technology  
KANEKO

Principle Operation Series M15G



**OPERATION**

When solenoid is de-energized, pressure of operating cylinder is exhausted from "PILOT EXH" spool turns to left by the thrust of backing cylinder  
IN→1, 2→E2

When solenoid is energized pressure adds to operating cylinder by the thrust, spool turns to right  
IN→1, 2→E2  
Refer to Flow Diagrams



### 4-WAY SOLENOID VALVE Series M15G

This valve is 4 Way Solenoid Valve, pilot operated, 2 positions, Double exhausts for pneumatic pressure, to be used for automatic control of double acting power cylinder or diaphragm valve and other various pneumatic pressure operating devices as compact type and light weight type. Especially, Explosion-proof type terminal box, conduit turns within the limit of 300 Degrees. Easy connection of wire (Available to 2 mm<sup>2</sup>)

#### FEATURE

1. OPERATES WITHOUT SUPPLY LUBRICATING OIL  
The inner rubbing portion is very smooth because it is treated with solid alumite and is covered with teflon.
2. EASY INTERCHANGE OF COIL,  
Coils for AC, DC are designed to put in same solenoid Enclosure so easily interchange.
3. CORROSION PROOF TREATMENT.  
It is very solid alumite and treated corrosion proof treatment.
4. SAFETY EXPLOSION-PROOF TYPE
5. NO SPRING TYPE.  
Main valve is balance spool type, the spool is operated by operating piston and backing piston. So not need spring for backing.
6. ATTACHED MANUAL BUTTON. (PATENT NO. 763367)
7. When de-energized, by manual button, it can perform confirmation of operation or test.
8. CAN USE AS 3 WAY VALVE.  
Select 5 ports can use as 3 way valve.

#### SPECIFICATIONS

TYPE	: M15G...Pilot Operated 4way,
PIPE SIZE	: Rc 1/4", 3/8" 2Positions.
ORIFICE SIZE	: φ 6
SOLENOID ENCLOSURE	: General Purpose Type, AC...A12PG DC...D12PG
	: Explosion-proof Type, AC...AE12PU DC...DE12PU

Explosion-proof Construction is according to JIS C0903  
OFFICIAL APPROVAL No : d2G4.Class H Coil "ROKEN"  
No. 21092

MEDIA	: Clean air ( Not including dust or water )
WORKING PRESSURE	: 0.1~0.99Mpa
Cv FACTOR	: 0.87
MEDIA TEMPERATURE	: -20~+60°C
AMBIENT TEMPERATURE	: -20~+60°C
FREQUENCY	: 300Cycle / Min. Continuous Max.
DURABILITY	: Over 500 Million times
RESPONSE TIME	: 0.1 Second
COIL	: Continuous Duty Molded Class H

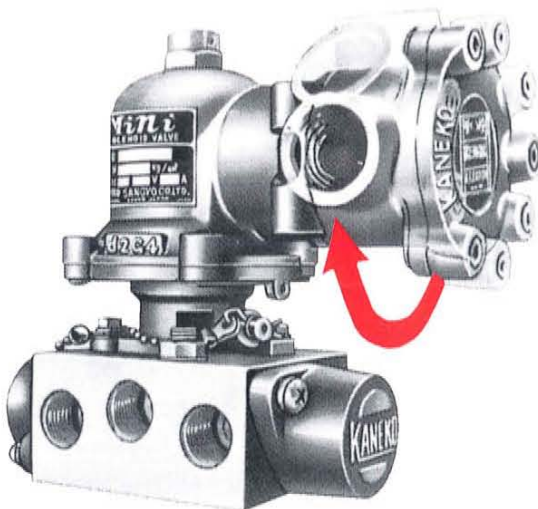
#### STANDARD VOLTAGE

V/Hz	AC		DC	
	Inrush A	Holding A	V	A
100/50	0.27	0.16	24	0.33
100/60	0.25	0.13	100	0.072
200/50	0.14	0.08	110	0.08
200/60	0.13	0.07		
220/60	0.13	0.08		

