



SMART
SAFETY.

Catalog

Products 2020

Effective from April 2020



Conditions of Delivery

The prices are valid ex works, packing charges and VAT excluded.

Prices and technology are subject to change without notice.

Price list is valid until publication of the next edition.

The minimum order value is EUR 300,00 net.

For our deliveries and services "HIMA's General Conditions for the Supply of Products and Services" apply (For details see <https://www.hima.com/en/legal-notice>). The products of this price list are subject to the valid export regulations.

All listed modules are CE-certified and meet the requirements of the EMC Directive of the European Union.

Part numbers change as of 2020

HIMA has simplified the part numbers after switching to a new ERP system. The space in the third position of a part number has been removed.

Note

SIL 3/4	according to IEC/EN 61508 Ed.2
SIL 3/4	according to IEC/EN 61511 Ed.2
SIL 3	according to EN 62061
Cat 4 / PL e	according to EN ISO 13849-1
SL1	according to IEC/EN 62443

Revision	Change	Type of Change	
		Commercial	Editorial
Rev. 1.00	First Edition for the year 2020	x	x

Table of Contents

Conditions of Delivery	2
1 HIMax	7
1.1 HIMax Base Plates and System Fans	7
1.2 HIMax Processor Modules	9
1.2.1 X-CPU 01	9
1.2.2 X-CPU 31	9
1.3 HIMax System Bus Module	10
1.3.1 X-SB 01	10
1.4 HIMax Communication Module	10
1.4.1 X-COM 01	10
1.5 HIMax Digital Input Modules	11
1.5.1 X-DI 64 01	11
1.5.2 X-DI 64 51	12
1.5.3 X-DI 32 01	13
1.5.4 X-DI 32 02	15
1.5.5 X-DI 32 03	17
1.5.6 X-DI 32 04	19
1.5.7 X-DI 32 05	21
1.5.8 X-DI 32 51	23
1.5.9 X-DI 32 52	24
1.5.10 X-DI 16 01	25
1.6 HIMax Counter Modules	26
1.6.1 X-CI 24 01	26
1.6.2 X-CI 24 51	27
1.7 HIMax Digital Output Modules	29
1.7.1 X-DO 32 01	29
1.7.2 X-DO 32 51	30
1.7.3 X-DO 24 01	31
1.7.4 X-DO 24 02	32
1.7.5 X-DO 12 01	33
1.7.6 X-DO 12 02	34
1.7.7 X-DO 12 51	35
1.8 HIMax Analog Input Modules	37
1.8.1 X-AI 32 01	37
1.8.2 X-AI 32 02	39

1.8.3 X-AI 32 51	41
1.8.4 X-AI 16 51	43
1.9 HIMax Analog Output Modules	45
1.9.1 X-AO 16 01	45
1.9.2 X-AO 16 51	46
1.10 HIMax HART Interface Module	47
1.10.1 X-HART 32 01	47
1.11 HIMax Overspeed Trip Module	48
1.11.1 X-MIO 7/6 01	48
1.12 HIMax System Solution	49
1.12.1 FTA - MTL	49
1.12.2 FTA - Pepperl+Fuchs	49
1.12.3 FTA - PHOENIX CONTACT	51
1.13 Additional Information	52
2 HIQuad X	55
2.1 HIQuad X H51X, H41X	55
2.1.1 Base Racks and System Fan	55
2.1.2 System Power Supply	55
2.1.3 Central Processing and I/O Processing Modules	56
2.1.4 Communication Modules	56
2.1.5 Mechanical Parts (M Types)	57
2.2 I/O Modules	58
2.2.1 Digital Input Modules	58
2.2.2 Digital Output Modules	60
2.2.3 Analog Input Modules	63
2.2.4 Analog Output Modules	64
2.2.5 Counter Module	64
2.2.6 Accessories	64
2.3 Additional Information	66
2.3.1 Description of the Ordering Code for Wired Cable Plugs	66
3 HIMatrix	69
3.1 HIMatrix F Series	69
3.1.1 HIMatrix F60	69
3.2 Compact Systems with SILworX	71
3.3 Accessories	73

