



SMOKE DAMPER
ROUND • STEEL
ULTRA-LOW LEAKAGE
MODEL: 1290S



QUALIFICATIONS:

- UL 555S & CAN/ULC-5112.1 CLASSIFIED SMOKE DAMPER Leakage Class I at 350°F elevated temperature (File # R9492).
- Meets NFPA 90A, 92, 101 and 105 as well as IBC and NBC (Canada) Building Code requirements.
- City of New York. MEA # 366-03-M.
- California State Fire Marshal: Fire Damper Listing No. 03230-0935:0107.
- Maximum velocity: 4000 fpm @ 4" w.g. (20 m/s @ 1 kPa).

Model 1290S Damper is ideal for applications where building codes require a leakage rated smoke damper for operational smoke control in static or dynamic smoke management systems.

The 1290S Damper is an economical true round smoke damper designed and qualified for round ductwork and offers the lowest leakage class available. Qualified for installation with airflow in either direction.

STANDARD CONSTRUCTION:

- Frame:** 20 ga. (1.0) galvanized steel integral sleeve and retaining plates.
- Blades:** 2 x 20 gauge (1.0) galvanized steel laminated together; 14 gauge (2.0) equivalent thickness.
- Bearings:** 1/2" (13) dia. self-lubricating oilite bronze.
- Drive Shaft/Axles:** 1/2" (13) dia. plated steel double bolted to blade. Drive shaft extends approx. 6" (152) beyond frame.
- Jackshaft:** 1/2" (13) dia. cadmium plated steel.
- Blade Seal:** Silicone rubber. Peripheral gasket sandwiched between two piece blade.

Sizes (Duct Dia.):

Minimum	Maximum
6" (152) dia.	24" (610) dia.

Notes: Dampers available in 2" (51) increments.

LEAKAGE CLASS / ELEVATED TEMPERATURE:

- I @ 250°F (Standard)
- I @ 350°F

DYNAMIC VELOCITY / PRESSURE RATING:

- 24 2000 fpm @ 4" w.g. (10 m/s @ 1 kPa) (Standard)
- 34 3000 fpm @ 4" w.g. (15 m/s @ 1 kPa)
- 44 4000 fpm @ 4" w.g. (20 m/s @ 1 kPa)

ACTUATOR SELECTION:

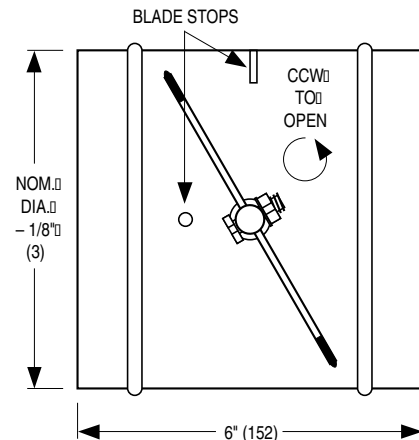
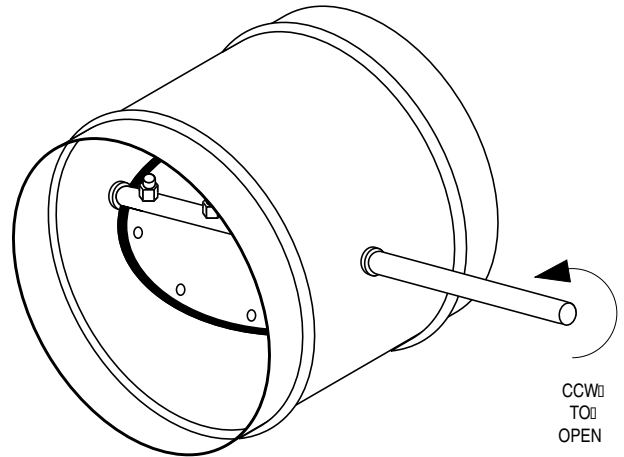
- Electric** **Pneumatic** Specify model _____ .
- Actuators are mounted out of airstream only.