Operating Voltage Range: +10%—15%

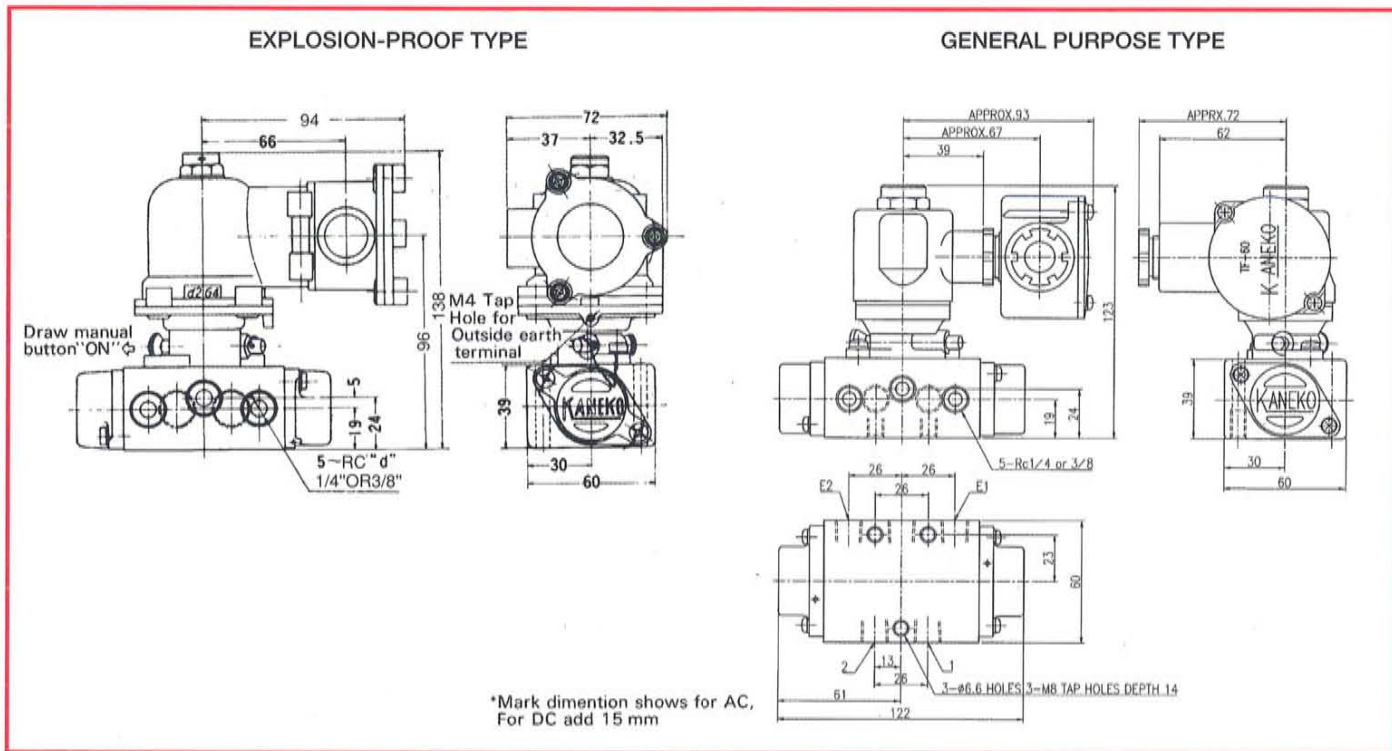
Accessories: Mini-Lubu unit, Filter, Reducing valve, Oiler, Metering valve, Silencer Above are installed by request.

(Note) Other voltage are available when required.



Terminal box of  
Explosion-Proof Type

DIMENSION, EXPLOSION-PROOF & GENERAL PURPOSE TYPE



MODEL NO. WEIGHT, EXPLOSION-PROOF & GENERAL PURPOSE TYPE



■ Lead wire :  
Length 300mm  
( Note ) Lead wire draw port, provided rubber cap corn.

**MATERIAL**

Body : Alumi alloy  
Cover : Alumi alloy die cast  
Pilot body : Alumi die cast  
Solenoid Enclosure: Alumi die cast for  
Explosion-proof type  
Steel plate press for  
General purpose type

**EXPLOSION PROOF TYPE (JIS C0903)**

	PIPE SIZE	MODEL NO.	WEIGHT Kg	MEASUREMENT cft.
AC	RC 1/4	M15G-8-AE12PU	1.4	0.067
	RC 3/8	M15G-10-AE12PU		
DC	RC 1/4	M15G-8-DE12PU	1.4	0.067
	RC 3/8	M15G-10-DE12PU		

**GENERAL PURPOSE TYPE**

	PIPE SIZE	MODEL NO.	WEIGHT Kg	MEASUREMENT cft.
AC	RC 1/4	M15G-8-A12PG	0.9	0.032
	RC 3/8	M15G-10-A12PG		
DC	RC 1/4	M15G-8-D12PG	0.9	0.032
	RC 3/8	M15G-10-D12PG		



### AC, DC. DIRECT ACTING. ALUMI BODY

#### SPECIFICATIONS

**TYPE** : MOOU  
**PIPE SIZE** : Rc 1/8", 1/4", 3/8"  
**ORIFICE SIZE&WORKING PRESSURE:**  
 $\phi 1.6 \dots 0 \sim 0.7 \text{Mpa}$   
 $\phi 3.0 \dots 0 \sim 0.4 \text{Mpa}$   
**Cv FACTOR** : 0.084( $\phi 1.6$ ), 0.22( $\phi 3.0$ )  
**WEIGHT(Kg)** : General purpose Type 0.6Kg.  
 Explosion-proof Type 0.9Kg.  
**MEASUREMENT(cft)**: Ditto 0.016 and 0.04

Solenoid Enclosure, Ambient Temperature & Coil Same to Series M15G.

#### STANDARD VOLTAGE

V/Hz	Inrush A	Holding A		V	A
100/50	0.27	0.16		DC	24
100/60	0.25	0.13	100		0.07
200/50	0.14	0.08	110		0.08
200/60	0.13	0.07			
220/60	0.13	0.08			

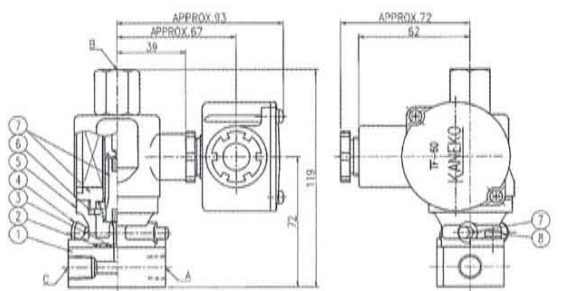


GENERAL PURPOSE Type

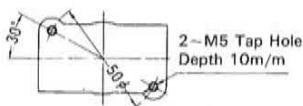
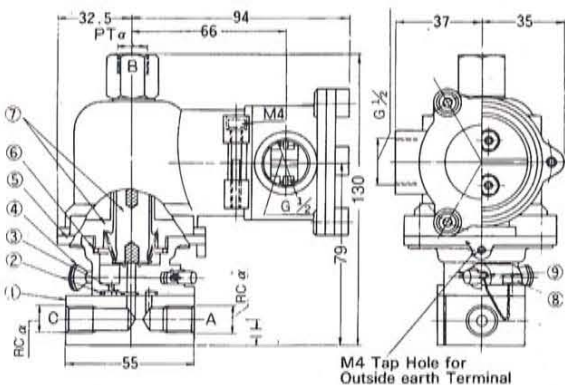