4 HIJunction Box	75
5 HICore	77
5.1 HICore 1	77
5.2 HICore 1 Development Environment	77
5.3 HICore 1 Development Environment (Accessories)	77
5.4 Technical Support	77
6 Communication	79
6.1 General	79
6.2 Overview for HIMax, HIQuad X and HIMatrix F	81
6.3 Communication Protocols HIMax, HIQuad X and HIMatrix F	82
6.4 RS485 Networks	83
6.5 Ethernet Networks	83
6.6 Patch Cables	85
7 Software and Licenses	87
7.1 Software	87
7.1.1 SILworX Full Licenses for HIMax, HIQuad X and HIMatrix F	87
7.1.2 SILworX Full Licenses for HIMatrix F	87
7.1.3 SILworX Maintenance Licenses for HIMax, HIQuad X and HIMatrix F	88
7.1.4 SILworX License Upgrades	88
7.1.5 SILworX Optional Features	88
7.1.6 ELOP II Licenses for H41q/ H51q	89
7.1.7 Certified Function Blocks	89
7.1.7.1 Certified Function Blocks Factory Automation	89
7.1.7.2 Certified Function Blocks Burner Technology	89
7.1.7.3 Function Blocks Turbo Machinery Control (TMC)	90
7.1.7.4 X-OTS - HIMax Safety Simulator	90
8 Electronic Systems	91
8.1 Planar4	91
8.1.1 Modules	91
8.1.2 Subracks	92
8.1.3 Mechanical Parts	93
8.2 Devices on Mounting Rail, H-Types	93
9 Power Supplies	95
9.1 Power Supplies and Installation Kits	95

9.1.1 Power Supplies PS/ M-Types	95
9.1.2 Installation Kits 19 Inches	96
9.1.3 Installation Kits Wall Mounting	97
10 Visualization	99
10.1 Visualization, Panels and Software	99
10.1.1 Control Panels	99
10.1.1.1 XV-102 Series	99
10.1.1.2 XV-300 Series	99
10.1.1.3 XP-503 Series	99
10.1.1.4 Accessories	99
10.1.2 Visualisation Software	100
10.1.2.1 iFix	101
10.2 Visualisation, Stations	102
10.2.1 Programming and Visualisation Stations	102
11 Legacy Products	105
11.1 List of Legacy Products	106
12 Product Documentation	114

1 HIMax

1.1 HIMax Base Plates and System Fans

All X-BASE PLATEs are supplied with the connector boards for X-SB 01 (X-BASE PLATE xx 01) or X-CPU 31 (X-BASE PLATE xx 03).



For 19-inch-rack-mountig the following components are required per rack:

- 1 x X-BASE PLATE 15 01, or X-BASE PLATE 15 31
- 1 x X-FAN 15 02, or X-FAN 15 04
- 1 x X-FRONT COVER 15 02

Item	Part no.	Description
X-BASE PLATE 10 01	993001001	Base plate (10 slots, for X-SB 01, wall mounting)
X-FAN 10 01	993201011	System fan for base plate (10 slots, wall mounting, higher thermal requirement)
X-FAN 10 03	993201013	System fan for base plate (10 slots, wall mounting)
X-BASE PLATE 15 01	993001501	Base plate (15 slots, for X-SB 01, wall mounting, further option rack mounting)
X-FAN 15 01	993201511	System fan for base plate (15 slots, wall mounting, higher thermal requirement)
X-FAN 15 03	993201513	System fan for base plate (15 slots, wall mounting)
X-FAN 15 02	993201512	System fan for base plate (15 slots, 19 inch rack mounting, 2 U high, higher thermal requirement)
X-FAN 15 04	993201514	System fan for base plate (15 slots, 19 inch rack mounting, 2 U high)
X-BASE PLATE 18 01	993001801	Base plate (18 slots, for X-SB 01, wall mounting)
X-FAN 18 01	993201811	System fan for base plate (18 slots, wall mounting, higher thermal requirement)
X-FAN 18 03	993201813	System fan for base plate (18 slots, wall mounting)
X-BASE PLATE 10 31	993001003	Base plate (10 slot for X-CPU 31, wall mounting)
X-FAN 10 01	993201011	System fan for base plate (10 slots, wall mounting, higher thermal requirement)
X-FAN 10 03	993201013	System fan for base plate (10 slots, wall mounting)
X-BASE PLATE 15 31	993001503	Base plate (15 slot for X-CPU 31, wall mounting, optional 19 inch rack mounting)

