BRUNNER
dedication **+** innovation

FORCE
TRAVEL
PERFORMANCE

MADE SWISS

CLS-E YOKE.

Your choice for certified PTTs and FNPTs up to Level I.

BRUNNER is defining new standards in high performance Active Force Feedback flight simulator devices. As an element of our Control Loading System portfolio of leading drop-in devices, the CLS-E Yoke integrates perfectly into many new or existing PTT and FNPT cockpit environments. Further, it is the perfect match for ambitious private pilots as a desktop solution, especially in combination with our CLS-E Rudder. CLS-E provides excellent quality, high fidelity and unique durability at an affordable entry-level cost. It is unmatched in its class: intelligent brushless AC-servo technology, a compact and sophisticated product design and a configurable yoke handle with an integrated display creates training solutions which provide optimum training value.

The BRUNNER CLS-E Yoke is supporting single as well as dual pilot applications. A unique real-time yoke synchronization logic enables unmatched and automatic pilot/co-pilot take-over functionality. Additionally, CLS-E simulates and represents various functions like autopilot and trim and allows for easy and fast installation and setup through real Plug- and Play capability. Enabled by our CLS2Sim software-environment, the CLS-E Yoke communicates easily with commercially available simulation software such as X-Plane, M-FSX, and Prepar3D®. Any third party flight simulation solution connects via a simple TCP/IP or UDP remote interface protocol.

ENDURING   SUSTAINABLE   FAIR   ATTENTIVE   OBJECTIVE   HOLISTIC   INNOVATIVE   ENDURING   SUSTAINABLE   FAIR   ATTENTIVE   OBJECTIVE   HOLISTIC

BRUNNER
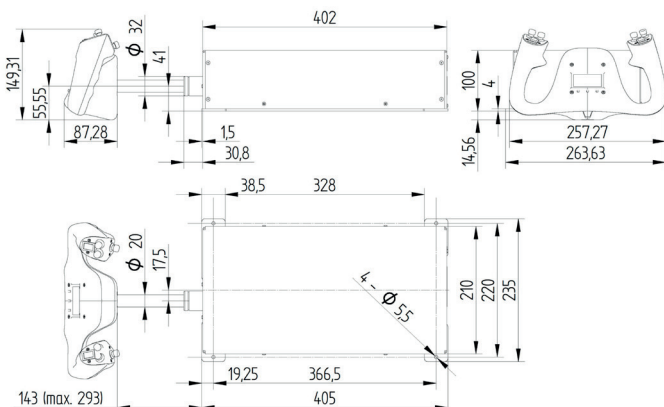dedication + innovation

CLS-E YOKE.

Features.

- BRUNNER Drop-In or Desktop: fully integrated, with build-in power unit and control unit, no additional auxiliary devices required
- High fidelity for most realistic flight experience
- Including Beechcraft style yoke wheel with 10 programmable functions and display
- Simulated effects: engine, ground, turbulence, real trim, autopilot, stall etc.
- Dynamic pressure dependent force profile
- Brunner real-time synchronization logic for dual-pilot cockpit with automatic pilot/co-pilot take-over (MCC)

- Plug & Play (USB or CAN), Ethernet via optional high-speed E2CAN gateway
- Reliable, smooth and maintenance free design
- No fan, very quiet, highly efficient
- Contactless high-resolution position feedback
- Designed for cockpit environment or desk-top application
- Direct support for X-Plane, FSX, FSX Steam edition, Prepare-3D with Brunner CLS2SIM SW, X-Plane plugin for Windows, Linux and Mac
- Unlimited CLS2Sim license for single cockpit application
- Swiss Made
- 2 Years warranty

Specification.

Peak Force	Pitch: 100N / 22.5 lbs
	Roll: 5Nm / 3.7 lb-ft
Travel	Pitch: 150mm / 5.9 in
	Roll: +/- 90°
Yoke handle	BRUNNER Beechcraft style
	optional: delivery without handle
Display	128x64 FSTN Backlight
Interface	USB (USB-2 Type B), CAN (RJ45), Ethernet via optional E2CAN gateway

Power	400W peak (no fan)
Operating Voltage	90-255VAC 50/60Hz (IEC5)
Size	405 x 235 x 100mm
	15.94 x 9.25 x 3.94 in
Weight	6.3kg / 13.9 lb

Dimensions.

CANopen

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