

COMBINATION FIRE/SMOKE DAMPER 1 1/2 HOUR LABEL • LEAKAGE CLASS I OR II

MODELS: 1270 AND 1271 (TYPE A)



QUALIFICATIONS:

- UL 555 & CAN/ULC-S112 CLASSIFIED DYNAMIC FIRE DAMPER 1 1/2 hr. Label (File # R9492).
- UL 555S & CAN/ULC-S112.1 CLASSIFIED SMOKE DAMPER Leakage Class I or II at 250°F or 350°F elevated temperature (File # R9492).
- California State Fire Marshal: Fire Damper Listing No. 3225-0935:106.
- City of New York Board of Standards and Appeals. Cal. No. 460-88-SA.
- Meets NFPA 80, 90A, 92A, 92B, 101 and 105 as well as IBC and NBC (Canada) Building Code requirements.
- Maximum velocity 2000 fpm @ 4" w.g.

The 1270 Series dampers are ideal for applications where building codes require both a fire damper for the protection of ductwork penetrations in walls or floors that have a fire resistance rating of up to 2 hours and also require a leakage rated damper for operational smoke control in static or dynamic smoke management systems.

The 1270 Series has been especially designed and tested to offer a rugged cost effective damper well suited to the majority of commercial applications.

STANDARD SPECIFICATION:

Frame: 5" x 7/8" x 16 ga. (127 x 22 x 1.6) galvanized steel hat

channel.

6" (152) wide on 5 1/2" (140) centers. 16 ga. (1.6) Blades:

galvanized steel vee groove or double-skin design. Concealed in frame. 12 ga. (2.7) plated steel.

Linkage: Bearings: 1/2" (13) dia. self-lubricating oilite bronze. Axles: 1/2" (13) dia. plated steel bolted to blades.

Jackshaft: 1/2" (13) dia. cadmium plated steel.

Jamb Seals: Stainless steel.

Blade Seals: Silicone on vee groove blade. **Heat Responsive Device (Controlled Closure):**

ERL (Electric Resettable Link) is standard on dampers with electric actuators: 250°F (121°C) standard. 165°F (74°C), 212°F (100°C) and 350°F (176°C) available

PRL (Pneumatic Replaceable Link) is standard on dampers with pneumatic actuators: 212°F (100°C) standard. 165°F (74°C) and 280°F (138°C) available.

Minimum Size: Vertical or Horizontal mount: 8" x 8" (203 x 203).

Maximum Size: Single Section

36" x 48" (914 x 1219). Vertical mount: Horizontal mount: 30" x 40" (762 x 1016).

Multiple Section Assembly

72" x 48" (1829 x 1219) or Vertical mount:

36" x 96" (914 x 2438). Horizontal mount: 60" x 40" (1524 x 1016) or

30" x 80" (762 x 2032).

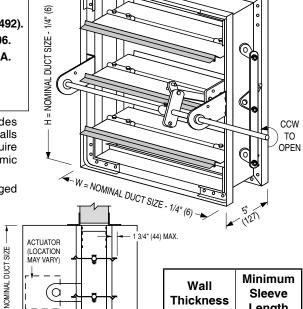
Dampers with duct heights less than 8" (203) require a Type 'B' sleeve enclosure (Model 1272). Duct sizes less than 8" (203) in width require a Type 'C' enclosure (Model 1273).

BASE MODEL SELECTION:

| ☐ 1270 With side motor mounting plate |
|---------------------------------------|
| |

1271 Standard factory sleeve (caulked to UL requirements) 16" long x 20 ga. (406 x 1.0) (18 ga. for dampers over 84" [2134] in width).

1271 Non-standard sleeve. Specify _____ length ____ ga.



| Wall Thickness | Minimum Sleeve Length |
|-------------------|-----------------------------|
| 4 (102) | 16 (406) |
| 8 (203) | 20 (508) |
| 12 (305) | 24 (610) |
| 16 (406) | 28 (711) |

LEAKAGE CLASS / ELEVATED TEMPERATURE:

| шı | U | @ 250°F (Standard) |
|----|----------|--------------------|
| | | @ 350°F (Ontional) |

ACTUATOR SELECTION:

- 8" (203) - - | 5" (127) |-

— 16" (406) STANDARD -

☐ Electric ☐ Pneumatic Specify model **ACTUATOR LOCATION:**

☐ External (std.) ☐ Internal (in the airstream)

ACTUATOR FAIL POSITION: Closed.

OPTIONS:

SLEEVE =

DAMPER

SLEEVE

BS Stainless steel bearings MLS-300 Position indicator switch pack

MLS-400 Electric Fire Sensor (Re-openable control system). Includes dual heat sensors

(165°F and 250°F or 350°F) and position indicator switch pack.