Item	Part no.	Description
X-FAN 15 01	993201511	System fan for base plate (15 slots, wall mounting, higher thermal requirement)
X-FAN 15 03	993201513	System fan for base plate (15 slots, wall mounting)
X-BASE PLATE 18 31	993001803	Base plate (18 slot for X-CPU 31, wall mounting)
X-FAN 18 01	993201811	System fan for base plate (18 slots, wall mounting, higher thermal requirement)
X-FAN 18 03	993201813	System fan for base plate (18 slots, wall mounting)
X-FRONT COVER 10 01	993001021	Front cover (wiring) for base plate (10 slots, wall mounting)
X-FRONT COVER 15 01	993001521	Front cover (wiring) for base plate (15 slots, wall mounting)
X-FRONT COVER 15 02	993001522	Front cover (wiring) for base plate (15 slots, 19 inch rack mounting)
X-FRONT COVER 18 01	993001821	Front cover (wiring) for base plate (18 slots, wall mounting)
SK 20	502000101	Cable shield clamp SK20 for X-BASE PLATE and X-FTA for analog module required
X-BLK 01	632590802	Blank module (1 Slot, X-I/O)
X-BLK 02	632590801	Blank module (1 Slot, X-CPU 01, X-COM 01)
X-BLK 03	632590800	Blank module (1 Slot, X-CPU 31, X-SB 01)
X-CB 003 01	632590907	Connector board for Blank module
Coding Pin	520000058	100 coding pins to avoid misplaced plugs. The product discontinuation policy of the vendor is mandatory.

1.2 HIMax Processor Modules

1.2.1 X-CPU 01

Item	Part no.	Description
X-CPU 01	985210211	Processor module for high performance requirements and critical control applications (4 x RJ-45, SIL 3/Cat. 4/PL e)
X-CB 001 01	985020047	Connector board for processor module

1.2.2 X-CPU 31



The Connector Board for the X-CPU 31 is already included in the X-BASE PLATE. This part may only be exchanged by HIMA Paul Hildebrandt GmbH authorized and trained partners.

Item	Part no.	Description
X-CPU 31	985210246	Processor module for small and midsize safety applications (2 x RJ-45, SIL 3/Kat. 4/PL e)
X-CB 002 07	989680201	Connector board (10 slots, dual module, X-CPU 31)
X-CB 002 08	989680202	Connector board (15 slots, dual module, X-CPU 31)
X-CB 002 09	989680203	Connector board (18 slots, dual module, X-CPU 31)

1.3 HIMax System Bus Module

1.3.1 X-SB 01



The Connector Boards for the X-SB 01 are already included in X-BASE PLATE. These parts may only be exchanged by HIMA Paul Hildebrandt GmbH authorized and trained partners.

Item	Part no.	Description
X-SB 01	985210207	System bus module (SIL 3/Cat. 4/PL e)
X-CB 002 01	989680501	Connector board (10 slots, single module, left, X-SB 01)
X-CB 002 02	989680601	Connector board (10 slots, single module, right, X-SB 01)
X-CB 002 03	989680502	Connector board for system bus module (15 slots, single module, left, X-SB 01)
X-CB 002 04	989680602	Connector board (15 slots, single module, right, X-SB 01)
X-CB 002 05	989680503	Connector board (18 slots, single module, left, X-SB 01)
X-CB 002 06	989680603	Connector board (18 slots, single module, right, X-SB 01)
X-FILTER 01	985020039	Filter for power supply included in X-BASE PLATE
X-SR CB 01	679995256	Communication cable fixing for connector board

1.4 HIMax Communication Module

1.4.1 X-COM 01



Protocols and submodules for field bus communication have to be ordered separately. Please find details on protocols in chapter 6.

