



FDB
Spring loaded brake

FDB Spring loaded brake

Since many years our FDB brake has a name as absolute reliable brake for use in almost every application. As standard this brake is available in 10 different sizes for static or dynamic

braking with re-settable air gap design. Due to several variations and options this brake series is preferred by motor manufactures for universal use

C-Version

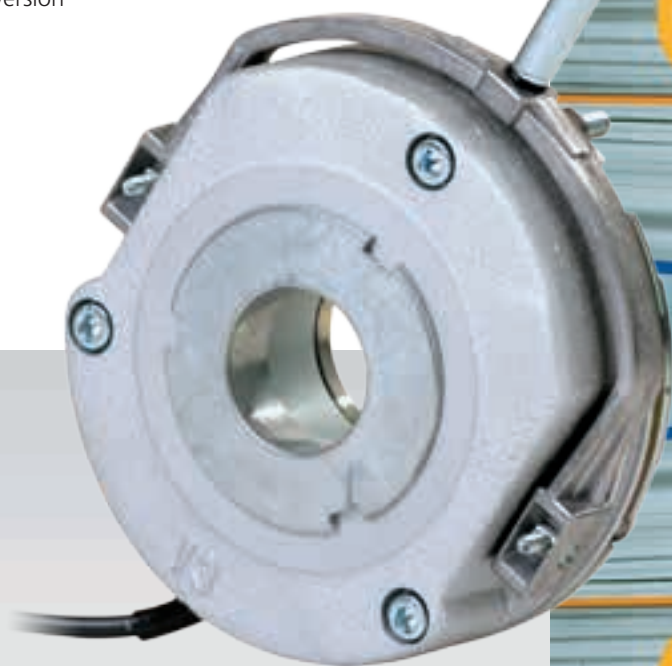
for adjustable braking torque

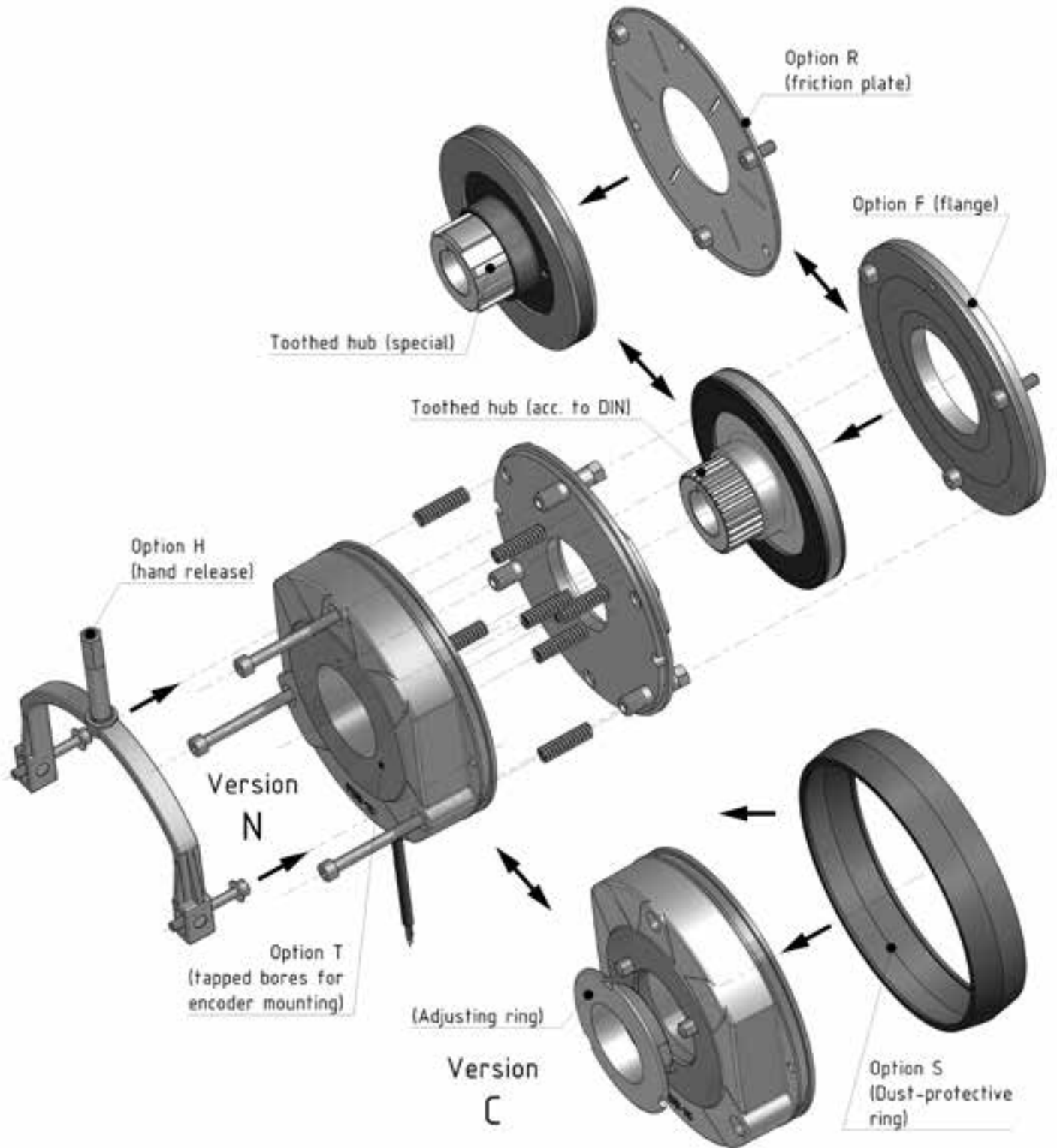
N-Version

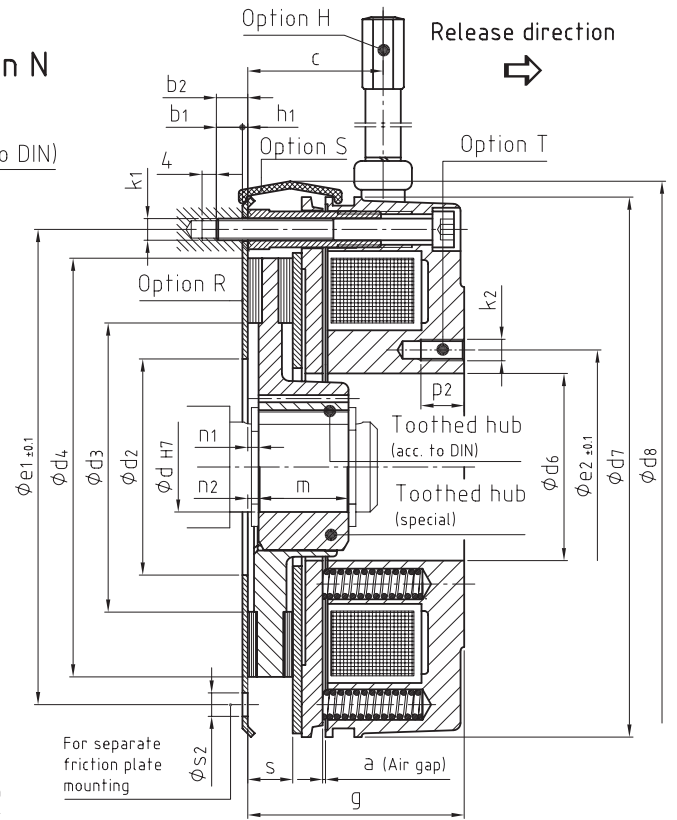
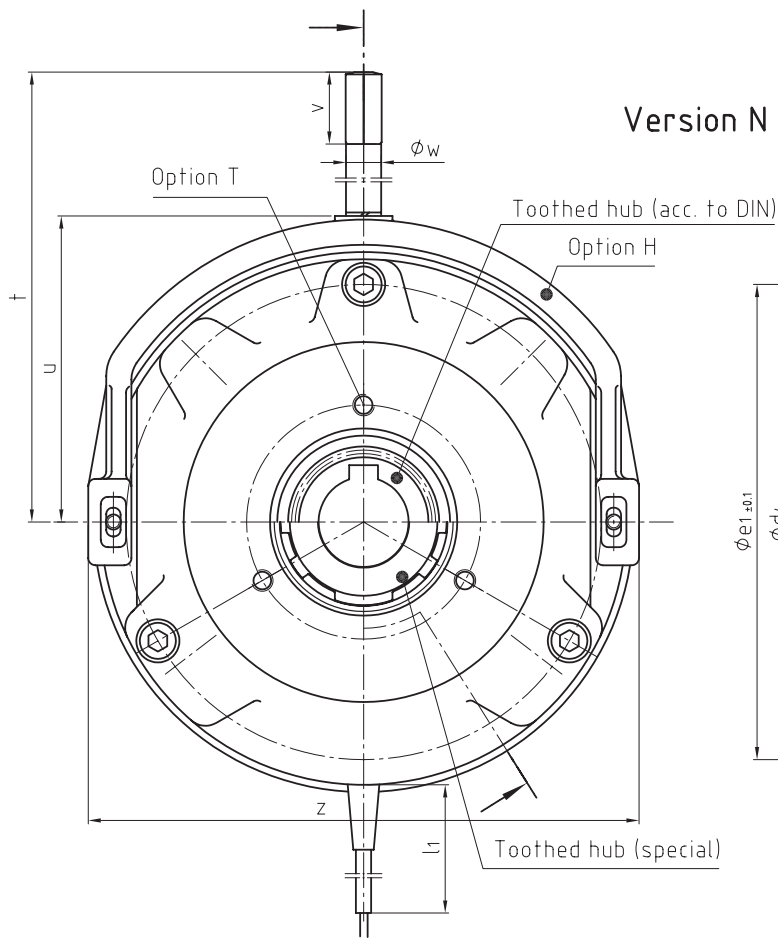
with fixed braking torque