QS1 Quick-set retaining angle (one side) QS2 Quick-set retaining angles (two sides)

TDF1 Flange (one end)

| Available up to 36" (914) dependent upon wall thickness | | DF2 Flai | Flange (both ends) | | |
|---|----------------|--|--------------------|----------------|-----------|
| and 10 through 20 ga. (3.5 through 1.0). | For ins | For installation instructions, see IOM-1270INST. | | - | |
| SCHEDULE TYPE: | | D:. | monoiono or | a in inahaa (m | am) |
| PROJECT: | | Dimensions are in inches (mm) | | | |
| ENGINEER: | | DATE | B SERIES | SUPERSEDES | DRAWING I |
| CONTRACTOR: | | 10 - 16 - 24 | 1200 | 4 - 28 - 11 | 1270-1 |
| Nailer Industries Inc. receives the right to change any informa | tion concernin | a product or pricip | a without notice | | |



COMBINATION FIRE/SMOKE DAMPER

1 1/2 HOUR LABEL • LEAKAGE CLASS I OR II

MODEL: 1272

(TYPE B SLEEVE ENCLOSURE)



FOR DUCTS UNDER 8" (203) IN HEIGHT AND 8" (203) OR MORE IN WIDTH

QUALIFICATIONS:

- UL 555 & CAN/ULC-S112 CLASSIFIED DYNAMIC FIRE DAMPER 1 1/2 hr. Label (File # R9492).
- **UL 555S & CAN/ULC-S112.1 CLASSIFIED SMOKE DAMPER** Leakage Class I or II at 250°F or 350°F elevated temperature (File # R9492).
- California State Fire Marshal: Fire Damper Listing No. 3225-0935:106.
- City of New York Board of Standards and Appeals, Cal. No. 460-88-SA.
- Meets NFPA 80, 90A, 92A, 92B, 101 and 105 as well as IBC and NBC (Canada) Building Code requirements.
- Maximum velocity 2000 fpm @ 4" w.g.

The 1270 Series dampers are ideal for applications where building codes require both a fire damper for the protection of ductwork penetrations in walls or floors that have a fire resistance rating of up to 2 hours and also require a leakage rated damper for operational smoke control in static or dynamic smoke management systems.

The 1270 Series has been especially designed and tested to offer a rugged cost effective damper well suited to the majority of commercial applications.

STANDARD SPECIFICATION:

Frame: 5" x 7/8" x 16 ga. (127 x 22 x 1.6) galvanized steel

hat channel.

Blades: 6" (152) wide on 5 1/2" (140) centers. 16 ga. (1.6)

galvanized steel vee groove or double-skin design.

Linkage: Concealed in frame. 12 ga. (2.7) plated steel. Bearings: 1/2" (13) dia. self-lubricating oilite bronze. Axles: 1/2" (13) dia. plated steel bolted to blades.

1/2" (13) dia. cadmium plated steel. Jackshaft:

Jamb Seals: Stainless steel.

Blade Seals: Silicone on vee groove blade. **Heat Responsive Device (Controlled Closure):**

ERL (Electric Resettable Link) is standard on dampers with electric actuators: 250°F (121°C) standard. 165°F (74°C), 212°F (100°C) and 350°F (176°C) available.

PRL (Pneumatic Replaceable Link) is standard on dampers with pneumatic actuators: 212°F (100°C) standard. 165°F (74°C) and 280°F (138°C) available.

Min. Duct Size: 8" x 4" (203 x 102) (Overall damper H is 8" [203]).

Max. Duct Size: Single Section

Vertical mount: 36" x 7 1/2" (914 x 191). Horizontal mount: 30" x 7 1/2" (762 x 191).

Multiple Section Assembly

72" x 7 1/2" (1829 x 191). Vertical mount: Horizontal mount: 60" x 7 1/2" (1524 x 191).

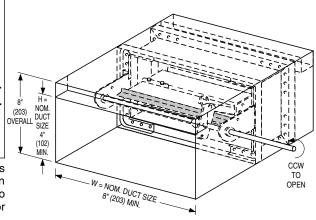
Duct sizes less than 8" (203) in width require a Type 'C' enclosure (Model 1273).