EXPLOSION-PROOF Type

■ Class H Coil: Roken No. 21092-d2G4



No.	NAME OF PARTS	MATERIAL
1	BODY	A6061
2	"O" RING	NBR
3	"O" RING	NBR
4	MANUAL BUTTON	A5056
5	MOUNTING STAND OF SOLENOID	ADC
6	"O" RING	NBR
7	SOLENOID ASS.Y	
8	SCREW W/SW	SUS304
9	SNAP	SUS304



MOOU SERIES DIRECT ACTING TYPE		
Function	U	Universal Acting TYPE
Universal type is available following 4 usage		
Normally closed	{ C-Inlet B-Exhaust	A-Outlet
Normally open	{ C-Inlet B-Exhaust	A-Outlet
Inlet-2 Outlet-1	{ B&C-Inlet A-Exhaust	
Inlet-1 Outlet-2	{ A-Inlet B&C-Outlet	

Pipe Size	Orifice	Solenoid Enclosure	Moou Series Model No.	
			AC	DC
1/8	1.6	General purpose	MOOU-6-A12PG	MOOU-6-D12PG
	3.0		MOOU-6-A12PG-01	MOOU-6-D12PG-01
	1.6	Explosion proof	MOOU-6-AE12PU	MOOU-6-DE12PU
	3.0		MOOU-6-AE12PU-01	MOOU-6-DE12PU-01
1/4	1.6	General purpose	MOOU-8-A12PG	MOOU-8-D12PG
	3.0		MOOU-8-A12PG-01	MOOU-8-D12PG-01
	1.6	Explosion proof	MOOU-8-AE12PU	MOOU-8-DE12PU
	3.0		MOOU-8-AE12PU-01	MOOU-8-DE12PU-01
3/8	1.6	General purpose	MOOU-10-A12PG	MOOU-10-D12PG
	3.0		MOOU-10-A12PG-01	MOOU-10-D12PG-01
	1.6	Explosion proof	MOOU-10-AE12PU	MOOU-10-DE12PU
	3.0		MOOU-10-AE12PU-01	MOOU-10-DE12PU-01

**PNEUMATIC·NO VOLTAGE RELEASE·ELECTRICALLY TRIPPED·SOLENOID ACTING**

These 3 Way Solenoid Valve are designed to be manualreset by a mechanical button and tripped by a Solenoid.

Two types of operation are available:No Voltage Release and Electrically Tripped.

**NO VOLTAGE RELEASE.LATCHED OPEN**

When solenoid is energized and Manual Button is pushed up, the valve is latched open and orifice "C" (Pressure) opens and orifice "B" (Exhaust) closes thereby pressurizing the system.

Valve is latched in this position only as long as the solenoid is continuously energized. When the solenoid is deenergized the latch drops out and orifice "C" closes and orifice "B" opens thereby exhausting the system.The valve remains in this position until energized and manually operated. No Voltage Release Latched Closed also is available.

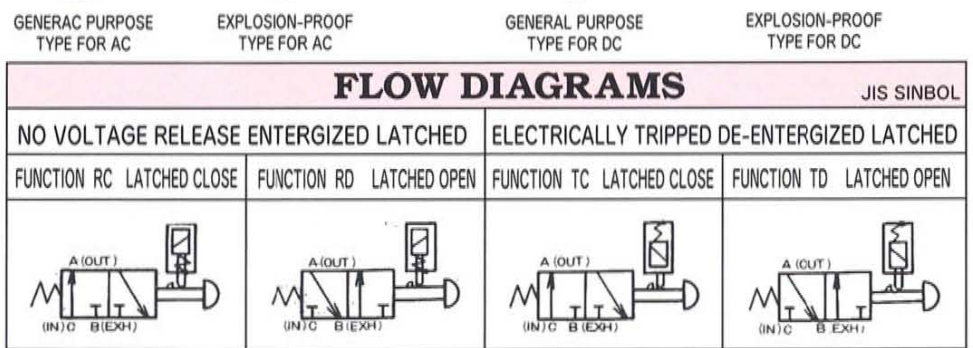
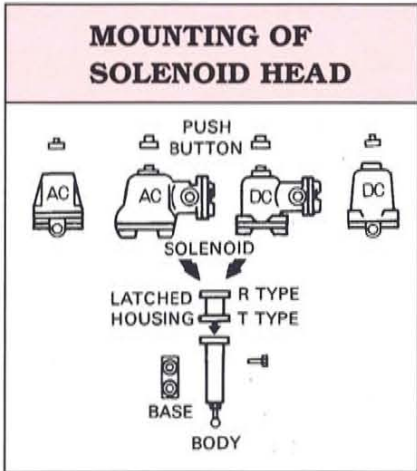
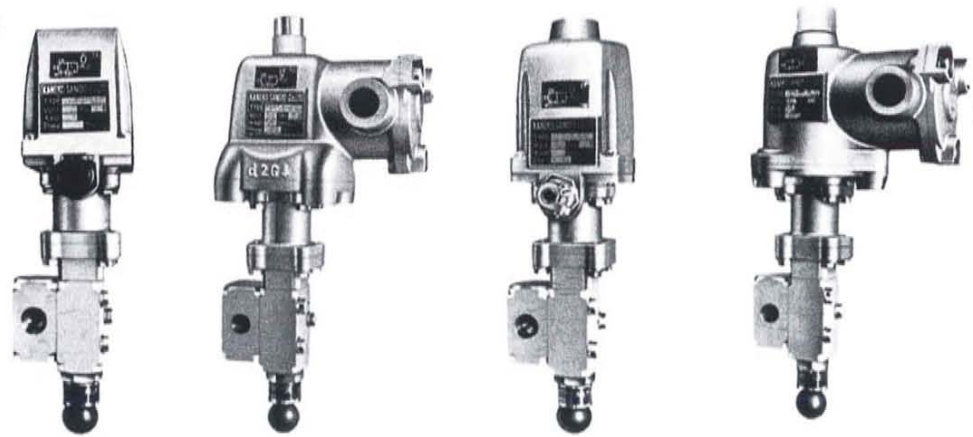
**ELECTRICALLY TRIPPED.LATCHED OPEN**