Options:

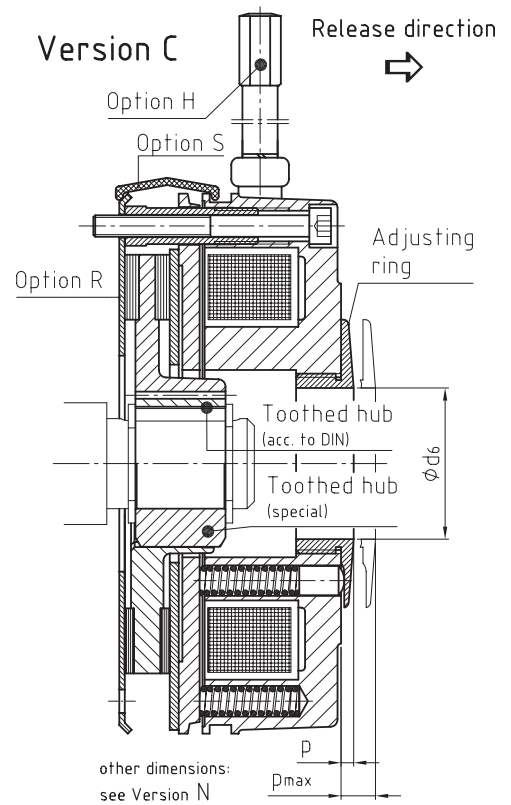
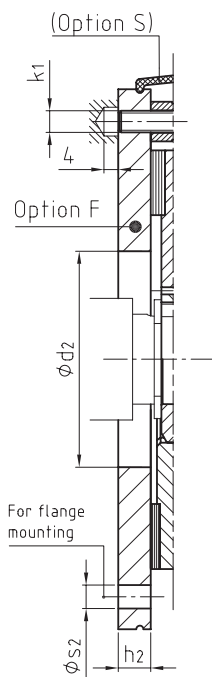
- manual hand release
- micro switch or inductive sensor to monitor brake function or wear limit
- friction plate or adpoterflange
- taped bores for tacho maunting
- dust protection ring
- temperture feeler
- rest period heating
- low noise version