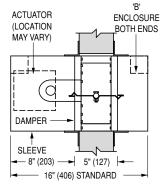
SLEEVE/ENCLOSURE SELECTION:

1272 Standard factory sleeve (caulked to UL requirements) 16" long x 20 ga. (406 x 1.0) (18 ga. for dampers over 84" [2134] in width). **1272**

Non-standard sleeve. Specify _ length ga. Available up to 36" (914) dependent upon wall thickness

and 10 through 20 ga. (3.5 through 1.0).





| Wall Thickness | Minimum Sleeve Length |
|-------------------|-----------------------------|
| 4 (102) | 16 (406) |
| 8 (203) | 20 (508) |
| 12 (305) | 24 (610) |
| 16 (406) | 28 (711) |

| LEAKAGE CLASS / ELEVATED TEMPERATU | JRE: |
|------------------------------------|------|
|------------------------------------|------|

| 1 | ПΠ | @ 250°F (Standard) |
|----------|----|--------------------|
| ı | | @ 350°F (Optional) |

ACTUATOR SELECTION:

| _ | Electric | Pneumatic | Specify model |
|----------|----------|-----------|---------------|
| | | | |

ACTUATOR LOCATION:

| L External (std.) | Internal (in the airstream) |
|-------------------|-----------------------------|
|-------------------|-----------------------------|

ACTUATOR FAIL POSITION: Closed.

OPTIONS:

| ш | BS | Stainless steel bearings |
|---|---------|-------------------------------|
| | MLS-300 | Position indicator switch pac |
| | | EL E. O /D . |

Electric Fire Sensor (Re-openable control system). Includes dual heat sensors (165°F and 250°F or 350°F) and position

indicator switch pack.

| ☐ QS1 | Quick-set reta | aining angle (one side) |
|-------|----------------|---------------------------|
| QS2 | Quick-set reta | aining angles (two sides) |

For installation instructions, see IOM-1270INST

| istaliation instructions, see IOW-1270INO1. | | | |
|---|------|----------------|-----------------------------|
| Dimensions are in inches (mm) | | | |
| | | | |
| 10 - 16 - 24 | 1200 | 4 - 28 - 11 | 1270-2 |
| | Di: | Dimensions are | Dimensions are in inches (m |



COMBINATION FIRE/SMOKE DAMPER

1 1/2 HOUR LABEL • LEAKAGE CLASS I OR II ROUND DUCT CONNECTION

MODEL: 1273

(TYPE C SLEEVE ENCLOSURE)



QUALIFICATIONS:

- UL 555 & CAN/ULC-S112 CLASSIFIED DYNAMIC FIRE DAMPER 1 1/2 hr. Label (File # R9492).
- UL 555S & CAN/ULC-S112.1 CLASSIFIED SMOKE DAMPER Leakage Class I or II at 250°F or 350°F elevated temperature (File # R9492).
- California State Fire Marshal: Fire Damper Listing No. 3225-0935:106.
- · City of New York Board of Standards and Appeals. Cal. No. 460-88-SA.
- Meets NFPA 80, 90A, 92A, 92B, 101 and 105 as well as IBC and NBC (Canada) Building Code requirements.
- Maximum velocity 2000 fpm @ 4" w.g.

The 1270 Series dampers are ideal for applications where building codes require both a fire damper for the protection of ductwork penetrations in walls or floors that have a fire resistance rating of up to 2 hours and also require a leakage rated damper for operational smoke control in static or dynamic smoke management systems.

The 1270 Series has been especially designed and tested to offer a rugged cost effective damper well suited to the majority of commercial applications.

STANDARD SPECIFICATION:

Frame: 5" x 7/8" x 16 ga. (127 x 22 x 1.6) galvanized steel hat channel.

Blades: 6" (152) wide on 5 1/2" (140) centers. 16 ga. (1.6)

galvanized steel vee groove or double-skin design.

Linkage: Concealed in frame. 12 ga. (2.7) plated steel.

Bearings: 1/2" (13) dia. self-lubricating oilite bronze.

Axles: 1/2" (13) dia. plated steel bolted to blades.

Jackshaft: 1/2" (13) dia. cadmium plated steel.

Jamb Seals: Stainless steel.

Blade Seals: Silicone on vee groove blade.

Heat Responsive Device (Controlled Closure):

ERL (Electric Resettable Link) is standard on dampers with electric actuators: 250°F (121°C) standard. 165°F (74°C), 212°F (100°C) and 350°F (176°C) available.

PRL (Pneumatic Replaceable Link) is standard on dampers with pneumatic actuators: 212°F (100°C) standard. 165°F (74°C) and 280°F (138°C) available.

Min. Duct Size: Vertical or Horizontal mount: 4" (102) diameter.

(Overall damper size is 8" x 8" [203 x 203] min.).

Max. Duct Size: Single Section

Vertical mount: 34" (864) diameter. Horizontal mount: 28" (711) diameter.

Multiple Section Assembly

Vertical mount: 46" (1168) diameter. Horizontal mount: 38" (965) diameter.

SLEEVE/ENCLOSURE SELECTION:

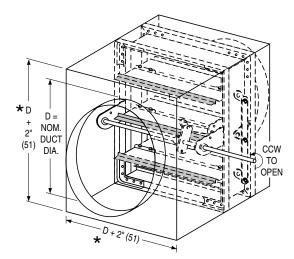
1273 Standard factory sleeve (caulked to UL requirements) 16" long x 20 ga. (406 x 1.0).