ACTUATOR FAIL POSITION:

- CL Closed (Standard)
- OP Open

OPTIONS:

- BS** Stainless steel bearings
- MLS-300** Position indicator switch package
- DTS** Damper test switch



SCHEDULE TYPE:
PROJECT:
ENGINEER:
CONTRACTOR:

For installation instructions, see IOM-SDINST.
 Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
10 - 16 - 24	1200	10 - 26 - 15	1290S-1



SMOKE DAMPER
ROUND • STAINLESS STEEL
ULTRA-LOW LEAKAGE
MODEL: 1290S-SS



QUALIFICATIONS:

- UL 555S & CAN/ULC-5112.1 CLASSIFIED SMOKE DAMPER Leakage Class I at 350°F elevated temperature (File # R9492).
- Meets NFPA 90A, 92, 101 and 105 as well as IBC and NBC (Canada) Building Code requirements.
- City of New York. MEA # 366-03-M.
- California State Fire Marshal: Fire Damper Listing No. 03230-0935:0107.
- Maximum velocity: 2000 fpm @ 4" w.g. (10 m/s @ 1 kPa).

Model 1290S-SS Damper is ideal for high humidity or mildly corrosive applications where building codes require a leakage rated smoke damper for operational smoke control in static or dynamic smoke management systems.

The 1290S-SS Damper is an true round smoke damper designed and qualified for round ductwork and offers the lowest leakage class available. Qualified for installation with airflow in either direction. Available in either Type 304 or 316 stainless steel.

STANDARD CONSTRUCTION:

- Frame:** 20 ga. (1.0) stainless steel integral sleeve and retaining plates.
- Blades:** 2 x 20 gauge (1.0) stainless steel laminated together; 14 gauge (2.0) equivalent thickness.
- Bearings:** 1/2" (13) dia. stainless steel.
- Drive Shaft/Axles:** 1/2" (13) dia. stainless steel double bolted to blade. Drive shaft extends approx. 6" (152) beyond frame.
- Jackshaft:** 1/2" (13) dia. stainless steel.
- Blade Seal:** Silicone rubber. Peripheral gasket sandwiched between two piece blade.

Sizes (Duct Dia.):

Minimum	Maximum
6" (152) dia.	24" (610) dia.

Notes: Dampers available in 2" (51) increments.

CONSTRUCTION TYPE:

- 304** Type 304 Stainless Steel construction (Standard)
- 316** Type 316 Stainless Steel construction (Optional)

LEAKAGE CLASS / ELEVATED TEMPERATURE:

1 @ 350°F (Standard)

DYNAMIC VELOCITY / PRESSURE RATING:

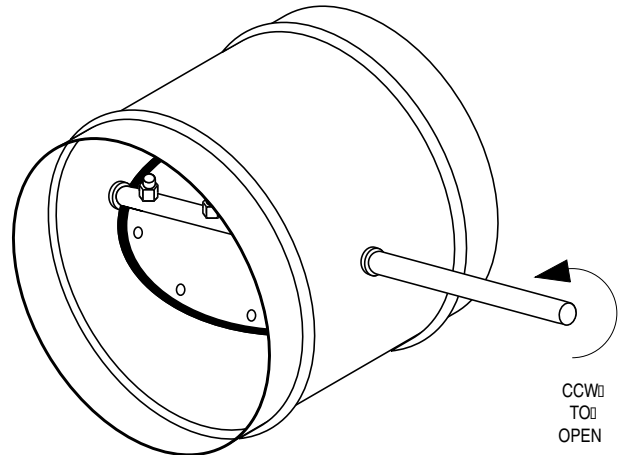
24 2000 fpm @ 4" w.g. (10 m/s @ 1 kPa) (Standard)

LEAKAGE CLASS/ELEVATED TEMPERATURE:

ACTUATOR SELECTION:

- Electric** **Pneumatic** Specify model _____ .

Actuators are mounted out of airstream only.



