



INFRANOR SERVO DRIVES

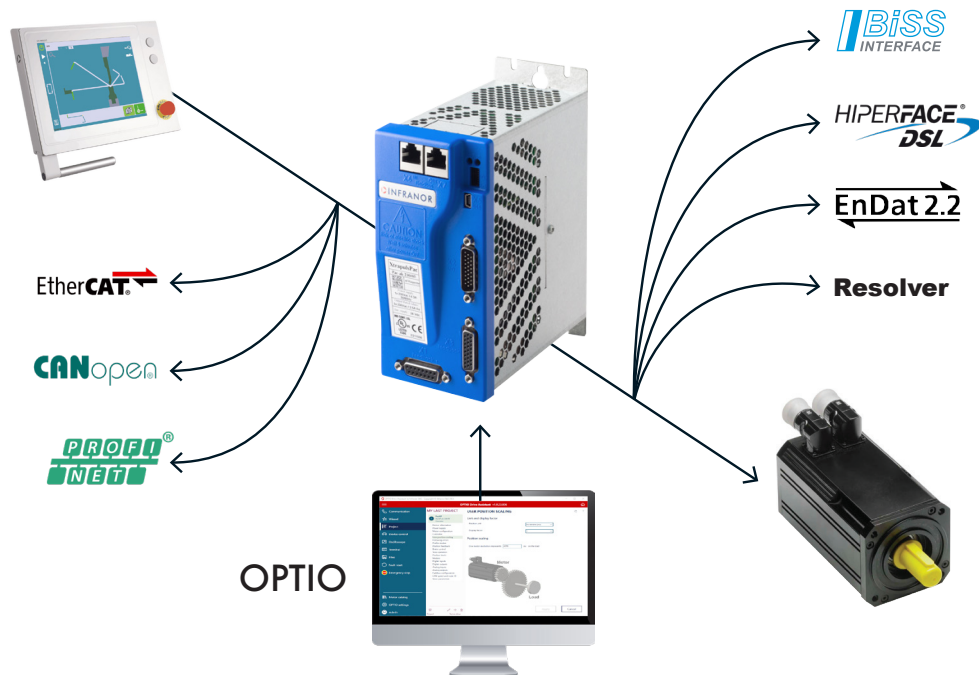
PacHP Series

PacHP Series: high performance servo drives and controller

- Designed for standalone or multi-axis applications with brushless AC motors
- Easy-to-use features like auto-tuning and auto-phasing for control of rotary and linear three-phase servomotors
- High efficiency, compact and flexible with numerous functions and interfaces
- Intuitive configuration and control using Optio software

System overview

Modular approach with Infranor products



Interfaces

- EtherCAT
- CANopen
- PROFINET
- Analog and digital inputs/outputs
- USB/RS232

Feedback

- Digital encoders: BiSS C, Hiperface DSL, EnDat 2.2
- Resolver 16 bit
- Encoders: Sin/Cos, TTL, Hall effect

Safety function integrated in standard

- Safe Torque Off (STO) SIL 3 function

Functions

- DS402 standard modes
- Electronic gearing
- Camming
- Stepper motor emulation
- Analog speed drive
- Standalone positioner
- Sensorless brushless motors speed control
- Flux weakening operation for increasing the motor speed range
- Dual loop position control with motor and load position feedback
- Closed loop force control with analog load cell feedback

Mechanical designs

- Wall mounting
- Push-through mounting
- Cold plate cooling

Electrical specifications



Multiple variations,
all available with
Safety options

Drive	PacHP-230 Standard and Safety			PacHP-400 Standard and Safety		
Rating	/5	/11	/17	/08	/20	/45 /100 /200
Peak current [Arms]	5	11	17	8	20	45 100 200
Cont. currents [Arms]	2.5	5.5	8.5	4	10	22.5 35 75
Voltage [VAC / VDC]	1 x 230 VAC with integrated power supply 320 VDC with external power supply			3 x 480 VAC with integrated power supply 680 VDC with PacHP GDPS power supply		

