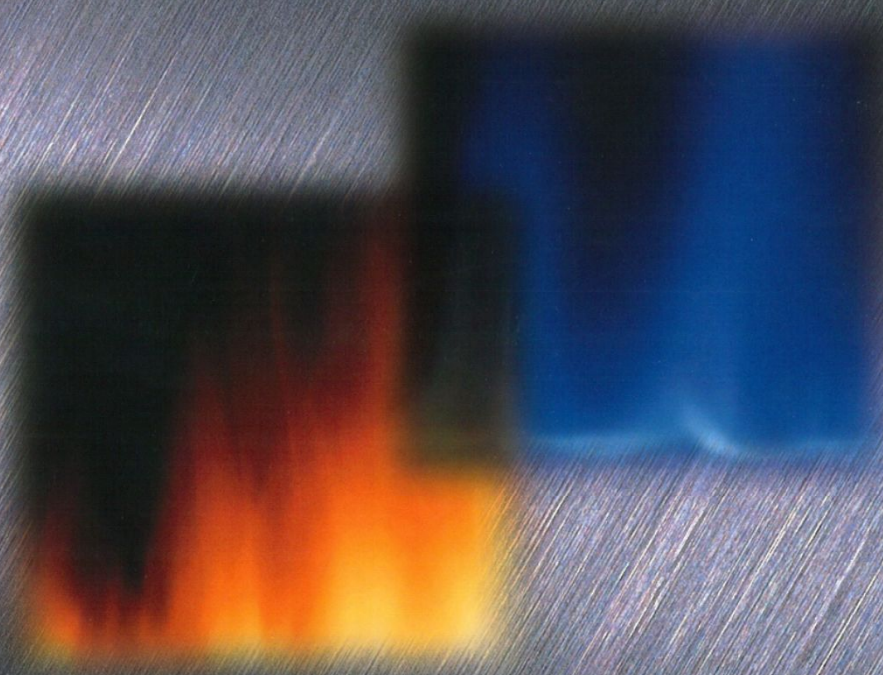




# **DISASTER PREVENTION EQUIPMENT**

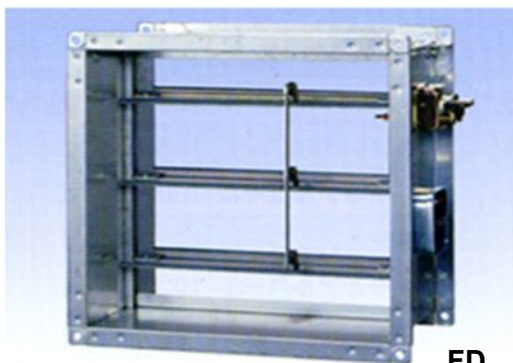
**FIRE PREVENTION/ SOMOKE PREVENTION/  
SMOKE-RELEASE DAMPER**



**KUKEN KOGYO CO., LTD.**

# FIRE DAMPER(MANUAL RESET)

(FD)  
TEMP. FUSE 72°C



FD



FD-S

## FUNCTION

1. DAMPER CLOSSES IMMEDIATELY WHEN FUSE IS BLOWN.

## SQUARE TYPE SPEC.

STANDARD DIM. (L)	350mm
MIN. AVAILABLE DIM.	200mm(W) X 150mm(H)
MAX. AVAILABLE DIM.	UP TO 2400mm(LONGER SIDE), 3.0m <sup>2</sup> DELIVERED IN DIVIDED FORM IF IT EXCEEDS THE MAX AVAILABLE DIMENSION.
BLADE	DIVIDED INTO 2 OR MORE IF DIM.(W) EXCEEDS 1000mm (CENTER-SUPPORT APPLIED).
CASING	GALVANIZED STEEL(SGHC) 1.6mm thick
BLADE	GALVANIZED STEEL(SGHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm
SHAFT METAL	OIL-BEARING METAL
INSPECT. PORT	GALVANIZED STEEL(SPCC) 1.5mm thick
FLANGE	COMMON PLATE(SPCC) or ANGLE STEEL(SS 400)
ACTUATOR	GALVANIZED STEEL(SPCC)

\* STAINLESS STEEL CASING ALSO AVAILABLE.

## ROUND TYPE SPEC.

DIM. D.(DUCT)	$\phi$ 100~ $\phi$ 450
DIM. (L)	300mm FOR $\phi$ 100~ $\phi$ 250 350mm FOR $\phi$ 275~ $\phi$ 350 450mm FOR $\phi$ 375~ $\phi$ 450
CASING	GALVANIZED STEEL(SGHC) 1.6mm thick.
BLADE	GALVANIZED STEEL(SGHC) 1.6mm thick.
SHAFT	GALVANIZED ROD $\phi$ 12.7mm
BEARING METAL	BRASS, DACROTIZED COATING
INSPECT. PORT	GALVANIZED STEEL(SPCC) 1.5mm thick
ACTUATOR	GALVANIZED STEEL(SPCC)

\* FLANGE-TYPE IS ALSO AVAILABLE FOR THE SIZE  $\phi$  200mm OR LARGER.

\* STAINLESS STEEL CASING ALSO AVAILABLE.

## OPERATING CONDITION

STATIC PRESS : 800Pa OR BELOW

MAX. PASSING AIR VELOCITY : 15m/sec.

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE ABNORMAL NOISE, DETERIORATION AND DAMAGE.
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## FIRE DAMPER (MANUAL RESET)

(HFD)  
TEMP. FUSE 280°C



### FUNCTION.

1. DAMPER CLOSSES IMMEDIATELY WHEN FUSE IS BLOWN.

### SPEC.

STANDARD DIM. (L)	350mm
MIN. AVAILABLE DIM.	200mm (W) X 150mm (H)
MAX. AVAILABLE DIM.	UP TO 2400mm(LONGER SIDE), W X H = 3.0m <sup>2</sup> DELIVERED IN DIVIDED FORM IF IT EXCEEDS THE MAX. AVAILABLE DIM.
BLADE	BLADE IS DIVIDED INTO 2 OR MORE IF DIM.(W) EXCEEDS 1000mm(CENTER-SUPPORT APPLIED).
CASING	GALVANIZED STEEL(SGHC) 1.6mm thick
BLADE	GALVANIZED STEEL(SGHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm
SHAFT METAL	OIL-BEARING METAL
INSPECT. PORT	GALVANIZED STEEL(SPCC) 1.5mm thick
FLANGE	ANGLE STEEL(SS 400)
ACTUATOR	GALVANIZED STEEL(SPCC)

\* STAINLESS STEEL CASING ALSO AVAILABLE.

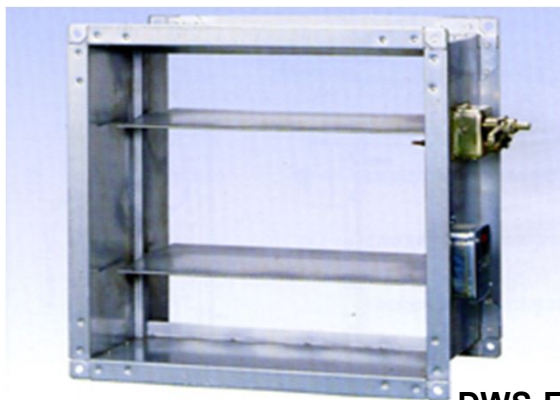
### OPERATING CONDITION.

STATIC PRESS : 800Pa OR BELOW  
MAX. PASSING AIR VELOCITY : 20m/sec.

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE ABNORMAL NOISE, DETERIORATION AND DAMAGE.
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# AIR NOISE SUPPRESSION DAMPER (MANUAL RESET)

(DWS-FVD)  
TEMP. FUSE 72°C



DWS-FVD

## FUNCTION

1. DESIGNED TO MINIMIZE AIR-PASSING NOISE.
2. DAMPER CLOSES IMMEDIATELY WHEN FUSE IS BLOWN.

## SPEC.

STANDARD DIM.(L)	350mm
MIN. AVAILABLE DIM.	200mm(W) X 150mm(H)
MAX. AVAILABLE DIM.	UP TO 2400mm(LONGER SIDE), W X H = 3.0m <sup>2</sup> DELIVERED IN DIVIDED FORM IF IT EXCEEDS THE MAX. AVAILABLE DIM.
CASING	GALVANIZED STEEL(SGHC) 1.6mm thick
BLADE	GALVANIZED STEEL(SGHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm
SHAFT METAL	OIL-BEARING METAL
INSPECT. PORT	GALVANIZED STEEL(SPCC) 1.5mm thick
FLANGE	COMMON PLATE OR STEEL FLANGE (SS 400)
ACTUATOR	GALVANIZED STEEL PLATE(SPCC)

## OPERATING CONDITION.

STATIC PRESS : 800Pa OR BELOW  
MAX. PASSING AIR VELOCITY : 10m/sec.

TO BOOST THE NOISE-REDUCTION EFFECT, KEEP THE BLADE COMPLETELY OPENED.  
EVEN IF REQUIRED TO ADJUST OPENING ANGLE, KEEP AT 60° (2ND STEP) MAXIMUM.

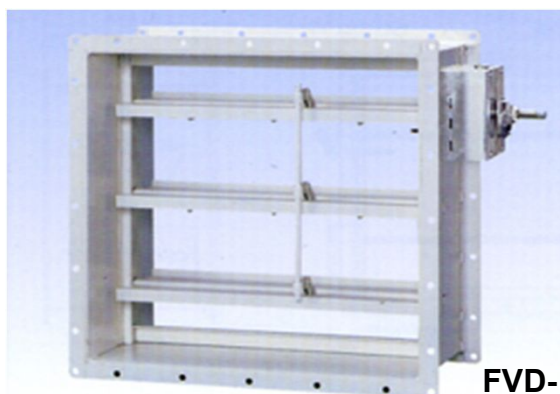
CONTACT US FOR OTHER DWS-APPLIED MODELS.

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE ABNORMAL NOISE, DETERIORATION AND DAMAGE.
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**FIRE DAMPER(LLOYD'S CERTIFIED)  
(MANUAL RESET)**

**(FVD-L)  
TEMP. FUSE 72°C**



**FVD- L**

**FUNCTION.**

1. FIRE DAMPER FOR VESSEL USE(LLOYD'S CERTIFIED)
2. 2 TYPES AVAILABLE. ("NORMALLY ON" AND "EMERGENCY ON" POWER DISTRIBUTION )
3. DAMPER CLOSSES IMMEDIATELY WHEN FUSE IS BLOWN OR ELECTRIC SIGNAL IS ON.

**SPEC.**

STANDARD DIM. (L)	300mm
MIN. AVAILABLE DIM.	200(W) X 150(H)
MAX. AVAILABLE DIM.	W 2400mm H 1970mm
CASING	GALVANIZED STEEL(SGHC) 4.5mm thick
BLADE	GALVANIZED STEEL(SGHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm thick
SHAFT METAL	OIL-BEARING METAL
FLANGE	STEEL FLANGE (SS 400)
ACTUATOR	GALVANIZED STEEL (SPCC)

**OPERATING CONDITION.**

STATIC PRESS : 800 Pa OR BELOW

MAX. PASSING AIR VELOCITY : 15m/sec.

**ACTUATOR SPEC.("NORMALLY POWER ON" TYPE.)**

TYPE :	KDS-1LD
OPERATION TYPE :	ACTIVATED WHEN POWER SUPPLY IS DISCONNECTED. (NORMALLY-ON TYPE.)
OPERATION TIME :	IMMEDIATE
RESET :	RESET HANDLE
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 18 AND 24V)
RATED CURRENT :	0.11A
CONTACT RATING :	DC30V 2A

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.

# FIRE VOLUME DAMPER(BV CERTIFIED) ROUND (MANUAL RESET)

(SFVD)  
TEMP. FUSE 72°C



## FUNCTION.

1. FIRE DAMPER FOR VESSEL USE (BV CERTIFICATE OBTAINED.)
2. 2 TYPES AVAILABLE. : "NORMALLY-ON" AND "EMERGENCY-ON" POWER DISTRIBUTION.)
3. CLOSSES IMMEDIATELY WHEN FUSE IS BLOWN OR ELECTRIC SIGNAL IS ON.

