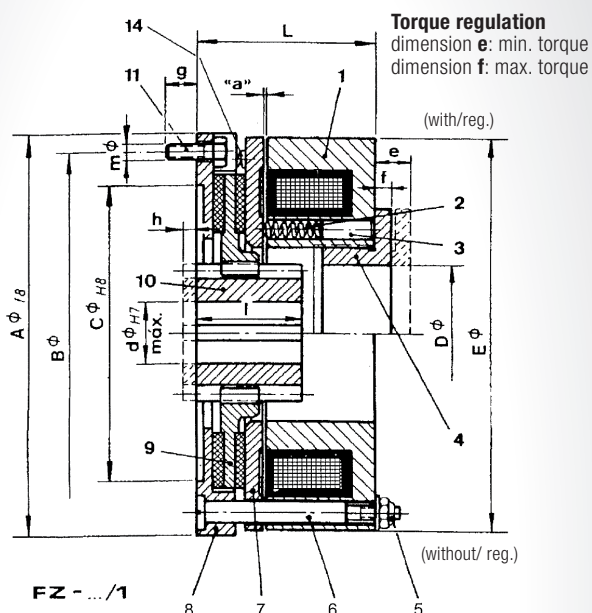


# ELECTROMAGNETIC SPRING

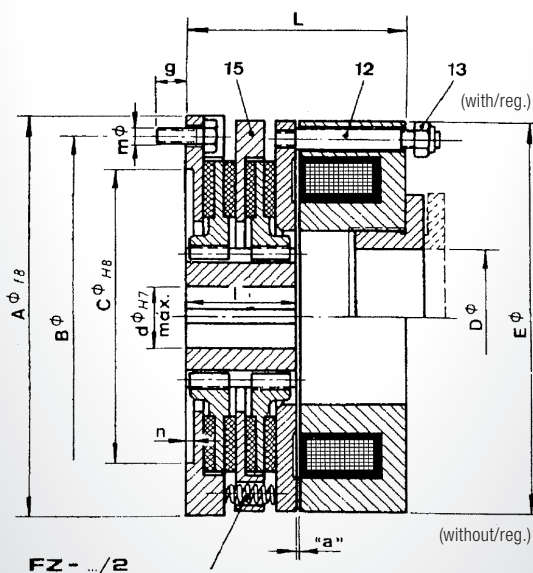


## Type FZ-.../1 1 friction disc



- |                             |                    |  |
|-----------------------------|--------------------|--|
| 1. Inducing core            | 6. Adjusting screw | 11. Clamping screws                          |
| 2. Brake springs            | 7. Armature        | 12. Unblocking pins                          |
| 3. Tightening pin           | 8. Anchoring disc  | 13. Regulating nuts for unblocking operation |
| 4. Regulating nut           | 9. Friction disc   | 14. Intermediate springs                     |
| 5. Regulating nuts dim. "a" | 10. Braking pinion |  |

## Type FZ-.../2 2 friction discs



- |                                   |                       |                          |
|-----------------------------------|-----------------------|--------------------------|
| 9. Friction disc (additional one) | 15. Intermediate disc | 16. Intermediate springs |
|-----------------------------------|-----------------------|--------------------------|

## REACTION BRAKE With hand-operated unblocking system Type FZ

### Description

The electromagnetic safety brake type FZ makes up a unit suitable for working with horizontal shafts, with a high reliability degree, a good heat dissipation, a quick response speed and a minimum residual torque.

Ask us when required for working with vertical shafts. This unit is provided with a "manual emergency unblocking system", for those cases in which it is necessary to deactivate it without the aid of the electromagnet.

### Versions

We manufacture only one version, for working under dry conditions. Optionally and on request, it can be delivered:

1. With torque adjustment, which enables you to control the braking action.
2. With hand-operated unblocking by means of lever. For those cases in which this has to be effected frequently.
3. With protection cover. For those cases in which work has to be carried out under aggressive conditions, dust, water, etc. See Fig. A for physical dimensions.

The standard voltage is 24 V.D.C. Other voltages on request.

### Operation

When exciting the coil housed inside core 1 with current, it generates a magnetic field which draws the armature 7, overcoming the resistance of the springs 2, whereby the friction disc 9 and the pinion 10 are triggered, causing thus the unit to be brake released.

When chopping the electric current and dropping out the magnetic force, the springs 2 impel the armature 7 against the friction disc 9, whereby the letter is trapped against part 8 which is anchored to the machine bedframe by means of the screws 11. As the friction disc is connected to the pinion 10 which is, in its turn, splined on to the shaft, this will be braked.