Item	Part no.	Description
X-COM 01	985260000	Communication module (4 x RJ-45, 2 x 9-pole D-Sub, up to 6 different protocols, SIL 3/Cat. 4/PL e)
X-CB 001 02	985020008	Connector board for communication module

1.5 HIMax Digital Input Modules

1.5.1 X-DI 64 01

Item	Part no.	Description
X-DI 64 01	985210212	Digital input module (64 channels, 24 VDC, SIL 3/Cat. 4/PL e)
X-CB 006 01	985020033	Connector board (screw terminals, single module)
X-CB 006 02	985020098	Connector board (screw terminals, dual module)
X-CB 006 03	985020034	Connector board (system cable, single module, single/dual FTA)
X-CB 006 04	985020110	Connector board (system cable, dual module, single/dual FTA)
X-CA 003 03 8	985050726-8	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 003 03 15	985050726-15	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 003 03 30	985050726-30	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 003 04 5	985050727-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 003 01 8	985050722-8	System cable (single/dual FTA)
X-CA 003 01 15	985050722-15	System cable (single/dual FTA)
X-CA 003 01 30	985050722-30	System cable (single/dual FTA)
X-CA 003 02 5	985050725-5	System cable with flying leads
X-FTA 003 02L	985030011	Field Termination Assembly left (spring terminals, single/dual system cable)
X-FTA 003 02R	985030026	Field Termination Assembly right (spring terminals, single/dual system cable)

1.5.2 X-DI 64 51

Item	Part no.	Description
X-DI 64 51	985010223	Digital input module (64 channels, 24 VDC)
X-CB 006 51	985025033	Connector board (screw terminals, single module)
X-CB 006 52	985025098	Connector board (screw terminals, dual module)
X-CB 006 53	985025034	Connector board (system cable, single module, single FTA)
X-CB 006 54	985025110	Connector board (system cable, dual module, single FTA)
X-CA 003 03 8	985050726-8	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 003 03 15	985050726-15	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 003 03 30	985050726-30	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 003 04 5	985050727-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 003 01 8	985050722-8	System cable (single/dual FTA)
X-CA 003 01 15	985050722-15	System cable (single/dual FTA)
X-CA 003 01 30	985050722-30	System cable (single/dual FTA)
X-CA 003 02 5	985050725-5	System cable with flying leads
X-FTA 003 02L	985030011	Field Termination Assembly left (spring terminals, single/dual system cable)
X-FTA 003 02R	985030026	Field Termination Assembly right (spring terminals, single/dual system cable)

1.5.3 X-DI 32 01

Item	Part no.	Description
X-DI 32 01	985210201	Digital input module (32 channels, 24 VDC, SIL 3/Cat. 4/PL e)
X-CB 015 01	985020167	Connector board (screw terminals, single module)
X-CB 015 02	985020168	Connector board (screw terminals, dual module)
X-CB 015 03	985020169	Connector board (system cable, single module, single/dual FTA)
X-CB 015 04	985020170	Connector board (system cable, dual module, single FTA)
X-CA 001 03 8	985050717-8	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 001 03 15	985050717-15	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 001 03 30	985050717-30	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 001 04 5	985050718-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 015 04 5	985050780-5	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 015 04 8	985050780-8	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 015 04 15	985050780-15	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 015 04 30	985050780-30	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 001 01 8	985050701-8	System cable (single/dual FTA)
X-CA 001 01 15	985050701-15	System cable (single/dual FTA)
X-CA 001 01 30	985050701-30	System cable (single/dual FTA)
X-CA 001 02 5	985050716-5	System cable with flying leads
X-CA 015 02 5	985050779-5	System cable with flying leads for signal conditioners
X-CA 015 02 8	985050779-8	System cable with flying leads for signal conditioners
X-CA 015 02 15	985050779-15	System cable with flying leads for signal conditioners
X-CA 015 02 30	985050779-30	System cable with flying leads for signal conditioners
X-FTA 001 01L	985030014	Field Termination Assembly left (spring terminals, single system cable)
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 001 02L	985030009	Field Termination Assembly left (spring terminals, dual system cable)

