

# Variable traffic signs

Prism technology



# Dynamic direction signs

## Variable message signs and variable traffic signs, prism-technology



*BAB A8 Motorway, Munich, Germany*



*D1 Motorway, Slovakia*



*Europapark Rust, Austria*

Variable prismatic message signs come in a wide range of designs to accommodate customer requirements: individual units to symbolise traffic signs such as speed limits, congestion, icy road warning, etc., or variable message signs integrated in static directional signs fitted to gantries. Variable prismatic signs display a range of symbols or texts through variations in rotating triangular prisms.

Specially designed rectangular prisms can display up to four indications.

A2 Motorway, Seebenstein, Austria



Buchenberg Tunnel,  
Waidhofen/Ybbs, Austria



A9 Motorway, Deutschfeistritz, Austria



A2 Emmen, Canton of Lucerne, Switzerland

# The drive at the heart of all prism systems

## Long-lived, robust and maintenance-free

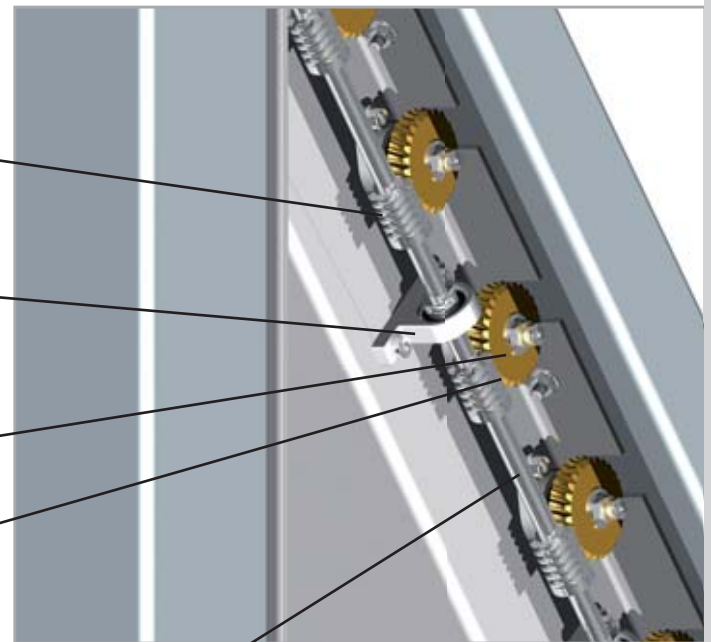
Prism profile of a height of 100 mm

Worm, axial/radial  
(made of corrosion-proof special steel)

Flange bearing and pedestal bearing:  
fully stainless-steel deep-groove ball bearings  
coated with glass fibre-reinforced polyamide

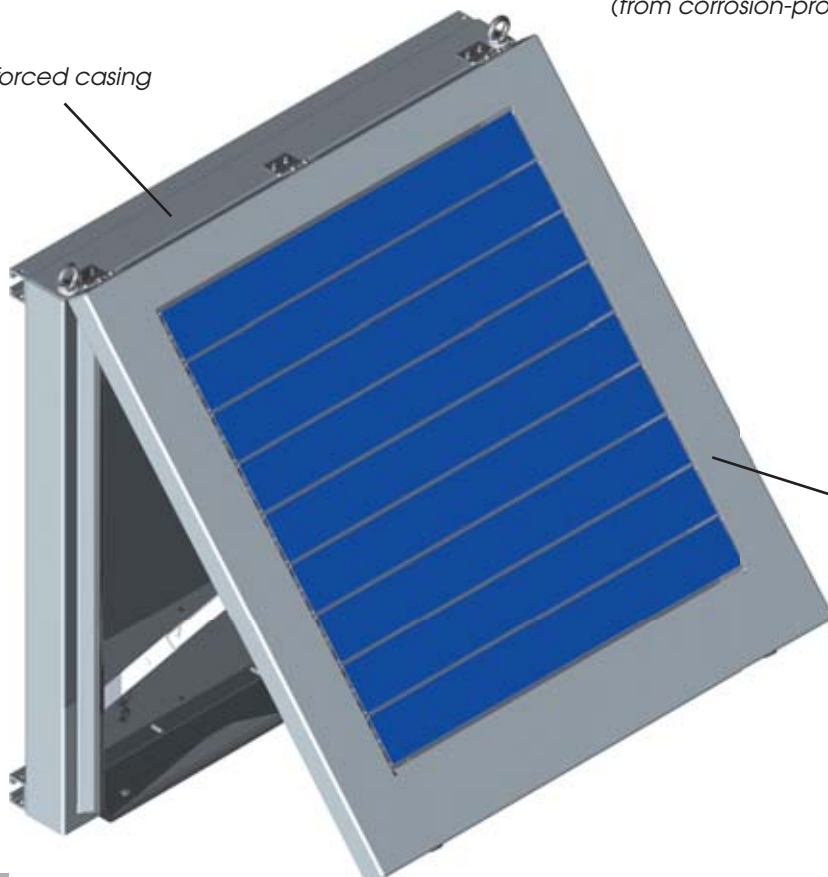
Bronze worm wheel with hexagon socket for  
positive torque transmission

