



DKA
Damper

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FUNCTION AND USE

The **round, manually adjustable damper** DKA is suitable for installation in round **supply air and return air ducts** according to DIN EN 1506. It is used for regulating the volumetric flows in air-conditioning installations.

The hand-adjustable device **with integrated position indicator** allows an exact setting of the damper blade, without tools, between 0° and 90°. The housing is dimensionally stable due to standard double beads.

For use with airtight locking of volumetric flows, the damper DKA-L must be used.

The damper type DKA can be used at temperatures between 0 °C and +50 °C.

Maximum duct pressure 1000 Pa.

For maintenance, service, retrofitting, etc., inspection openings in sufficient number and size must be provided on site.

Housing leakage according to DIN EN 1751, class C (NW80 class B), at a duct pressure of up to 1000 Pa.

Leakage at closed damper blade according to DIN EN 1751, class 4 (NW80 to NW140 class 3), at a duct pressure of up to 1000 Pa.

Advantages:

- stable design
- easy to regulate
- assembly-friendly
- position-independent installation

MODELS

DKA-N	round damper, not airtight.
DKA-L	round damper with silicone-free damper blade seal made of PUR (NW 80-400 airtight according to DIN EN 1751).

PROCESSING

Housing, control damper and hand-adjustable device

- Galvanised sheet steel (-SV)
- Stainless steel, V2A, 1.4301 (-V2)

Axle bolt

- Brass

ACCESSORIES

Duct connection

- without rubber lip seal (-KA0)
- with rubber lip seal (-GD1)
 - special rubber, both sides

Electric actuator / spring return actuator

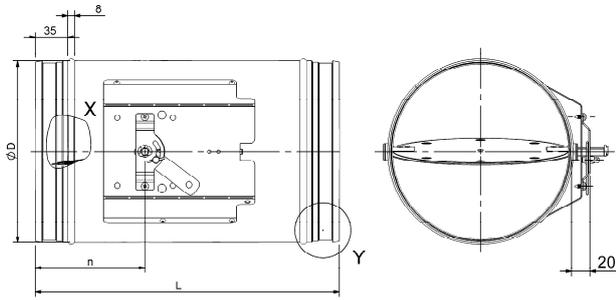
- without actuator (-E000)
- with electric actuator 2/3-point:
 - 5 Nm, 24 V AC/DC (-E044)
 - 5 Nm, 230 V AC (-E045)
- with electric actuator 0-10 V (continuous):
 - 5 Nm, 24 V AC/DC (-E046)
 - 5 Nm, 230 V AC (-E016)
- with spring return actuator, 2/3-point:
 - 4 Nm, 24 V AC/DC (-E021)
 - 4 Nm, 230 V AC (-E020)
- with electric actuator 0-10 V (continuous):
 - 4 Nm, 24 V AC/DC (-E023)
- with spring return actuator, with integrated limit switch, 2/3-point:
 - 4 Nm, 24 V AC/DC (-E037)
 - 4 Nm, 230 V AC (-E036)

Further drives upon request.

Damper position

- no spring return actuator (-NA, standard)
- currentless OPEN - normally open (-NO)
(only for drives with spring return)
- currentless CLOSED - normally closed (-NC)
(only for drives with spring return)

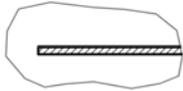
DIMENSION



Damper blade

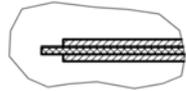
Detail X

DKA-N



DKA-L

(sealing air-tight to
 DIN EN 1751)

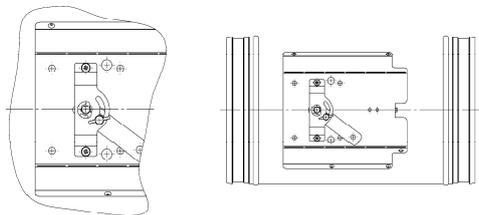


Available sizes

NW	øD	L	n
80	78	290	89
100	98		89
125	123		89
140	138		89
160	158		99
180	178	330	109
200	198		119
250	248		144
280	278		159
315	313	500	176,5
355	353		196,5
400	398		219

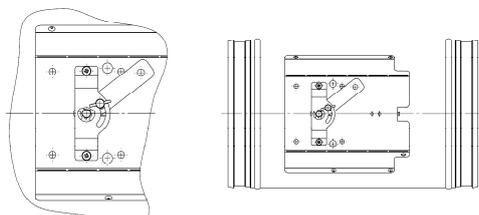
Hand-adjustable device left

Damper blade position "OPEN"



Hand-adjustable device right

Damper blade position "CLOSED"

