MEDVA CONTROLGIR M4

Hydraulic Rotary Damper | English Manual

1. Description

- The CONTROLGIR M4 Z16 rotary damper was developed to regulate and control the speed of the gate on installations with a slope throughout its entire travel.
- For safety, it is necessary to prevent the gate from gaining speed when the automation is unlocked.
- If it does not have a compensation or braking system, it will tend to move and accelerate in the direction of the slope, making the uncontrolled movement dangerous.
- The damper only offers resistance in one direction of rotation, remaining completely free in the opposite direction.
- This accessory is suitable for automated gates with a module 4 rack.
- The CONTROLGIR is manufactured with anti-corrosion materials for outdoor use.

2. Dimensions and Technical Data

Technical Characteristic	Specification
Pinion Module	M4
Number of Teeth	Z16
Liquid Type	SILICONE 3000
Operating Temperature	-15°C to +70°C
Maximum Load	7 Nm
Braking Direction	Left or Right
Load Adjustment	Yes

3. Mounting Instructions

3.1 Changing the Braking Direction

- To change the braking direction, you must remove the safety ring.
- Remove the pinion and place it back in the opposite direction.
- Reattach the safety ring.

3.2 Mounting

- The CONTROLGIR M4 must be placed as close as possible to the automation system.
- Adjust its height, leaving a 1 mm gap between the pinion and the rack.

3.3 Calculation

> **Formula:** $M\ [Nm] = P \times sin(B) \times 0.032$
>
> P = gate weight in Newtons ($9.8N = 1Kg$)
>
> B = angle of inclination in degrees

Calculation Example

> **Scenario:** Can the CONTROLGIR M4 be used on a 400kg gate with a 3° slope?
>
> $P = 9.8 \times 400\ kg = 3920\ N$
>
> $M = 3920\ N \times sin(3°) \times 0.032 = 6.56\ Nm$
>
> **Conclusion:** Because 6.56 Nm is less than 7 Nm (the maximum allowed), the application of the brake is viable for the installation.