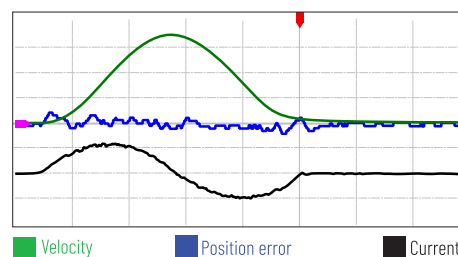
Power supply	GDPS-400		
Rating	/16	/32	/64
Rated power [kW]	16	32	64
Voltage [VAC]	3 x 230 VAC / 3 x 480 VAC		



Flexible auto-tuning for the highest performance in your application

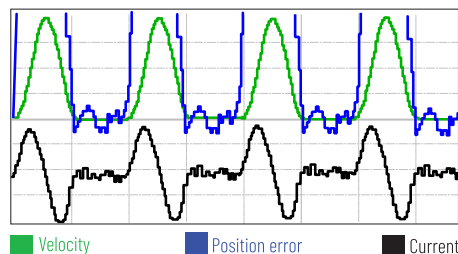
- ▷ Path control with minimum error
- ▷ Settling time reduced to minimum
- ▷ Controller gains scheduling

Multi-axis robot arm
application with accurate
path control



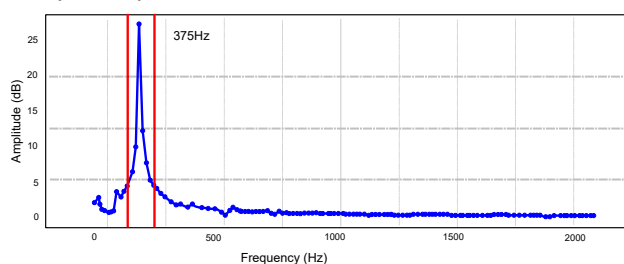
Following error is
minimum at any time:
Less than 5 inc

High-speed rotating
indexing machine

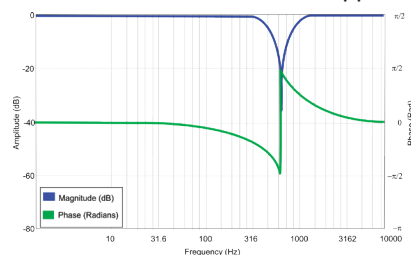


Settling time is reduced
to minimum value.
Less than 2.9 ms with
1200 strokes per minute