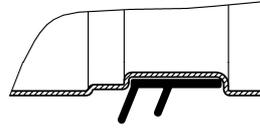


Construction subject to change
 No return possible

DIMENSIONS OF ACCESSORIES

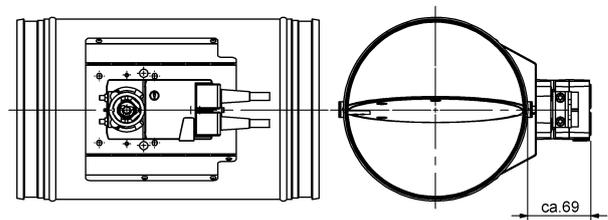
Rubber lip seal (-GD1)

Detail Y



Electric actuator / spring return actuator

DKA-...-Exxx-...



Attention:

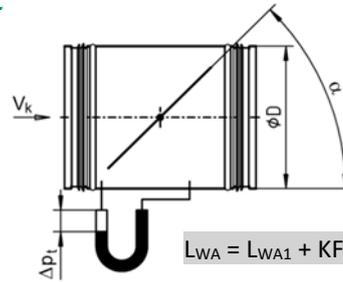
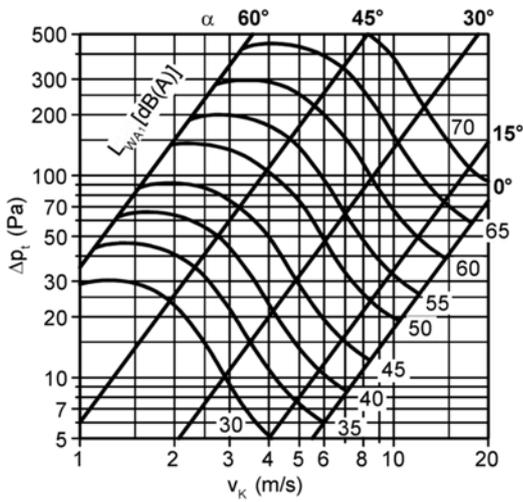
If the motor is fitted on site, specify the exact motor type!

LEAKAGE CLASSES ACCORDING TO DIN EN 1751

NW	Housing leakage	Damper blade leakage
80	B	3
100	C	3
125	C	3
140	C	3
160	C	4
180	C	4
200	C	4
250	C	4
280	C	4
315	C	4
355	C	4
400	C	4

TECHNICAL DATA

Pressure loss and noise level

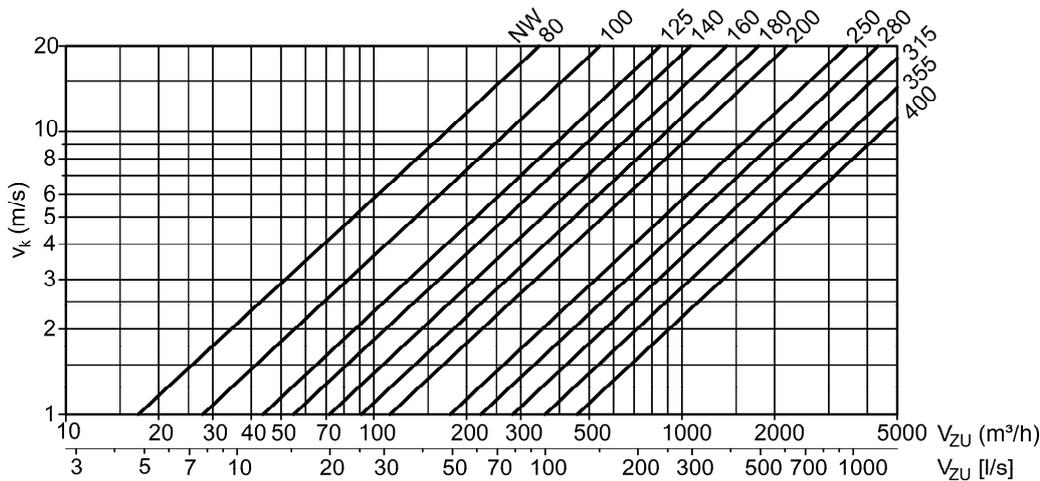


The leak volume with closed damper is approx. 5%, relative to the volumetric flow with open damper and at the same differential pressure.

