

FOR SERIES APPLICATIONS I/O SYSTEM X-DIAS



FOR CUSTOMIZED CIRCUIT BOARDS

I/O SYSTEM X-DIAS

The X-DIAS I/O system was specially developed for series machine building with medium and high volumes. The function-optimized modules can be flexibly integrated into individual PCBs on the OEM side – eliminating the need for time-consuming manual single-core wiring.

The combination of standard I/O electronics and customizable connection technology increases flexibility in machine design.

mediate wiring, fuses etc. can be placed flexibly. On the circuit board, the bus and the bus supply are routed from one X-DIAS module to the next.

FUNCTIONALLY OPTIMIZED

Electronically, the modular I/O series is based on the proven S-DIAS system. So it is just as robust and vibration-resistant, and with dimensions of 12.5 x 102 x 63 mm even more compact in terms of depth. An electromechanical adaptation makes it possible to plug X-DIAS modules individually and directly onto circuit boards.

MINIMAL WIRING

Using wiring PCBs eliminates the need for manual single-core wiring – reducing wiring time and expense. X-DIAS modules are equipped with mechanical coding pins on the back, which prevents incorrect placement and minimizes any wiring mistakes. The required connectors and inter-

FLEXIBLE INTEGRATION

The X-DIAS system allows flexible combination with the S-DIAS and the IP67-protected P-DIAS module range. Any S-DIAS CPU can be used as a controller. In addition to Industrial Ethernet VARAN, other bus systems are also possible for communication with the control system.

EASY ENGINEERING

Like all I/O systems from SIGMATEK, X-DIAS is seamlessly integrated into the object-oriented engineering tool LASAL. Application creation is convenient and clear – with maximum modularity and reusability.



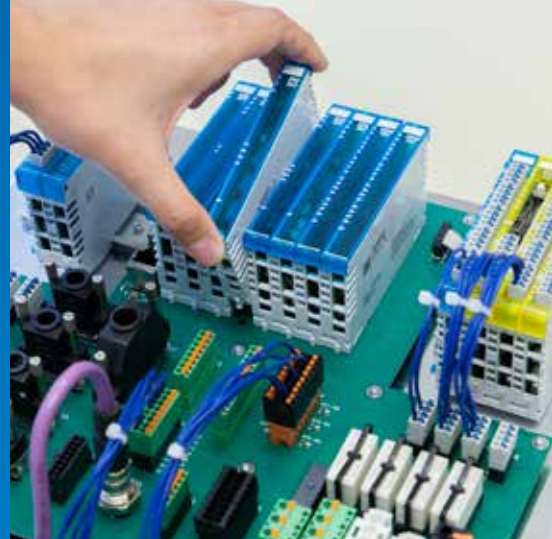
◀ X-DIAS minimizes wiring within the machine, reduces wiring mistakes, cuts installation time and saves overall expenses.

CONVINCING FEATURES



MECHANICAL CODING

The modules come with coding pins on the back. The circuit board has the appropriate drill holes at the corresponding module position – this prevents incorrect placement.



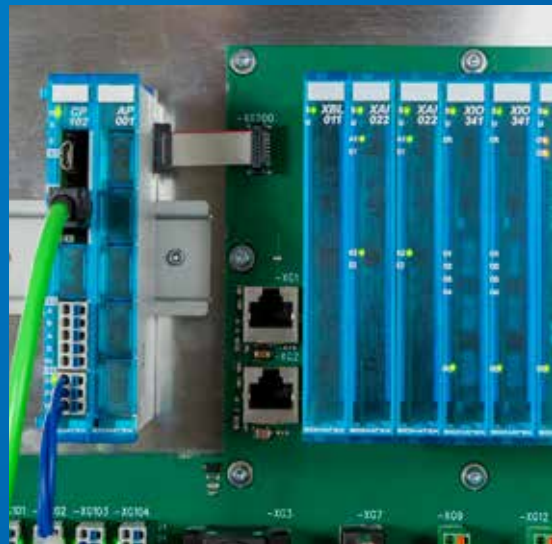
EASY HANDLING

The X-DIAS I/O modules are designed for direct, individual mounting on wiring boards: Click & Go.