When Manual Button is pushed up, the valve is latched open and orifice "C" (Pressure) opens and orifice "B" (Exhaust) closes. Valve is latched in this position until the solenoid is momentarily energized then the latch drops out and orifice "C" closes and orifice "B" opens. The valve remains in this position until manually operated.

Latched closed construction also is available.Refer to Flow Diagrams

**SPECIFICATIONS**

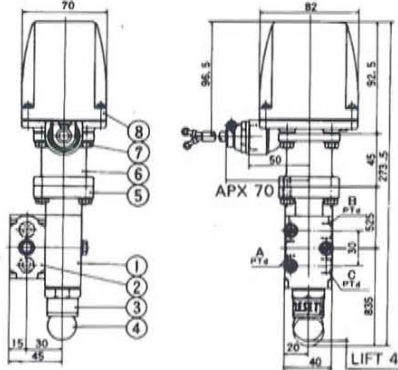
- TYPE : M51R: No Voltage Release  
: M51T: Electrically Tripped
- PIPE SIZE : Rc 1/4" , 3/8"
- ORIFICE SIZE : φ 6
- SOLENOID ENCLOSURE : General Purpose Type, AC...A1 DC...D11  
: Explosion-proof Type, AC...AE1 DC...DE11
- Explosion-proof Construction is according to JIS CO903
- OFFICIAL APPROVAL No : d2G4.Class B Coil "ROKEN" No. 14202  
: d2G4.Class H Coil "ROKEN" No. 22721
- MEDIA : Clean air ( Not including dust or water )  
or Inter gas
- WORKING PRESSURE : 0~0.99Mpa
- Cv FACTOR : 0.58
- MEDIA TEMPERATURE : -20~+60°C
- AMBIENT TEMPERATURE : -20~+40°C
- MATERIAL : Body: Anti-corrosion Aluminum Alloy  
Spool: Stainless Steel  
Gasket: "O" Ring of NBR



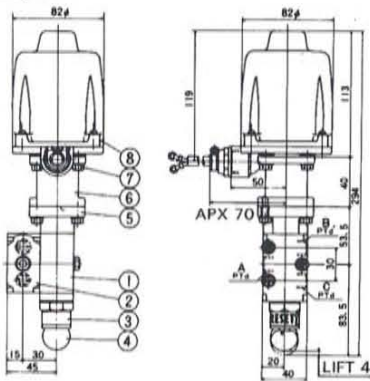


### DIMENSIONS • MODEL NO. • MATERIAL

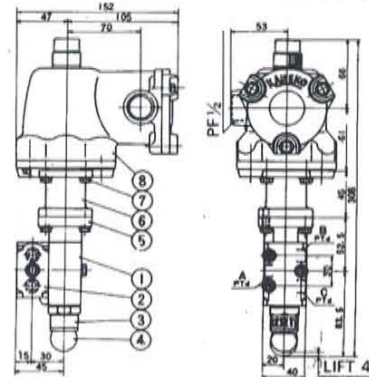
GENERAL PURPOSE TYPE FOR AC  
M51R□(T□)-A1



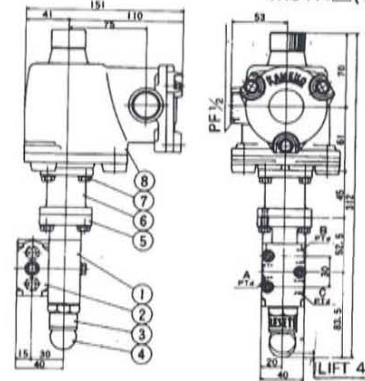
GENERAL PURPOSE TYPE FOR DC  
M51R□(T□)-D11



EXPLOSION-PROOF TYPE FOR AC  
M51R□(T□)-AE1



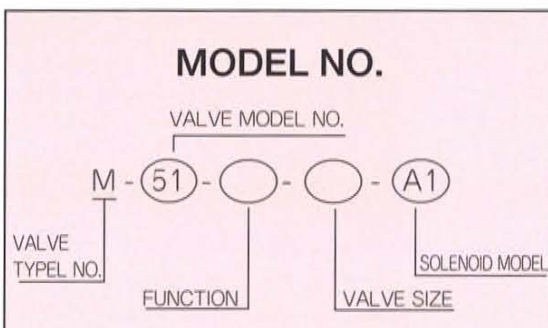
EXPLOSION-PROOF TYPE FOR DC  
M51R□(T□)-DE11