ACTUATOR FAIL POSITION:

Normally Closed. (Normally Open actuators are not available)

OPTIONS:

- MLS-300** Position indicator switch package
- DTS** Damper test switch

SCHEDULE TYPE:	For installation instructions, see IOM-SDINST.			
PROJECT:	Dimensions are in inches (mm).			
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	10 - 16 - 24	1200	4 - 28 - 14	1290S-SS-1

DAMPER TEST SWITCH

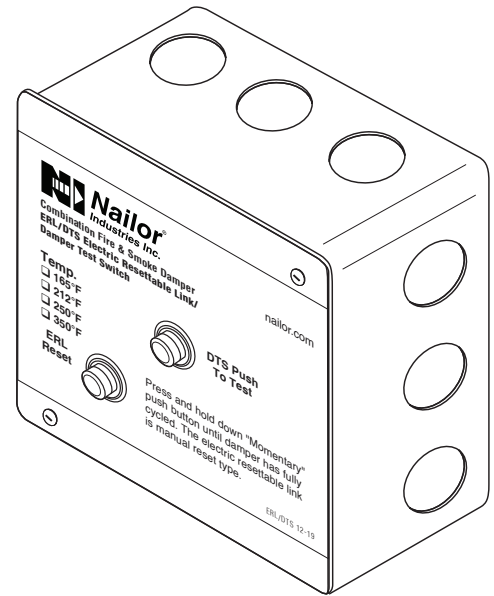
FOR USE WITH ALL SMOKE AND COMBINATION FIRE/SMOKE DAMPERS

MODEL: DTS

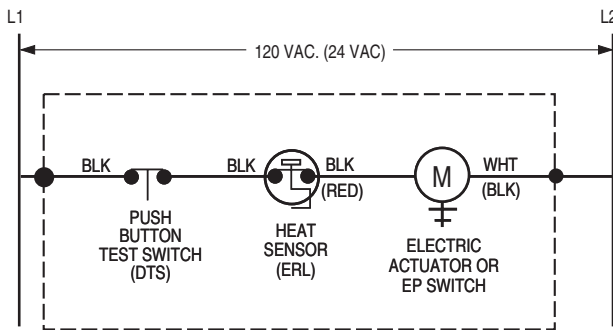
The DTS (Damper Test Switch) is an optional "momentary" push button test switch available on all Nailor smoke and combination fire/smoke dampers. The DTS provides the ability to "cycle test" the damper by pushing and holding down the button until the damper has cycled and closure has been visually verified, 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 maintenance 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

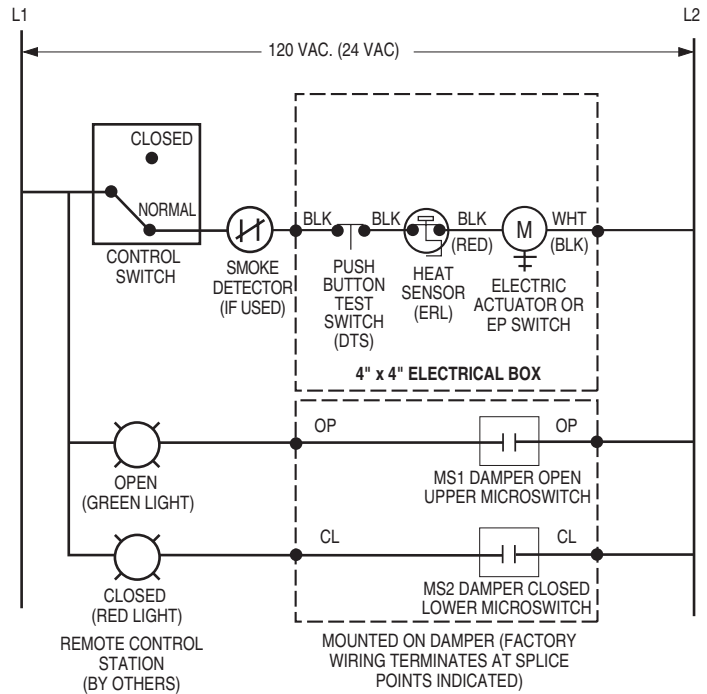


Figure 2. DTS/ERL with MLS-300 Belimo (actuator aux. switches) Position Indicator Package

SCHEDULE TYPE

PROJECT

ENGINEER

CONTRACTOR

DATE

B SERIES

SUPERSEDES

DRAWING NO.