Open loop FFT for load resonance identification

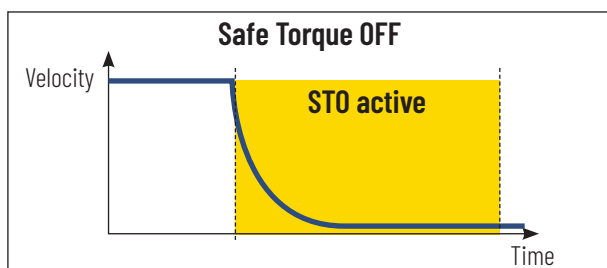


Notch filters for vibration suppressions

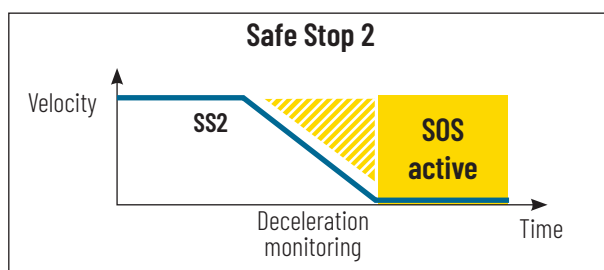
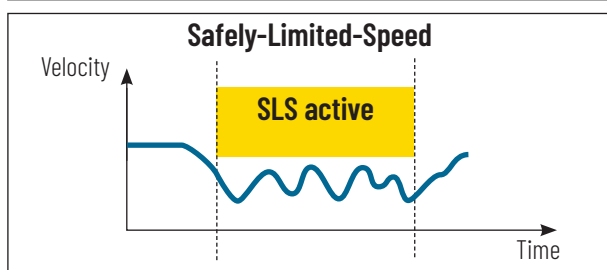
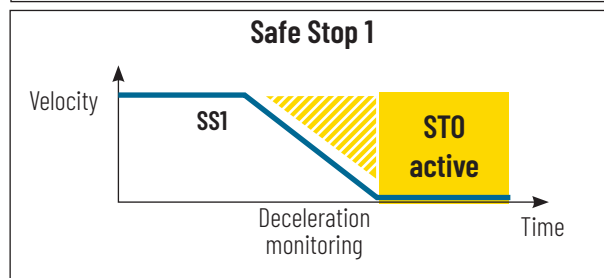
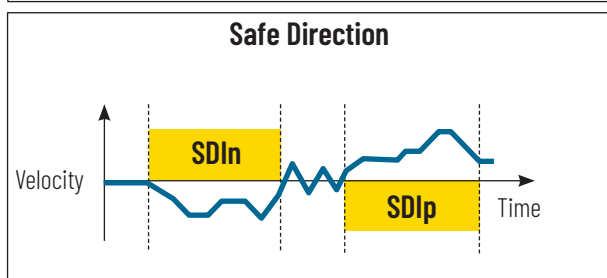
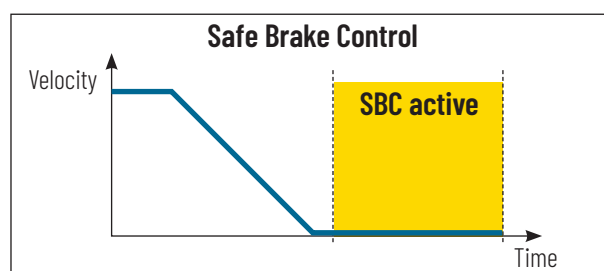
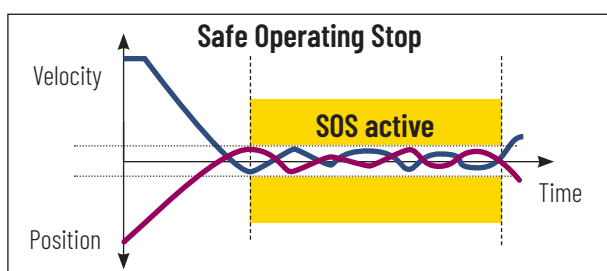


