

## Electromagnetic Stationary Field Tooth Clutch

Clutch with diaphragm-armature plate to be fastened on the free wheeling gear part.

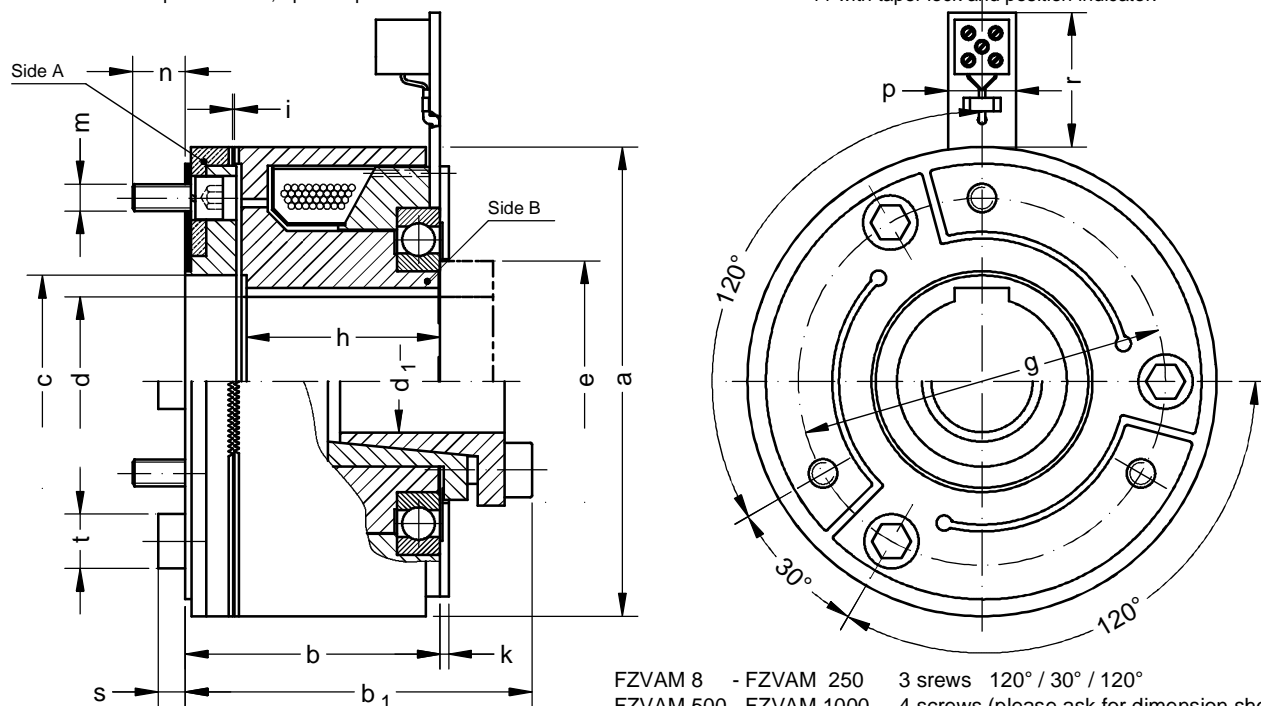
For oil and dry operation, coil voltage 24 V DC

- ◆ With point shaped, backlash-free and hardened tooth profile.
- ◆ With torsionally stiff, axially flexible spring steel diaphragm.
- ◆ Type with tooth angle 35° for high torque transmission.
- ◆ Suited for disengagement under torque load.
- ◆ With taper lock for zero-backlash drive systems.
- ◆ Applicable for horizontal und vertical mounting.
- ◆ Executions for torque limitation, upon request.

The engagement of tooth clutches is made at standstill or under synchronous speed. Advantage is given by the transmission of high torque in relation to clutch dimension and the complete disconnection of drive transmission, permitting their possible use in high speed applications.

Versions:

- 00 with keyway, without position indicator.
- 01 with keyway, with position indicator.
- 10 with taper lock, without position indicator.
- 11 with taper lock and position indicator.