MODEL No		SIZE	d
AC	DC		
M51RC-8-A1(AE1)	M51RC-8-D11(DE11)	8	1/4
M51RD-8-A1(AE1)	M51RD-8-D11(DE11)	8	1/4
M51RC-10-A1(AE1)	M51RC-10-D11(DE11)	10	3/8
M51RD-10-A1(AE1)	M51RD-10-D11(DE11)	10	3/8
M51TC-8-A1(AE1)	M51TC-8-D11(DE11)	8	1/4
M51TD-8-A1(AE1)	M51TD-8-D11(DE11)	8	1/4
M51TC-10-A1(AE1)	M51TC-10-D11(DE11)	10	3/8
M51TD-10-A1(AE1)	M51TD-10-D11(DE11)	10	3/8

STANARD VOLTAGE				
SOLENOID MODEL SCM5L		SOLENOID MODEL S80		
V/Hz	INRUSH A	HOLDING A	DC-V	HOLDING A
100/50	2.8	0.5	24	0.91
100/60	3.1	0.56	48	0.53
110/60	2.6	0.46	100	0.24
200/50	1.4	0.25	110	0.26
220/50	1.3	0.22	125	0.20
220/60	1.3	0.23		

CONTINUOUS DUTY  
OPERATING VOLTAGE RANGE +10%, -15%  
CLASS OF COIL INSULATION B

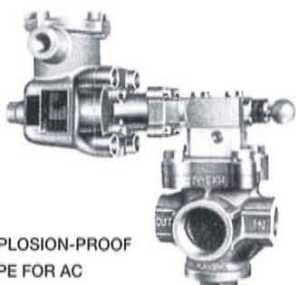


No.	PARTS	No.OF UNIT	MATERIAL
1	BODY	1	A6063
2	BASE	1	A6063
3	RETAINER	1	SUS304
4	MANUAL BUTTON	1	PLASTICS
5	SPACER	1	AC2C-F
6	LATCHET	1Set	
7	BOLT W/SW	4Sets	SS400
8	SOLENOID ASS'Y	1Set	

PNEUMATIC·NO VOLTAGE RELEASEM·ELECTRICALLY TRIPPED·PILOT OPERATED



GENERAL PURPOSE  
TYPE FOR AC



EXPLOSION-PROOF  
TYPE FOR AC



GENERAL PURPOSE  
TYPE FOR AC



EXPLOSION-PROOF  
TYPE FOR AC

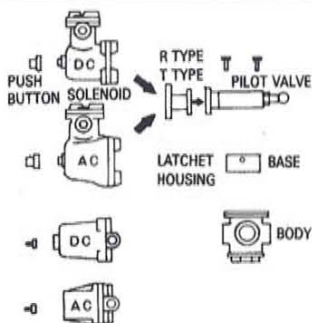
SPECIFICATIONS

- TYPE : M55R: No Voltage Release  
: M55T: Electrically Tripped
- PIPE SIZE : Rc 1/4 to RC 1- 1/4
- SOLENOID ENCLOSURE : General Purpose Type, AC...A1  
DC...D11  
: Explosion-proof Type, AC...AE1  
DC...DE11
- Explosion-proof Construction is according to JIS CO903
- OFFICIAL APPROVAL No : d2G4.Class B Coil "ROKEN" No. 14202  
: d2G4.Class H Coil "ROKEN" No. 22721
- MEDIA : Clean air ( Not including dust or water )  
Inter gas
- WORKING PRESSURE : 0.12~0.99Mpa
- MEDIA TEMPERATURE : -20~+60°C
- AMBIENT TEMPERATURE : -20~+40°C
- MATERIAL : Body: Cast Bronze (Gun Metal)  
Spool: Stainless Steel  
Gasket: "O" Ring of NBR

FEATURE

- ONE OF SAFETY VALVE,NO MISS OPERATING.  
As half automatic valve,because no free operating as general solenoid valve.
- EASY INTERCHANGE OF COIL.  
Coils for AC,DC are designed to put in same solenoid enclosure, so easily interchange.
- SAFETY EXPLOSION PROOF TYPE.  
Explosion-proof construction based on JIS,Official approved by the labor Ministry.

MOUNTING OF  
SOLENOID HEAD



FLOW DIAGRAMS

JIS SINBOL

NO VOLTAGE RELEASE ENTERGIZED LATCHED				ELECTRICALLY TRIPPED DE-ENTERGIZED LATCHED							
FUNCTION	RC	LATCHED CLOSE	FUNCTION	RD	LATCHED OPEN	FUNCTION	TC	LATCHED CLOSE	FUNCTION	TD	LATCHED OPEN
A (OUT)		A (OUT)		A (OUT)		A (OUT)		A (OUT)		A (OUT)	
(I N) B C (EXH)		(I N) B C (EXH)		(I N) B C (EXH)		(I N) B C (EXH)		(I N) B C (EXH)		(I N) B C (EXH)	