Step-down ratio worm  
wheel:worm = 9:1

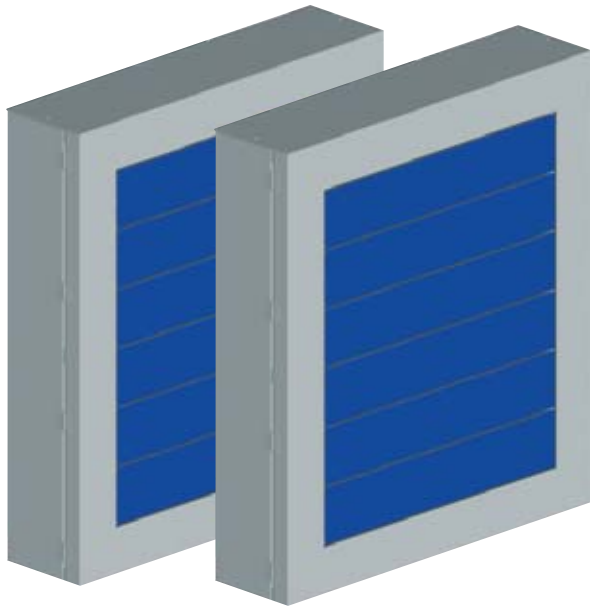


Drive shaft with multiple bearings  
(from corrosion-proof special steel)

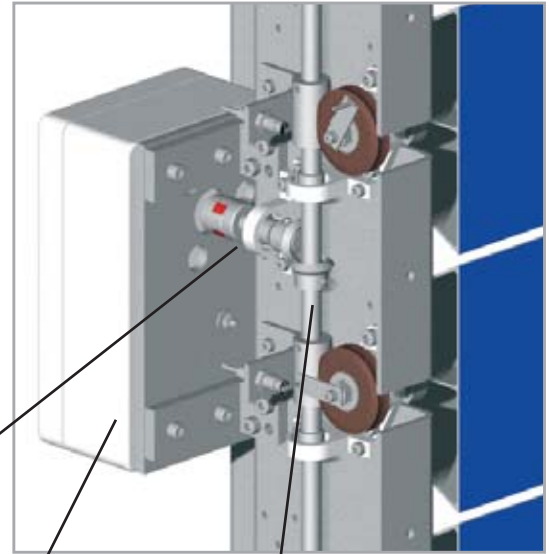
Reinforced casing



Pivoting casing cover  
with prism insert



Prism profile of a height of 200 mm



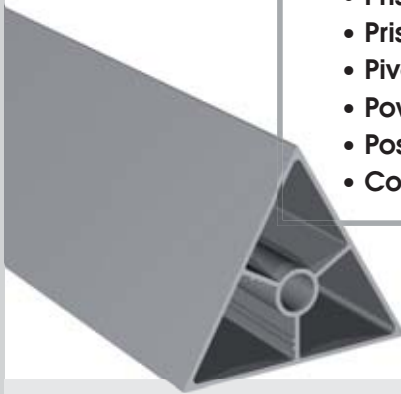
Motor and drive shaft connected by positive coupling. Plastic spacer to attenuate torque vibration

