### **KOLLMORGEN**

Because Motion Matters™

# Two-in-One: Servo Drive with Programmable Control

# AKD BASIC - Programmable servo drive may be used in many applications without an external PLC

- Customized functions implemented quickly
- Less hardware, lower installation costs
- Implementation without modifying the machine control
- Simple, easy to learn programming in Basic

#### With AKD BASIC - High Flexibility for each Axis

- Fast commissioning with Auto-Tuning
- Easy to learn, intuitive programming in Basic
- User-friendly development environment, Workbench, program download and upload in one tool!
- Program password protection protects your intellectual property
- 20 digital inputs and 13 digital outputs with I/O expansion
- 2 analog inputs and outputs, I/O expansion
- Program storage and parameter sets upload to SD card, no PC required for commissioning



With AKD BASIC you can realize motion and machine control directly on each axis without an external PLC. Users can work independently of the development team to optimize the drive and fulfill customer requirements quickly, safely and without the need for higher-level control systems. This shortens the testing phase and protects you from surprises during commissioning. The Basic programming language is easy and fast to learn - in just a short time you will develop individual programs for machine interfacing and motion control functions. The Kollmorgen WorkBench assists you with powerful development tools including the program editor with syntax checking, program templates, extensive testing and debugging tools.

# Maximum Productivity with the Kollmorgen WorkBench

The powerful Kollmorgen WorkBench provides a complete user interface for programming, configuration and optimization, with drive management, motion and machine control interfacing functions. The Kollmorgen WorkBench development environment for AKD BASIC provides all the tools for software development, testing and debugging.

		Deb	ug 🛛 🛛 🔑 🗸 🔰 🧮 🖉
X Kollmorgen WorkBench		۶ī	Step Into (F8)
File Edit View Tools Help ⓒ ⓒ ⓒ I 승리 Disable   Stop   0 - Service •   2 -	Position Mode •   Disable & Clear Faults   Save To Drive   Disconnect   Panic	ÇΞ	Step Over (F10)
Device Topology # = 📢 Start Page = 🕡 axis 1 (Online)*	Program This page is used to edit the BASIC program is load it into the drive.	¢_	Step Out (Shift+F11)
Settings     Performance Servo Tuner	[]• 2 2 3 4 0 6 9 7 1 ± ≥ > > 11 0 p- 3 = 2 / M_01-04-18-00	c 😫	Toggle Breakpoint (F9)
Sider Tuning 	regmove bas X Reg. Move bas X 17 '	٨	Delete All Breakpoints
Scope	19 'top of main loop 20 while 1 = 1	୧୦	Enable All Breakpoints
- 🔢 Parameters 🖳 Terminal	21 22 23 24 24 24	0	Disable All Breakpoints
	25     If DDB.STATE = 1 then 'registration move as an absolute move     4       26     print "Input 3 triggered"     1       27     Intr.DIRUH 1     1       28     Intr.DIRUH 2     1       29     'NORE     2       30     Move.PoxCommand = 0     2		esult = Inc
	32 33 33 34 35 Nove.GoABS 34 35 Nove.Acc = 1000° Acceleration (drive units)		=♦ Add =♦ Increment =♦ IncrementAndMult
	Console Strain Demo Program Divi 1 - Re-start the more		≡≕ return ≣≕ var
	Input     Input		
Add New AKD	Error List Console Std Err Std Out		
	Ready         Ln 39           TO         No Faults         No Warnings         AKD-T00306-NAAN-0000		Ch 14

1 Kollmorgen WorkBench as a programming and axis management tool

- 2 Predefined commands with their own libraries make programming easier
- 3 Auto-complete speeds up work and reduces the error rate with a display of each possible parameter
- 4 Color-coding for reliable differentiation of comments, parameters, print commands, and other types of code
- 5 Fast commissioning includes variable sharing with HMI
- 6 Intuitive operation with user friendly menu structure
- 7 Debugger with breakpoints and step commands to control program flow in debug mode
- 8 Windows user interface provides complete clarity through configurable window layout

### **AKD BASIC I/O Interface Configurations:**

I/O Interfaces	AKD BASIC Standard Unit	AKD BASIC with I/O Expansion
Digital Inputs	8	20
Digital Outputs	3	13
Analoge Inputs	1	2
Analoge Outputs	1	2



AKD BASIC with I/O expansion

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