## SPEC.

STANDARD DIM.(L)	300mm
AVAILABLE DIM.	φ 200mm ~350mm
CASING	GALVANIZED(SPHC) 3.2mm thick
BLADE	GALVANIZED(SPHC) 2.3mm thick
SHAFT	GALVANIZED ROD φ 12.7mm thick
SHAFT METAL	BRASS, DACROTIZED COATING
FLANGE	STEEL FLANGE (SS 400)
ACTUATOR	STEEL PLATE(SPCC) GALVANIZED

## OPERATING CONDITION.

STATIC PRESS : 800Pa OR BELOW

MAX. PASSING AIR VELOCITY : 15m/sec.

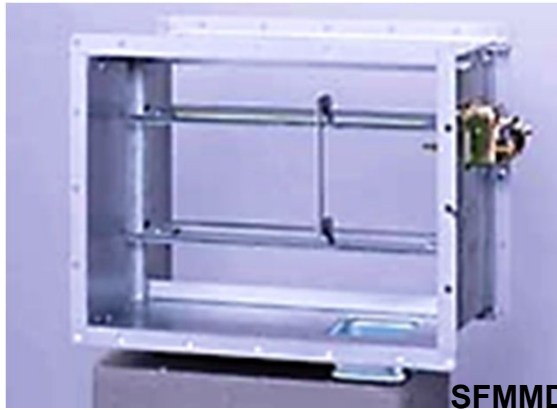
## ACTUATOR SPEC.("EMERGENCY" ON TYPE.)

TYPE :	KDS-1
OPERATION TYPE :	SOLENOID, MANUAL LEVER
OPERATION TIME :	IMMEDIATE
RESET :	RESET HANDLE
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.3A
POWER DISTRIBUTION RATING :	CONTINUOUS ( SELF-SHUTDOWN TYPE)
CONFIRM SIGNAL :	b CONTACT ON WHEN OPERATING. (2b CONTACTS)
CONTACT RATING :	DC30V 2A

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.

# SMOKE FIRE DAMPER COMBINED WITH MOTOR (REMOTE RESET)

(SFMMD)  
TEMP. FUSE 72°C



## FUNCTION

1. COMBINED DAMPER. (SFMVD AND MD)
2. CLOSSES IMMEDIATELY WHEN FUSE IS BLOWN OR HEAT/SMOKE DETECTOR IS ACTIVATED.
3. REMOTE RESET BY MOTORING.
4. FEATURES AIR VOLUME ADJUSTING FUNCTION (5 STEPS RANGING FROM 30° TO 90° )

## SPEC.

STANDARD DIM.(L)	350mm
MIN. AVAILABLE DIM.	200mm(W) X 150mm(H)
MAX. AVAILABLE DIM.	DELIVERED IN THE DIVIDED FORM IF IT EXCEEDS 2400mm (LONGER SIDE) AND W x H = 3.0m <sup>2</sup>
BLADE	BLADE IS DIVIDED INTO 2 OR MORE IF DIM.(W) EXCEEDS 1000mm (CENTER-SUPPORT APPLIED). GALVANIZED STEEL(SGHC) 1.6mm thick.
CASING	GALVANIZED STEEL(SGHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm thick
SHAFT METAL	OIL-BEARING METAL
INSPECT. PORT	GALVANIZED STEEL(SPCC) 1.5mm thick
FLANGE	COMMON PLATE(SPCC) OR ANGLE STEEL(SS 400)
ACTUATOR	GALVANIZED STEEL PLATE(SGHC)

\* STAINLESS STEEL CASING ALSO AVAILABLE.

## OPERATING CONDITION.

STATIC PRESS : 800Pa OR BELOW  
MAX. PASSING AIR VELOCITY : 15m/sec.

## ACTUATOR SPEC.

TYPE :	KDMP-3
OPERATION TYPE :	SOLENOID. TEMP. FUSE. MANUAL BUTTON
OPERATION TIME :	IMMEDIATE
RESET :	MOTOR. RESET HANDLE
RESET TIME:	APPROX. 44 SECONDS (24V USE.)
RATED VOLTAGE :	FIRE PREV. DC24V( USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
	AIR CONDITIONING: AC OR DC24V $\pm$ 10%
RATED CURRENT :	0.3A
POWER DISTRIBUTION RATING :	CONTINUOUS ( SELF-SHUTDOWN TYPE)
CONFIRM SIGNAL :	a CONTACT ON WHEN OPERATING.
CONTACT RATING :	DC30V 2A
AIR CONDITIONING OPERATION TIME :	APPROX. 22 SECONDS

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.

# SMOKE FIRE DAMPER COMBINED WITH GAS PRESSURE (REMOTE RESET)

(SPFMVD)  
TEMP. FUSE 72°C



## FUNCTION

### SPFMVD

1. COMBINED DAMPER. (SFMVD AND PD)
2. CLOSSES IMMEDIATELY WHEN FUSE IS BLOWN OR HEAT/SMOKE DETECTOR IS ACTIVATED AND GAS PRESSURE ARE COMBINED WITH DAMPER.
3. REMOTE RESET BY MOTORING.
4. FEATURES AIR VOLUME ADJUSTING FUNCTION (5 STEPS RANGING FROM 30° TO 90° )

## SPEC.

STANDARD DIM.(L)	350mm
MIN. AVAILABLE DIM.	200mm(W) X 150mm(H)
MAX. AVAILABLE DIM.	DELIVERED IN THE DIVIDED FORM IF IT EXCEEDS 2400mm (LONGER SIDE) AND W x H = 3.0m <sup>2</sup>
CASING	GALVANIZED STEEL (SGHC) 1.6mm thick
BLADE	BLADE IS DIVIDED INTO 2 OR MORE IF DIM.(W) EXCEEDS 1000mm (CENTER-SUPPORT APPLIED). GALVANIZED STEEL(SGHC) 1.6mm thick.
SHAFT	GALVANIZED ROD $\phi$ 12.7mm thick
SHAFT METAL	OIL-BEARING METAL
INSPECT. PORT	GALVANIZED STEEL(SPCC) 1.5mm thick
FLANGE	COMMON PLATE(SPCC) OR ANGLE STEEL(SS 400)
ACTUATOR	STEEL PLATE(SPCC) GALVANIZED

\* STAINLESS STEEL CASING ALSO AVAILABLE.

## OPERATING CONDITION

STATIC PRESS : 800Pa OR BELOW

MAX. PASSING AIR VELOCITY : 15m/sec.

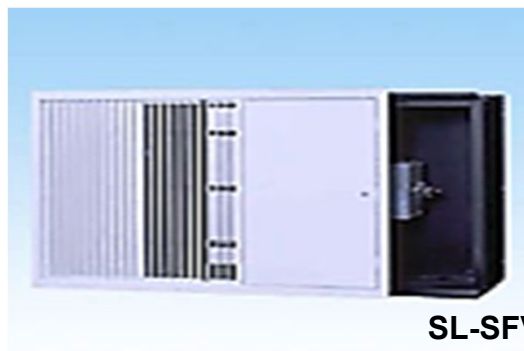
## ACTUATOR SPEC.

TYPE :	KDGS-2
OPERATION TYPE :	MOTOR, TEMP. FUSE, CYLINDER, MANUAL LEVER
OPERATION TIME :	WITHIN 1.5 SECONDS
RESET :	MOTOR. RESET HANDLE
RESET TIME:	APPROX. 12 SECONDS (24V USE.)
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.24A
POWER DISTRIBUTION RATING :	CONTINUOUS ( SELF-SHUTDOWN TYPE)
CONFIRM SIGNAL :	a CONTACT ON WHEN OPERATING. (2 a CONTACTS)
CONTACT RATING :	DC30V 2A
OPERATION PRESSURE :	MIN. PRESSURE 0.7MPa
CONNECTING PIPE	COPPER PIPE $\phi$ 6 x $\phi$ 4

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.



# SMOKE FIRE DAMPER COMBINED WITH SLIT FACE (SL-SFVD) (MANUAL RESET) (SL-SFVD) TEMP. FUSE 72°C



## FUNCTION.

1. CLOSES IMMEDIATELY WHEN FUSE IS BLOWN OR HEAT/SMOKE DETECTOR IS ACTIVATED.
2. FEATURES AIR VOLUME ADJUSTING FUNCTION (5 STEPS RANGING FROM 30° TO 90° )

## SPEC.

STANDARD DIM.(L)	350mm
MIN. AVAILABLE DIM.	200mm(W) X 150mm(H)
MAX. AVAILABLE DIM.	DAMPER: 2400mm (LONGER SIDE) AND W x H = 3.0m2 SLIT: 2400mm (LONGER SIDE) AND W x H = 2.5m2 DELIVERED IN THE DIVIDED FORM IF IT EXCEEDS THE MAX. DIM.
SLIT INSPECT. PORT	DELIVERED IN THE DIVIDED FORM IF DIM. (H) EXCEEDS 1000mm.
CASING	GALVANIZED STEEL(SEHC) 1.6mm thick
BLADE	GALVANIZED STEEL(SEHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm thick
SHAFT METAL	OIL-BEARING METAL
FLANGE	COMMON PLATE(SPCC) OR ANGLE STEEL(SS 400)
ACTUATOR	GALVANIZED STEEL(SPCC)
SLIT	ALUMINIUM (A6063S-T5)
INSPECT. PORT	GALVANIZED STEEL(SECC) 1.2mm thick

## OPERATING CONDITION.

STATIC PRESS : 800Pa OR BELOW

MAX. SUCTION AIR VELOCITY : 10m/sec.

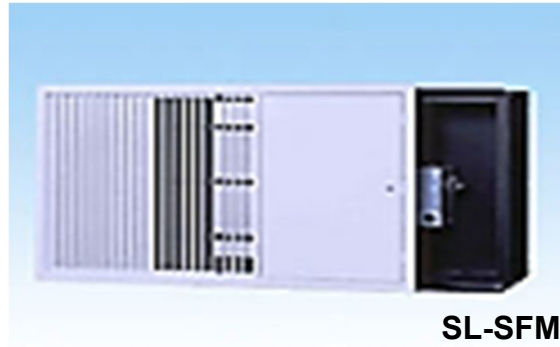
## ACTUATOR SPEC.

TYPE :	KDS-1
OPERATION TYPE :	SOLENOID, TEMP. FUSE, MANUAL LEVER
OPERATION TIME :	IMMEDIATE
RESET :	RESET LEVER
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.3A
POWER DISTRIBUTION RATING :	CONTINUOUS ( SELF-SHUTDOWN TYPE)
CONFIRM SIGNAL :	b CONTACT ON WHEN OPERATING. (2b CONTACTS)
CONTACT RATING :	DC30V 2A

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.

# SMOKE FIRE DAMPER COMBINED WITH SLIT FACE (REMOTE RESET)

(SL-SFMVD)  
TEMP. FUSE 72°C



SL-SFMVD

## FUNCTION.

1. CLOSSES IMMEDIATELY WHEN FUSE IS BLOWN OR HEAT/SMOKE DETECTOR IS ACTIVATED.
2. REMOTE RESET BY MOTORING.
3. FEATURES AIR VOLUME ADJUSTING FUNCTION (5 STEPS RANGING FROM 30° TO 90° )

## SPEC.

STANDARD DIM.(L)	350mm
MIN. AVAILABLE DIM.	200mm(W) X 350mm(H)
MAX. AVAILABLE DIM.	DAMPER: 2400mm (LONGER SIDE) AND W x H = 3.0m2 SLIT: 2400mm (LONGER SIDE) AND W x H = 2.5m2 DELIVERED IN THE DIVIDED FORM IF IT EXCEEDS THE MAX. DIM.
SLIT INSPECT. PORT	DELIVERED IN THE DIVIDED FORM IF DIM. (H) EXCEEDS 1000mm.
CASING	GALVANIZED(SEHC) 1.6mm thick
BLADE	GALVANIZED(SEHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm thick
SHAFT METAL	OIL-BEARING METAL
FLANGE	COMMON PLATE(SPCC) OR ANGLE STEEL(SS 400)
ACTUATOR	STEEL PLATE(SPCC) GALVANIZED
SLIT	ALUMINIUM (A6063S-T5)
INSPECT. PORT	STEEL PLATE(SECC) 1.2mm thick GALVANIZED

## OPERATING CONDITION.

STATIC PRESS : 800Pa OR BELOW  
MAX. SUCTION AIR VELOCITY : 10m/sec.