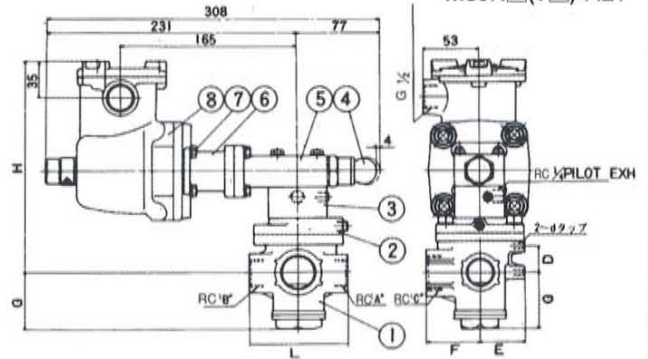
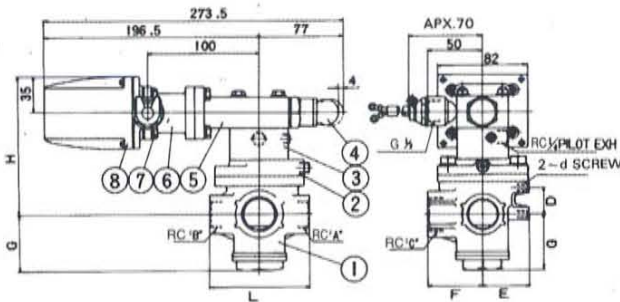


### DIMENSIONS • MODEL NO. • MATERIAL

GENERAL PURPOSE TYPE FOR AC  
M55R□(T□)A1

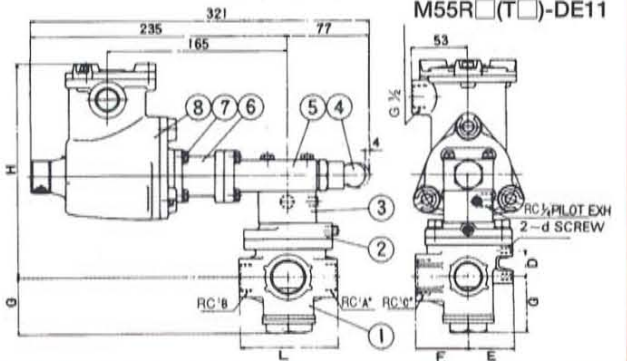
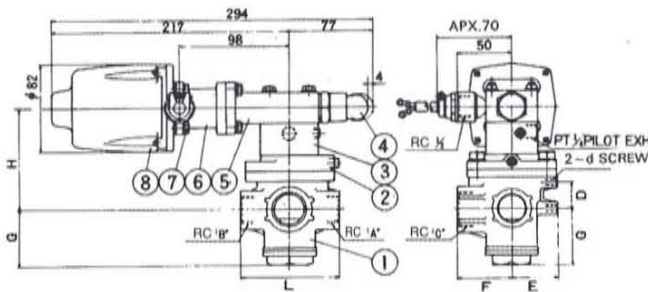
PAT.NO.902315

EXPLOSION-PROOF TYPE FOR AC  
M55R□(T□)-AE1



GENERAL PURPOSE TYPE FOR DC  
M55R□(T□)-D11

EXPLOSION-PROOF TYPE FOR DC  
M55R□(T□)-DE11



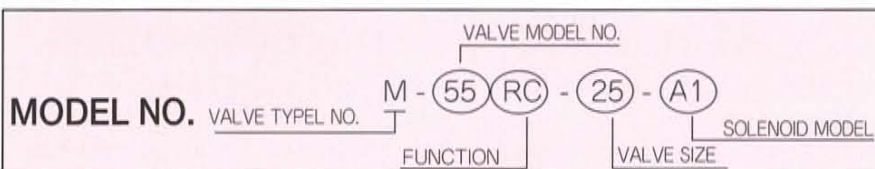
MODEL No.		SIZE	A	B	C	D	d	E	F	G	L	H	CvFACTOR
M55RC(TC)-8-A1	M55RC(TC)-8-AE1	8	1/4	1/4	1/2	24	M6	38	38	45	70	204	1.22
M55RD(TD)-8-A1	M55RD(TD)-8-AE1												
M55RC(TC)-10-A1	M55RC(TC)-10-AE1	10	3/8	3/8	1	25	M6	41	50	53	90	208	3.2
M55RD(TD)-10-A1	M55RD(TD)-10-AE1												
M55RC(TC)-15-A1	M55RC(TC)-15-AE1	15	1/2	1/2	1 1/2	40	M8	47	60	69	120	215	4.3
M55RD(TD)-15-A1	M55RD(TD)-15-AE1												
M55RC(TC)-20-A1	M55RC(TC)-20-AE1	20	3/4	3/4	1 1/2	40	M8	47	60	69	120	215	5.18
M55RD(TD)-20-A1	M55RD(TD)-20-AE1												
M55RC(TC)-25-A1	M55RC(TC)-25-AE1	25	1	1	1 1/2	40	M8	47	60	69	120	215	14.5
M55RD(TD)-25-A1	M55RD(TD)-25-AE1												
M55RC(TC)-32-A1	M55RC(TC)-32-AE1	32	1 1/4	1 1/4	1 1/4	40	M8	47	60	69	120	215	17.3
M55RD(TD)-32-A1	M55RD(TD)-32-AE1												

No.	PARTS	No.OF UNIT	MATERIAL
1	BODY	1	CAC406
2	BASE	1	ACAC-F
3	PILOT BASE	1	A2017
4	MANUAL BUTTON	1	PLASTICS
5	PILOT ASS'Y	1Set	
6	LATCHET ASS'Y	1Set	
7	BOLT W/SW	4Sets	SS400
8	SOLENOID ASS'Y	1Set	