9 - 3 - 20

FD-ACC

3 - 29 - 18

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

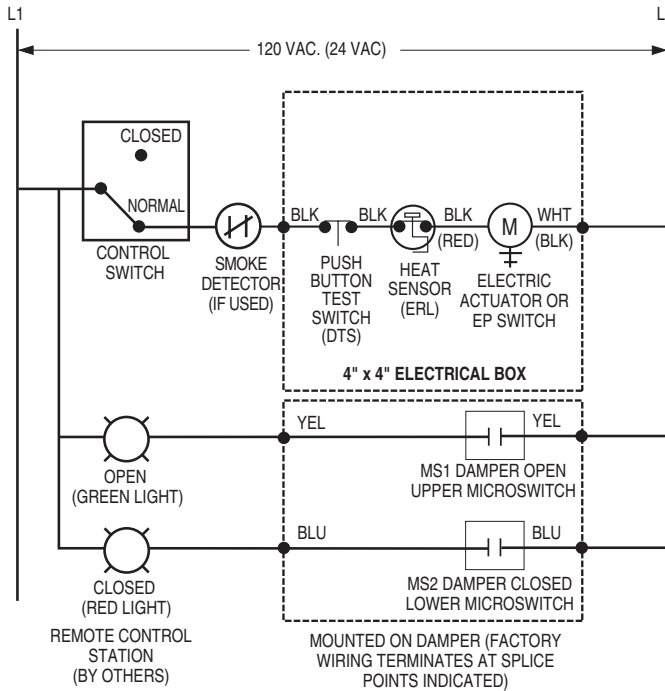


Figure 3. DTS/ERL with MLS-300 Nailor or Honeywell (actuator aux. switches) Position Indicator Package

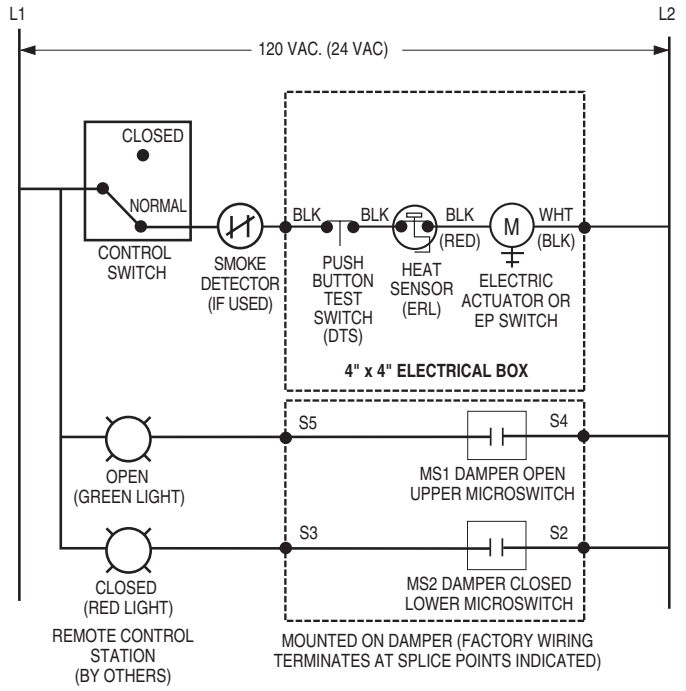
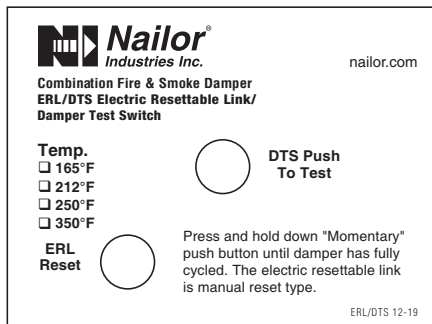
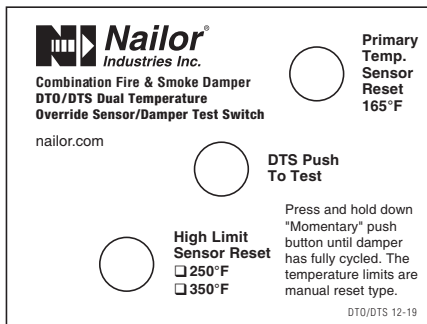