Flange



Version N

| Size | Braking torque M_b [Nm]**** | P 20 °C (Watt) | a | b1 | b2 | c | Hub diameter d ^{H7} | |
|------|-------------------------------|----------------|----------------------|------|-----|----|------------------------------|---------------------------|
| | | | | | | | Toothed hub (special) | Toothed hub (acc. to DIN) |
| 08 | 5** | 22 | 0,2 ^{+0,15} | 9 | 5,5 | 22 | 11/14*/15* | - |
| 10 | 10** | 28 | 0,2 ^{+0,15} | 10,5 | 7 | 21 | 15/19*/20* | 14/15 |
| 13 | 20** | 34 | 0,3 ^{+0,15} | 12 | 8,5 | 33 | 15/20/25 | 15/20 |
| 15 | 40** | 45 | 0,3 ^{+0,15} | 12 | 8,5 | 38 | - | 20/25/30 |
| 17 | 60** | 55 | 0,3 ^{+0,15} | 13 | 10 | 42 | - | 25/30/35* |
| 20 | 100** | 85 | 0,4 ^{+0,15} | 13 | 10 | 48 | - | 30/35/40 |
| 23 | 150** | 76 | 0,4 ^{+0,15} | 15 | 12 | 51 | - | 35/40/45 |
| 26 | 250** | 105 | 0,5 ^{+0,2} | 20 | 12 | 57 | - | 40/45/50/55* |
| 30 | 400** | 140 | 0,5 ^{+0,2} | 17 | 19 | 59 | - | 50/55/60/65* |
| 40 | 1000** | 144*** | 0,6 ^{+0,2} | - | 17 | 69 | - | 65/70/75/80* |

| Size | d2 | d3 | d4 | d6 ^{H7 +} | d7 | d8 | e1 ^{+0,1} | e2 ^{+0,1} | g | h1 | h2 | k1 | k2 ⁺ |
|------|-----|-----|-------|--------------------|-----|-----|--------------------|--------------------|-------|-----|------|-----------|-----------------|
| 08 | 30 | 42 | 61,5 | 26 | 85 | 89 | 72 | 34 | 38,3 | 1,5 | 6 | (3 x) M4 | (3 x) M4 |
| 10 | 40 | 50 | 78 | 32 | 105 | 109 | 90 | 40 | 47,7 | 1,5 | 7 | (3 x) M5 | (3 x) M5 |
| 13 | 50 | 62 | 98 | 42 | 130 | 135 | 112 | 54 | 53,1 | 1,5 | 9 | (3 x) M6 | (3 x) M6 |
| 15 | 60 | 80 | 118,5 | 52 | 150 | 155 | 132 | 65 | 60,3 | 1,5 | 9 | (3 x) M6 | (3 x) M6 |
| 17 | 70 | 82 | 127,5 | 62 | 170 | 175 | 145 | 75 | 69,8 | 2 | 11 | (3 x) M8 | (3 x) M8 |
| 20 | 80 | 94 | 152 | 72 | 195 | 201 | 170 | 85 | 80,4 | 2 | 11 | (3 x) M8 | (3 x) M8 |
| 23 | 90 | 120 | 178 | 80 | 225 | 231 | 196 | 95 | 89,8 | 2 | 11 | (3 x) M8 | (3 x) M8 |
| 26 | 90 | 130 | 204 | 90 | 258 | 264 | 230 | 110 | 98,9 | 2 | 11 | (3 x) M10 | (6 x) M10 |
| 30 | 120 | 180 | 255 | 115 | 306 | 312 | 278 | 138 | 104,5 | 2 | 12,5 | (6 x) M10 | (6 x) M10 |
| 40** | 150 | 258 | 330 | 150 | 400 | 408 | 360 | 180 | 120,6 | - | 18 | (6 x) M12 | (6 x) M12 |

