

**PL-10-1A**  
Series



Normally Open Fire-Resisting Duct Damper with Thermal Fuse and Return Spring

**Application**

A fire-safety damper prevents the spread of smoke and fire via ventilation and air conditioning system ducts in the event of fire. Such units are installed in ventilation duct channels which cross fire-separation walls and ceilings. The fire resistance rating according to EN 1366-2 is EIS 60 or EIS 120.

**Design**

KP series dampers are made in the general-purpose industrial version with a minimized variety of hardware components using low-alloy galvanized steel. The flap is made of fire-resistant material (vermiculite) with thermoexpansive fireproof sealing. The duct design implies two connection ports for integration into a ventilation channel (duct system). Depending on the design variant the PL series dampers are equipped with:

- ▶ a mechanical actuating unit with a thermal fuse and a return spring.

The fire-safety damper remains open in the protective position. The damper is set to the operating position upon the thermal fuse breakdown resulting from a temperature increase. In the event of fire the fusible element will melt upon the temperature reaching 72°C

**PL-10-2-BLF230-T**  
**PL-10-2-BLF24-T**  
Series



Normally Open Fire-Resisting Duct Damper with Electric Actuator, Return Spring and Thermoelectric Breaker

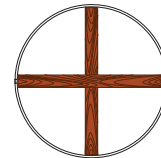
and the spring will set the flap to the closed position.

- ▶ an electric actuator with a built-in return spring and thermally sensitive breaker.

Damper Setting to Operating Position (Direct Fire Contact): Remotely, Via Electric Drive. The damper can be set to the operating or protective position either remotely via the control panel or manually using the manual cocking handle which is always included in the standard delivery package of the electric actuator. In case of the remote control panel failure the back-up thermal breaker interrupts the power supply to the electric actuator and the return spring sets the damper to the operating position. Emergency Damper Actuation: The damper flap is set to the protective position automatically (damper unaffected by fire). The electric actuator remains energized at all times. In case of an emergency actuation (direct fire contact): The electric actuator equipped with a return spring is de-energized and the damper flap is set to the operating position by means of the spring energy. In case of a power failure not related to fire and subsequent restoration to damper equipped with a return spring the damper flap is re-set to the protective position.

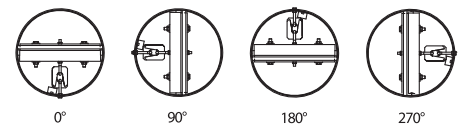
**Installation**

During the fire-safety damper installation make sure that the release mechanism and the inspection hole face an easily accessible side of the wall or ceiling. This will ensure convenient control of the thermally sensitive release mechanism and its internals. The damper can be embedded into brick or concrete walls with the appropriate fire resistance rating. Wooden spreader bars should be used to avoid casing deformation during the installation.



Use of Wooden Spreader Bars During Installation

Upon completing the installation remove the wooden spreader bars.



Recommended Damper Positions

The damper may not be installed:

- Into air ducts and on premises rated explosion and fire safety category A and B;
- Into air ducts of local intakes for flammable and explosive mixtures;
- Into systems which do not undergo periodic cleaning pursuant to the established regulations for prevention of flammable deposit buildup.

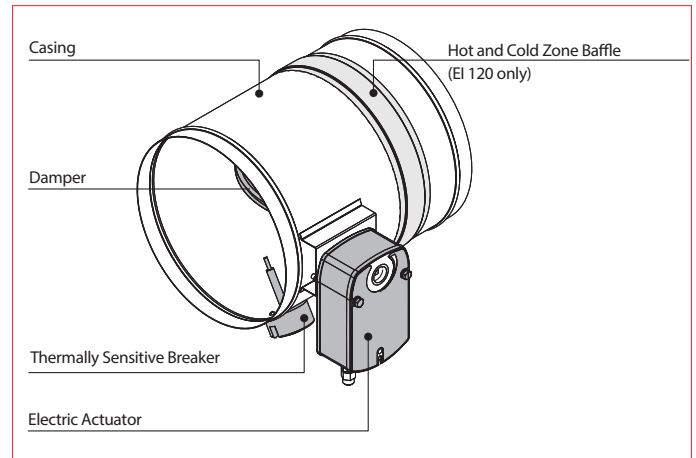
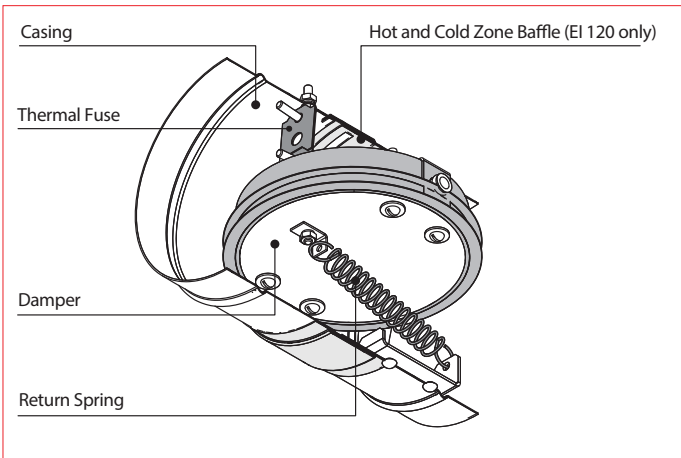
Conventional Designation: \_\_\_\_\_

