

Intelligent sun protection glass with smart remote maintenance solution

Tosibox provides remote access to the control of the intelligent sun protection glass.



EControl-Glas GmbH & Co.KG is a manufacturer of intelligent sun protection glass. They have developed a glazing that is variable in its light and energy permeability.

Challenge

ECONTROL®-glasses have an interior nano-structured layer that changes colour as soon as a low electrical current is applied. Due to this so-called "electro-chrome effect", the glass is tainted a pleasant blue and creates a pleasant room climate. Conventional sun protection can be omitted due to the reduction of the dazzle effect. The intelligent control, the ECmodule, provides automatic dimming of the glass.

In order to enable customer-friendly servicing, EControl-Glas GmbH & Co.KG was on the look-out for a remote access solution. Today, service personnel has direct remote access to the ECmodules and can for example conduct problem analyses much faster. In the future, EControl-Glas also plans to run software updates remotely. EControl-Glas searched for a solution together with HY-LINE Communication Products, specialised on radio components, systems and complete solutions in the Internet of Things.





Solution

After the successful Life-Test phase, TOSIBOX® will generally be used for all properties that are not completely local. TOSIBOX® Lock is installed in the switch cabinet and directly connected TCP to RS-485 via an interface converter. For EControl-Glas, TOSIBOX® Lock serves as a safe VPN-switch with 4G-connectivity.

The high level of data security was one of the most important criteria for a remote access solution for EControl-Glas. A direct connection to the web for remote access is not secure enough for the customers of EControl-Glas. Authentication only works via the connection between Lock and Key, between which an open-VPN-connection is established within a few seconds with up to 256-Bit-Encoding between Key and Lock. At Tosibox, the access rights are managed on TOSIBOX® Key user interface, and only encoded data is transmitted. The intelligent and flexible solution works with all internet connections. The simple handling only asks little of EControl-Glas and the individually administrable keys are ideal for customer service.

EControl-Glas has been using the simple and safe remote maintenance solution TOSIBOX® for more than six months now. Installations were commissioned without any problems worldwide, among other places in Europe, Eastern Europe and also in Korea. The Plug & Go™ remote maintenance solution is increasingly also being used for retrofitting work.

“TOSIBOX® is the ideal solution for us for a consistent and safe connection for remote maintenance purposes. I do not see an alternative to the TOSIBOX® remote maintenance solution for us on the market.”

Christian Rost,
Research & Development,
Econtrol-Glas
GmbH & Co. KG

Benefits

- Cost and time savings; no more travel costs for service and the customers receive quicker service.
- High level of data security
- Simple handling and possibility for retrofitting

Finland

sales@tosibox.com
support@tosibox.com
Sales, Finland, tel. 044 70 90 100
Sales, International, tel. +358 44 70 90 200
tosibox.com

Integrator of TOSIBOX® solution for EControl-Glas

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