☐ 1273 Non-standard sleeve. Specify _____ length ____ ga Available up to 36" (914) dependent upon wall thickness

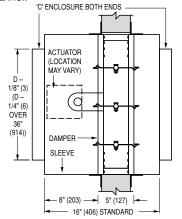
and 10 through 20 ga. (3.5 through 1.0).

LEAKAGE CLASS / ELEVATED TEMPERATURE:

☐ I ☐ II @ 250°F (Standard)
☐ I ☐ II @ 350°F (Optional)



* or 8" (203) min.



| Wall Thickness | Minimum Sleeve Length |
|-------------------|-----------------------------|
| 4 (102) | 16 (406) |
| 8 (203) | 20 (508) |
| 12 (305) | 24 (610) |
| 16 (406) | 28 (711) |
| | |

| ACTUATOR SELECTION | ON: | TI | .ECT | SEL | OR | ΙΑΙ | CTU | Α |
|--------------------|-----|----|------|-----|----|-----|-----|---|
|--------------------|-----|----|------|-----|----|-----|-----|---|

| | Electric | | Pneuma | tic | Specify model |
|----|-------------|------|--------|------|-------------------------|
| AC | TUATOR LO | OCA | TION: | | |
| | External (s | td.) | | Inte | rnal (in the airstream) |

ACTUATOR FAIL POSITION: Closed.

OPTIONS:

| BS | Stainless steel bearings |
|---------|--------------------------------|
| MLS-300 | Position indicator switch pack |

MLS-400 Electric Fire Sensor (Re-openable control

system). Includes dual heat sensors (165°F and 250°F or 350°F) and position

indicator switch pack.

☐ QS1 Quick—set retaining angle (one side)
☐ QS2 Quick—set retaining angles (two sides)

| ШI | | @ 350°F (Optional) For it | stallation instru | ctions, see IO | M-1270INST. | |
|-------|--------------|---------------------------|-------------------|----------------|----------------|-------------|
| SCHE | DULE T | YPE: | | moneione ar | e in inches (n | am) |
| PROJ | ECT: | | | mensions ai | e in inches (n | 1111) |
| ENGII | NEER: | | DATE | B SERIES | SUPERSEDES | DRAWING NO. |
| CONT | RACTO | R: | 10 - 16 - 24 | 1200 | 4 - 28 - 11 | 1270-3 |
| | | | · | · | · · | · · |



COMBINATION FIRE/SMOKE DAMPER

1 1/2 HOUR LABEL • LEAKAGE CLASS I OR II RECTANGULAR OR OVAL DUCT CONNECTION

MODEL: 1273

(TYPE C SLEEVE ENCLOSURE)



QUALIFICATIONS:

- UL 555 & CAN/ULC-S112 CLASSIFIED DYNAMIC FIRE DAMPER 1 1/2 hr. Label (File # R9492).
- UL 555S & CAN/ULC-S112.1 CLASSIFIED SMOKE DAMPER Leakage Class I or II at 250°F or 350°F elevated temperature (File #R9492).
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6" (152) wide on 5 1/2" (140) centers. 16 ga. (1.6) galvanized steel vee groove or double-skin design. Blades:

Linkage: Concealed in frame. 12 ga. (2.7) plated steel. Bearings: 1/2" (13) dia. self-lubricating oilite bronze. Axles: 1/2" (13) dia. plated steel bolted to blades.

Jackshaft: 1/2" (13) dia. cadmium plated steel.

Jamb Seals: Stainless steel.

Silicone steel on vee groove blade. Blade Seals: **Heat Responsive Device (Controlled Closure):**

ERL (Electric Resettable Link) is standard on dampers with electric actuators: 250°F (121°C) standard. 165°F (74°C), 212°F (100°C) and 350°F (176°C) available.

PRL (Pneumatic Replaceable Link) is standard on dampers with pneumatic actuators: 212°F (100°Ć) standard. 165°F (74°C) and 280°F (138°C) available.

Min. Duct Size: Vertical or Horizontal mount: 4" x 4" (102 x 102).