MODEL No.		SIZE	A	B	C	D	d	E	F	G	L	H	CvFACTOR
M55RC(TC)-8-D11	M55RC(TC)-8-DE11	8	1/4	1/4	1/2	24	M6	38	38	45	70	204	1.22
M55RD(TD)-8-D11	M55RD(TD)-8-DE11												
M55RC(TC)-10-D11	M55RC(TC)-10-DE11	10	3/8	3/8	1	25	M6	41	50	53	90	208	3.2
M55RD(TD)-10-D11	M55RD(TD)-10-DE11												
M55RC(TC)-15-D11	M55RC(TC)-15-DE11	15	1/2	1/2	1 1/2	40	M6	41	50	53	90	208	4.3
M55RD(TD)-15-D11	M55RD(TD)-15-DE11												
M55RC(TC)-20-D11	M55RC(TC)-20-DE11	20	3/4	3/4	1 1/2	40	M6	41	50	53	90	208	5.18
M55RD(TD)-20-D11	M55RD(TD)-20-DE11												
M55RC(TC)-25-D11	M55RC(TC)-25-DE11	25	1	1	1 1/2	40	M8	47	60	69	120	215	14.5
M55RD(TD)-25-D11	M55RD(TD)-25-DE11												
M55RC(TC)-32-D11	M55RC(TC)-32-DE11	32	1 1/4	1 1/4	1 1/4	40	M8	47	60	69	120	215	17.3
M55RD(TD)-32-D11	M55RD(TD)-32-DE11												

STANDARD VOLTAGE				
SOLENOID MODEL	SCM5L	SOLENOID MODEL	S80	
V/Hz	INRUSH A	HOLDING A	DC-V	HOLDING A
100/50	2.8	0.5	24	0.91
100/60	3.1	0.56	48	0.53
110/60	2.6	0.46	100	0.24
200/50	1.4	0.25	110	0.26
220/50	1.3	0.22	125	0.20
220/60	1.3	0.23		

CONTINUOUS DUTY  
OPERATING VOLTAGE RANGE +10%, -15%  
COIL INSULATION CLASS B



(Note) Other Voltage available when required.

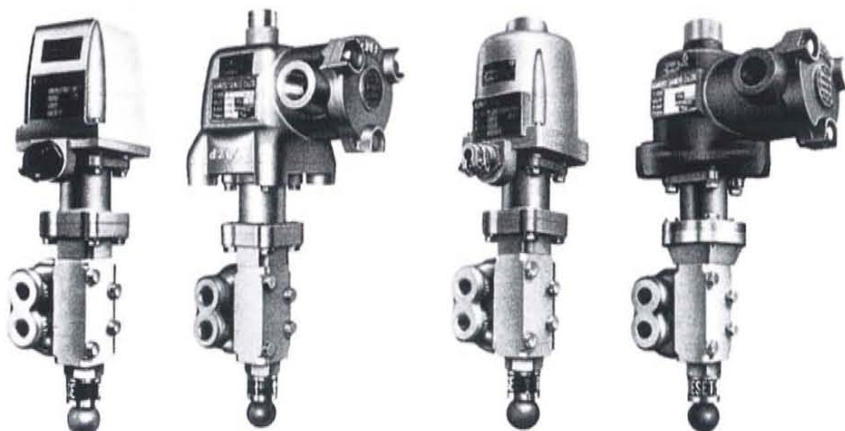
**PNEUMATIC · NO VOLTAGE RELEASE · ELECTRICALLY TRIPPED · SOLENOID ACTING**

**NO VOLTAGE RELEASE**

When solenoid is energized and Manual button is manually pushed, the valve is latched open; pressure is applied to cylinder "OUT 1" and cylinder "OUT 2" is exhausted. Valve is latched in this position only as long as the solenoid is continuously energized. When the solenoid is de-energized the latch drops and pressure is applied to cylinder "OUT 2" and cylinder "OUT 1" is exhausted. The valve remains in this position until energized and manually operated. ELECTRICALLY TRIPPED also is available. Refer to Flow Diagrams.

**SPECIFICATIONS**

- TYPE : M81RG: No Voltage Release  
: M81TG: Electrically Tripped
- PIPE SIZE : Rc 1/4", 3/8"
- ORIFICE SIZE : φ 6
- SOLENOID ENCLOSURE : General Purpose Type, AC...A1  
: DC...D11  
: Explosion-proof Type, AC...AE1  
: DC...DE11
- Explosion-proof Construction is according to JIS C0903
- OFFICIAL APPROVAL No : d2G4.Class B Coil "ROKEN" No. 14202  
: d2G4.Class H Coil "ROKEN" No. 22721
- MEDIA : Clean air ( Not including dust or water )  
: or Inter gas
- WORKING PRESSURE : 0~0.99Mpa
- Cv FACTOR : 0.58
- MEDIA TEMPERATURE : -20~+60°C
- AMBIENT TEMPERATURE : -20~+40°C
- MATERIAL : Body: Anti-corrosion Aluminum Alloy  
: Spool: Stainless Steel  
: Gasket: "O" Ring of NBR



