The new PACHC is a control module for operation at a Parker Automation Controller (PAC) for high-dynamic and precise control of hydraulic axes. The PACHC enables position, force and pressure control as well as change-over control. In conjunction with a PAC120 it is used as EtherCAT slave. It features analogue as well as digital sensor inputs.
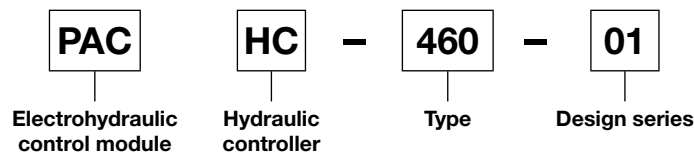
The PACHC is connected to local analogue sensors like pressure and force sensors and digital position feedback systems for recording actual values. Hydraulic valves are controlled via the analogue outputs.

Features

- Position, force and pressure control for 1-2 axes
- Sampling time 250 µs
- Digital interfaces for position feedback systems (SSI, Encoder TTL/HTL/RS422, EnDAT)
- 4 analogue inputs (0... 10 V, 0... 20 mA)
- 4 analogue outputs (-10... 10 V, 0… 20 mA)
- Fail-safe storage of all device parameters in Flash
- Library with comprehensive motion functions
- Freely available application templates
  - Synchronization of 2 axes
  - Synchronization of 4 axes
  - Change-over position/force control
  - Table of records
- Application-specific software solutions (optional)

Ordering code

PAC	HC	–	460	–	01
Electrohydraulic control module	Hydraulic controller		Type		Design series

11

Technical Data

Allgemein	
Function	Controller module with EtherCAT slave function for operation at Parker Automation Controller
Housing / protection class	Aluminium strap, plastic, IP20
Mounting	35 mm DIN rail
Mounting position	Vertical, stackable
Noise stability	Zone B according to EN61131-2, mounting on grounded rail in grounded control cabinet
Environmental conditions	Relative humidity 5 % … 95 % w/o dew
Storage temperature	-25 °C...+70 °C
Operation temperature	0...+55 °C
$MTTF_D$ value	51 a
Weight	0.16 kg
Electrical	
Analogue inputs Optional	4 x 0…10 V 4 x 0/4…20 mA Resolution 12 Bit Sampling rate < 62.5 µs
Analogue outputs Optional	4 x 0…10 V, -10 V, +10 V 4 x 0/4…20 mA Resolution 16 Bit Update rate ≤ 250 µs
Counter / encoder	RS422: 32 Bit, 5 MHz 5/24 V single ended: 32 Bit, 1.6 MHz SSI: 18-32 Bit, 80-1000 Kbit/s EnDAT 2.1: 100 kHz-2 MHz
Field bus interface	EtherCAT internal via E-Bus interface
Connectors	IO connector: 36-pole connector at the front EtherCAT: 10-pole interface on the left side
End module	Not required
ESI file	PACHC_V**.xml
Power supply	24 V DC (19.2 ... 28.8)
E-Bus load	< 250 mA
Potential separation	Modules are potential separated against each other and bus
CE conformity	2004/108/EC
Insulation requirements	Protection class III according to EN 601131-2 Power circuits class 2 according to EN 601131-2 Contact protection according to EN 601131-2 (IEC 60529) Overvoltage category zone 3 according to EN601131-2 Degree of contamination 2 according to EN 50178
EMC	2014/30/EU
Wiring length	< 30 m, overall braid shield
UL certification	Certified: E-File-No. E506274

11

Dimensions
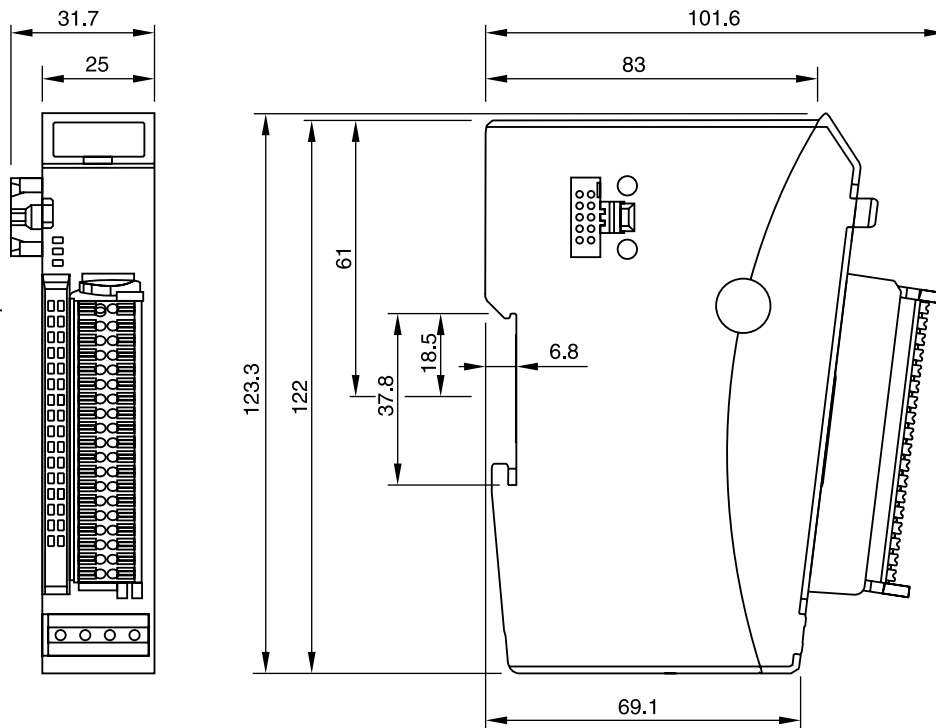
Accessories

Parker Automation Controller PAC120

The new Parker Automation Controller PAC120 is a PLC with integrated, programmable software and EtherCAT master function. It was developed for the automation of fast and precise hydraulic processes. Together with the control module PACHC, it enables the position and force/pressure control of up to 40 hydraulic axes. In combination with the PACIO modules it can take over complete control. Through its compact dimensions and its modular design, it can be used in various applications.

For further information see separate catalogue file for the PAC120.

Parker Remote I/O System PACIO

The PACIO System comprises a variety of modules for digital, analog and temperature signals as well as communication interfaces. The modules connect directly to the controller via the built-in EtherCAT bus for local architectures and are extended to remote locations via the extender and bus coupler modules, thus supporting both local and distributed I/O architectures. PACIO communicates natively on the EtherCAT bus, therefore it provides the full functionality and throughput of high-speed EtherCAT to meet the most demanding real-time requirements.

For further information see Parker catalogue 192-122003.

11