| Ч | 1273 | x 20 ga. (406 x 1.0) (18 g | | , | _ |
|---|------|----------------------------|--------|--------|-----|
| | 1273 | Non-standard sleeve. Sp | pecify | length | ga. |

| (Overall damper size is 8" x 8" [203 x 203] min.). | | | | 8 (203) | 20 (508) |
|--|---------|--|------------------|----------------------------------|-------------|
| Max. Duct Size: Single Section | .L SL | LEEVE | \vdash | 12 (305) | 24 (610) |
| Vertical mount: 34" x 46" (864 x 1168). Horizontal mount: 28" x 38" (711 x 965). | | <u>' </u> | - | 16 (406) | 28 (711) |
| Multiple Section Assembly | _ | 8" (203) - 5" (127) - | ₋ L | 10 (400) | 20 (711) |
| Vertical mount: 70" x 46" (1176 x 1168) or | | — 16" (406) STANDARD — | | | |
| 34" x 94" (864 x 2388). | ACT | TUATOR LOCAT | ΓΙΟN : | | |
| Horizontal mount: 58" x 38" (1473 x 965) or 28" x 78" (711 x 1981). | | External (std.) | | nternal (in the a | airstream) |
| SLEEVE/ENCLOSURE SELECTION: | | UATOR FAIL P | | • | στι σα, |
| ☐ 1273 Standard factory sleeve (caulked to UL requirements) 16" long | | | 00111014. | Olosea. | |
| x 20 ga. (406 x 1.0) (18 ga. for dampers over 84" [2134] in width). | | TIONS: | | | |
| ☐ 1273 Non-standard sleeve. Specify length ga. | _ | | iless steel | | |
| Available up to 36" (914) dependent upon wall thickness and 10 through 20 ga. (3.5 through 1.0). | _ | | | or switch pack nsor (Re-opena | hle control |
| LEAKAGE CLASS / ELEVATED TEMPERATURE: | _ | system). Include: | | | |
| ☐ I ☐ II @ 250°F (Standard) | | or 350°F) and po | | , | |
| ☐ I ☐ II @ 350°F (Optional) | | QS1 Quic | k-set retai | ning angle (one | side) |
| ACTUATOR SELECTION: | | QS2 Quic | k–set retai | ning angles (two | o sides) |
| ☐ Electric ☐ Pneumatic Specify model | For i | installation instruc | tions, see | IOM-1270INST | |
| SCHEDULE TYPE: | | | | | |
| PROJECT: | | — Dii | mensions | are in inches (| mm) |
| ENGINEER: | | DATE | B SERIES | SUPERSEDES | DRAWING |
| CONTRACTOR: | | 10 - 16 - 24 | 1200 | 4 - 28 - 11 | 1270-4 |
| Nailor Industries Inc. reserves the right to change any informatio | on conc | erning product or pricin | a without noti | ce. | |
| , , , , , , , , , , , , , , , , , , , | | 31 | J | | |
| | | | | | |

1/8" (3)

(H – 1/4" (6)

OVER

(914))



DAMPER TEST SWITCH

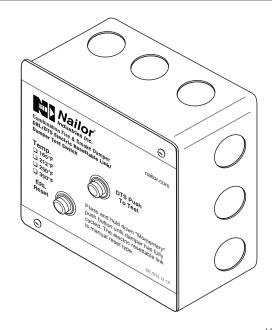
FOR USE WITH ALL SMOKE AND COMBINATION FIRE/SMOKE DAMPERS

MODEL: DTS

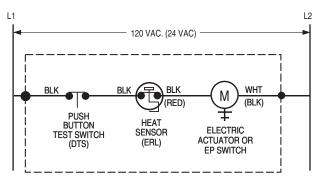
The DTS (Damper Test Switch) is an optional "momentary" push button test switch available on all Nailor smoke and combination fire/smoke dampers. The DTS provides the ability to "cycle test" the damper by pushing and holding down the button until the damper has cycled and closure has been visually verified, either by inspecting the damper through the access door or by confirmation at a remote control panel when equipped with the optional MLS-300 position indicator.

The DTS is mounted right on the damper and enables a single maintainance person to test and cycle the damper, eliminating the need for help from another person in the control room.

When a combination fire/smoke damper is ordered, the DTS is combined with the ERL (Electric Resettable Link), in a common enclosure.



WIRING DIAGRAMS:



MOUNTED ON DAMPER (FACTORY WIRING TERMINATES AT SPLICE POINTS INDICATED INSIDE 4" x 4" ELECTRICAL BOX)

Figure 1. DTS/ERL Damper Test Switch with Electric Resettable Link

Belimo Actuator Aux. Switch Wiring Connections

| Model Series | Open (OP) | Closed (CL) |
|--------------|---------------|-----------------|
| FSTF | Orange / Gray | Violet / Red |
| FSLF / FSAFA | Gray / Gray | Violet / Violet |
| FSNF / FSAFB | White S4 / S6 | White S1 / S2 |