**Hand unblocking operation:** It will enough to tight butt the 2 nuts 13 (Fig. 3), to put the brake into operation again, unscrew them approximately 2 turns.

**Torque regulation:** In the units provided with torque regulation part 4 will be screwn down or unscrewn, until obtaining the required braking action (Fig. 4).

# ELECTROMAGNETIC SPRING REACTION BRAKE

## With hand-operated unblocking system

### Type FZ

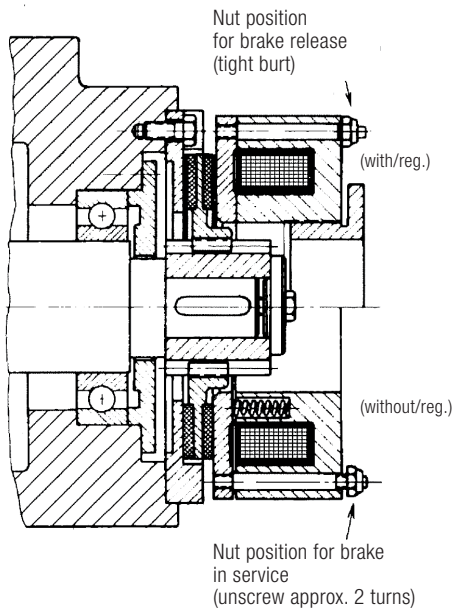


Fig. 3 - Hand unblocking operation.

3 selflocking nuts for space regulation dimension "a"

Nuts for hand unblocking operation -for brake in service leave nuts loose-

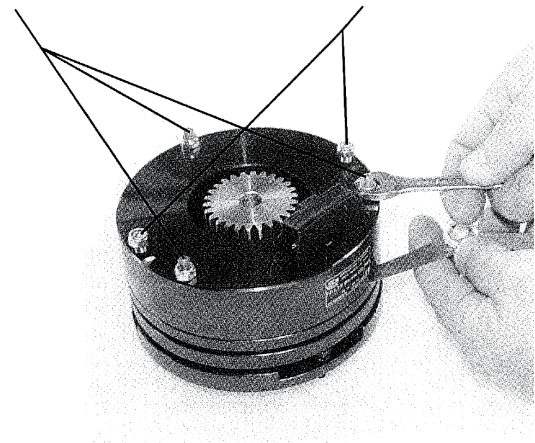


Fig. 4 - Torque and dimension "a" regulation.

SIZE / CONSTRUCTION TYPE		0,3/1	0,55/2	0,91/1	1,7/2	3/1	5,7/2	10/1	19/2	32/1	60/2
Max. braking moment	<b>da Nm.</b>	0,3	0,55	0,9	1,7	3	5,7	10	19	32	60
Max. revolutions per minute	<b>n</b>	6000		5000		4000		3000		2200	
Consumption	<b>Watts</b>	12		16		33		57		100	
Torque regulation	<b>%</b>	100 a 0		100 a 0		100 a 25		100 a 50		100 a 60	
Working capacity	hour max.	330		580		960		1800		2100	
	connection max.	8,25		14,5		24		45		102,5	
Mass	<b>kg</b>	1,5	1,65	2,4	2,8	5,3	6,3	13,2	15,4	24,5	27,5
Air space = dimension "a"	<b>m. m.</b>	0,3	0,4	0,4	0,5	0,4	0,5	0,5	0,7	0,5	0,7
	<b>A</b>	94	94	118	118	153	153	206	206	284	284
	<b>L</b>	41	51	49	60	67	80	88	105	112	134
max.	<b>d</b>	20	20	26	26	32	32	45	45	65	65
	<b>B</b>	84	84	106	106	140	140	188	188	262	262
	<b>C</b>	70	70	90	90	115	115	160	160	230	230
	<b>D</b>	32	32	46	46	58	58	75	75	116	116
	<b>E</b>	92	92	116	116	150	150	202	202	280	280
	<b>I</b>	25	25	32	32	40	40	52	52	65	65
	<b>m x g</b>	M4 x 8		M5 x 10		M6 x 12		M8 x 14		M10 x 22	
	<b>n</b>	1,5	1,5	2,5	2,5	3	3	4	4	5	5
	<b>e</b>	7	7	9	9	11	11	13	13	20	20
	<b>f</b>	3	3	4	4	5	5	6	6	8	8
Only for FZ-/1 (max. shift)	<b>h</b>	9	-	10	-	12	-	12	-	20	-



Notes: In all sizes, our brakes will be delivered with dimension d = 10 mm and without keynut.