Correction factor for noise level L_{WA1} [dB(A)]

NW	KF (-)
80	-5
100	-4
125	-2
140	-1
160	0
180	1
200	2
250	4
280	5
315	6
355	7
400	8

Duct velocity



LEGEND

- V_{zu} (m³/h) = Supply air volume
- V_{zu} [l/s] = Supply air volume
- v_k (m/s) = Duct velocity
- Δp_t (Pa) = Pressure loss
- L_{WA} [dB(A)] = A-weighted sound power level
($L_{WA} = L_{WA1} + KF$)
- L_{WA1} [dB(A)] = A-weighted sound power level
relative to NW 160
- KF (-) = Correction factor
- α (°) = Damper position
- NW (mm) = Nominal width
- L (mm) = Length
- n (mm) = Position of damper blade axle
- ϕD (mm) = Diameter

ORDER CODE

01	02	03	04	05	06	07
Type	Model	Size	Material	Duct connection	Actuator	Damper position
Example						
DKA	-N	-080	-SV	-KA0	-E021	-NO

Sample

DKA-N-080-SV-KA0-E021-NO

Damper type DKA, round design | not airtight | NW 80 | made of galvanised sheet steel | without rubber lip seal | with actuator with spring return, 2/3-point, 4 Nm, 24 V AC/DC | currentless OPEN

ORDER DETAILS

01 - Type

DKA = Damper DKA, round design

02 - Model

N = not airtight (standard)
 L = sealing airtight

03 – Nominal width

080 = NW 80
 100 = NW 100
 125 = NW 125
 140 = NW 140
 160 = NW 160
 180 = NW 180
 200 = NW 200
 250 = NW 250
 280 = NW 280
 315 = NW 315
 355 = NW 355
 400 = NW 400

04 - Material

SV = Galvanised sheet steel (standard)
 V2 = Stainless steel, V2A, 1.4301

05 - Duct connection

KA0 = without rubber lip seal (standard)
 GD1 = with rubber lip seal

06 – Actuator

E000 = without actuator (standard)
 E044 = actuator, 2/3-point, 5 Nm, 24 V AC/DC
 E045 = actuator, 2/3-point, 5 Nm, 230 V AC
 E046 = actuator, 0-10 V (continuous), 5 Nm, 24 V AC/DC
 E016 = actuator, 0-10 V (continuous), 5 Nm, 230 V AC
 E020 = actuator with spring return, 2/3-point, 4 Nm, 230 V AC
 E021 = actuator with spring return, 2/3-point, 4 Nm, 24 V AC/DC
 E023 = actuator with spring return, 0-10 V (continuous), 4 Nm, 24 V AC/DC
 E036 = actuator with spring return, with integrated limit switch, 2/3-point, 4 Nm, 230 V AC
 E037 = actuator with spring return, with integrated limit switch, 2/3-point, 4 Nm, 24 V AC/DC

further drives upon request

07 - Damper position

NA = no spring return actuator (standard)
 NO = currentless OPEN - normally open (only for drives with spring return)
 NC = currentless CLOSED - normally closed (only for drives with spring return)

SPECIFICATION TEXT

Round, manually adjustable damper **type DKA** for installation in round supply air and return air ducts according to DIN EN 1506 for regulating the volumetric flows in air-conditioning installations.

Product: SCHAKO type **DKA-N**

- Damper with silicone-free damper blade seal made of PUR, housing leakage according to DIN EN 1751, class C (NW80 class B), at a duct pressure of up to 1000 Pa. Leakage at closed damper blade according to DIN EN 1751, class 4 (NW80 to NW140 class 3), at a duct pressure of up to 1000 Pa.

Product: SCHAKO type **DKA-L**

Material:

- Housing, manually adjustable damper blade and manual adjusting device with integrated position indicator consisting of:
 - Galvanised sheet steel (-SV)
 - Stainless steel, V2A, 1.4301 (-V2)

Damper position:

- no spring return actuator (-NA , standard)
- currentless OPEN - normally open (-NO)
(only for drives with spring return)
- currentless CLOSED - normally closed (-NC)
(only for drives with spring return)

Accessories:

- Duct connection:
 - without rubber lip seal (-KA0)
 - with rubber lip seal (-GD1), on both sides, made of special rubber
- Electric actuator / spring return actuator:
 - without actuator (-E000).
 - with electric actuator 2/3-point:
 - 5 Nm, 24 V AC/DC (- E044).
 - 5 Nm, 230 V AC (-E045).
 - with electric actuator 0-10 V (continuous):
 - 5 Nm, 24 V AC/DC (-E046).
 - 5 Nm, 230 V AC (-E016).
 - with spring return actuator, 2/3-point:
 - 4 Nm, 24 V AC/DC (-E021).
 - 4 Nm, 230 V AC (-E020).
 - with electric actuator 0-10 V (continuous):
 - 4 Nm, 24 V AC/DC (-E023).
 - with spring return actuator, with integrated limit switch, 2/3-point:
 - 4 Nm, 24 V AC/DC (-E037).
 - 4 Nm, 230 V AC (-E036).

Further drives upon request.