INDIVIDUAL WIRING

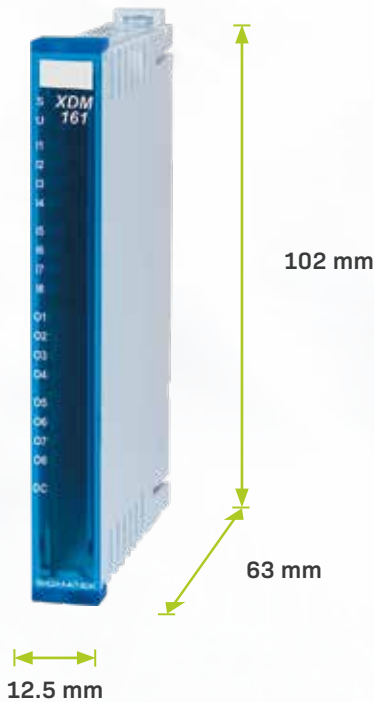
The circuit board can be customized: any connectors, fuses, cut-off relays and the necessary intermediate wiring can be positioned flexibly. Pre-assembled cable harnesses reduce wiring mistakes.



COST OPTIMIZED CONNECTION

X-DIAS modules can be connected directly to the backbone bus of S-DIAS modules via a ribbon cable in conjunction with the S/X-DIAS adapter module AP 001 – this saves costs as no fieldbus is required.

DIMENSIONS



HOT FACTS

APPLICATION-SPECIFIC CIRCUIT BOARDS

increase flexibility in series machine building, accelerate production and commissioning

MINIMAL WIRING

Single-core wiring is eliminated – wiring effort and costs are reduced

REDUCE WIRING MISTAKES

with pre-assembled cable harnesses

FLEXIBLE INTEGRATION

X-DIAS can be combined with S-DIAS/P-DIAS; communication over multiple bus systems

CONVENIENT MOUNTING

Easy to attach, mechanical coding prevents misplacement

CURRENT MODULE OVERVIEW

Bus Connection	
XVI 021*	Bus interface, 1x VARAN-In, 1x VARAN-Out, +24 V DC supply
Digital Input	
XDI 200*	20 digital inputs +24 V DC, 5 ms
Digital Output	
XTO 161*	16 digital outputs +24 V DC, 0.5 A, short-circuit-proof
XTO 127*	12 digital outputs +24 V DC, 1.7 A, short-circuit-proof, outputs separated by optic coupler
Digital Mix	
XDM 161	8 digital inputs +24 V DC, 3.7 mA, 5 ms, 8 digital outputs +24 V DC, 0.5 A, short-circuit proof
Analog Input	
XAI 022	2 strain gauge inputs (24 Bit), measurement range $\pm 1,875$ to ± 120 mV
XAI 088*	8 thermal element inputs, 0-40 mV (16 bit)
Analog Mix	
XAM 441*	4 analog inputs ± 10 V DC (16 bit), 4 analog outputs ± 10 V DC (12 bit), 1 reference output +10 V DC, max. 10 mA
Multi I/O	
XIO 341	3 analog inputs 0-5 V, 5 V sensor supply, 1x LED output 0-20 mA, 2x LED output 0-350 mA, 1x LED output 0-1 A
Special Functions	
XPL 201	LED module, 2 RGB pixel LED strips (max. 512 px), +24 V DC
XBL 011	Placeholder module, bus connection, +24 V DC

*in preparation - the series is continuously being expanded

X-DIAS wiring boards can be developed in-house using our design guides. It is also possible to commission SIGMATEK with the development, design and production of the wiring boards.