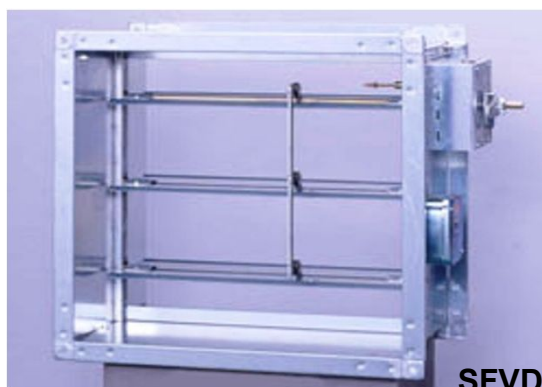
## ACTUATOR SPEC.

TYPE :	KDS-2F
OPERATION TYPE :	MOTOR, TEMP. FUSE, MANUAL LEVER
OPERATION TIME :	WITHIN 1.5 SECONDS
RESET :	MOTOR. RESET HANDLE
RESET TIME:	APPROX. 12 SECONDS (24V USE.)
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.24A
POWER DISTRIBUTION RATING :	CONTINUOUS (SELF-SHUTDOWN TYPE)
CONFIRM SIGNAL :	a CONTACT ON WHEN OPERATING. (2 a CONTACTS)
CONTACT RATING :	DC30V 2A

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.

# SMOKE FIRE VOLUME DAMPER (MANUAL RESET)

(SFVD)  
TEMP. FUSE 72°C



## FUNCTION

1. CLOSES IMMEDIATELY WHEN FUSE IS BLOWN OR HEAT/SMOKE DETECTOR IS ACTIVATED.
2. FEATURES AIR VOLUME ADJUSTING FUNCTION (5 STEPS RANGING FROM 30° TO 90° )

## SPEC.

STANDARD DIM.(L)	350mm
MIN. AVAILABLE DIM.	200mm(W) X 150mm(H)
MAX. AVAILABLE DIM.	DELIVERED IN THE DIVIDED FORM IF IT EXCEEDS 2400mm (LONGER SIDE) AND W x H = 3.0m <sup>2</sup>
BLADE	BLADE IS DIVIDED INTO 2 OR MORE IF DIM.(W) EXCEEDS 1000mm (CENTER-SUPPORT APPLIED). GALVANIZED(SGHC) 1.6mm thick.
CASING	GALVANIZED(SGHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm thick
SHAFT METAL	OIL-BEARING METAL
INSPECT. PORT	STEEL PLATE(SPCC) 1.5mm thick GALVANIZED
FLANGE	COMMON PLATE(SPCC) OR ANGLE STEEL(SS 400)
ACTUATOR	STEEL PLATE(SPCC) GALVANIZED

\* STAINLESS STEEL CASING ALSO AVAILABLE.

## OPERATING CONDITION

STATIC PRESS : 800Pa OR BELOW

MAX. PASSING AIR VELOCITY : 15m/sec.

## ACTUATOR SPEC.("EMERGENCY" ON TYPE)

TYPE :	KDS-1
OPERATION TYPE :	SOLENOID, MANUAL LEVER
OPERATION TIME :	IMMEDIATE
RESET :	RESET HANDLE
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.3A
POWER DISTRIBUTION RATING :	CONTINUOUS (SELF-SHUTDOWN TYPE)
CONFIRM SIGNAL :	b CONTACT ON WHEN OPERATING. (2 b CONTACTS)
CONTACT RATING :	DC30V 2A

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.

# SMOKE FIRE DAMPER (MANUAL RESET)

(SFD)  
TEMP. FUSE 72°C



SFD

## FUNCTION

1. CLOSES IMMEDIATELY WHEN FUSE IS BLOWN OR HEAT/SMOKE DETECTOR IS ACTIVATED.

## SPEC.

STANDARD DIM.(L)	300mm ( $\phi$ 100~ $\phi$ 250)
	350mm ( $\phi$ 275~ $\phi$ 350)
	450mm ( $\phi$ 375~ $\phi$ 450)
CASING	GALVANIZED STEEL(SGHC) 1.6mm thick
BLADE	GALVANIZED STEEL(SGHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm thick
SHAFT METAL	BRASS, DACROTIZED COATING
INSPECT. PORT	GALVANIZED STEEL(SPCC) 1.5mm thick
ACTUATOR	GALVANIZED STEEL(SPCC)

\* STAINLESS STEEL CASING ALSO AVAILABLE.

\* FLANGE IS AVAILABLE FOR THE SIZE  $\phi$  200mm OR ABOVE.

## HOW TO REPLACE THE FUSE TEMP.

1. PULL THE MANUAL LEVER TO KEEP THE DAMPER SHUT.
2. TAKE OFF THE COVER. (TERMINAL BOX.)
3. TURN ROUND THE SLOTTED SCREW IN THE FUSE AND TAKE OFF THE FUSE HOLDER.
4. REPLACE THE TEMP. FUSE AND SET THE FUSE HOLDER.
5. HOOK THE TEMP. FUSE ARM TO THE FUSE ROD.
6. MOUNT THE COVER.

## OPERATING CONDITION

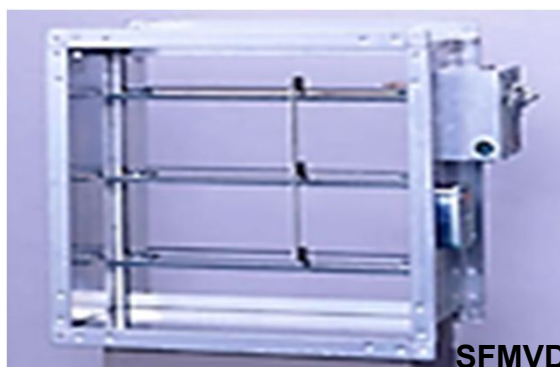
STATIC PRESS : 800Pa OR BELOW

MAX. PASSING AIR VELOCITY : 15m/sec.

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE ABNORMAL NOISE, DETERIORATION AND DAMAGE.
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# SMOKE FIRE DAMPER (REMOTE RESET)

(SFMVD)  
TEMP. FUSE 72°C



## FUNCTION

1. CLOSSES IMMEDIATELY WHEN FUSE IS BLOWN OR HEAT/SMOKE DETECTOR IS ACTIVATED.
2. REMOTE RESET BY MOTORING.
2. FEATURES AIR VOLUME ADJUSTING FUNCTION (5 STEPS RANGING FROM 30° TO 90° )

## SPEC.

STANDARD DIM.(L)	350mm
MIN. AVAILABLE DIM.	200mm(W) X 150mm(H)
MAX. AVAILABLE DIM.	DELIVERED IN THE DIVIDED FORM IF IT EXCEEDS 2400mm(LONGER SIDE) AND W x H = 3.0m <sup>2</sup>
BLADE	BLADE IS DIVIDED INTO 2 OR MORE IF DIM.(W) EXCEEDS 1000mm (CENTER-SUPPORT APPLIED). GALVANIZED STEEL(SGHC) 1.6mm
CASING	GALVANIZED STEEL (SGHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm thick
SHAFT METAL	OIL-BEARING METAL
INSPECT. PORT	GALVANIZED STEEL (SPCC) 1.5mm thick
FLANGE	COMMON PLATE(SPCC) OR ANGLE STEEL(SS 400)
ACTUATOR	GALVANIZED STEEL (SPCC)

\* STAINLESS STEEL CASING ALSO AVAILABLE.

## OPERATING CONDITION

STATIC PRESS : 800Pa OR BELOW

MAX. PASSING AIR VELOCITY : 15m/sec.

## ACTUATOR SPEC.

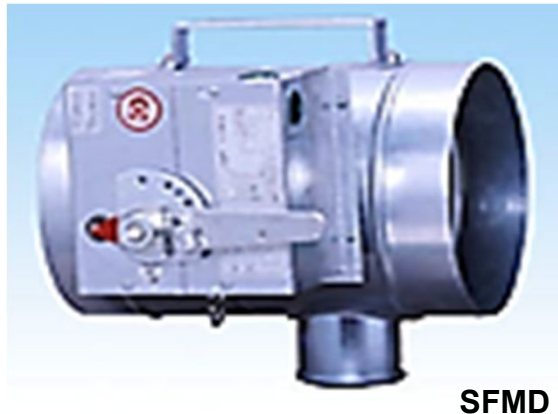
TYPE :	KDS-2F
OPERATION TYPE :	MOTOR, TEMP.FUSE, MANUAL LEVER
OPERATION TIME :	WITHIN 1.5 SECONDS
RESET :	MOTOR, RESET HANDLE
RESET TIME:	APPROX. 12 SECONDS (24V USE.)
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.25A
POWER DISTRIBUTION RATING :	CONTINUOUS ( SELF-SHUTDOWN TYPE)
CONFIRM SIGNAL :	a CONTACT ON WHEN OPERATING. (2 a CONTACTS)
CONTACT RATING :	DC30V 2A

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.



## SMOKE FIRE DAMPER (REMOTE RESET)

(SFMD)  
TEMP. FUSE 72°C



**SFMD**

### FUNCTION.

1. CLOSING IMMEDIATELY WHEN FUSE IS BLOWN OR HEAT/SMOKE DETECTOR IS ACTIVATED.
2. REMOTE RESET BY MOTORING.

### SPEC.

STANDARD DIM.(L)	300mm ( $\phi$ 100~ $\phi$ 250)
	350mm ( $\phi$ 275~ $\phi$ 350)
	450mm ( $\phi$ 375~ $\phi$ 450)
CASING	GALVANIZED STEEL(SGHC) 1.6mm thick
BLADE	GALVANIZED STEEL(SGHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm thick
SHAFT METAL	BRASS, DACROTIZED COATING
INSPECT. PORT	GALVANIZED STEEL(SPCC) 1.5mm thick
ACTUATOR	GALVANIZED STEEL(SPCC)

\* STAINLESS STEEL CASING ALSO AVAILABLE.

\* FLANGE IS AVAILABLE FOR THE SIZE  $\phi$  200mm AND OVER.

### HOW TO REPLACE THE FUSE TEMP.

1. PULL THE MANUAL LEVER TO KEEP THE DAMPER SHUT.
2. TAKE OFF THE COVER. (TERMINAL BOX.)
3. TURN ROUND THE SLOTTED SCREW IN THE FUSE AND TAKE OFF THE FUSE HOLDER.
4. REPLACE THE TEMP. FUSE AND SET THE FUSE HOLDER.
5. HOOK THE TEMP. FUSE ARM TO THE FUSE ROD.
6. MOUNT THE COVER.

\* PLEASE REFER TO POO FOR ACTUATOR SPEC. OR INTERNAL CIRCUIT.

### OPERATING CONDITION.

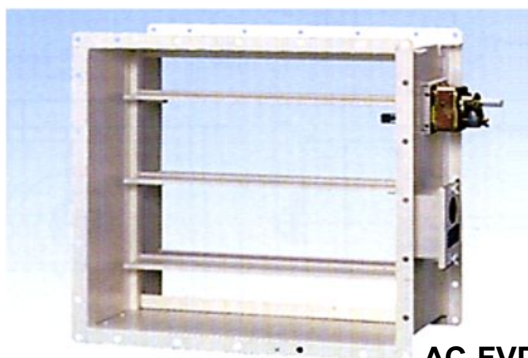
STATIC PRESS : 800Pa OR BELOW

MAX. PASSING AIR VELOCITY : 15m/sec.

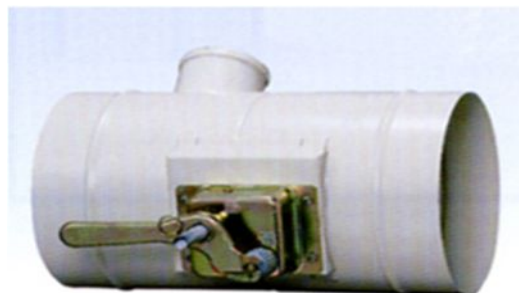
USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE ABNORMAL NOISE, DETERIORATION AND DAMAGE.
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# ANTI-CORROSION FIRE DAMPER (MANUAL RESET)

(AC-FVD) TEMP. FUSE APPLICATION  
(AC-SFVD) HEAT/SMOKE DETECTOR APPLICATION  
TEMP. FUSE 72°C



AC-FVD



AC-SFVD

## FUNCTION.

1. CORROSIVE GAS SYSTEM USE. SUITABLE FOR CHEMICAL, SEMICONDUCTOR FACTORY, AND LAB.
2. TEMP. FUSE IS MADE OF SYNTHETIC RESIN(POLYVINYL), WHICH PREVENTS THE DAMPER FROM MALFUNCTIONING DUE TO THE CORROSION.
3. EPOXY PAINT FINISH 200  $\mu$  ENHANCES CORROSION-RESISTING EFFECT.