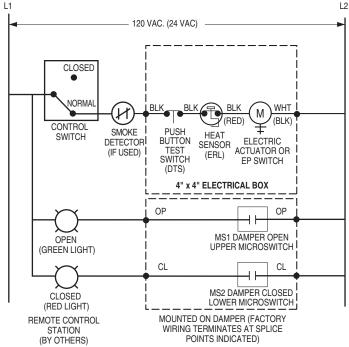


Figure 2. DTS/ERL with MLS-300 Belimo (actuator aux. switches)
Position Indicator Package

| SCHEDULE TYPE | Page 1 of 2 | | | |
|---------------|-------------|----------|-------------|-------------|
| PROJECT | Page 1 of 2 | | | |
| ENGINEER | DATE | B SERIES | SUPERSEDES | DRAWING NO. |
| CONTRACTOR | 9 - 3 - 20 | FD-ACC | 3 - 29 - 18 | DTS |



DAMPER TEST SWITCH

FOR USE WITH ALL SMOKE AND COMBINATION FIRE/SMOKE DAMPERS

MODEL: DTS

WIRING DIAGRAMS:

Honeywell Actuator Aux. Switch Wiring Connections

| Model Series | Open (OP) | Closed (CL) |
|--------------|-----------------|-------------|
| MSXX04 | Yellow / Yellow | Blue / Blue |
| MSXX20 | Yellow / Yellow | Blue / Blue |

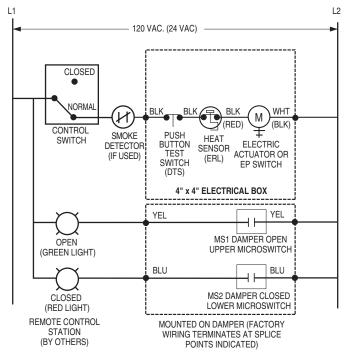


Figure 3. DTS/ERL with MLS-300 Nailor or Honeywell (actuator aux. switches) Position Indicator Package

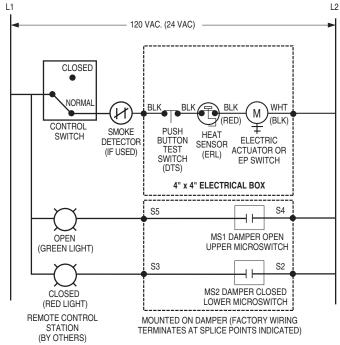
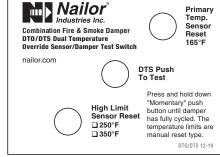
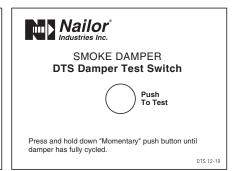


Figure 4. DTS/ERL with MLS-300 Siemens GJD Series (actuator auxiliary switches) Position Indicator Package

DTS LABEL VARIATIONS:







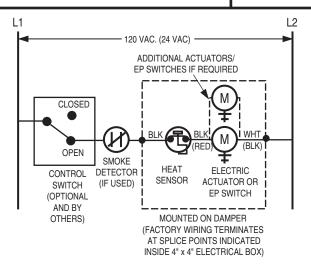
ERL/DTS Combination Fire/Smoke Damper DTO/DTS Combination Fire/Smoke Damper

DTS Smoke Damper

| SCHEDULE TYPE | | Page | 2 of 2 | |
|---------------|-------------|----------|-------------|-------------|
| PROJECT | Page 2 of 2 | | | |
| ENGINEER | DATE | B SERIES | SUPERSEDES | DRAWING NO. |
| CONTRACTOR | 9 - 3 - 20 | FD-ACC | 3 - 29 - 18 | DTS |



ELECTRIC RESETTABLE LINK FOR COMBINATION FIRE / SMOKE DAMPERS MODEL: ERL





The ERL Electric Resettable Link (heat sensor) is standard on all Nailor combination fire/smoke dampers with an electric actuator. The ERL is a thermally responsive bimetal disc/thermostat that opens and closes electrical contacts at a specific calibrated temperature. The ERL is a UL Classified Heat Responsive Device.

The standard ERL has a fixed temperature setting of 250°F (121°C) which is the UL listed elevated/degradation temperature of the damper/actuator assembly. A 350°F (177°C) elevated temperature classification and ERL is available as an option.

[A 165°F and 212°F (74°C and 100°C) ERL are also available. Local codes have specified 165°F (74°C) widely in the past.]

The ERL's function is to sense an abnormally high temperature, as caused by a fire and allow the damper to close in order to prevent the spread of fire and smoke. The sensor interrupts power to the actuator and the actuator's spring return mechanism causes the damper to close and lock.

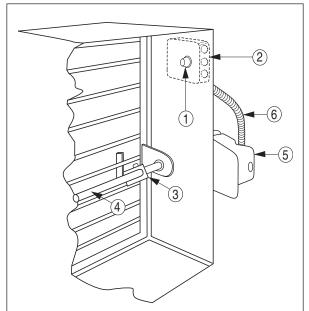
In smoke control mode, when a signal is detected via a normally closed smoke detector connection, the damper will close and remain closed until the smoke signal ceases. The system will then reset when power is re-applied and the damper will open. The damper may be closed at anytime by placing a control switch (optional and by others) in the closed position.

