

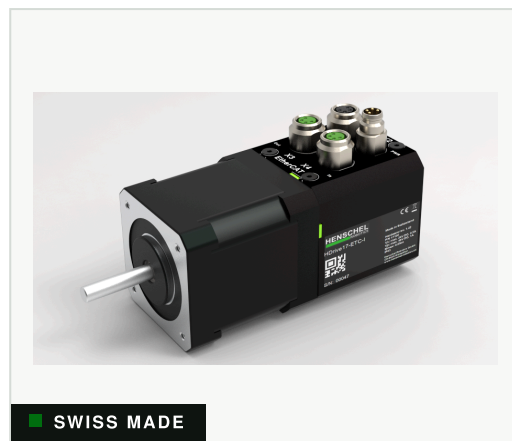
NEMA17 · ETHERNET · PC CONTROL

HDrive17-ETH

The smallest servo drive with Ethernet - no PLC required.

Motor, power electronics, 14-bit absolute encoder and motion controller in one 42 × 42 × 88 mm unit. Control it directly from a PC over standard Ethernet with Python, C#, C++, Java or Matlab. The built-in web server handles configuration, monitoring, tuning and firmware updates. No PLC, no industrial programming.

- **No PLC required** - TCP / UDP from PC
- **7-state path planner** - jerk-free motion
- **Firmware over the air** - via Ethernet
- **Integrated web server** - browser setup
- **FOC** - more than 90 % efficiency
- **CAN, Step/Dir, PWM** - extra interfaces



0.6 Nm

STALL TORQUE

700 RPM

MAX. SPEED

±0.1 °

POSITION ACCURACY

< 5 W

HOLDING POWER

ELECTRICAL

Supply voltage	12-24 V DC
Reverse polarity protection	Yes
Max. current	1.0 A
Max. power	24 W
Holding power, no load	< 5 W

CONNECTORS

X1 Ethernet	RJ45 or M8 (by model)
X2 Digital I/O	M8 6-pin male
X3 Power	M8

PERFORMANCE

Stall torque	0.6 Nm
Max. speed	~700 RPM
Max. acceleration	50 000 RPM/s
Position accuracy	±0.1°
Encoder	14-bit absolute
Efficiency	> 90 %
Control modes	Position, velocity, torque
Path planner	7-state, jerk-limited

COMMUNICATION & SOFTWARE

Ethernet	TCP, UDP, HTTP
Field bus	CAN slave / master
Additional I/O	Step/Dir, PWM in / out
Web server	Yes, any browser
Languages	Python, C#, C++, Java, Matlab
Firmware update	Over the air via Ethernet

MECHANICAL & ENVIRONMENT

Flange	NEMA17 (42 mm)
Housing (w/o shaft)	42 × 42 × 88 mm
Shaft	Ø 5 mm × 22 mm
Pilot	Ø 22 mm × 2 mm
Mounting	4 × M3
Weight	~450 g
Protection	IP40
Operating temperature	5-80 °C
Ambient temperature	5-50 °C
Humidity	5-95 % RH, non-cond.

TYPICAL APPLICATIONS

Research and laboratory automation
Medical and training simulators
Optics, positioning stages
Prototyping and PC-based machines

SOFTWARE & INTEGRATION

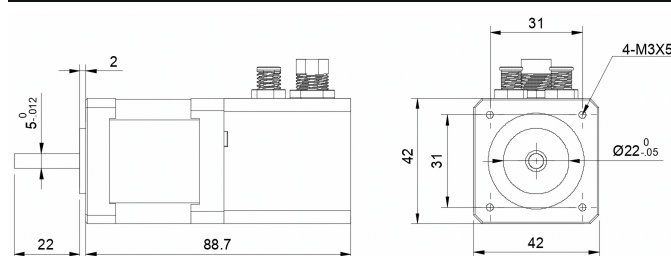
Open a browser on the drive's IP address to configure, monitor and tune it. For automation, send TCP or UDP telegrams from any language on the host PC; a Python package and ready-to-run examples (position, velocity and torque mode, object access) are provided. Several drives can be networked over a standard Ethernet switch or chained over CAN.

Python	C#	C++	Java	Matlab	TCP	UDP	HTTP
CAN	Step/Dir	PWM					

1. Connect 12-24 V DC and Ethernet, open the drive's IP address in a browser.
2. Set controller settings, current limits and motion profile in the Web GUI; test the axis from its Motor Control view.
3. `pip install hdrive-eth` and run the examples, or send TCP / UDP telegrams from your own code.

Examples: henschel-robotics.ch/examples · Source: github.com/henschel-robotics/python-hdrive17-eth

DIMENSIONS MM



Use a flexible coupling so the bearing is not over-constrained; keep dynamic loads on the shaft as low as possible. Manual and firmware release notes at henschel-robotics.ch/support.