## SPEC.

STANDARD DIM.(L)	SQUARE : 350mm
	ROUND : 350mm (UP TO $\phi$ 350mm)
	450mm (UP TO $\phi$ 375mm)
PRODUCTION DIM.	SQUARE : UP TO LONGER SIDE 1800mm, SHORTER SIDE 600mm
	ROUND : $\phi$ 200mm ~ 450mm
CASING	GALVANIZED STEEL(SEHC) 1.6mm thick
BLADE	GALVANIZED STEEL(SEHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm
SHAFT METAL	FLUOROPLASTIC
INSPECT. PORT	GALVANIZED STEEL(SPCC) 1.5mm thick
FLANGE	COMMON PLATE(SPCC) OR ANGLE STEEL(SS 400)
ACTUATOR	GALVANIZED STEEL(SPCC)

## OPERATING CONDITION.

STATIC PRESS : 800Pa OR BELOW

MAX. PASSING AIR VELOCITY : ROUND: 15m/sec. SQUARE: 10m/sec.

## ACTUATOR SPEC.(AC-SFVD.)

TYPE :	KDS-1
OPERATION TYPE :	SOLENOID. MANUAL LEVER
OPERATION TIME :	IMMEDIATE
RESET :	RESET HANDLE
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.3A
POWER DISTRIBUTION RATING :	CONTINUOUS ( SELF-SHUT DOWN TYPE)
CONFIRM SIGNAL :	b CONTACT ON WHEN OPERATING. (2 b CONTACTS)
CONTACT RATING :	DC30V 2A

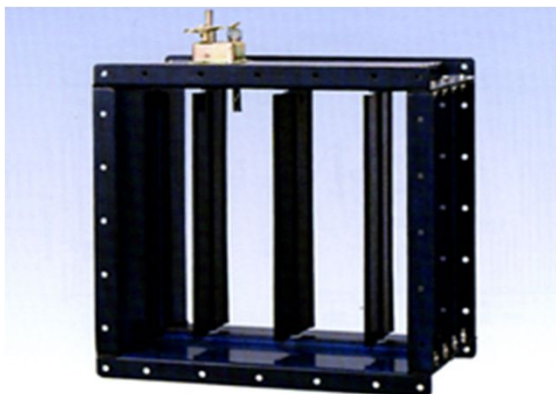
POLYVINYL FUSE

SUS304 IS ALSO AVAILABLE FOR FVD ACTUATOR.

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.

# SUPER ANTI-CORROSION FIRE DAMPER

(CP-FVD) TEMP. FUSE APPLICATION.  
T/SMOKE DETECTOR APPLICATION  
TEMP. FUSE 72°C



## FUNCTION.

### CP-FD

1. SUITABLE TO USE IN THE DUCT WHERE MISTY CONDESED LIQUID IS POOLED.
2. FLUOROPLASTIC IS LINED SEVERAL TIMES APPLIED ON THE INTERNAL SURFACE TO SECURE THE FILM THICKNESS 300~400  $\mu$ .

## SPEC.

STANDARD DIM.(L)	350mm
PRODUCTION DIM.	W150mm~2200mm W150mm~1000mm
CASING	GALVANIZED STEEL(SPHC) 3.2mm thick
BLADE	GALVANIZED STEEL(SEHC) 2.3mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm
SHAFT METAL	FLUOROPLASTIC
ACTUATOR	GALVANIZED STEEL(SPCC)

SUS304 IS ALSO AVAILABLE FOR FVD ACTUATOR.

## OPERATING CONDITION.

STATIC PRESS : 800Pa OR BELOW  
MAX. PASSING AIR VELOCITY : 15m/sec

## ACTUATOR SPEC. (CP-SFVD.)

TYPE :	KDS-1
OPERATION TYPE :	SOLENOID. MANUAL LEVER
OPERATION TIME :	IMMEDIATE
RESET :	RESET HANDLE
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.3A
POWER DISTRIBUTION RATING :	CONTINUOUS ( SELF-SHUT DOWN TYPE)
CONFIRM SIGNAL :	b CONTACT ON WHEN OPERATING. (2b CONTACT)
CONTACT RATING :	DC30V 2A

POLYVINYL FUSE

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.

# SMOKE EXHAUST DAMPER WITH SLIT FACE (MANUAL RESET)

(SR-1DS)



**SR-1DS**

## FUNCTION.

1. OPEN IMMEDIATELY UPON RECEIPT OF SIGNAL FROM EMERGENCY OPEN BOX OR SMOKE DETECTOR.

## SPEC.

STANDARD DIM.(L)	350mm
MIN. AVAILABLE DIM.	200mm(W) X 400mm(H)
MAX. AVAILABLE DIM.	DAMPER: LONGER SIDE IS 2400mm AND 3.0m <sup>2</sup> SLIT: LONGER SIDE IS 2400mm AND 2.5m <sup>2</sup> DELIVERED IN THE DIVIDED FORM IF IT EXCEEDS THE MAX. DIM.
SLIT INSPECT. PORT	DELIVERED IN THE DIVIDED FORM IF DIM. (H) EXCEEDS 1000mm.
CASING	GALVANIZED STEEL(SEHC) 1.6mm thick
BLADE	GALVANIZED STEEL(SEHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm
SHAFT METAL	OIL-BEARING METAL
INSPECT. PORT	GALVANIZED STEEL(SECC) 1.2mm thick
FLANGE	ANGLE STEEL(SS 400)
ACTUATOR	GALVANIZED STEEL(SPCC)
SLIT	ALUMINIUM (A6063S-T5)

## OPERATING CONDITION

STATIC PRESS : 800Pa OR BELOW

MAX. SUCTION AIR VELOCITY : 10m/sec

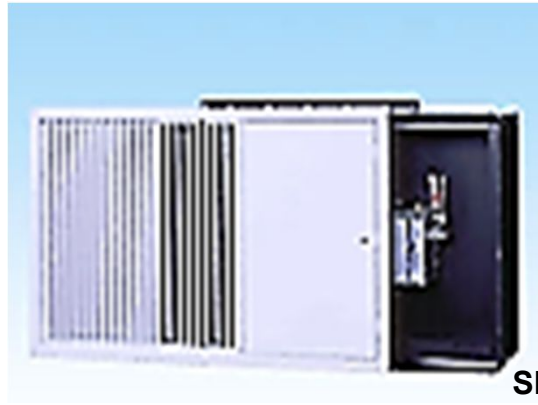
## ACTUATOR SPEC.

TYPE :	KDS-1H
OPERATION TYPE :	SOLENOID. MANUAL LEVER
OPERATION TIME :	IMMEDIATE
RESET :	RESET HANDLE
RATED VOLTAGE :	DC24V ( USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.3A
POWER DISTRIBUTION RATING :	CONTINUOUS (SELF-SHUTDOWN TYPE)
CONFIRM SIGNAL :	b CONTACT ON WHEN OPERATING. (2 b CONTACTS)
CONTACT RATING :	DC30V 2A

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.

# SMOKE EXHAUST DAMPER WITH SLIT FACE (REMOTE RESET)

(SR-1DM)



SR-1DM

## FUNCTION.

1. OPEN IMMEDIATELY UPON RECEIPT OF SIGNAL FROM EMERGENCY OPEN BOX OR SMOKE DETECTOR.
2. REMOTE RESET BY MOTORING.

## SPEC.

STANDARD DIM.(L)	350mm
MIN. AVAILABLE DIM.	200mm(W) X 400mm(H)
MAX. AVAILABLE DIM.	DAMPER: LONGER SIDE IS 2400mm AND W X H = 3.0m <sup>2</sup> SLIT: LONGER SIDE IS 2400mm AND W X H = 2.5m <sup>2</sup> DELIVERED IN THE DIVIDED FORM IF IT EXCEEDS THE MAX. DIM.
SLIT INSPECT. PORT	DELIVERED IN THE DIVIDED FORM IF DIM. (H) EXCEEDS 1000mm.
CASING	GALVANIZED STEEL(SEHC) 1.6mm thick
BLADE	GALVANIZED STEEL(SEHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm
SHAFT METAL	OIL-BEARING METAL
INSPECT. PORT	GALVANIZED STEEL(SECC) 1.2mm thick
FLANGE	ANGLE STEEL(SS 400)
ACTUATOR	GALVANIZED STEEL(SPCC)
SLIT	ALUMINIUM (A6063S-T5)

## OPERATING CONDITION.

STATIC PRESS : 800Pa OR BELOW  
MAX. SUCTION AIR VELOCITY : 10m/sec

## ACTUATOR SPEC.

TYPE :	KDS-2FH
OPERATION TYPE :	MOTOR, MANUAL LEVER
OPERATION TIME :	WITHIN 1.5 SECONDS
RESET :	MOTOR, RESET HANDLE
RESET TIME:	APPROX. 12 SECONDS (24V USE.)
RATED VOLTAGE :	DC24V ( USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.24.A
POWER DISTRIBUTION RATING :	CONTINUOUS ( SELF-SHUT DOWN TYPE)
CONFIRM SIGNAL :	a CONTACT ON WHEN OPERATING. (2 a CONTACTS)
CONTACT RATING :	DC30V 2A

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.



# SMOKE EXHAUST DAMPER (MANUAL RESET)

(SR-2DS)



## FUNCTION.

1. OPEN IMMEDIATELY UPON RECEIPT OF SIGNAL FROM EMERGENCY OPEN BOX OR SMOKE DETECTOR.

## SPEC.

STANDARD DIM.(L)	350mm
MIN. AVAILABLE DIM.	200mm(W) X 150mm(H)
MAX. AVAILABLE DIM.	DAMPER: LONGER SIDE IS 2400mm AND W X H =3.0m <sup>2</sup> SLIT: LONGER SIDE IS 2400mm AND W X H = 2.5m <sup>2</sup> DELIVERED IN THE DIVIDED FORM IF IT EXCEEDS THE MAX. DIM.
CASING	GALVANIZED STEEL(SGHC) 1.6mm thick
BLADE	GALVANIZED STEEL(SGHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm
SHAFT METAL	BRASS, DACROTIZED COATING
INSPECT. PORT	GALVANIZED STEEL(SECC) 1.2mm thick
FLANGE	ANGLE STEEL(SS 400)
ACTUATOR	GALVANIZED STEEL(SPCC)

SUS304 IS ALSO AVAILABLE FOR FVD ACTUATOR.

AIR-TIGHT, SUPER AIR-TIGHT TYPE ARE ALSO AVAILABLE.

## OPERATING CONDITION.

STATIC PRESS : 800Pa OR BELOW

MAX. PASSING AIR VELOCITY : 20m/sec

## ACTUATOR SPEC.

TYPE :	KDS-1H
OPERATION TYPE :	SOLENOID. MANUAL LEVER
OPERATION TIME :	IMMEDIATE
RESET :	RESET HANDLE
RATED VOLTAGE :	DC24V ( USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.3A
POWER DISTRIBUTION RATING :	CONTINUOUS (SELF-SHUTDOWN TYPE)
CONFIRM SIGNAL :	b CONTACT ON WHEN OPERATING. (2 b CONTACTS)
CONTACT RATING :	DC30V 2A

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.