The ERL in combination with all Nailor qualified electric or pneumatic actuators provides controlled closure and eliminates the instantaneous damper closure associated with traditional fusible links that can cause damage to the ductwork.

The ERL sensor is of the manual reset type and can be reset after the temperature has cooled down below the sensor set point. Exposure to actual fire conditions may render these devices unusable. In this case, it is recommended that a careful inspection of the damper, actuator and ERL be performed.

The ERL requires factory installation and wiring together with the associated actuator to meet UL requirements. If the damper is provided with a pneumatic actuator, an EP switch is required.





DESCRIPTION:

- ERL 165, 212, 250, 350 Electric Resettable Link (heat sensor)
- 2. Electrical Junction Box (and EP Switch with Pneumatic Actuator)
- 3. Over-Center Knee Lock
- 4. Jackshaft
- 5. Actuator
- 6. Flexible Conduit

| SCHEDULE TYPE | | | | |
|---------------|--------------------------------|----------|-------------|-------------|
| PROJECT | Dimensions are in inches (mm). | | | |
| ENGINEER | DATE | B SERIES | SUPERSEDES | DRAWING NO. |
| CONTRACTOR | 9 - 9 - 20 | FD-ACC | 9 - 23 - 02 | ERL |



"QUICK-SET" RETAINING ANGLES

FOR ALL SLEEVED FIRE AND COMBINATION FIRE/SMOKE DAMPERS

MODELS: QS1 AND QS2

"QUICK-SET" RETAINING ANGLES BOTH SIMPLIFY AND SPEED INSTALLATION, SAVING BOTH TIME AND MONEY.

BENEFITS:

- One piece angles are fastened together in the corners.
 Only two sets of angles to handle per damper (rather than four separate angles per side).
- Angles are shipped with damper no sorting or matching.
- Provided with pre-drilled fastening holes on 2" (51) centers to ensure correct angle/sleeve attachment.
- Factory fabricated by Nailor to suit the individual fire damper.
- Reduced cost when compared to conventional retaining angles.
- Dampers can ship directly to the job site complete with all necessary installation sheet metal hardware (saves on double handling at contractor's shop).
- Help ensure a correct installation as per U.L. approved installation instructions.

The majority of installing contractors view fire damper installation as a costly time consuming and troublesome procedure. Eight conventional angles must be custom fabricated for each damper either in a sheet metal shop or at the job site and sized to suit each individual damper. Invariably, they are mislaid or lost and must be matched to each factory supplied damper.

The Nailor "Quick-Set" solution solves the majority of problems. They are pre-formed to fit and ship with the individual damper for ultimate convenience. "Quick-Set" angles are supplied with correctly spaced pre-drilled screw-holes to ensure a quick, easy and accurate installation for all integral sleeve Nailor fire and combination fire/smoke dampers - no measuring required.

"Quick-Set" retaining angles provide the "complete" installation package. Simple, fast, convenient.

MODELS:

Nailor "Quick-Set" retaining angles are an accessory option for all dampers ordered with factory sleeves.

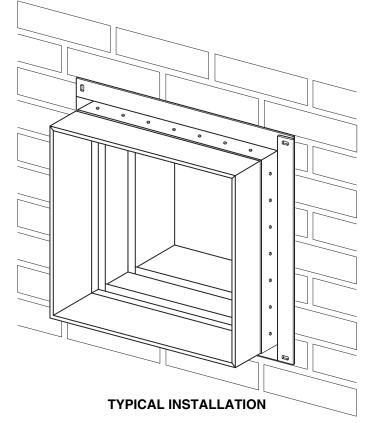
QS2: Two sides (pair). For standard installations where angles are installed on both sides of the fire partition.

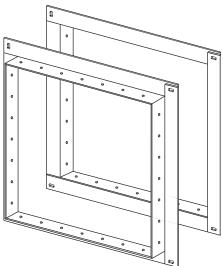
QS1: One side (single set). For use in single side retaining angle installations and with grille mount and "out of wall" damper models.





Refer to the UL or ULC Classification marking the product.