**PL-10-X- DNX/X**

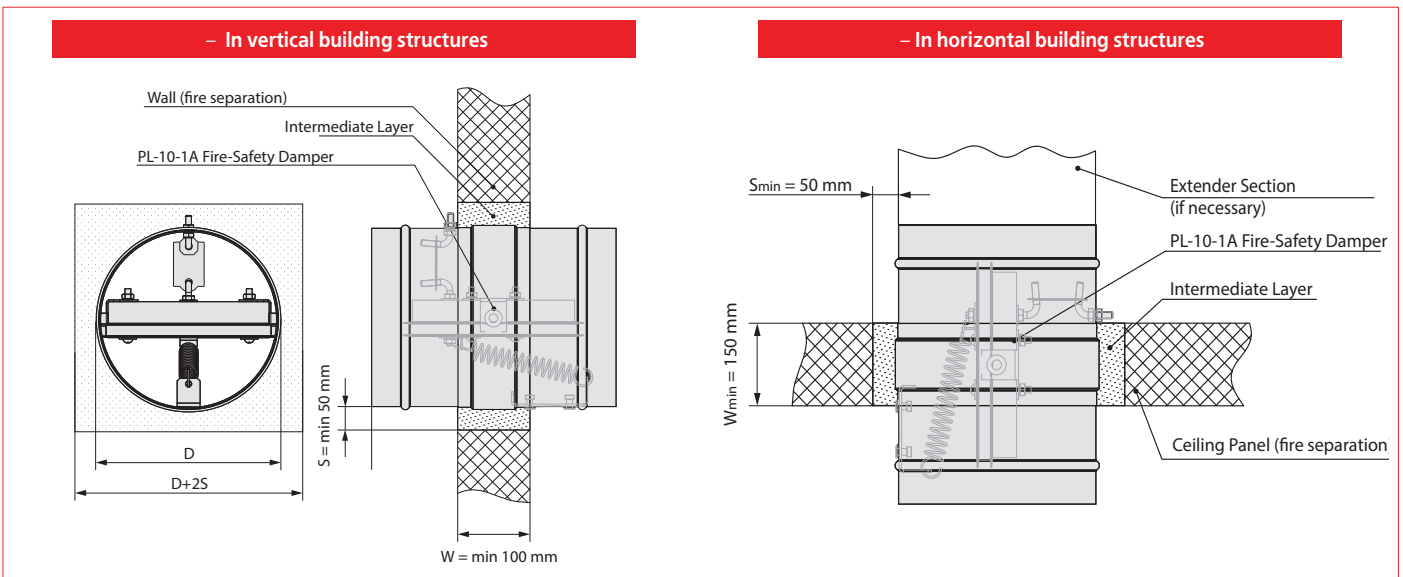
<b>Fire Resistance</b>	EI 60 – 1 hour; EI 120 – 2 hours
<b>Nominal Damper Diameter [mm]</b>	100; 125; 150; 160; 180; 200; 250; 315
<b>Actuator Type</b>	1A – Thermal Fuse (72 °C), Return Spring (manual actuation); 2-BLF230-T – Electric Actuator (with Return Spring and Thermal Sensor); 2-BLF24-T – Electric Actuator (with Return Spring and Thermal Sensor).
<b>Unit Designation</b>	PL-10 – Fire-Safety Damper

■ PL-10-1A Fire-Safety Damper with Mechanical Actuating Unit, Thermal Fuse and Return Spring

