

APPLICATIONS

- > Actuators position control
- > Active control of vibrations

KEY FEATURES

- > Fully compatible with CTEC powered racks
- > Multi-channels capability (up to 3)
- > PID control with stabilizing filters
- > 16bits resolution
- > 20/30/60kSps sampling rate depending on number of channels
- > Controller tuning with GUI through USB port

RELATED PRODUCT

- > CTEC power amplifiers
- > CTEC sensor conditioners



NON CONTRACTUAL PICTURE

SPECIFICATIONS

PARAMETER	TYPICAL VALUE	UNIT
> General		
Number of control channels	1 ... 3	
Number of analog inputs	6	
Number of analog outputs	3	
Digital communication	USB	
Graphical User Interface	CTEC HDP45	
> Digital control		
Control strategy	Tunable PID + Stabilizing filters	
Stabilizing filters	Tunable lowpass and notch	
List of stabilizing filters configurations	No filter 2nd order lowpass filter 2nd order notch filter 2 x 2nd order notch filters 4th order notch filter	
Sampling rate (1)	20 / 30 / 60	kSps
Digital resolution	16	bits
> Analog inputs		
Voltage range	-10 ... +10	V
Small signals bandwidth (-3dB)	34	kHz

> Analog outputs

Voltage range	-10 ... +10	V
Small signals bandwidth (-3dB)	72	kHz

MISCELLANEOUS

PARAMETER	TYPICAL VALUE	UNIT
Mass	0,2	kg
Product compatibility	Fully compatible with CTEC powered rack	
Operating temperature range	0 ... +40	°C
Storage temperature range	-10 ... +50	°C
Warm up time	15	min
Computer interface	USB type B	

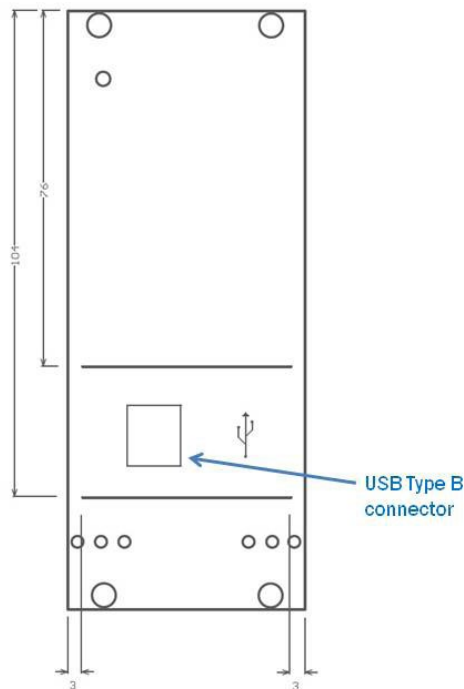
INCLUDED ACCESSORIES

USB cable	Type B to Type A
HDPM45 Graphical User Interface	Windows compatibility

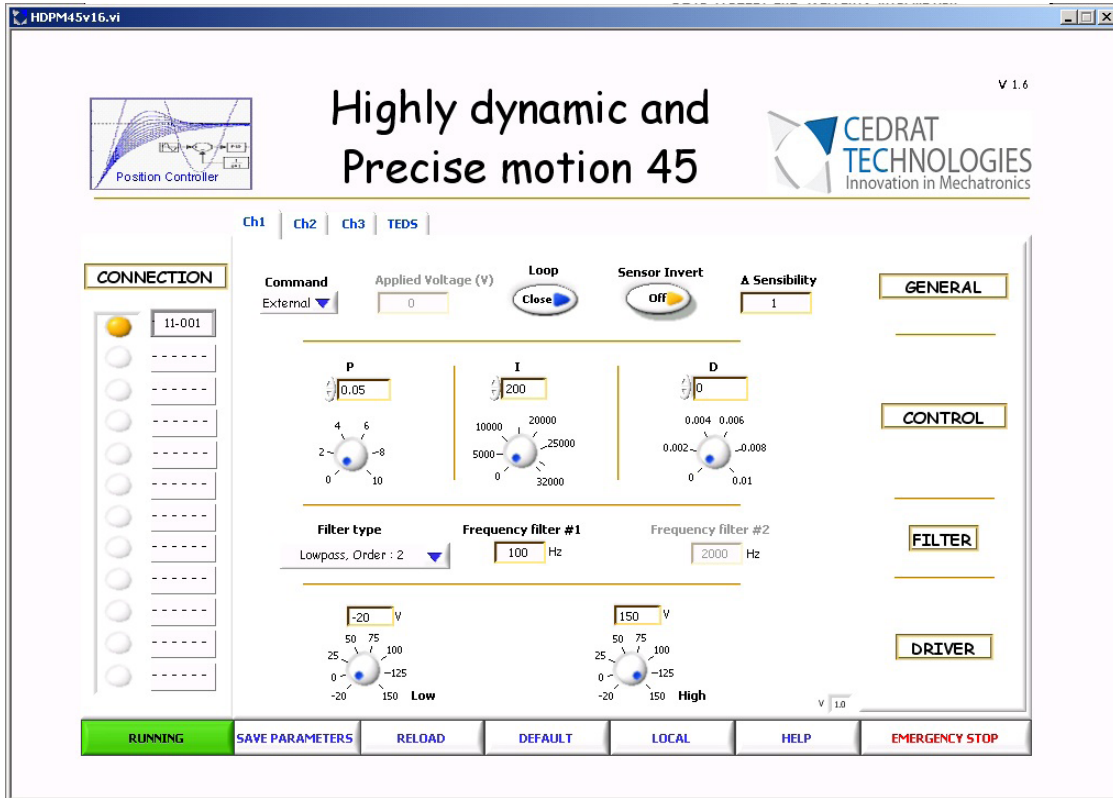
ANNOTATIONS

(1) 20kSps for 3 channels, 30kSps for 2 channels, and 60kSps for 1 channel

DRAWINGS



TYPICAL PERFORMANCE CHARACTERISTICS



The screenshot displays the control interface for the HDPM45v16.vi. The window title is "HDPM45v16.vi" and the version is "V 1.6". The main heading is "Highly dynamic and Precise motion 45". The interface includes a "Position Controller" graph on the left. The main control area is divided into several sections: "CONNECTION" with a "Command" dropdown set to "External" and "Applied Voltage (V)" set to 0; "Loop" with a "Close" button; "Sensor Invert" with an "Off" button; and "A Sensibility" set to 1. The "CONTROL" section features three gain knobs: "P" (0.05), "I" (200), and "D" (0). The "FILTER" section includes a "Filter type" dropdown set to "Lowpass, Order : 2", and two frequency filter knobs: "Frequency filter #1" (100 Hz) and "Frequency filter #2" (2000 Hz). The "DRIVER" section has two voltage range knobs: "Low" (-20 to 150 V) and "High" (-125 to 150 V). A status bar at the bottom contains buttons for "RUNNING", "SAVE PARAMETERS", "RELOAD", "DEFAULT", "LOCAL", "HELP", and "EMERGENCY STOP".