

Motorized circular smoke dampers type ESAR

Circular smoke control damper ESAR is specially designed to use in single fire compartment applications as a closing or as an opening damper for smoke extract purposes. ESAR is fulfilling the european product standard **EN12101-8** requirements for single compartment applications and it is CE marked. The product has been tested according to EN 1366-10 fulfilling firclass E 120 S with pressure class 1000 Pa and temperature class 600°C. ESAR dampers are suitable both for automatically by a fire alarm actiated systems (AA) and manually, after the fire has started, by fire fighter acated systems (MA), 25 min open / close. ESAR smoke control damper is designed so, that opening or closing can be made even 25 minutes after the fire has started, in 600°C. Factory mounted electrical actuator is placed inside fireresistant calcium-silicate box.

Application

- ESAR has been designed to use in single fire compartment applications as a closing or as an opening damper for smoke extract purposes.

Material

- Galvanized steel duct and circular damper blade
- Smoke control damper ESAR is always delivered with factory mounted elctrical actuator 24 V or 230 V placed inside calcium-silicate box.

Composition

- Galvanized steel body and damper blade
- Standard delivered with connection with airtight lipseal
- Smoke control damper ESAR is always delivered with factory mounted elctrical actuator 24 V or 230 V inside calcium-silicate box
- Smoke control damper has two safety positions open or closed
- Smoke control damper is activated to transfer to safety position automatically by smoke detection or manually by switch used by fire fighters
- Electrical actuator has 2 free auxiliary switches for open / close position indication
- Fixation plate to be mounted against wall surface

Mounting

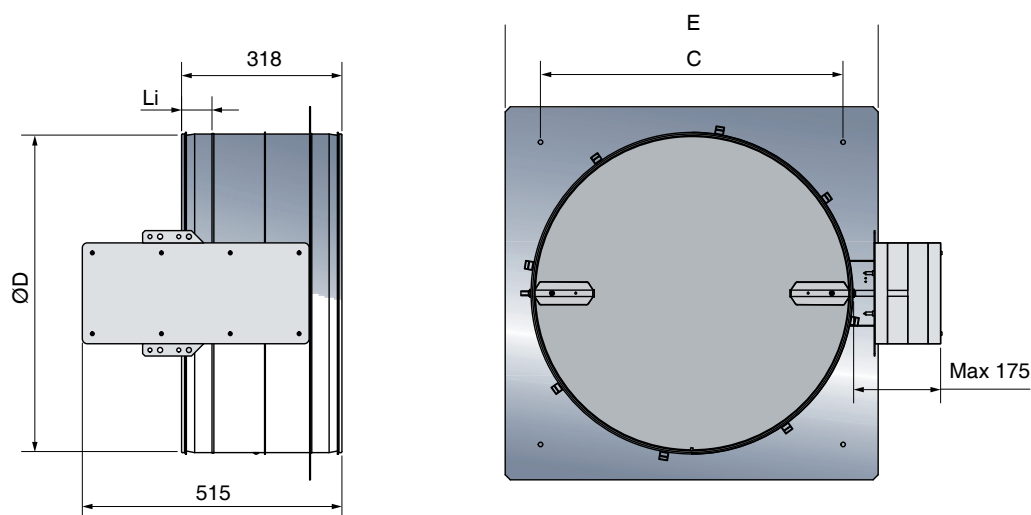
- Installation instructions (see download area) has to be followed to be able to fulfill fire classification.
- The duct outlet must be placed so that the smoke extraction damper is protected from water coming from outside as well as ice and snow that could hinder the opening of the damper
- The ductwork section between the smoke extraction damper and duct outlet must be designed and insulated so that the fire resistance and tightness requirements are met
- Also take account of possible condensation
- By design phase and installation work it is very important to notice, that all cable system with connection boxes has to be done by fire resistant products. Electrical actuator changes the damper position from open or close with transfer time not more than 60 s. If the electricity is cut off, damper blade will remain in its position
- Flow direction has no affect to the function of the damper

Accessories

- Connection piece MDV tot mount the damper on another duct accessory
- Protection lid with mesh can be supplied with the damper