TYPICAL PAIR OF PRE-ASSEMBLED QUICK-SET' RETAINING ANGLES

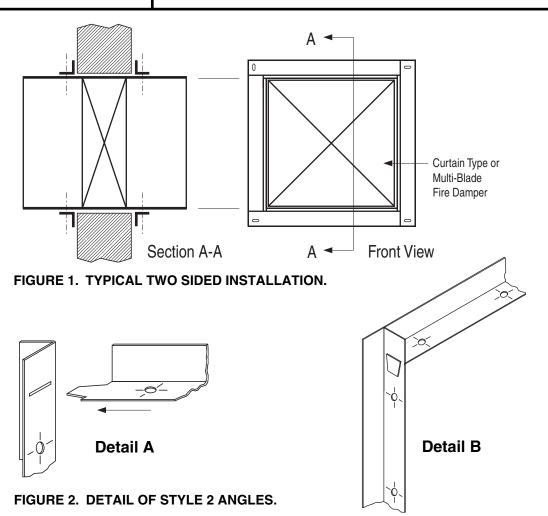
| SCHEDULE TYPE: | Page 1 of 2 | | | |
|----------------|--------------------------------|----------|------------|-------------|
| PROJECT: | Dimensions are in inches (mm). | | | |
| ENGINEER: | DATE | B SERIES | SUPERSEDES | DRAWING NO. |
| CONTRACTOR: | 2 - 26 - 09 | FD-ACC | 6 - 5 - 03 | QSRA |



"QUICK-SET" RETAINING ANGLES

FOR ALL SLEEVED FIRE AND COMBINATION FIRE/SMOKE DAMPERS

MODELS: QS1 AND QS2



APPLICATION:

The Nailor Quick-Set Retaining Angle System may be used in lieu of conventional retaining angles on all Nailor Fire and Combination Fire/Smoke Dampers.

Quick-Set angles are supplied in one of two styles, dependent upon fire resistance label, damper size and installation method.

Style 1: 1 1/2" x 1 1/2" x 20 ga. (38 x 38 x 1.0) Four sides are connected together with rivets in three corners.

Standard for the majority of applications with the following limitations:

- 1 1/2 hour label fire dampers.
- Maximum Size: 36" x 36" (914 x 914)
- Two sided installation only

Style 2: $1 \frac{1}{2}$ " x $1 \frac{1}{2}$ " x 16 ga. $(38 \times 38 \times 1.6)$ Slot and tab design. The retaining angle assembly for each side has four angles, each with a tab end and a slot end (Detail A).

The tabs are to be inserted into the slots and knocked down either before or after fastening to the sleeve (Detail B).

- 1 1/2 or 3 hour label fire dampers
- Maximum Size: 90" x 48" (2286 x 1219) or 48" x 90" (1219 x 2286)
- Single side (1 1/2 hour only. Refer to Single Side Retaining Angles Supplementary Installation Instructions for size limitations) or two sided installation

Refer to the Following Installation Instructions:

Quick-Set Retaining Angles FDQSRA
Curtain Type Fire Dampers (D)0100 & (D)0500 FDINST
Curtain Type Fire Dampers 0200 & 0500 Thinline FDTINST
Multi-Blade Fire Dampers 1200 & 1250 MBFDINST
Combination Fire/Smoke Dampers 1220 1220INST
Combination Fire/Smoke Dampers 1270 1270INST
Single Side Retaining Angles FDSSRAINST

| SCHEDULE TYPE: | Page 2 of 2 | | | |
|----------------|--------------------------------|----------|------------|-------------|
| PROJECT: | Dimensions are in inches (mm). | | | |
| ENGINEER: | DATE | B SERIES | SUPERSEDES | DRAWING NO. |
| CONTRACTOR: | 2 - 26 - 09 | FD-ACC | 5 - 5 - 03 | QSRA |

PERFORMANCE DATA:

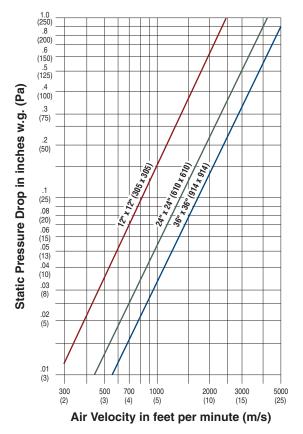
MODEL SERIES: 1270 - 1 1/2 HOUR LABEL

LEAKAGE CLASS:

The 1270 Series Combination Fire/Smoke Damper has been designed and qualified under UL 555S in order to provide maximum system design flexibility. They are available with a Class I or II leakage rating with all damper/actuator assemblies having been tested successfully at an elevated temperature of 250°F (121°C) or 350°F (177°C), depending on actuator, under airflow of 2000 fpm @ 4" w.g. (10 m/s @ 1 kPa).

| 1270 Series - Maximum Performance Ratings | | | | |
|---|--------------------|--|--|--|
| UL 555 Fire Rating | 1 1/2 Hour | | | |
| UL 555S Leakage Rating | Class I | | | |
| Maximum Velocity | 2000 fpm (10 m/s) | | | |
| Maximum Pressure | 4 in. w.g. (1 kPa) | | | |
| Maximum Temperature | 350°F (177°C) | | | |

PRESSURE DROP:



Pressure drop tested per AMCA Standard 500-D, Figure 5.3. Data corrected to standard air density of 0.075 lbs/ft.³.