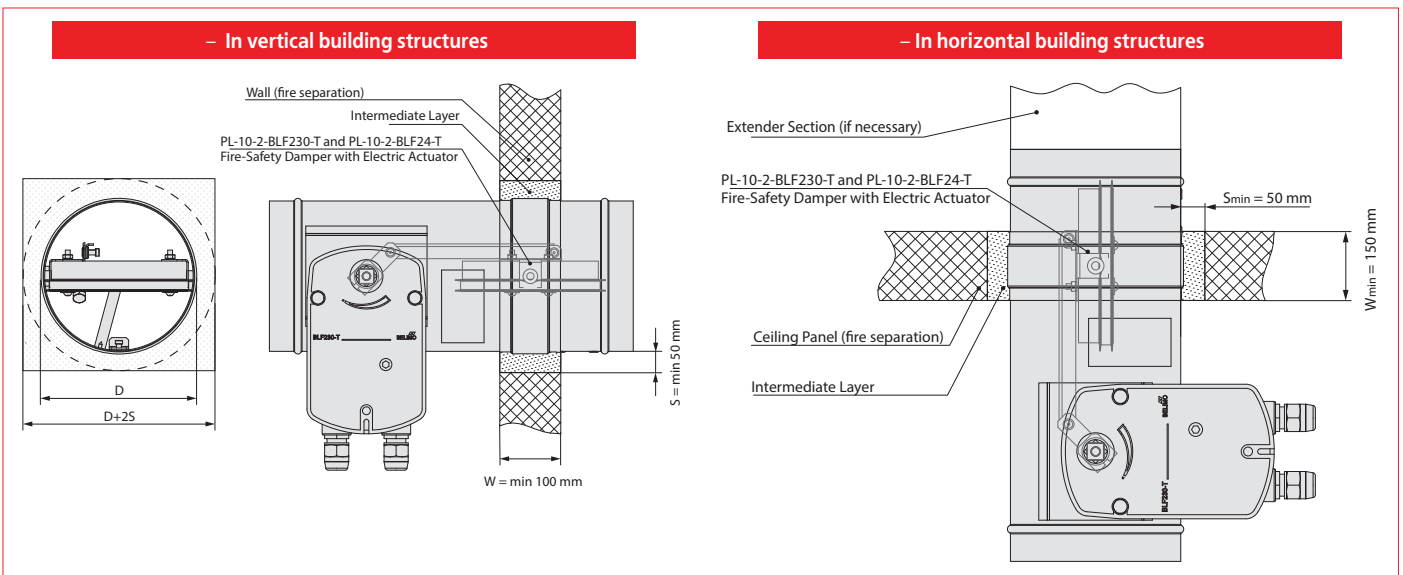
■ PL-10-2-BLF230-T and PL-10-2-BLF24-T Fire-Safety Damper with Belimo Electric Actuator and Thermally Sensitive Breaker



■ Installation Recommendations for PL-10...1A Dampers with Thermal Fuse and Return Spring:

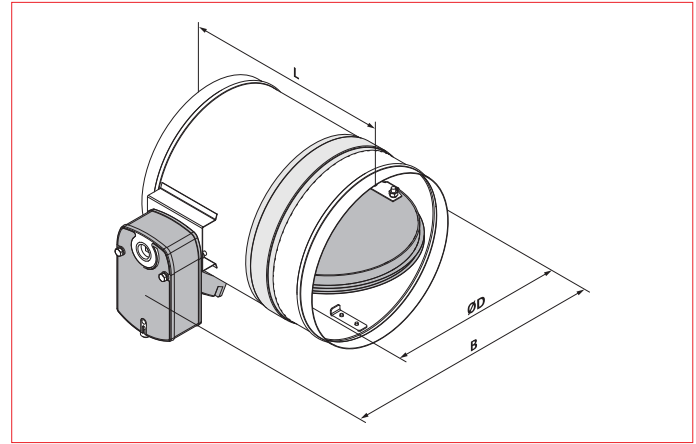
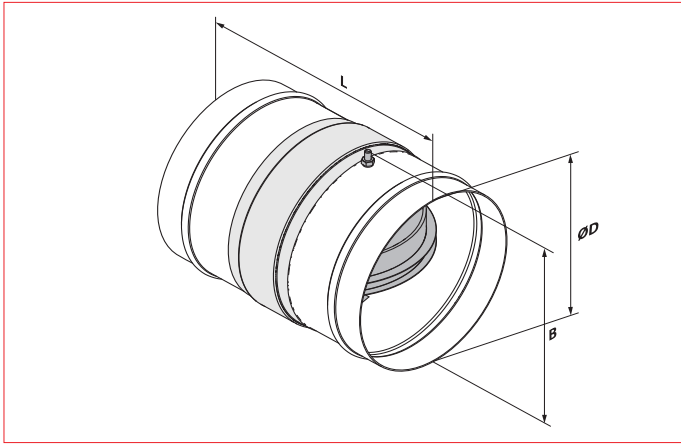