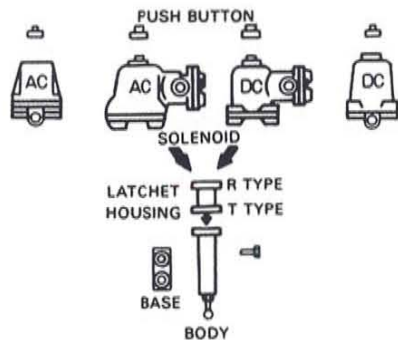
GENERAL PURPOSE  
TYPE FOR AC

EXPLOSION-PROOF  
TYPE FOR AC

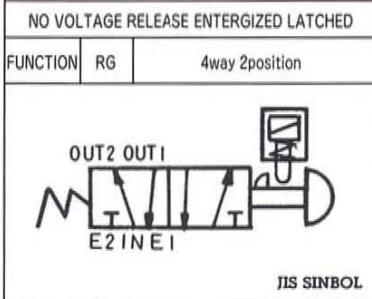
GENERAL PURPOSE  
TYPE FOR AC

EXPLOSION-PROOF  
TYPE FOR AC

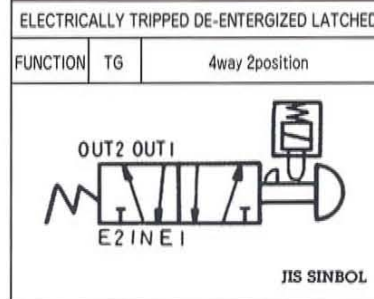
**MOUNTING OF  
SOLENOID HEAD**



**FLOW DIAGRAMS**



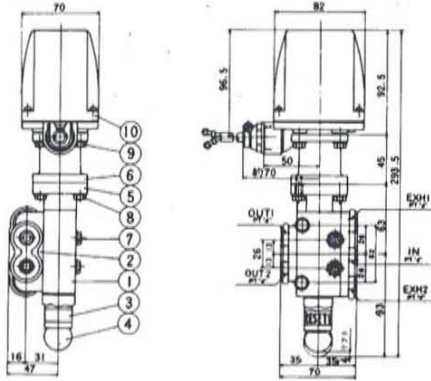
**FLOW DIAGRAMS**



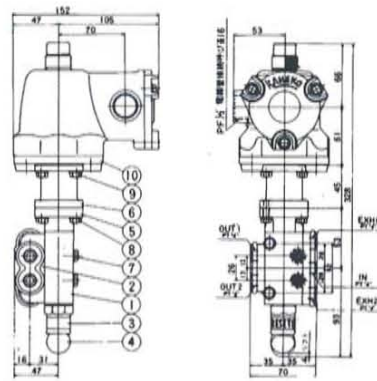


### DIMENSIONS • MODEL NO • MATERIAL

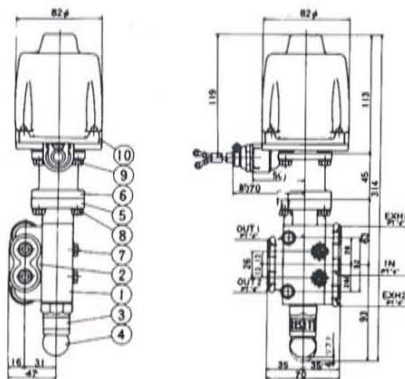
GENERAL PURPOSE TYPE FOR AC  
M81RG(TG)-A1



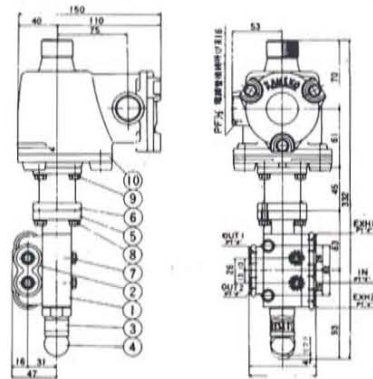
EXPLOSION-PROOF TYPE FOR AC  
M81RG(TG)-AE1



GENERAL PURPOSE TYPE FOR DC  
M81RG(TG)-D11



EXPLOSION-PROOF TYPE FOR DC  
M81RG(TG)-DE11



MODEL No		SIZE	d
AC	DC		
M81RG-8-A1	M81RG-8-D11	8	1/4
M81RG-8-AE1	M81RG-8-DE11	8	1/4
M81RG-10-A1	M81RG-10-D11	10	3/8
M81RG-10-AE1	M81RG-10-DE11	10	3/8
M81TG-8-A1	M81TG-8-D11	8	1/4
M81TG-8-AE1	M81TG-8-DE11	8	1/4
M81TG-10-A1	M81TG-10-D11	10	3/8
M81TG-10-AE1	M81TG-10-DE11	10	3/8

STANDARD VOLTAGE				
V/Hz	SCM5L		S80	
	INRUSH A	HOLDING A	DC-V	HOLDING A
100/50	2.8	0.5	24	0.91
100/60	3.1	0.56	48	0.53
110/60	2.6	0.46	100	0.24
200/50	1.4	0.25	110	0.26
220/50	1.3	0.22	125	0.20
220/60	1.3	0.23		
CONTINUOUS DUTY				
OPERATING VOLTAGE RANGE +10% -15%				
COIL INSULATION CLASS B				

No.	PARTS	No.OF UNIT	MATER- INL
1	BODY	1	A6063
2	BASE	1	A6063
3	RETAINER	1	SUS304
4	MANUAL BUTTON	1	PLASTICS
5	SPACER	1	AC2C-F
6	LATCHET	1Set	
7	BOLT W/SW	4Sets	SS400
8	BOLT W/SW	4Sets	SS400
9	BOLT W/SW	4Sets	SS400
10	SOLENOID ASS'Y	1Set	