Safety Functions

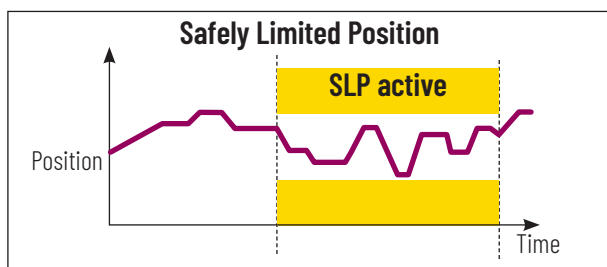
Integrated in standard PacHP



Available with SF01 and SF02 options



Available with SF02 option



Safety over
EtherCAT®

Safety Option

Drive range

Feedback

Safety functions

Safety functions activation

SF01

PacHP-ed, PacHP-kd

Single hiurface DSL safety encoder

STO, SBC, SS1, SS2, SOS, SLS, SDI

6 dual channel inputs dedicated to safety functions

SF02

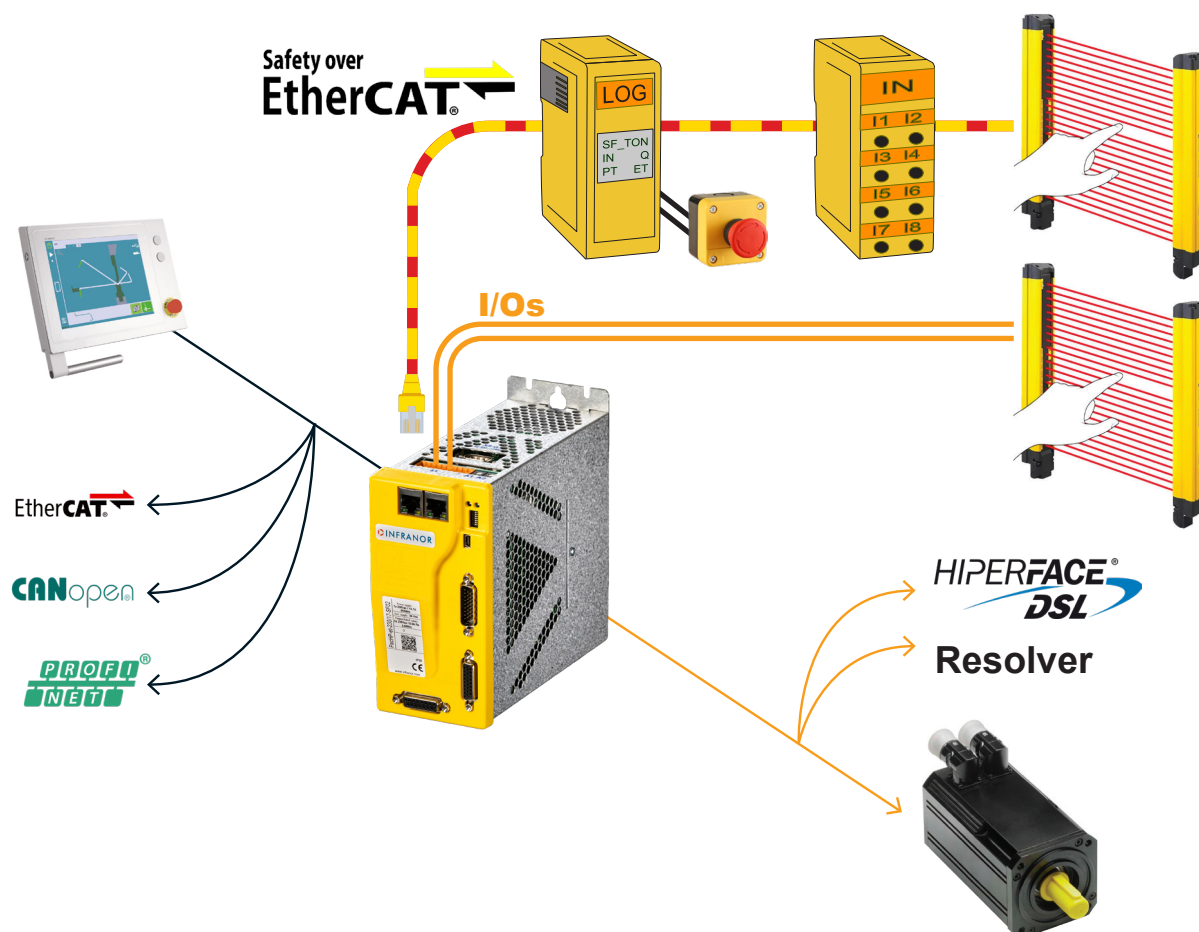
PacHP-et, PacHP-ak, PacHP-pn

Single resolver

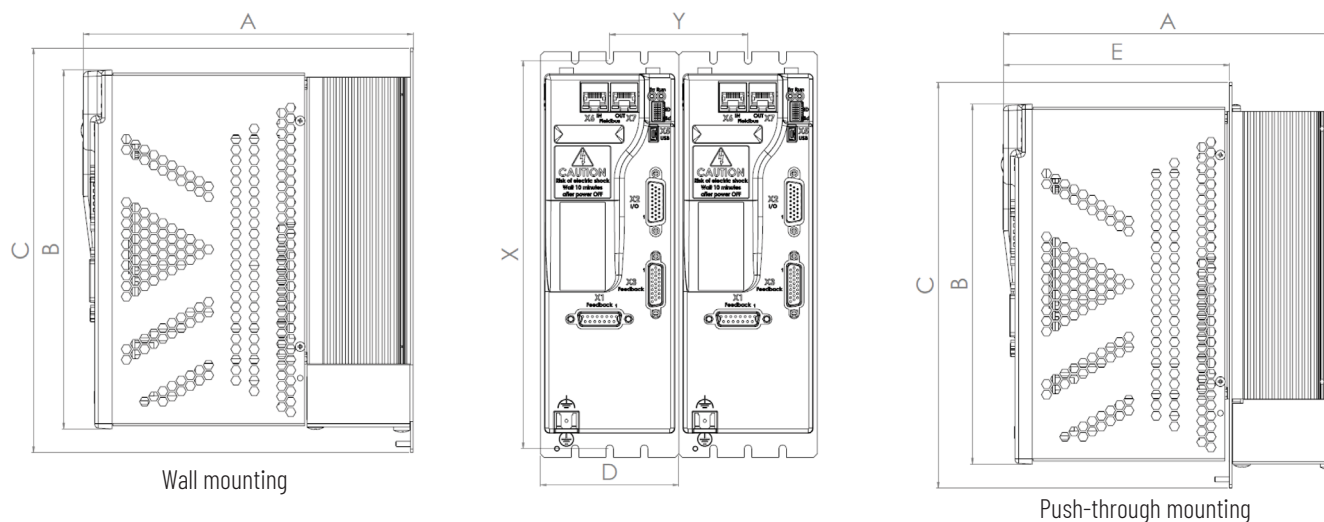
STO, SBC, SS1, SS2, SOS, 3xSLS, SDI, 3xSLP

6 programmable dual channel inputs
Safety-over-EtherCAT only PacHP-et

Safety architecture concept



PacHP series mechanical dimensions [mm]



Dimensions [mm]	A	A	B	C	D	E	X	Y
	STANDARD	SAFETY						
PacHP-230 / 5-17	148	183	153	178	70	-	169	80
PacHP-400 / 8-45	191	226	208	235	70 (80*)	131	255	80
PacHP-400 / 100	214	249	208	235	80 (80*)	128	225	80
PacHP-400 / 200	215	219	265	295	166.6	-	285	100
GDPS-400 / 16-32	158	-	203	235	70	-	225	80
GDPS-400 / 64	207	-	262.5	295	71,5	-	285	80

Optio is a free, easy-to-use, multilingual software for optimal management and commissioning of multi-axis application projects.

Features

Project management

- Create a project with auto-detection of the drives
- Create an offline project
- Simulate a drive

Motors

- Intuitive search engine
- Display the specifications of a motor
- Import / Export motor specifications
- Add / Edit a motor

File management

- Project backup and restore
- Firmware update
- Factory reset

Drive commissioning

- Assistant wizard for quick commissioning
- Auto-tuning
- Manual mode
- Parameters management
- Sequencer