# SMOKE EXHAUST DAMPER (REMOTE RESET)

(SR-2DM)



## FUNCTION.

1. OPEN IMMEDIATELY UPON RECEIPT OF SIGNAL FROM EMERGENCY OPEN BOX OR SMOKE DETECTOR.
2. REMOTE RESET BY MOTORING.

## SPEC.

STANDARD DIM.(L)	350mm
MIN. AVAILABLE DIM.	200mm(W) X 150mm(H)
MAX. AVAILABLE DIM.	DAMPER: LONGER SIDE IS 2400mm AND W X H = 3.0m2 DELIVERED IN THE DIVIDED FORM IF IT EXCEEDS THE MAX. DIM.
CASING	GALVANIZED STEEL(SGHC) 1.6mm thick
BLADE	GALVANIZED STEEL(SGHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm
SHAFT METAL	BRASS, DACROTIZED COATING
FLANGE	ANGLE STEEL(SS 400)
ACTUATOR	GALVANIZED STEEL(SPCC)

## OPERATING CONDITION.

STATIC PRESS : 800Pa OR BELOW

MAX. PASSING AIR VELOCITY : 20m/sec

## ACTUATOR SPEC.

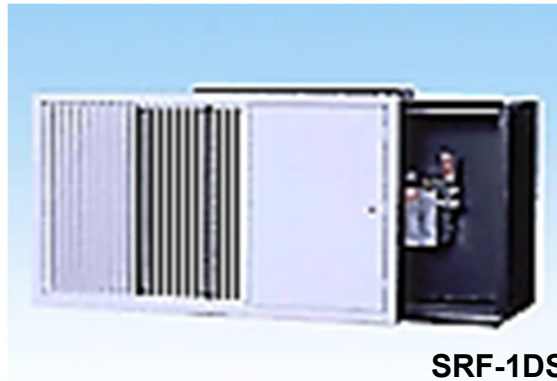
TYPE :	KDS-2FH
OPERATION TYPE :	MOTOR, MANUAL LEVER
OPERATION TIME :	WITHIN 1.5 SECONDS
RESET :	MOTOR, RESET HANDLE
RESET TIME:	APPROX. 12 SECONDS (24V USE.)
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.24A
POWER DISTRIBUTION RATING :	CONTINUOUS (SELF-SHUTDOWN TYPE)
CONFIRM SIGNAL :	a CONTACT ON WHEN OPERATING. (2 a CONTACTS)
CONTACT RATING :	DC30V 2A

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.

**SMOKE EXHAUST FIRE DAMPER  
WITH SLIT FACE  
(MANUAL RESET)**

**(SRF-1DS)**

**TEMP. FUSE 280°C**



**SRF-1DS**

**FUNCTION.**

1. OPENS IMMEDIATELY UPON RECEIPT OF SIGNAL FROM EMERGENCY OPEN BOX OR SMOKE DETECTOR.

CLOSES IMMEDIATELY WHEN THE TEMP.FUSE IS BLOWN.

**SPEC.**

STANDARD DIM.(L)	400mm
MIN. AVAILABLE DIM.	200mm(W) X 400mm(H)
MAX. AVAILABLE DIM.	DAMPER: LONGER SIDE IS 2400mm AND W X H = 3.0m <sup>2</sup> SLIT: LONGER SIDE IS 2400mm AND W X H = 2.5m <sup>2</sup> DELIVERED IN THE DIVIDED FORM IF IT EXCEEDS THE MAX. DIM.
SLIT INSPECT. PORT	DELIVERED IN THE DIVIDED FORM IF DIM. (H) EXCEEDS 1000mm.
CASING	GALVANIZED STEEL(SEHC) 1.6mm thick
BLADE	GALVANIZED STEEL(SEHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm
SHAFT METAL	OIL-BEARING METAL
FLANGE	ANGLE STEEL(SS 400)
ACTUATOR	GALVANIZED STEEL(SPCO)
SLIT	ALUMINIUM (A6063S-T5)

**OPERATING CONDITION.**

STATIC PRESS : 800Pa OR BELOW

MAX. SUCTION AIR VELOCITY : 10m/sec

**ACTUATOR SPEC.**

TYPE :	KDS-1H
OPERATION TYPE :	SOLENOID, TEMP.FUSE, MANUAL LEVER
OPERATION TIME :	IMMEDIATE
RESET :	RESET HANDLE
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.3A
POWER DISTRIBUTION RATING :	CONTINUOUS (SELF-SHUT DOWN TYPE)
CONFIRM SIGNAL :	b CONTACT ON WHEN OPERATING. (2 b CONTACT)
CONTACT RATING :	DC30V 2A

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.

# SMOKE EXHAUST FIRE DAMPER WITH SLIT FACE (REMOTE RESET)

(SRF-1DM)  
TEMP. FUSE 280°C



**SRF-1DM**

## FUNCTION.

1. OPENS IMMEDIATELY UPON RECEIPT OF SIGNAL FROM EMERGENCY OPEN BOX OR SMOKE DETECTOR.

CLOSES IMMEDIATELY WHEN THE TEMP.FUSE IS BLOWN.

2. REMOTE RESET BY MOTORING.

## SPEC.

STANDARD DIM.(L)	400mm
MIN. AVAILABLE DIM.	200mm(W) X 400mm(H)
MAX. AVAILABLE DIM.	DAMPER: LONGER SIDE IS 2400mm AND W X H = 3.0m <sup>2</sup> SLIT: LONGER SIDE IS 2400mm AND W X H = 2.5m <sup>2</sup> DELIVERED IN THE DIVIDED FORM IF IT EXCEEDS THE MAX. DIM.
SLIT INSPECT. PORT	DELIVERED IN THE DIVIDED FORM IF DIM. (H) EXCEEDS 1000mm.
CASING	GALVANIZED STEEL(SEHC) 1.6mm thick
BLADE	GALVANIZED STEEL(SEHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm
SHAFT METAL	OIL-BEARING METAL
FLANGE	ANGLE STEEL(SS 400)
ACTUATOR	GALVANIZED STEEL(SPCC)
SLIT	ALUMINIUM (A6063S-T5)

## OPERATING CONDITION.

STATIC PRESS : 800Pa OR BELOW

MAX. SUCTION AIR VELOCITY : 10m/sec

## ACTUATOR SPEC.

TYPE :	KDS-2FH
OPERATION TYPE :	MOTOR, TEMP.FUSE, MANUAL LEVER
OPERATION TIME :	WITHIN 1.5 SECONDS
RESET :	MOTOR, RESET HANDLE
RESET TIME:	APPROX. 12 SECONDS (24V USE.)
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.24A
POWER DISTRIBUTION RATING :	CONTINUOUS (SELF-SHUT DOWN TYPE)
CONFIRM SIGNAL :	a CONTACT ON WHEN OPERATING. (2 a CONTACT)
CONTACT RATING :	DC30V 2A

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.

# SMOKE EXHAUST FIRE DAMPER (MANUAL RESET)

(SRF-2DS)  
TEMP. FUSE 280°C



## FUNCTION

1. OPENS IMMEDIATELY UPON RECEIPT OF SIGNAL FROM EMERGENCY OPEN BOX OR SMOKE DETECTOR.

CLOSES IMMEDIATELY WHEN THE TEMP.FUSE IS BLOWN.

## SPEC.

STANDARD DIM.(L)	350mm
MIN. AVAILABLE DIM.	200mm(W) X 200mm(H)
MAX. AVAILABLE DIM.	DAMPER: 2400mm (LONGER SIDE) AND W x H = 3.0m <sup>2</sup> DELIVERED IN THE DIVIDED FORM IF IT EXCEEDS THE MAX. DIM.
BLADE	BLADE IS DIVIDED INTO 2 OR MORE IF DIM.(W) EXCEEDS 1000mm (CENTER-SUPPORT APPLIED). GALVANIZED STEEL(SGHC) 1.6mm thick.
CASING	GALVANIZED STEEL(SGHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm
SHAFT METAL	BRASS, DACROTIZED COATING
INSPECT. PORT	GALVANIZED STEEL(SECC) 1.5mm thick
FLANGE	COMMON PLATE(SPCC) OR ANGLE STEEL(SS 400)
ACTUATOR	GALVANIZED STEEL(SPCC)

\* STAINLESS STEEL CASING ALSO AVAILABLE.

AIR-TIGHT, SUPER AIR-TIGHT TYPE ARE ALSO AVAILABLE.

## OPERATING CONDITION

STATIC PRESS : 800Pa OR BELOW

MAX. PASSING AIR VELOCITY : 20m/sec

## ACTUATOR SPEC.

TYPE :	KDS-1H
OPERATION TYPE :	SOLENOID, TEMP.FUSE, MANUAL LEVER
OPERATION TIME :	IMMEDIATE
RESET :	RESET HANDLE
RATED VOLTAGE :	DC24V ( USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.3A
POWER DISTRIBUTION RATING :	CONTINUOUS ( SELF-SHUT DOWN TYPE)
CONFIRM SIGNAL :	b CONTACT ON WHEN OPERATING. (2 b CONTACTS)
CONTACT RATING :	DC30V 2A

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.



# SMOKE EXHAUST FIRE DAMPER (REMOTE RESET)

(SRF-2DM)  
TEMP. FUSE 280°C



## FUNCTION.

1. OPENS IMMEDIATELY UPON RECEIPT OF SIGNAL FROM EMERGENCY OPEN BOX OR SMOKE DETECTOR.  
CLOSES IMMEDIATELY WHEN THE TEMP.FUSE IS BLOWN.
2. REMOTE RESET BY MOTORING.

## SPEC.

STANDARD DIM.(L)	350mm
MIN. AVAILABLE DIM.	200mm(W) X 200mm(H)
MAX. AVAILABLE DIM.	DAMPER: 2400mm (LONGER SIDE) AND W x H = 3.0m <sup>2</sup> DELIVERED IN THE DIVIDED FORM IF IT EXCEEDS THE MAX. DIM.
BLADE	BLADE IS DIVIDED INTO 2 OR MORE IF DIM.(W) EXCEEDS 1000mm (CENTER-SUPPORT APPLIED). GALVANIZED STEEL(SGHC) 1.6mm thick.
CASING	GALVANIZED STEEL(SGHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm
SHAFT METAL	BRASS, DACROTIZED COATING
INSPECT. PORT	GALVANIZED STEEL(SPCC) 1.5mm thick
FLANGE	ANGLE STEEL(SS 400)
ACTUATOR	GALVANIZED STEEL(SPCC)

\* STAINLESS STEEL CASING ALSO AVAILABLE.  
AIR-TIGHT, SUPER AIR-TIGHT TYPE ARE ALSO AVAILABLE.

## OPERATING CONDITION.

STATIC PRESS : 800Pa OR BELOW  
MAX. PASSING AIR VELOCITY : 20m/sec

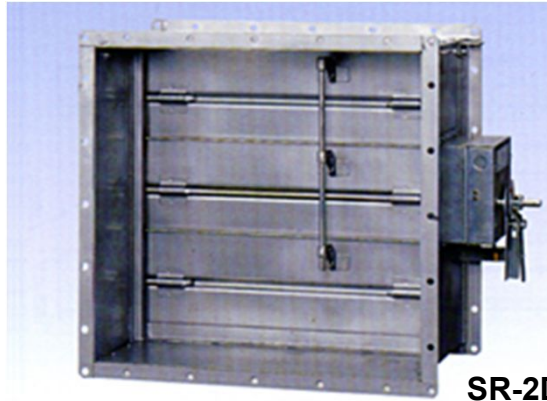
## ACTUATOR SPEC.

TYPE :	KDS-2FH
OPERATION TYPE :	MOTOR, TEMP.FUSE, MANUAL LEVER
OPERATION TIME :	WITHIN 1.5 SECONDS
RESET :	MOTOR, RESET HANDLE
RESET TIME:	APPROX. 12 SECONDS (24V USE.)
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.24A
POWER DISTRIBUTION RATING :	CONTINUOUS (SELF-SHUT DOWN TYPE)
CONFIRM SIGNAL :	a CONTACT ON WHEN OPERATING. (2 a CONTACT)
CONTACT RATING :	DC30V 2A

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.

# SMOKE EXHAUST DAMPER (SUPER AIR-TIGHT) (MANUAL RESET)

(SR-2DS-HG)



**SR-2DS-HG**

## FUNCTION.

1. OPENS IMMEDIATELY UPON RECEIPT OF SIGNAL FROM EMERGENCY OPEN BOX OR SMOKE DETECTOR.
2. IS A SUPER AIR-TIGHT DAMPER TO MINIMIZE THE SMOKE LEAKAGE BY APPLYING STAINLESS STEEL/RUBBER GASKET.

## SPEC.

STANDARD DIM.(L)	350mm
MIN. AVAILABLE DIM.	200mm(W) X 150mm(H)
MAX. AVAILABLE DIM.	DAMPER: 2400mm(LONGER SIDE) AND W x H = 3.0m <sup>2</sup> DELIVERED IN THE DIVIDED FORM IF IT EXCEEDS THE MAX. DIM.
CASING	GALVANIZED STEEL(SGHC) 1.6mm thick
BLADE	GALVANIZED STEEL(SGHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm
SHAFT METAL	BRASS, DACROTIZED COATING
FLANGE	ANGLE STEEL(SS 400)
ACTUATOR	GALVANIZED STEEL(SPCC)
GASKET	STAINLESS STEEL OR CHLOROPRENE RUBBER

\* STAINLESS STEEL CASING ALSO AVAILABLE.