■ Installation Recommendations for PL-10...1A Dampers with Thermal Fuse and Return Spring:



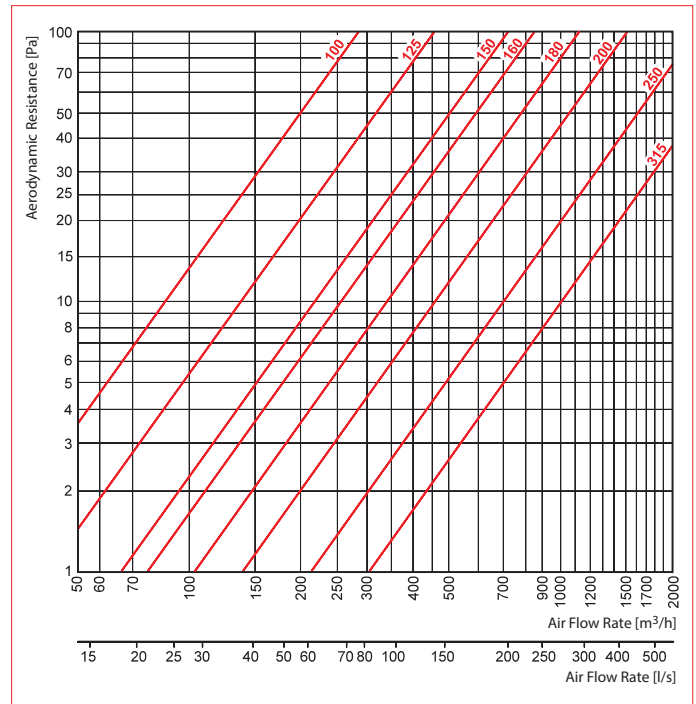
■ Fire-Safety Damper with Mechanical Actuating Unit, Thermal Fuse and Return Spring

■ Fire-Safety Damper with Belimo Electric Actuator and Thermally Sensitive Breaker



■ Outside and Connecting Dimensions of PL Dampers:

Damper Modification	Dimensions [mm]			Weight [kg]
	ØD	L	B	
PL-10-1A-DN	99	170	112	1
PL-10-2-BLF230-T (BLF24-T)-DN 100	99	300	185	2,9
PL-10-1A-DN 125	124	170	137	1,2
PL-10-2-BLF230-T (BLF24-T)-DN 125	124	300	205	3,1
PL-10-1A-DN 150	149	170	162	1,5
PL-10-2-BLF230-T (BLF24-T)-DN 150	149	300	240	3,4
PL-10-1A-DN 160	159	170	172	1,6
PL-10-2-BLF230-T (BLF24-T)-DN 160	159	300	245	3,5
PL-10-1A-DN 180	179	170	192	1,8
PL-10-2-BLF230-T (BLF24-T)-DN 180	179	300	255	3,8
PL-10-1A-DN 200	199	170	212	2
PL-10-2-BLF230-T (BLF24-T)-DN 200	199	300	265	4
PL-10-1A-DN 250	249	190	262	2,5
PL-10-2-BLF230-T (BLF24-T)-DN 250	249	310	290	4,7
PL-10-1A-DN 315	314	190	327	3,3
PL-10-2-BLF230-T (BLF24-T)-DN 315	314	310	340	5,6



■ Main Technical Specifications of BLF24-T and BLF230-T Electric Actuators

Technical Specifications	BF24-T	BF230-T	BLF24-T	BFL230-T
Rated Voltage	24 V~ 50/60 Hz 24=	230 V~ 50/60 Hz	24 V~ 50/60 Hz 24=	230 V~ 50/60 Hz
Power [W]	7	8	5	6
Current Consumption [A]	8.3	0.5	5.8	0.15
Torque [Nm]	18		6	
Noise Level [dB(A)]	45			
Actuation Temperature [°C]	72			
Casing IP Code	IP54			
Weight [kg]	2.8	3.1	1.63	1.73