Item	Part no.	Description
X-FTA 002 02L	985030019	Field Termination Assembly left (spring terminals, two-wire-connector, dual system cable)
X-FTA 002 02R	985030025	Field Termination Assembly right (spring terminals, two-wire-connector, dual system cable)

1.5.4 X-DI 32 02

Item	Part no.	Description
X-DI 32 02	985210202	Digital input module (32 channels, 8.2 VDC, proximity switch, line monitoring, SIL 3/Cat. 4/PL e)
X-CB 005 01	985220023	Connector board (screw terminals, single module)
X-CB 005 02	985220056	Connector board (screw terminals, dual module)
X-CB 005 03	985220024	Connector board (system cable, single module, single FTA)
X-CB 005 04	985220061	Connector board (system cable, dual module, single FTA)
X-CB 005 05	985020065	Connector board (system cable, single module, dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 002 03 8	985050720-8	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 8	985050756-8	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 002 03 15	985050720-15	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 15	985050756-15	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 002 03 30	985050720-30	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 30	985050756-30	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 002 04 5	985050721-5	System cable with flying leads (non-halogen line, X-DI 32 02, X-DI 32 05)
X-CA 002 01 8	985050707-8	System cable (single FTA)
X-CA 009 01 8	985050752-8	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 002 01 15	985050707-15	System cable (single FTA)
X-CA 009 01 15	985050752-15	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 002 01 30	985050707-30	System cable (single FTA)
X-CA 009 01 30	985050752-30	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 002 02 5	985050719-5	System cable with flying leads
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 008 02L	985230010	Field Termination Assembly left (spring terminals, dual system cable). For the redundant connection of non-adjacently located modules.

1.5.5 X-DI 32 03

Item	Part no.	Description
X-DI 32 03	985210221	Digital input module (32 channels, 48 VDC, SIL 3/Cat. 4/PL e)
X-CB 015 01	985020167	Connector board (screw terminals, single module)
X-CB 015 02	985020168	Connector board (screw terminals, dual module)
X-CB 015 03	985020169	Connector board (system cable, single module, single/dual FTA)
X-CB 015 04	985020170	Connector board (system cable, dual module, single FTA)
X-CA 001 03 8	985050717-8	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 001 03 15	985050717-15	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 001 03 30	985050717-30	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 001 04 5	985050718-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 015 04 5	985050780-5	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 015 04 8	985050780-8	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 015 04 15	985050780-15	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 015 04 30	985050780-30	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 001 01 8	985050701-8	System cable (single/dual FTA)
X-CA 001 01 15	985050701-15	System cable (single/dual FTA)
X-CA 001 01 30	985050701-30	System cable (single/dual FTA)
X-CA 001 02 5	985050716-5	System cable with flying leads
X-CA 015 02 5	985050779-5	System cable with flying leads for signal conditioners
X-CA 015 02 8	985050779-8	System cable with flying leads for signal conditioners
X-CA 015 02 15	985050779-15	System cable with flying leads for signal conditioners
X-CA 015 02 30	985050779-30	System cable with flying leads for signal conditioners
X-FTA 001 01L	985030014	Field Termination Assembly left (spring terminals, single system cable)
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 001 02L	985030009	Field Termination Assembly left (spring terminals, dual system cable)

Item	Part no.	Description
X-FTA 002 02L	985030019	Field Termination Assembly left (spring terminals, two-wire-connector, dual system cable)
X-FTA 002 02R	985030025	Field Termination Assembly right (spring terminals, two-wire-connector, dual system cable)