## OPERATING CONDITION.

STATIC PRESS : 800Pa OR BELOW

MAX. PASSING AIR VELOCITY : 20m/sec

## ACTUATOR SPEC.

TYPE :	KDS-1H
OPERATION TYPE :	SOLENOID. MANUAL LEVER
OPERATION TIME :	IMMEDIATE
RESET :	RESET HANDLE
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.3A
POWER DISTRIBUTION RATING :	CONTINUOUS (SELF-SHUTDOWN TYPE)
CONFIRM SIGNAL :	b CONTACT ON WHEN OPERATING. (2b CONTACTS)
CONTACT RATING :	DC30V 2A

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.

# SMOKE EXHAUST DAMPER (SUPER AIR-TIGHT) (REMOTE RESET)

(SR-2DM-HG)



## FUNCTION.

### SR-2DM-HG

1. OPEN IMMEDIATELY UPON RECEIPT OF SIGNAL FROM EMERGENCY OPEN BOX OR SMOKE DETECTOR.
2. IS A SUPER AIR-TIGHT DAMPER TO MINIMIZE THE SMOKE LEAKAGE BY APPLYING STAINLESS STEEL/RUBBER GASKET.
3. REMOTE RESET BY MOTORING.

## SPEC.

STANDARD DIM.(L)	350mm
MIN. AVAILABLE DIM.	200mm(W) X 150mm(H)
MAX. AVAILABLE DIM.	DAMPER: LONGER SIDE IS 2400mm AND W x H = 3.0m <sup>2</sup> DELIVERED IN THE DIVIDED FORM IF IT EXCEEDS THE MAX. DIM.
CASING	GALVANIZED STEEL(SGHC) 1.6mm thick
BLADE	GALVANIZED STEEL(SGHC) 1.6mm thick
SHAFT	GALVANIZED ROD $\phi$ 12.7mm
SHAFT METAL	BRASS, DACROTIZED COATING
FLANGE	ANGLE STEEL(SS 400)
ACTUATOR	GALVANIZED STEEL(SPCC)
GASKET	STAINLESS STEEL OR CHLOROPRENE RUBBER

## OPERATING CONDITION.

STATIC PRESS : 800Pa OR BELOW

MAX. PASSING AIR VELOCITY : 20m/sec

## ACTUATOR SPEC.

TYPE :	KDS-2FH
OPERATION TYPE :	MOTOR, MANUAL LEVER
OPERATION TIME :	WITHIN 1.5 SECONDS
RESET :	MOTOR, RESET HANDLE
RESET TIME:	APPROX. 12 SECONDS (24V USE.)
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.24 A
POWER DISTRIBUTION RATING :	CONTINUOUS(SELF-SHUTDOWN TYPE)
CONFIRM SIGNAL :	a CONTACT ON WHEN OPERATING. (2a CONTACTS)
CONTACT RATING :	DC30V 2A

USE OF DAMPER BEYOND THE SPECIFICATION MAY CAUSE  
ABNORMAL NOISE, DETERIORATION AND DAMAGE.

# SMOKE-EXHAUST PORT (MANUAL RESET)

(SR-3DS, SR-3DY)



**SR-3DS**



**SR-3DY**

## FUNCTION

(SR-3DS)

1. OPENS IMMEDIATELY UPON RECEIPT OF SIGNAL FROM EMERGENCY OPEN BOX OR SMOKE DETECTOR.

OPENS IMMEDIATELY UPON RECEIPT OF SIGNAL FROM SMOKE DETECTOR.

(SR-3DY)

2. OPENS IMMEDIATELY BY PULLING WIRE.

## SPEC.

STANDARD DIM.(L)	150mm
MIN. AVAILABLE DIM.	300mm(W) X 300mm(H)
MAX. AVAILABLE DIM.	UP TO 1200mm(W SIDE) AND W x H = 1.0m <sup>2</sup> DELIVERED IN TWO DIVIDED FORM IF IT EXCEEDS THE MAX. DIM.
SIDE BOARD	GALVANIZED STEEL(SPHC) 1.6mm thick
FRAME	GALVANIZED STEEL(SPHC) 1.6mm thick
SHAFT	GALVANIZED ROD
ACTUATOR	GALVANIZED STEEL(SPCC)

\* CEILING BOARD ATTACHABLE TYPE ALSO AVAILABLE.

\* BOARD THICKNESS IS 9.5, 12.5, 15mm.

(BOARD ATTACHEMENT WORK NOT INCLUDED.)

## OPERATING CONDITION

MAX. SUCTION AIR VELOCITY : 10m/sec

EXHAUST DIRECTION MUST BE H (SIDE).

## ACTUATOR SPEC.

TYPE :	KDH-1
OPERATION TYPE :	SOLENOID, PUSH BUTTON (INSPECTION USE), WIREROPE (3DY)
OPERATION TIME :	IMMEDIATE
RESET :	MANUAL
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.3A
POWER DISTRIBUTION RATING :	CONTINUOUS (SELF-SHUTDOWN TYPE)
CONFIRM SIGNAL :	b CONTACT ON WHEN OPERATING. (2 b CONTACTS)
CONTACT RATING :	DC30V 2A

# SMOKE-EXHAUST PORT (REMOTE RESET)

(SR-3DM)



SR-3DM

## FUNCTION.

1. OPENS IMMEDIATELY UPON RECEIPT OF SIGNAL FROM EMERGENCY OPEN BOX OR SMOKE DETECTOR.
2. REMOTE RESET BY MOTORING.

## SPEC.

STANDARD DIM.(L)	150mm
MIN. AVAILABLE DIM.	300mm(W) X 300mm(H)
MAX. AVAILABLE DIM.	UP TO 1200mm(W SIDE) AND W x H = 1.0m <sup>2</sup> DELIVERED IN TWO DIVIDED FORM IF IT EXCEEDS THE MAX. DIM.
SIDE BOARD	GALVANIZED STEEL(SPHC) 1.6mm thick
FRAME	GALVANIZED STEEL(SPHC) 1.6mm thick
SHAFT	GALVANIZED ROD
ACTUATOR	GALVANIZED STEEL(SPCC)

\* CEILING BOARD ATTACHABLE TYPE ALSO AVAILABLE.

\* BOARD THICKNESS IS 9.5, 12.5, 15mm.

(BOARD ATTACHEMENT WORK NOT INCLUDED.)

## OPERATING CONDITION.

MAX. SUCTION AIR VELOCITY : 10m/sec

EXHAUST DIRECTION MUST BE H (SIDE).

## ACTUATOR SPEC.

TYPE :	KDH-2
OPERATION TYPE :	SOLENOID. PUSH BUTTON (INSPECTION USE)
OPERATION TIME :	IMMEDIATE
RESET :	MOTOR, MANUAL
RESET TIME :	14 SECONDS(300 TYPE), 24 SECONDS(500 TYPE)
RATED VOLTAGE :	DC24V (USED WITHIN THE RANGE BETWEEN 19.2 AND 26.4V)
RATED CURRENT :	0.5A
POWER DISTRIBUTION RATING :	CONTINUOUS (SELF-SHUTDOWN TYPE)
CONFIRM SIGNAL :	b CONTACT ON WHEN OPERATING.
CONTACT RATING :	DC30V 2A



## EMERGENCY OPEN BOX

(KDB-1U, KDB-1R)



### FUNCTION

1. CAN BE USED FOR MANIPULATING THE SMOKE-EXHAUST PORT, SMOKE EXHAUST DAMPER, AIR-SUPPLY GATE (MANUAL OR REMOTE TYPE FOR EACH.)
2. OPENS THE ABOVE MENTIONED IMMEDIATELY BY PULLING THE HANDLE.

### SPEC.

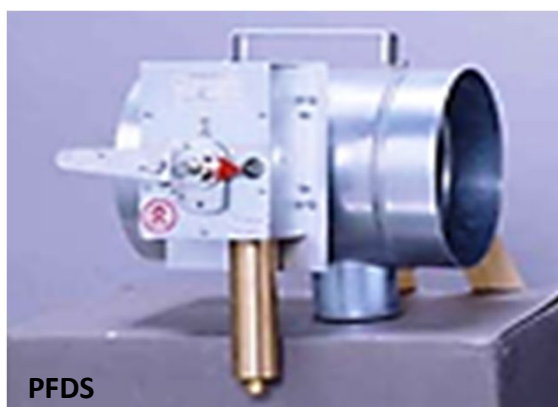
FACE	STAINLESS STEEL (SUS304) 1.0mm thick HAIR-LINE FINISH
LEVER	STAINLESS STEEL (SUS304) 1.0mm thick HAIR-LINE FINISH
EMBEDDED BOX	GALVANIZED STEEL(SPCC) 1.2mm thick
EXPOSED FRAME	STAINLESS STEEL (SUS304) 1.0mm thick HAIR-LINE FINISH
SHIELDED WIRE	INNER $\phi$ 1.5 STAINLESS STEEL 7 x 7 DOUBLE LINE
OUTER TUBE	$\phi$ 6mm

### NOTE

- \* WIRE ROPE SHOULD NOT BE BENT AT MORE THAN 3 POINTS.
- \*MAKE SURE THAT THE RADIUS OF THE QUARTER CIRCLE DRAWN BY BENDING IS TO BE 300mm AND MORE.
- \* WIRE ROPE SHOULD NOT BE FASTEN TOO TIGHTLY OR LOOSELY.
- \* USE SHIELDED WIRE TO MINIMIZE FRICTION.

# PISTON FIRE DAMPER(REMOTE RESET) (GAS-PRESSURE DAMPER)

(PFD)  
TEMP. FUSE 72°C



1. DAMPER IS CLOSED BY FUSE-BLOW OR BY GAS PRESSURE(FIRE-EXTINGUSH GAS).
2. DAMPER IS AUTOMATICALLY RESET BY RELEASING EXTINGUSH GAS (SPRING-RETURN CYLINDER).

## HOW TO REPLACE TEMP. FUSE

1. CLOSE DAMPER COMPLETELY.
2. REMOVE COVER TO EXPOSE FUSE HOLDER.
3. UNSCREW FUSE TO REMOVE FUSE-HOLDER BY APPLYING SCREW-DRIVER.
4. REPLACE NEW FUSE INTO FUSE-HOLDER.
5. HOOK LATCH OF FUSE-FUNCTION ARM ON FUSE-ROD.
6. PLACE COVER.

## SPECIFICATION

DIM.L	300mm FOR $\phi 100 \sim \phi 250$
	350mm FOR $\phi 275 \sim \phi 350$
	450mm FOR $\phi 375 \sim \phi 450$
CASING	GALVANIZED PLATE(SGHC) 1.6mm THICK
BLADE	GALVANIZED STEEL (SGHC) 1.6mm THICK
SHAFT	GALVANIZED STEEL ROD $\phi 12.7$
SHAFT METAL	BRASS, DACROTIZED COATING
INSPECT. PORT	GALVANIZED STEEL PLATE(SPC) 1.5mm THICK
ACTUATOR	GALVANIZED STEEL PLATE(SPCG)

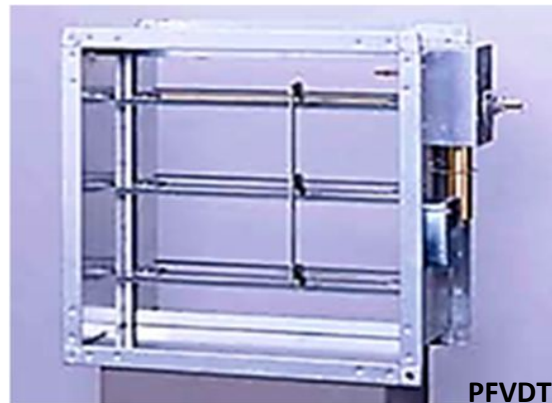
## OPERATING CONDITION

STATIC PRESS. 800Pa OR BELOW  
MAX. AIR VELOCITY 15m/s

- \* FLANGED VERSION IS ALSO AVAILABLE FOR THE SIZE  $\phi 200$  OR LARGER.
- \* STAINLESS STEEL IS AVAILABLE FOR DAMPER BODY.