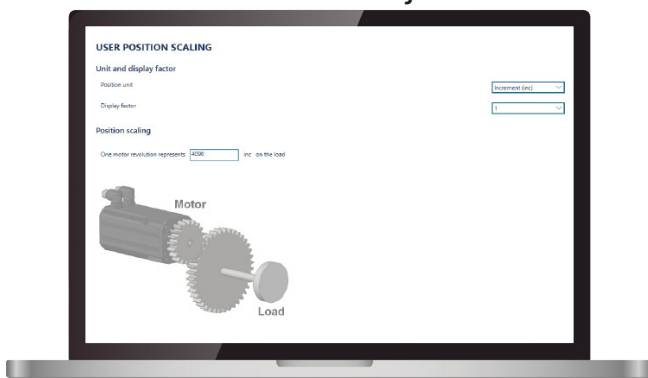
Communication and dialogue

- Write / Read a parameter
- Cycling reading of a parameter

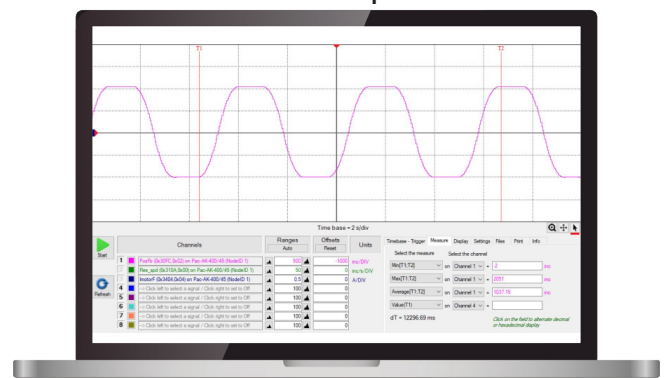
Available languages

- English, French, German, Italian, Spanish, Chinese

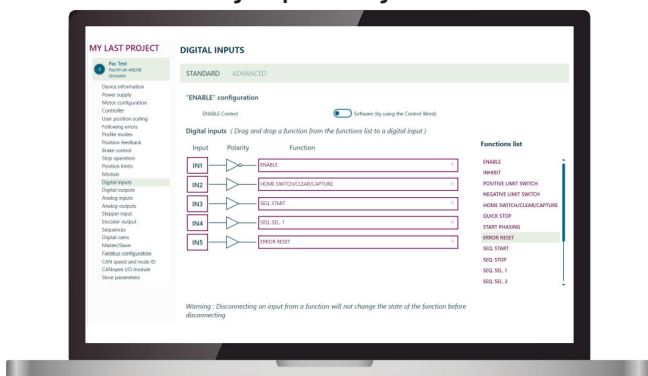
Motor / load ratio configuration



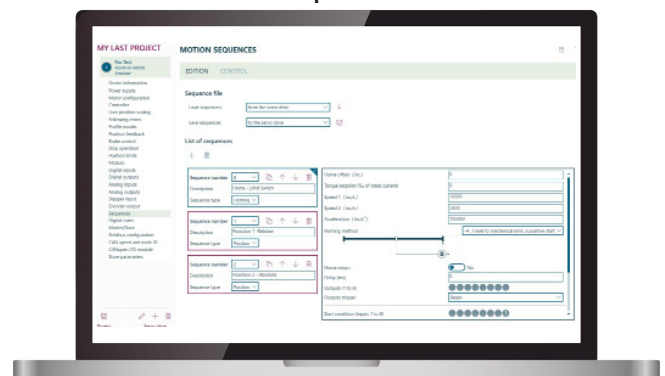
Oscilloscope



Logic inputs configuration



Sequencer





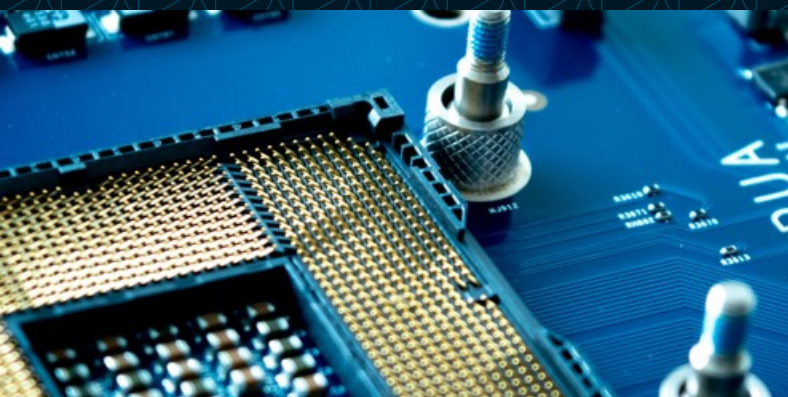
SOLUTIONS FOR INDUSTRIAL AUTOMATION APPLICATIONS



Composite manufacturing



Textile machinery



Semiconductor manufacturing



Flight simulation



Machine tools



Automated vehicles

WORLDWIDE PRESENCE

- 
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