FZVAM 8 - FZVAM 250 3 screws 120° / 30° / 120°  
FZVAM 500 - FZVAM 1000 4 screws (please ask for dimension sheet)

| Data and Dimensions                    |                                   | FZVAM 8 | FZVAM 16 | FZVAM 32 | FZVAM 63 | FZVAM 125 | FZVAM 250 | FZVAM 500 | FZVAM 1000 |
|--|-----------------------------------|---------|----------|----------|----------|-----------|-----------|-----------|------------|
| Static torque (keyed to the shaft)     | Nm                                | 80      | 160      | 320      | 630      | 1250      | 2500      | 5000      | 10000      |
| Static torque (with taper lock)        | Nm                                | 70      | 120      | 280      | 520      | 960       | 1880      | 3300      | ---        |
| Speed maximum                          | min <sup>-1</sup>                 | 7000    | 6000     | 5500     | 4700     | 4000      | 3200      | 2500      | 1600       |
| Coil power consumption at 20 °C        | W                                 | 30      | 45       | 45       | 60       | 60        | 90        | 125       | 140        |
| Coil inductivity                       | Vs/A                              | 2,5     | 2,5      | 3,5      | 3,5      | 3,5       | 4,0       | 5,0       | 8,0        |
| Mass moment of inertia side A          | 10 <sup>-3</sup> kgm <sup>2</sup> | 0,3     | 0,5      | 1,3      | 1,7      | 7,3       | 18,5      | 43,4      | 150        |
| Mass moment of inertia side B          | 10 <sup>-3</sup> kgm <sup>2</sup> | 0,6     | 1,4      | 3,0      | 6,6      | 16,7      | 60        | 168       | 400        |
| Mass (weight)                          | kg                                | 1,6     | 2,3      | 3,6      | 6,2      | 10,2      | 20        | 35        | 63         |
| Screw fastening torque - for diaphragm | Nm                                | 9,5     | 16       | 32       | 77       | 135       | 330       | 330       | 650        |
| ø a                                    | mm                                | 84      | 97       | 113      | 131      | 155       | 194       | 240       | 300        |
| b                                      | mm                                | 42      | 49,5     | 59       | 69,5     | 83,5      | 103,5     | 118       | 142        |
| b <sub>1</sub>                         | mm                                | 71      | 78,5     | 85       | 95,5     | 118,5     | 138,5     | 160       | ---        |
| ø c                                    | mm                                | 36      | 48       | 56       | 60       | 74        | 108       | 120       | 150        |
| ø d H7                                 | mm                                | 25      | 35       | 45       | 50       | 60        | 75        | 90        | 110        |
| ø d <sub>1</sub> for taper lock        | mm                                | 20      | 25       | 35       | 40       | 45        | 65        | 70        | ---        |
| ø e                                    | mm                                | 40      | 50       | 62       | 69       | 80        | 100       | 124       | 163        |
| g                                      | mm                                | 60      | 73       | 86       | 100      | 125       | 155       | 190       | 250        |
| h                                      | mm                                | 30      | 38,5     | 43,5     | 52       | 62,5      | 80        | 97        | 112        |
| i addenda distance                     | mm                                | 0,30    | 0,35     | 0,35     | 0,40     | 0,45      | 0,45      | 0,45      | 0,50       |
| k                                      | mm                                | 3       | 3        | 3        | 4        | 5         | 6         | 8         | 3          |
| m                                      | mm                                | M6      | M6       | M8       | M10      | M12       | M16       | M16       | M20        |
| n                                      | mm                                | 10      | 13       | 14       | 16       | 19        | 22        | 22        | 27         |
| p                                      | mm                                | 22      | 22       | 22       | 22       | 22        | 30        | 30        | 30         |
| r                                      | mm                                | 64      | 64       | 63       | 57       | 55        | 93        | 85        | 75         |
| s                                      | mm                                | 6       | 6        | 7        | 9        | 10        | 14        | 14        | 15         |
| ø t                                    | mm                                | 10      | 10       | 13       | 16       | 18        | 24        | 24        | 24         |
| Keyway DIN 6885 - 2                    | -                                 | 1       | 1        | 1        | 2        | 2         | 2         | 2         | 2          |
| Number of teeth                        | -                                 | 196     | 260      | 224      | 260      | 245       | 305       | 296       | 368        |