## PISTON FIRE DAMPER(REMOTE RESET)

(PFVD)  
TEMP. FUSE 72°C



1. DAMPER IS CLOSED BY FUSE-BLOW OR BY GAS PRESSURE(FIRE-EXTINGUSH GAS).
2. DAMPER IS AUTOMATICALLY RESET BY RELEASING EXTINGUSH GAS (SPRING-RETURN CYLINDER).
3. 5-STEP AIR-VOLUME CONTROLER(30° ~90° )

### SPECIFICATION

DIM.L	350mm
MIN.AVAILABLE SIZE	200W X 150H
MAX.AVAILABLE SIZE	LONGER SIDE 2400mm AND WXH = 3.0m3 COMES IN DIVIDED FORM WHEN EXCEEDS THE ABOVE SIZING.
BLADE DIVIDED	WHEN DIM.W EXCEEDS 1000mm, BLADE IS DIVIDED.
CASING	GALVANIZED PLATE(SGHC) 1.6mm THICK
BLADE	GALVANIZED STEEL (SGHC) 1.6mm THICK
SHAFT	GALVANIZED STEEL ROD $\phi$ 12.7
SHAFT METAL	OIL-BEARING METAL
ACTUATOR	GALVANIZED STEEL PLATE(SPCC)

### OPERATING CONDITION

STATIC PRESS. 800Pa OR BELOW  
MAX. AIR VELOCITY 15m/s

### ACTUATOR SPEC.

MODEL KDGF-2  
OPERATION TEMP.FUSE, CYLINDER  
OPE. PRESS. 0.9~2.5MPa  
RESET CYLINDER(SPRING RETURN)  
APPLICABLE GAS CO2, N2 GAS  
CONNECTION COPPER TUBE  $\phi$  6 X  $\phi$  4

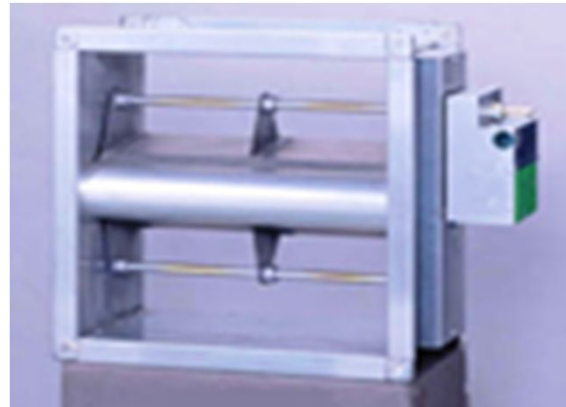
- \* FLANGED VERSION IS ALSO AVAILABLE FOR THE SIZE  $\phi$  200 OR LARGER.
- \* STAINLESS STEEL IS AVAILABLE FOR DAMPER BODY.

## PROPORTIONAL FLOW DAMPER

(LC-VD)  
(LC-MD-M)



LC-VD



LC-MD-M

1. AIR-FLOW IS IN PROPORTION TO BLADE-OPENING RATE(ANGLE).
2. AIR-FLOW CONTROL MADE SIMPLE.  
(SPRING-RETURN CYLINDER).

### SPECIFICATION

DIM.L	250mm
DIM.H	
MIN.AVAILABLE SIZE	200W X 200H
MAX. AVAILABLE SIZE	LONGER SIDE 2400mm AND WXH = 3.0m3 COMES IN DIVIDED FORM WHEN EXCEEDS THE ABOVE SIZING.
BLADE DIVIDED	WHEN DIM.W EXCEEDS 1000mm, BLADE IS DIVIDED.
CASING	GALVANIZED PLATE(SGHC) 1.6mm THICK
BLADE	ALUMINUM
SHAFT	GALVANIZED STEEL ROD $\phi$ 12.7
SHAFT METAL	BRONZE
FLANGE	BRASS, DACROTIZED COATING
ACTUATOR	GALVANIZED STEEL PLATE(SPCC)

### OPERATING CONDITION

STATIC PRESS. 400Pa OR BELOW  
MAX. AIR VELOCITY 10m/s

\* LC-MD-M(LC DAMPER WITH MOTORIZED FUNCTION ALSO AVAILABLE.

(MD-M)



- ## SPECIFICATION

DIM.L	SQUARE TYPE	200mm
	ROUND TYPE	300mm FOR $\phi 100 \sim \phi 250$
		350mm FOR $\phi 275 \sim \phi 350$
		450mm FOR $\phi 375 \sim \phi 450$
MIN.AVAILABLE SIZE	SQUARE : 100W X 100H    ROUND : $\phi 100$	
MAX. AVAILABLE SIZE	LONGER SIDE 2400mm AND WXH = 3.0m3	
	COMES IN DIVIDED FORM WHEN EXCEEDS THE	
	ABOVE SIZING.	
	$\phi 450$ FOR ROUND TYPE	
BLADE DIVIDED	WHEN DIM.W EXCEEDS 1000mm, BLADE IS DIVIDED.	
CASING	SQUARE : GALVANIZED PLATE(SGCC) 1.2mm THICK ROUND : GALVANIZED PLATE(SGHC) 1.6mm THICK	
BLADE	GALVANIZED STEEL(SGHC) 1.6mm THICK	
SHAFT	GALVANIZED STEEL ROD $\phi 12.7$	
SHAFT METAL	SQUARE : OIL BEARING, ROUND : BRASS	
FLANGE	COMMON PLATE OR ANGLE-STEEL	
ACTUATOR	GALVANIZED STEEL PLATE(SPCG)	

STATIC PRESS.	800Pa OR BELOW
MAX. AIR VELOCITY	10m/s

- \* FLANGE TYPE IS AVAILABLE FOR ROUND TYPE SIZING  $\phi$  200 OR ABOVE.  
\* STAINLESS STEEL IS AVAILABLE FOR DAMPER BODY.

MODEL      KDM-2 : ON-OFF TYPE, FULLY-OPEN/CLOSE SIGNAL  
              KDM-3 : ON-OFF TYPE, FULLY-OPEN/CLOSE SIGNAL  
                          WITH POTENSION METER  
              KDM-4 : PROPORTIONAL TYPE  
                          R : 0~135Ω  
                          I : DC4~20mA  
                          V1 : DC1~5V  
                          V2 : DC2~10V  
 VOLTAGE : AC24±10%    50Hz/60Hz  
 ELECTRICITY :            KDM-2 & 3 : 5VA  
                          KDM-4 : 15VA  
 TIME FOR OPERATION : 33 SEC.(NON-LOADED)~ 75 SEC.(FULL-LOADED)  
 OPTION : AC100/200V(KDM-2 & 3 ONLY)

# NON-LEAK VOLUME DAMPER

(VD-MG)



1. DESIGNED TO MINIMIZE AIR-LEAKAGE WHEN DAMPER IS FULLY SHUT.

## SPECIFICATION

DIM.L	SQUARE TYPE	200mm
	ROUND TYPE	300mm FOR $\phi 100 \sim \phi 250$
		350mm FOR $\phi 275 \sim \phi 350$
		450mm FOR $\phi 375 \sim \phi 450$
MIN.AVAILABLE SIZE	SQUARE : 200W X 200H    ROUND : $\phi 100$	
MAX. AVAILABLE SIZE	LONGER SIDE 2400mm AND WXH = 3.0m <sup>3</sup> COMES IN DIVIDED FORM WHEN EXCEEDS THE ABOVE SIZING. $\phi 450$ FOR ROUND TYPE	
BLADE DIVIDED	WHEN DIM.W EXCEEDS 1000mm, BLADE IS DIVIDED.	
CASING	GALVANIZED PLATE(SGCC) 1.2mm THICK	
BLADE	GALVANIZED STEEL(SGHC) 1.6mm THICK	
SHAFT	GALVANIZED STEEL ROD $\phi 12.7$	
SHAFT METAL	BRASS, DACROTIZED COATING	
FLANGE	COMMON PLATE OR ANGLE-STEEL	
ACTUATOR	GALVANIZED STEEL PLATE(SPCC)	
PACKING	STAINLESS STEEL AND CHROLOPRENE RUBBER	

## OPERATING CONDITION

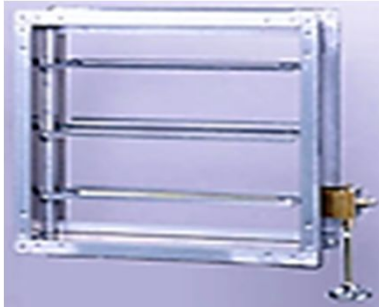
STATIC PRESS.                      800Pa OR BELOW  
MAX. AIR VELOCITY                10m/s

- \* FLANGE TYPE IS AVAILABLE FOR ROUND TYPE SIZING  $\phi 200$  OR ABOVE.
- \* STAINLESS STEEL IS AVAILABLE FOR DAMPER BODY.

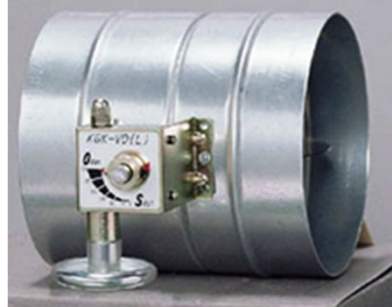


# VOLUME DAMPER

(VD)  
(VD-DN)



VD



VD



VD-DN

1. BLADE ANGLE CAN BE SET AT DESIRABLE POSITION.

## SPECIFICATION

DIM.L	SQUARE TYPE	200mm
	ROUND TYPE	220mm FOR $\phi 100 \sim \phi 200$
		300mm FOR $\phi 225 \sim \phi 300$
		350mm FOR $\phi 355 \sim \phi 350$
		450mm FOR $\phi 375 \sim \phi 450$
MIN.AVAILABLE SIZE	SQUARE : 100W X 100H    ROUND : $\phi 100$	
MAX. AVAILABLE SIZE	LONGER SIDE 2400mm AND WXH = 3.0m <sup>3</sup> COMES IN DIVIDED FORM WHEN EXCEEDS THE ABOVE SIZING. $\phi 450$ FOR ROUND TYPE( $\phi 300$ FOR DN SERIES)	
BLADE DIVIDED	WHEN DIM.W EXCEEDS 1000mm, BLADE IS DIVIDED.	
CASING	GALVANIZED PLATE(SGCC) 1.2mm THICK	
BLADE	SQUARE : GALVANIZED STEEL(SGHC) 1.8mm THICK	
	ROUND : GALVANIZED STEEL(SGCC) 1.2mm THICK	
SHAFT	GALVANIZED STEEL ROD $\phi 12.7$	
SHAFT METAL	SQUARE : OIL BEARING, ROUND : BRASS	
FLANGE	COMMON PLATE OR ANGLE-STEEL	
ACTUATOR	GALVANIZED STEEL PLATE(SGCC)	

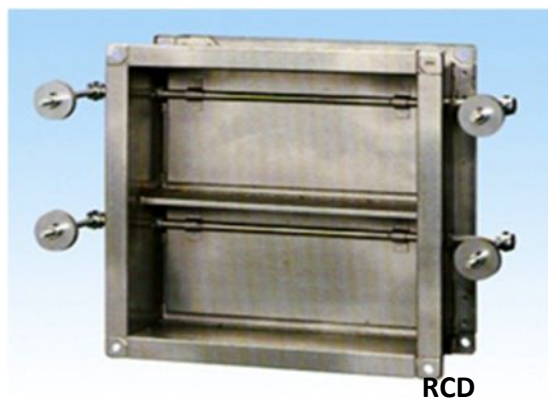
## OPERATING CONDITION

STATIC PRESS.                      800Pa OR BELOW  
MAX. AIR VELOCITY                10m/s

- \* FLANGE TYPE IS AVAILABLE FOR ROUND TYPE SIZING  $\phi 200$  OR ABOVE.
- \* STAINLESS STEEL IS AVAILABLE FOR DAMPER BODY.

