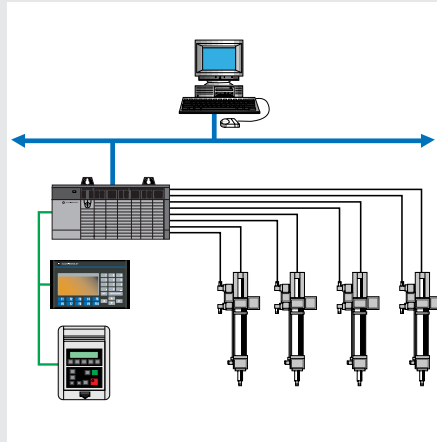




1746-QS Synchronized Axes Module...

Module provides synchronized control of four linear axes while helping solve common hydraulic system problems

Product Profile



Overview

Mechanical improvements in hydraulic valves, hoses, couplings, pumps, and other mechanical components have made today's hydraulic systems more reliable and leak-free. However, hydraulic and mechanical components on multi-axis machines can be even more trouble-free when all hydraulic axes work in synchronization with each other.

Working In Harmony

To help machine builders and system integrators better control multiple machine axes, Allen-Bradley now offers the 1746-QS Synchronized Axes Module. With this module, machine builders and system integrators can implement strategies that synchronize linear motion over as many as four axes, which helps

reduce binding and mis-alignment of mechanical and hydraulic components.

The Module

The Allen-Bradley 1746-QS is designed to work with the Allen-Bradley SLC™ family of logic processors. The 1746-QS module accepts inputs from linear displacement transducers (LDT) to sense position, and provides closed-loop control of speed and final position.

Applications

The 1746-QS Module combined with an Allen-Bradley SLC small logic processor can be applied to a variety of hydraulic applications, including plywood presses, roll positioning, charger and peeler positioning, palletizers and stackers, forging machines, and hydraulic

tailgate loaders. The 1746-QS simplifies control when two axes must reach a position at the same time.

Features

The 1746-QS provides four axes of closed-loop servo positioning control. The module provides the internal logic to synchronize multiple axes. The 1746-QS module provides four input channels for interfacing to linear displacement transducers, and four output connections which serve as interfaces to proportional or servo valves. Motion profiles stored in the SLC processor can be copied to the 1746-QS Module "on the fly", permitting motion to be modified during machine operation. Two millisecond loop update times

allow the 1746-QS to be used across a wide range of hydraulic positioning applications.

Diagnosics, Configuration, and Tuning

The software provided with the 1746-QS displays the latest motion profile position. In addition the software:

- Permits users to set up module parameters directly through the diagnostic/configuration port. The user does not need a functional ladder program.
- Displays parameter and status information for all axes.
- Retrieves graphic diagnostic information.
- Provides graphical display of the motion profile to aid in tuning module parameters.

Simplified Installation and Wiring

A new wiring system is available for use with the 1746-QS Module. Developed specifically for the 1746-QS, the Bulletin 1492 Interface Module and associated Bulletin 1492 Pre-Wired Cable simplify wiring, reduce wiring time, greatly improve wiring accuracy, facilitate troubleshooting, and provide an overall cleaner panel design. Custom length cables are available.

Electrical Specifications

Diagnostic/Configuration Port

Interface to synchronized axes configuration software	Requires external IBM PC or compatible running Windows® 95. Uses standard AB Catalog No. 1747-CP3 cable. Non-isolated.
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Linear Displacement Transducer Input

Interface type	Start/Stop (RPM) digital or PWM/DPM with external interrogation
Recirculations	1 (provides resolution of 0.002 inch) DPM or equivalent required for multiple recirculations
Position update time	2 milliseconds

User-supplied power supply required. Consult LDT manual for requirements.

Analog (Drive) Outputs

Range	±10Vdc @ 5mA
Resolution	12 bits

Processor Compatibility

I/O image	32 input and 32 output image words in signed binary format
CPU compatibility	5/03, 5/04
M0-M1, G Files	
M0	64 parameter words
M1	64 parameter words
G	0 words

Backplane Current Load	5Vdc @ 1 A	24Vdc @ 200mA
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Physical Specifications

Dimensions	1 slot
Connectors	
Diagnostic/configuration port	DB-9
Input and output	DB-26 subminiature
Interface Module (recommended)	1492-AIFMQS
Pre-Wired Cable (recommended)	1492-ACABLExxxQS

Environmental Specifications

Operating temperature	+32 to +140 F (0 to +60 C)
Storage temperature	-40 to +185 F (-40 to +85 C)
Humidity	5% to 95% non-condensing
Agency compliance	CE

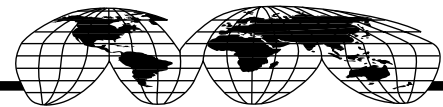
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Allen-Bradley Headquarters, 1201 South Second Street, Milwaukee, WI 53204 USA, Tel: (1) 414 382-2000 Fax: (1) 414 382-4444