

ULMALU® 400 Fast – Ultrafast 1m/s gate



TECHNICAL DESCRIPTION

The construction of ULMALU® Fast gates begins with an ULMALU® profile (integrating with the drive chain support) to which is welded a TGO profile frame. Filling of the bottom section is of horizontal profiles and the top of transparent polycarbonate (expanded aluminium metal on request). Support plates are cut with extreme precision by ultrahigh pressure waterjet techniques. For the version with bars (FAST B) the construction of the gate is identical to that of ULMALU® 400 Classic.

The sliding of the cantilever and the vertical guidance of the gate are ensured by a patented monobloc roller integrated into the bottom profile. This roller consists of polyacetal wheels running on 2RS dust-tight and lifetime-greased ball bearings. The top side guiding wheels of the same type are protected from bad weather inside the top profile.

The box-section guide post is built of profiles, aluminium sheet metal and composites installed on a pre-cut plate. It has a full height door secured by a European ½ lock, offering discreet and aesthetic integration of control accessories without any visible cables. It also incorporates control accessories (access control CPU, interphone, etc.). The box-section guide post is particularly convenient for the maintenance technicians who can work without having to bend over.

The box-structure reception unit captures the leading end of the gate leaf, making the installation rigid in its closed position. A rear stop with a rest is included with each gate.

The ULMALU® 400 Fast gate has a new generation brushless motor

with a reduction brake system. The brushless motor offers the following advantages: brushless motor with compact dimensions for equal power and improved longevity over conventional motors. It offers the possibility of cycle adjustment to within the cm by means of the sensor-encoder built into the motor and its magnetic sensors for reinitialization. The closing speed can be set up to be different from the opening speed. It allows a differentiation between torque and speed. The motor reduction unit can be disengaged easily by switchover in the event of a power cut. The speed achieved is 1 m/sec with the Fast version and is limited to 0.5 m/sec with the Fast B version.

The ULMATIC® logic controller is developed from industrial logic control components including: a programmable logic controller operating the control and safety system and a servomotor controlling a brushless motor, the position of the drive shaft, the torque and speed, through an encoder. On estimate, we can develop specific operating modes. An annual programmable clock is integrated as standard into the logic controller offering 4 daily opening ranges (and can also be used as an external clock to activate/deactivate equipment).

Modem for standard supervision and remote maintenance: To provide demanding clientele with fast service, TGO has developed modem supervision for the remote maintenance of its gates. It offers access to programming parameters, safety settings and the annual programmable clock. This option offers the customer particularly fast troubleshooting capability.

The operating control can be provided by any type of accessory supplying a dry contact (radio transmitters, readers, telephone porter, console, key switch, magnetic loop , keypad etc...).

Industrial gates

The safety offered by the ULMALU® 400 FAST gate, complying with European standard EN 13241-1, is provided by:

- 4 presence detection devices (photoelectric cells with remote amplifier) in the high and low positions (2 on the inside and 2 on the outside) to avoid risks with vehicles having a greater than usual overhang (4x4 or HGVs). The 2 bottom detection devices are duplicated and redundant.
- A 130 mm double detection contact sensor carried on the leading edge of the leaf, supplied with power by the cable support chain built into the top profile, avoids any risks of jamming or impact due to inertia. The leaf stops over a distance of 45 mm at a speed of 1m/second.

Signalling is provided by an orange Xenon flash light offering a particularly long life, and two zone lighting halogen floodlights incorporated into a composite material cover.

Built-in side guidance	Xenon flash light
	Zone lighting
Box guidepost	Cable support chain
Locking by European cylinder lock	Polycarbonate transparent or expanded aluminium filling in the top section
Redundant sensor (1 onboard)	Horizontal profile filling at the bottom
	Photocells (6 sets) arranged in alternating and redundant manner
Pinion gear + chain drive	TGO patented monobloc roller