Text for tender

- Smoke Control Damper ESAR for Single Compartment smoke control systems, with factory mounted safety actuator, which is placed inside fire resistant calcium-silicate box. Opening and closing with electrically driven actuator 24 V or 230 V. Fire tested and CE marked according the harmonised product standard EN 12101-8. Fire class according to EN 13501-4. E₆₀₀ 120 (ve i o) S1000C₃₀₀MAsingle. ESAR fullfills the requirements for MA clas for opening / closing (25 min, 600 °C) Suitable both for AA and MA smoke control systems
- ATC Type **ESAR**

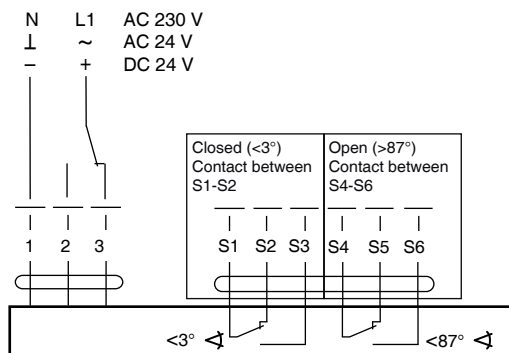


ESAR	Dimensions				
	ØD [mm]	c [mm]	E [mm]	Li [mm]	[kg]
100 *	160	159	220	35	10.70
125 *	160	159	220	35	10.70
160	160	159	220	35	10.30
200	200	203	260	35	10.80
250	250	237	310	40	11.20
315	315	281	380	40	13.30
400	400	390	470	60	14.70
500	500	480	570	60	17.20
630	630	600	740	60	21.60

* With extension

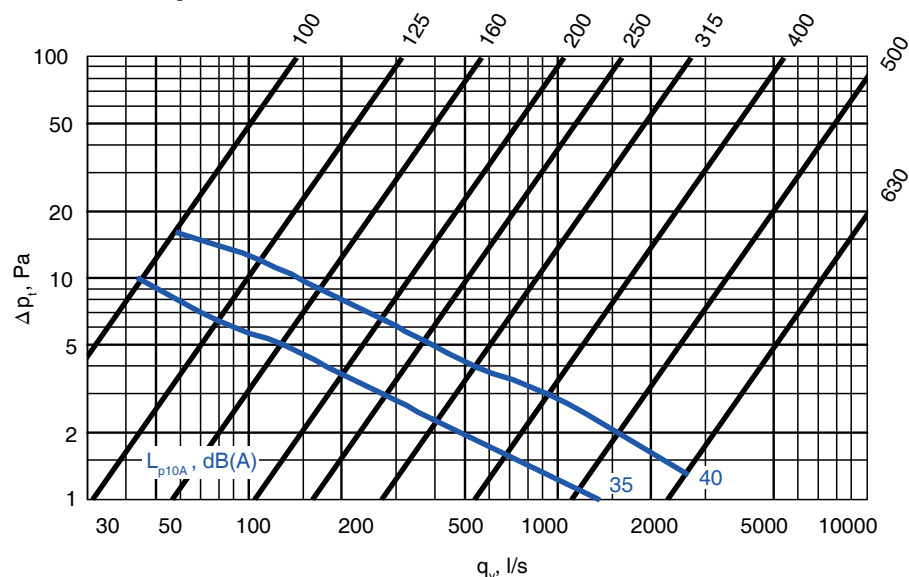
Electrical wiring diagram

L1-L2 open (90°)
L1-L3 closed (0°)



Actuator electrical data		
U [V]	Max Power [W]	Power for wire size
24V AC/DC	0,5W / 12W	18VA
230V AC	0,5W / 8W	15VA

Pressure drop



Correction factors							
Correction of sound power per octave bands Koct							
Frequency band	125	250	500	1000	2000	4000	8000
Correction Koct	16	10	5	0	-7	-13	-18
Tolerance +/-	6	3	3	3	3	3	3

$L_{woct} = L_{p10A} + K_{oct}$