Figure 4. DTS/ERL with MLS-300 Siemens GJD Series (actuator auxiliary switches) Position Indicator Package

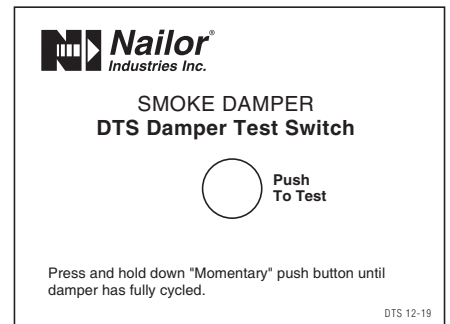
DTS LABEL VARIATIONS:



ERL/DTS Combination Fire/Smoke Damper



DTO/DTS Combination Fire/Smoke Damper



DTS Smoke Damper

SCHEDULE TYPE

PROJECT

ENGINEER

CONTRACTOR

PERFORMANCE DATA:

MODEL SERIES: 1290S AND 1290S-SS

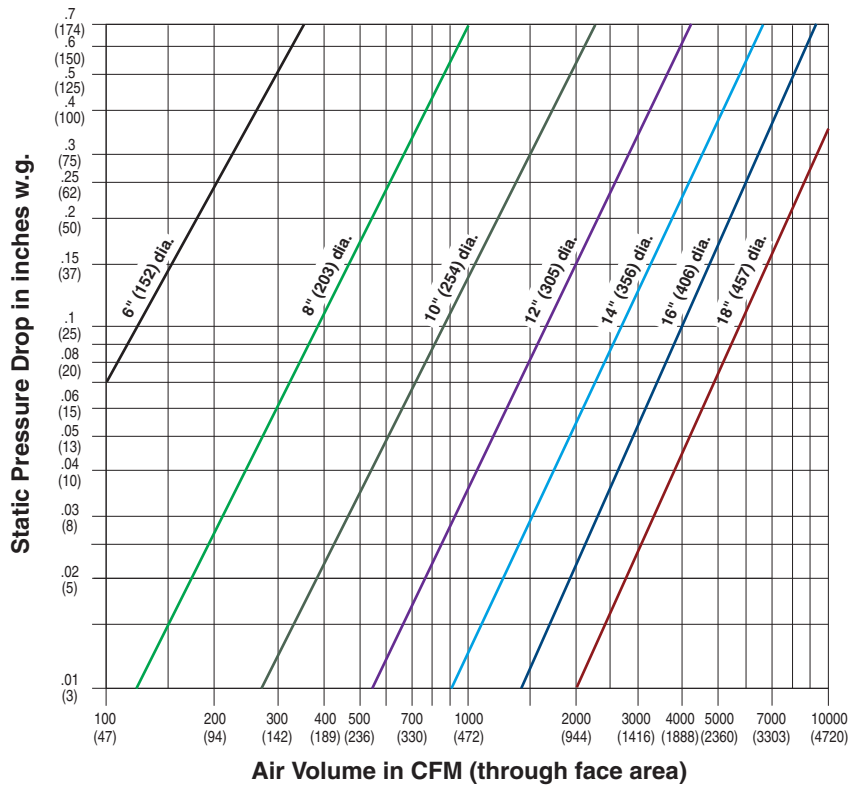
LEAKAGE CLASS:

The 1290S Series True Round Smoke Damper has been designed and qualified under UL 555S in order to provide maximum system design flexibility. It is available with a Class I leakage rating with all damper/actuator assemblies having been tested successfully at an elevated temperature of 350°F (177°C) under airflow of 2000 fpm @ 4" w.g. (10 m/s @ 1 kPa).

The 1290S-SS Series Stainless Steel True Round Smoke Damper has been designed and qualified under UL 555S in order to provide maximum system design flexibility. It is especially ideal for high humidity or mildly corrosive applications. It is available with a Class I leakage rating with all damper/actuator assemblies having been tested successfully at an elevated temperature of 350°F (177°C) under airflow of 2000 fpm @ 4" w.g. (10 m/s @ 1 kPa).

Maximum Performance Ratings	
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



Tested per AMCA standard 500, Fig. 5.5.