| Size | l1 | m | n1 | n2 | p2 ⁺ | s (new) | øS2 ⁺ | t | u | v | w | z |
|------|-----|----|-----|-----|-----------------|----------------------|------------------|-----|-----|----|----|-----|
| 08 | 400 | 18 | 1,5 | 0,5 | 8 | 7,5 ^{-0,1} | 3 x 4,5 | 100 | 55 | 15 | 8 | 89 |
| 10 | 500 | 20 | 2,5 | 1 | 12 | 8,5 ^{-0,1} | 3 x 5,5 | 110 | 65 | 15 | 8 | 111 |
| 13 | 500 | 20 | 3,5 | 1,5 | 12 | 10,3 ^{-0,1} | 3 x 6,5 | 135 | 75 | 20 | 10 | 132 |
| 15 | 600 | 25 | 3 | - | 12 | 12,5 ^{-0,1} | 3 x 6,5 | 140 | 85 | 20 | 10 | 151 |
| 17 | 600 | 30 | 3 | - | 15 | 14,5 ^{-0,1} | 3 x 8,5 | 165 | 97 | 25 | 12 | 172 |
| 20 | 600 | 30 | 3 | - | 15 | 16,0 ^{-0,1} | 3 x 8,5 | 186 | 116 | 25 | 12 | 196 |
| 23 | 600 | 35 | 4 | - | 15 | 18,0 ^{-0,1} | 3 x 8,5 | 200 | 128 | 25 | 12 | 224 |
| 26 | 600 | 40 | 4 | - | 25 | 20,0 ^{-0,1} | 3 x 10,5 | 285 | 148 | 35 | 19 | 258 |
| 30 | 600 | 50 | 4 | - | 25 | 20,0 ^{-0,1} | 6 x 10,5 | 310 | 175 | 35 | 19 | 304 |
| 40** | 600 | 70 | 4 | - | 43++ | 22,0 ^{-0,1} | 6 x 13 | 415 | 230 | 35 | 19 | 403 |

Version C

| Size | Braking torque M_b [Nm]**** | Adjusting of M_b | | | | d6 | k2 | p | p _{max} | p2 | a...z |
|------|-------------------------------|-----------------------------------------|--------------------------|------------------------|----|-------------|-----|------|------------------|--------------------------------------------|-------|
| | | Reduction of M_b [Nm] / latching step | Number of latching steps | ΔM_{bmax} [Nm] | | | | | | | |
| 08 | 5** | 0,2 | 6 | 1,2 | 21 | No option T | 3 | 6 | No option T | Other Dimensions: see schedule „Version N“ | |
| 10 | 10** | 0,2 | 12 | 2,4 | 25 | | 3 | 9 | | | |
| 13 | 20** | 0,3 | 12 | 3,6 | 35 | | 3,5 | 9,5 | | | |
| 15 | 40** | 1 | 9 | 9 | 45 | | 3,5 | 8 | | | |
| 17 | 60** | 1,3 | 12 | 15,6 | 54 | | 4,5 | 10,5 | | | |
| 20 | 100** | 1,5 | 18 | 27 | 60 | | 7 | 14 | | | |
| 23 | 150** | 2 | 24 | 48 | 65 | | 8 | 17 | | | |

Standard keyway in accordance to DIN 6885/1-JS9

* Keyway in accordance to DIN 6885/3-JS9

** Standard braking torque (working brake)

Standard braking torque (holding brake): ca. 1,5 * M_b

*** Switched with fast acting rectifier (over-excitation)

**** Permissible deviations of M_b :

Working brake: -30% (new) // ±20% (run-in)

Holding brake: ±20% (new) // -10% / +30% (run-in)

Dimensions in mm

+ Bores at option R and F (Size 40: only option F)

++ separate inner pole: 15 mm without thread (through-hole)

+++ deviating dimensions and/or no option T at Version C

(see schedule "Version C")