# RELIEF DAMPER

(RCD)



1. DESIGNED TO FUNCTION AS PRESSURE-RELIEF VALVE. IN A/C SYSTEM

## SPECIFICATION

DIM.L	SQUARE TYPE	200mm
MIN.AVAILABLE SIZE	100W X 100H	ROUND : $\phi$ 100
MAX. AVAILABLE SIZE	LONGER SIDE 1000mm	
CASING	GALVANIZED PLATE(SGCC) 1.6mm THICK	
BLADE	GALVANIZED STEEL(SGHC) 1.6mm OR 2.3mm THICK	
SHAFT	GALVANIZED STEEL ROD $\phi$ 12.7 OR $\phi$ 16	
SHAFT METAL	POLYETHELENE	
FLANGE	COMMON PLATE OR ANGLE-STEEL	

## OPERATING CONDITION

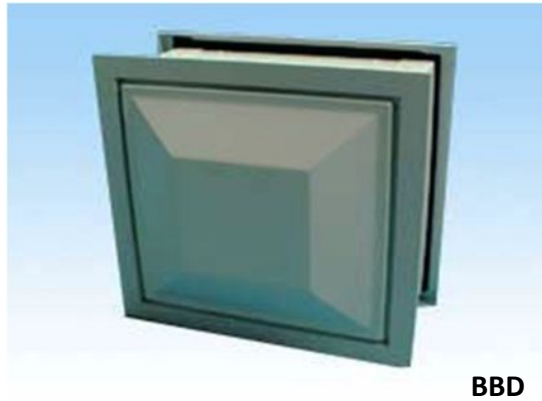
PRESS. REQUIRED FOR INITIAL OPERATION

1. TYPE 1 300~500Pa
2. TYPE 2 501~1000Pa

\* TO INSTALL, WATCH OUT FOR AIR FLOW DIRECTION  
(SEE THE ARROW MARK)

## BALANCE DAMPER

(BBD)



**BBD**

1. PERFECT FOR THE USE FOR CLEAN ROOM AND OPERATION ROOM(HOSPITAL)
2. OPERATES AT 10~50Pa TO KEEP ROOM PRESSURE CONSTANT.
3. PANEL TYPE

### SPECIFICATION

DIM.T	LET US KNOW WALL THICKNESS	
AVAILABLE SIZE	BBD-1	220W X 220H
	BBD-2	419W X 220H
	BBD-3	618W X 220H
	BBD-4	817W X 220H
FRAME	ALUMINUM(A6063S-T5)	
PANEL	ALUMINUM PLATE 0.8THICK	
HINGE	STAINLESS STEEL 304	
PUNCHING	STEEL(SECC)	

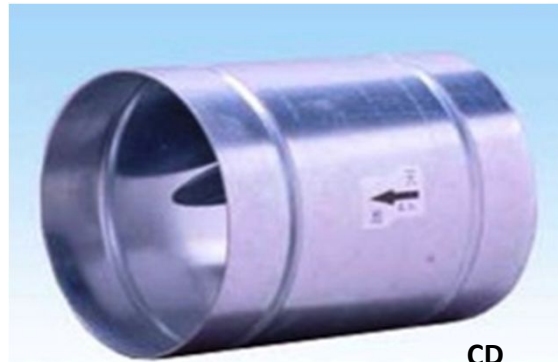
### OPERATING CONDITION

PRESS. REQUIRED FOR INITIAL OPERATION

PRESS. DIF : 10~50Pa

# CHECK DAMPER

(CD)  
ROUND-TYPE



CD  
(ROUND)

## 1. REVERSE-FLOW PREVENTION DAMPER

### SPECIFICATION

DIM.L	250mm FOR $\phi$ 100 ~ $\phi$ 250
	300mm FOR $\phi$ 225 ~ $\phi$ 300
	350mm FOR $\phi$ 325 ~ $\phi$ 350
	400mm FOR $\phi$ 375 ~ $\phi$ 400
MAX.AVAILABLE SIZE	$\phi$ 450
CASING	GALVANIZED STEEL(SGCC) 0.6THICK
BLADE	GALVANIZED STEEL(SGCC) 0.6THICK

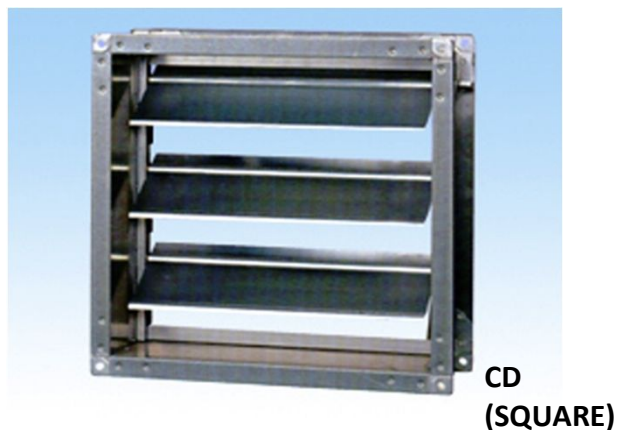
### OPERATING CONDITION

MAX. REVERSE PRESS. 500Pa  
MAX.VELOCITY 10m/SEC.  
: 10~50Pa

- \* FLANGE TYPE IS AVAILABLE FOR ROUND TYPE SIZING  $\phi$  200 OR ABOVE.
- \* STAINLESS STEEL IS AVAILABLE FOR DAMPER BODY.

## CHECK DAMPER

(CD)  
SQUARE-TYPE



### 1. REVERSE-FLOW PREVENTION DAMPER

#### SPECIFICATION

DIM.L	200mm
MAX.AVAILABLE SIZE	LONGER SIDE 2400mm AND WXH = 3.0m <sup>3</sup> COMES IN DIVIDED FORM WHEN EXCEEDS THE ABOVE SIZING.
BLADE DIVIDED	WHEN DIM.W EXCEEDS 1000mm, BLADE IS DIVIDED.
CASING	GALVANIZED STEEL(SGCC) 1.2THICK
BLADE	GALVANIZED STEEL(SGCC) 0.6THICK
SHAFT	GALVANIZED STEEL ROD $\phi$ 12.7
SHAFT METAL	OIL BEARING METAL
FLANGE	COMMON PLATE OR ANGLE-STEEL

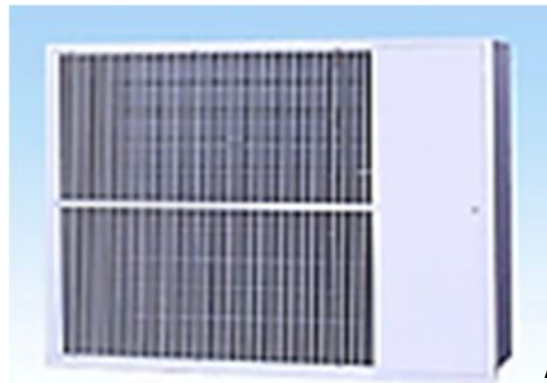
#### OPERATING CONDITION

MAX. REVERSE PRESS. 500Pa  
MAX.VELOCITY 10m/SEC.  
: 10~50Pa

- \* NON-LEAK TYPE, WEIGHT-EQUIPPED TYPE ARE AVAILABLE.
- \* STAINLESS STEEL IS AVAILABLE FOR DAMPER BODY.

# SLIT-FACED SMOKE RELEASE FIRE DAMPER (REMOTE RESET)

(ASF-1DM)  
FUSE 280°C



ASF-1DM

1. DAMPER IS OPENED IMMEDIATELY UPON RECEIVING SIGNAL FROM SMOKE SENSOR OR EMERGENCY OPENING BOX. IT IS CLOSED BY TEMP. FUSE BLOWING.
2. RESET BY MOTORING.

## SPECIFICATION

DIM.L	350mm
MAX.AVAILABLE SIZE	DAMPER : LONGER SIDE 2400mm AND WXH = 3.0m <sup>3</sup> SLIT : LONGER SIDE 2400mm AND WXH = 2.5m <sup>3</sup> DIVIDED WHEN EXCEEDS THE ABOVE SIZING.
BLADE DIVIDED	WHEN DIM.H EXCEEDS 1000mm, BLADE IS DIVIDED.
CASING	GALVANIZED STEEL(SEHC) 1.6THICK
BLADE	GALVANIZED STEEL(SEHC) 0.6THICK
SHAFT	GALVANIZED STEEL ROD $\phi$ 12.7
SHAFT METAL	OIL-BEARING METAL
ACTUATOR	STEEL PLATE(SPCC) GALVANIZED
SLIT	ALUMINUM(A6063S-T5)

## OPERATING CONDITION

MAX. REVERSE PRE: 800Pa

MAX.INTAKE VELOC: 10m/SEC.

SLIT OPENING 82%

EFFECTIVE AREA 1.0m<sup>2</sup> OR ABOVE : DAMPER AREA 1.3145m<sup>3</sup>

1.5m<sup>2</sup> OR ABOVE : DAMPER AREA 1.9503m<sup>2</sup>

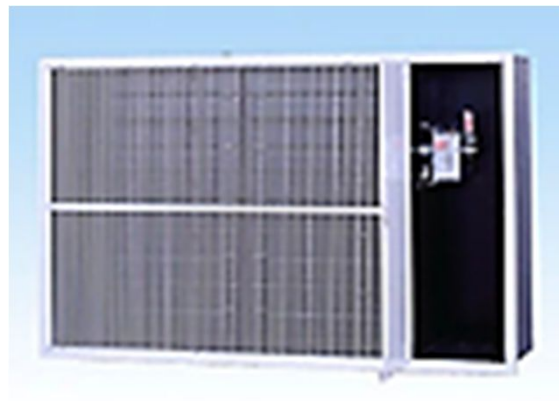
## ACTUATOR SPEC.

MODEL	KDS-2FH
OPERATION	MOTOR, TEMP.FUSE, MANUAL LEVER
TIME FOR OPERATION	WITHIN 1.5 SEC.
RESET	MOTOR, RESET LEVER
TIME FOR RESET	$\pm$ 12 SEC.(24V)
RATED VOLATGE	DC24V(APPLICABLE RANGE 19.2 - 26.4V)
RATED CURRENT	0.24A
	CONTINUOUS(SELF-SHUT DOWN)
CONFIRM SIGNAL	CONTACT a AT STARTING(2a CONTACT)
CONTACT CAPACITY	DC30V 2A



# SLIT-FACED SMOKE RELEASE FIRE DAMPER (MANUAL RESET)

(ASF-1DS)  
FUSE 280°C



**ASF-1DM**

1. DAMPER IS OPENED IMMEDIATELY UPON RECEIVING SIGNAL FROM SMOKE SENSOR OR EMERGENCY OPENING BOX. IT IS CLOSED BY TEMP. FUSE BLOWING.
2. RESET MANUALLY.

## SPECIFICATION

DIM.L	350mm
MAX.AVAILABLE SIZE	DAMPER : LONGER SIDE 2400mm AND WXH = 3.0m <sup>3</sup> SLIT : LONGER SIDE 2400mm AND WXH = 2.5m <sup>3</sup> DIVIDED WHEN EXCEEDS THE ABOVE SIZING.
BLADE DIVIDED	WHEN DIM.H EXCEEDS 1000mm, BLADE IS DIVIDED.
CASING	GALVANIZED STEEL(SEHC) 1.6THICK
BLADE	GALVANIZED STEEL(SEHC) 0.6THICK
SHAFT	GALVANIZED STEEL ROD $\phi$ 12.7
SHAFT METAL	OIL-BEARING METAL
ACTUATOR	STEEL PLATE(SPCC) GALVANIZED
SLIT	ALUMINUM(A6063S-T5)

## OPERATING CONDITION

MAX. REVERSE PRESS 800Pa

MAX.INTAKE VELOCIT 10m/SEC.

SLIT OPENING 82%

EFFECTIVE AREA 1.0m<sup>2</sup> OR ABOVE : DAMPER AREA 1.3145m<sup>3</sup>

1.5m<sup>2</sup> OR ABOVE : DAMPER AREA 1.9503m<sup>2</sup>

## ACTUATOR SPEC.

MODEL	KDS-1H
OPERATION	SOLENOID, TEMP.FUSE, MANUAL LEVER
TIME FOR OPERATION	IMMEDIATE
RESET	RESET LEVER
RATED VOLATGE	DC24V(APPLICABLE RANGE 19.2 – 26.4V)
RATED CURRENT	0.3A
	CONTINUOUS(SELF-SHUT DOWN)
CONFIRM SIGNAL	CONTACT a AT STARTING(2b CONTACT)
CONTACT CAPACITY	DC30V 2A

***KUKEN KOGYO CO., LTD.*** 

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