

SystemFacts

HIMax systems

- SIL 3, PL e, Cat. 4
- Nonstop operation
- Maximum performance
- Maximum configuration flexibility for life
- Different mechanical concepts
- Mid-size and large applications

Engineering tool

- HIMax systems can be engineered using SILworX, which includes:
- Function Block Diagrams
- Sequential Function Charts

List of certificates

- IEC 61508, Part1-7:2000 (SIL 3)
- IEC 61511:2004
- ANSI/ISA-84.00.01-2004
- EN ISO 13849-1:2006 (PL e)
- EN 62061:2005
- EN 50156-1:2004
- EN 12067-2:2004
- EN 298:2003
- EN 230:2005
- EN 61131-2:2003
- EN 61000-6-2:2001
- EN 61000-6-4:2001
- EN 54-2:1997/A1:2007
- EN 954-1:1996 (Cat. 4)
- NFPA 85:2007, NFPA 86:2007
- NFPA 72:2007
- EN 60079-15:2003 ATEX (Zone 2, T4)
- ANSI/ISA-S 71.04 Class G3
- UL (UL 508)
- cUL (CSA-C22.2 No. 142)
- FM CLASS 1 DIV2 (FM 3600, 3611, 3810)
- Achilles Level I Certification



HIMax® systems

A new era in safety and plant profitability

HIMax is a flexible platform for large, critical production processes that you can never afford to have go down. HIMax adapts to all I/O-count, response-time and fault-tolerance requirements as well as centralised and distributed applications. HIMax delivers availability for life by enabling uninterrupted system operation throughout your plant's life cycle. Hardware and software changes can be performed without system interruption.



SAFETY
NONSTOP

HIMax

List of modules

HIMax modules	Type	Description
Central modules		
Processor module	X-CPU 01	4 x RJ-45
System bus module	X-SB 01	
Communication module	X-COM 01	4 x RJ-45, 2 x 9-pole D-Sub, up to 6 different protocols
Digital input modules		
Digital input module	X-DI 64 01	64 channels, 24 VDC
Digital input module	X-DI 32 01	32 channels, 24 VDC
Digital input module	X-DI 32 02	32 channels, 8.2 VDC, proximity switch
Digital input module	X-DI 32 03	32 channels, 48 VDC
Digital input module	X-DI 32 04	32 channels, 24 VDC, SOE
Digital input module	X-DI 32 05	32 channels, 8.2 VDC, proximity switch, SOE
Digital input module	X-DI 16 01	16 channels, 120 VAC
Analog input modules		
Analog input module	X-AI 32 01	32 channels, 4...20 mA
Analog input module	X-AI 32 02	32 channels, 4...20 mA, SOE
Counter module	X-CI 24 01	24 channels, 0...20 kHz
Digital output modules		
Digital output module	X-DO 32 01	32 channels, 24 VDC, 0.5 A, short-circuit monitoring LS, individual channel shut-off
Digital output module	X-DO 24 01	24 channels, 24 VDC, 0.5 A, line monitoring LS/LB, individual channel shut-off
Digital output module	X-DO 24 02	24 channels, 48 VDC, 0.5 A, line monitoring LS/LB, individual channel shut-off
Relay output module	X-DO 12 01	12 channels, 230 VAC/DC, current measurement, cycle counting
Digital output module	X-DO 12 02	12 channels, 24 VDC, 2 A, short-circuit monitoring LS, individual channel shut-off
Analog output module		
Analog output module	X-AO 16 01	16 channels, 4...20 mA, pairwise galvanically isolated
Dimensions		
Module size	All	310 x 29 x 230 mm

Specifications are subject to change.

Operating conditions and CE-Mark

- IEC/EN 61131-2:2006 Programmable Controllers Part 2, Equipment requirement and tests
- IEC/EN 61000-6-2:2001 EMC, Generic Standards, Immunity for Industrial Environments
- IEC/EN 61000-6-4:2001 EMC, Generic emission standard, residential, commercial, and light industry
- EMC Directive
- Low Voltage Directive
- Machinery Directive
- ATEX Directive

Additional local certificates available

Operating principles

- De-energize to trip
- Energize to trip

Communication options

Each communication module can simultaneously operate up to 6 protocols from the following list:

- SIL 3 via safe**ethernet**
- OPC DA and A&E
- Modbus TCP Master & Slave
- Modbus Master & Slave RS 485
- PROFIBUS DP Master & Slave
- Send & Receive TCP
- ComUserTask (CUT), user-programmable port RS422, RS485, UDP, TCP
- PROFINET

Typical applications

- Emergency Shutdown Systems (ESD)
- Burner Management Systems (BMS)
- Fire & Gas Systems (F&G)
- High Integrity Pressure Protection Systems (HIPPS)
- Pipeline Automation and Protection
- Turbo Machinery Control (TMC)



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