Worm gear motor with stainless steel shaft at the drive site in plastic casing (protection class IP54)

Bevel gear drive with adapter sleeve (step-down ratio 1:1)

## Comprehensive engineering at a glance:

- Casing made of double-layer powder-coated aluminium
- Drive elements (worm and toothed wheels, ball bearings, drive shafts) made of non-corroding materials
- Prism surface made of triangular aluminium extruded sections
- Prism surfaces covered with retroreflective foil
- Pivoting casing cover with service openings at the side
- Powered by 24 V DC motor
- Position check by contactless inductive proximity switches
- Controller and monitor integrated in the system to save space



The prism profiles are triangular aluminium extruded sections of a side length of 100, 200 or 250 mm.

## Housing:

Long service life is the foremost concern in the production of housings. To achieve this goal, we use only non-corroding aluminium. Additionally, the surface is given a two-layered powder coating at our plant to further increase the product's service life. Customer requirements regarding the colour scheme and size of the housings are met individually.

### Open design:

The housings have maintenance openings at the side and the prisms are arranged flush with the housing front.

Small prisms are encapsuled and all drive elements and control components are integrated in the housing (protection category IP 54). The housing cover with the prism insert can be swivelled forward.

# The diverse uses of prisms

Used not just in small signs, the prism technology is also suitable for large variable traffic signs. This design allows changing individual elements or the entire surface of the sign. The prisms are set flush in the front, to provide a flat surface same as static traffic signs. Large prism signs of the walk-on type have service openings to facilitate access for maintenance.



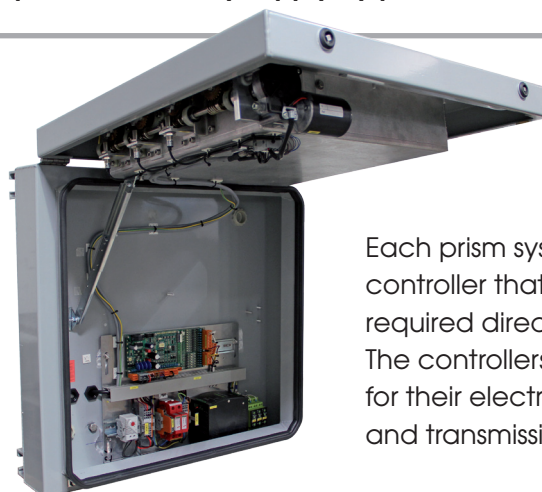
## Photovoltaics:

If no grid supply is possible, the system can be PV-supplied. In this case, the variable traffic sign may be wireless-controlled by an SMS control module.



## Advanced engineering offers more advantages:

- Clockwise and anti-clockwise rotation to reduce time for change of symbols
- Interface through zero-potential contacts or RS 485
- Automatic motor switch-off in case of failure
- Manual operation by service laptop or manual controller
- Anti-freezing: prism controller mode (cyclical forward/reverse movements) to prevent freezing of prisms
- Optional battery buffer
- Optional GSM selection
- Optional electricity supply by photovoltaics



Each prism system is fitted with an electronic controller that rotates the prism profiles in the required direction and signal their position. The controllers have surge protection systems for their electricity supply and their switching and transmission units.

# Time-tested Forster quality

## Prism production

The high ratio of products made internally, another typical feature of the Forster Group, provides for comprehensive competence. The Group is linked by one common red thread that joins planning, design, production and installation. Commitment to innovation, combined with the quest for superior quality and more than 30 years of experience in the production of prism systems have made us the reliable partner of your choice.



## Certification for more safety

Quality always comes first with Forster – our customers can rely on our priorities, as is evidenced by our conformity certificates. The prism-based variable message signs made by Forster comply with all requirements of EN 12966-1:2005 + A1:2009.



# Forster range of products

**Easily the right decision**



LED engineering



Gantries and cantilevers



Traffic signs



Noise control



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