BRUNNER
dedication **+** innovation

FORCE

TRAVEL

PERFORMANCE

MADE SWISS

CLS-P MK II Cyclic.

Your choice for Helicopter or Fixed-Wing up to FFS Level D.

The BRUNNER CLS-P Active Force Feedback Cyclic meets the highest demands of professional flight simulation. As a top level element of our Control Loading System portfolio of leading drop-in devices, the CLS-P MK II Cyclic integrates perfectly into many new or existing FNPT I as well as in FNPT II MCC or even FFS Level D Helicopter or Fixed-Wing cockpit environments. Supporting standard procedure training as well as abnormal and emergency procedure training, the BRUNNER CLS-P MK II Cyclic provides excellent quality, highest fidelity and unique durability at an unmatched price-performance level. The integrated high resolution load cell and the high dynamic brushless AC Servo technology reacts with realistic movements to even finest inputs and offers excellent artificial feeling for highest demands!

Our CLS-P MK II Cyclic is supporting single as well as dual pilot applications. A unique real-time synchronization logic enables unmatched and automatic pilot/co-pilot take-over functionality for MCC applications.

The optionally available BRUNNER Grip, or a customized wired-trough Grip, can be easily mounted and replaced during operation for fast adoption to your training scenarios. Enabled by our CLS2Sim software-environment, the CLS-P MK II Cyclic communicates easily with commercially available simulation software such as X-Plane, M-FSX, and Prepar3D®. Any third party flight simulation connects via a simple TCP/IP or UDP remote interface protocol.

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

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CLS-P MK II Cyclic.

Features.

- BRUNNER Drop-In fully integrated with power supply and control unit, no additional auxiliary devices required
- Integrated Load Cell for highest fidelity and most realistic flight experience
- Simulated effects: engine, ground, turbulence, force trim release, autopilot, stall etc.
- Aircraft and type-specific profiles
- Dynamic pressure dependent force profile
- BRUNNER real-time synchronization logic for dual-pilot cockpit with automatic pilot/co-pilot take-over (MCC)
- Designed for standard, abnormal and emergency procedure training

- Plug & Play (CAN or USB), optional Ethernet via BRUNNER high-speed Ethernet2CAN gateway
- Reliable, smooth, backlash and maintenance free design
- Contactless high-resolution position feedback
- No fan, very quiet, high efficient
- Direct support for X-Plane, FSX, FSX Steam edition, Prepare-3D with BRUNNER CLS2SIM SW, X-Plane plugin for Windows, Linux and Mac
- Fully external control for QTG testing, applied over a simple network protocol
- Safety integrated, Safe Torque Off (STO)
- Swiss Made
- 2 Years Warranty

Specification.

Peak Force	Pitch: 100 Nm / 74 lb-ft Roll: 100 Nm / 74 lb-ft
Travel	Pitch: Software +- 17.5° / Mechanically +- 20° Roll: Software +- 17.5° / Mechanically +- 20°
Stick and Grip	optionally: BRUNNER Stick and Grip
Interface (Com)	CAN (RJ45), USB (USB-2 Type-B) Ethernet via optional Ethernet2CAN gateway
Interface (I/O)	wire through I/O connection with top - and bottom side connector (D-Sub32)
Power	500 W peak (no fan)
Operating Voltage	90-255 VAC 50/60 Hz (IEC5)
Size	380 x 330 x 254 mm 14.9 x 13 x 10 in
Weight	16.4kg / 36lbs

Dimensions.

CANopen

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