1.5.6 X-DI 32 04

Item	Part no.	Description
X-DI 32 04	985210230	Digital input module (32 channels, 24 VDC, SOE, SIL 3)
X-CB 015 01	985020167	Connector board (screw terminals, single module)
X-CB 015 02	985020168	Connector board (screw terminals, dual module)
X-CB 015 03	985020169	Connector board (system cable, single module, single/dual FTA)
X-CB 015 04	985020170	Connector board (system cable, dual module, single FTA)
X-CA 001 03 8	985050717-8	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 001 03 15	985050717-15	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 001 03 30	985050717-30	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 001 04 5	985050718-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 015 04 5	985050780-5	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 015 04 8	985050780-8	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 015 04 15	985050780-15	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 015 04 30	985050780-30	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 001 01 8	985050701-8	System cable (single/dual FTA)
X-CA 001 01 15	985050701-15	System cable (single/dual FTA)
X-CA 001 01 30	985050701-30	System cable (single/dual FTA)
X-CA 001 02 5	985050716-5	System cable with flying leads
X-CA 015 02 5	985050779-5	System cable with flying leads for signal conditioners
X-CA 015 02 8	985050779-8	System cable with flying leads for signal conditioners
X-CA 015 02 15	985050779-15	System cable with flying leads for signal conditioners
X-CA 015 02 30	985050779-30	System cable with flying leads for signal conditioners
X-FTA 001 01L	985030014	Field Termination Assembly left (spring terminals, single system cable)
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 001 02L	985030009	Field Termination Assembly left (spring terminals, dual system cable)

Item	Part no.	Description
X-FTA 002 02L	985030019	Field Termination Assembly left (spring terminals, two-wire-connector, dual system cable)
X-FTA 002 02R	985030025	Field Termination Assembly right (spring terminals, two-wire-connector, dual system cable)

1.5.7 X-DI 32 05

Item	Part no.	Description
X-DI 32 05	985210231	Digital input module (32 channels, 8.2 VDC, proximity switch, line monitoring, SOE, SIL 3)
X-CB 005 01	985220023	Connector board (screw terminals, single module)
X-CB 005 02	985220056	Connector board (screw terminals, dual module)
X-CB 005 03	985220024	Connector board (system cable, single module, single FTA)
X-CB 005 04	985220061	Connector board (system cable, dual module, single FTA)
X-CB 005 05	985020065	Connector board (system cable, single module, dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 002 03 8	985050720-8	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 8	985050756-8	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 002 03 15	985050720-15	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 15	985050756-15	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 002 03 30	985050720-30	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 30	985050756-30	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 002 04 5	985050721-5	System cable with flying leads (non-halogen line, X-DI 32 02, X-DI 32 05)
X-CA 002 01 8	985050707-8	System cable (single FTA)
X-CA 009 01 8	985050752-8	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 002 01 15	985050707-15	System cable (single FTA)
X-CA 009 01 15	985050752-15	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 002 01 30	985050707-30	System cable (single FTA)
X-CA 009 01 30	985050752-30	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 002 02 5	985050719-5	System cable with flying leads
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 008 02L	985230010	Field Termination Assembly left (spring terminals, dual system cable). For the redundant connection of non-adjacently located modules.

1.5.8 X-DI 32 51

Item	Part no.	Description
X-DI 32 51	985010245	Digital input module (32 channels, 24 VDC)
X-CB 015 51	985025167	Connector board (screw terminals, single module)
X-CB 015 52	985025168	Connector board (screw terminals, dual module)
X-CB 015 53	985025169	Connector board (system cable, single module, single FTA)
X-CB 015 54	985025170	Connector board (system cable, duale Module, single FTA)
X-CA 001 03 8	985050717-8	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 001 03 15	985050717-15	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 001 03 30	985050717-30	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 001 04 5	985050718-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 001 01 8	985050701-8	System cable (single/dual FTA)
X-CA 001 01 15	985050701-15	System cable (single/dual FTA)
X-CA 001 01 30	985050701-30	System cable (single/dual FTA)
X-CA 001 02 5	985050716-5	System cable with flying leads
X-CA 015 04 5	985050780-5	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 015 04 8	985050780-8	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 015 04 15	985050780-15	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 015 04 30	985050780-30	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-FTA 001 01L	985030014	Field Termination Assembly left (spring terminals, single system cable)
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 001 02L	985030009	Field Termination Assembly left (spring terminals, dual system cable)
X-FTA 002 02L	985030019	Field Termination Assembly left (spring terminals, two-wire-connector, dual system cable)
X-FTA 002 02R	985030025	Field Termination Assembly right (spring terminals, two-wire-connector, dual system cable)

1.5.9 X-DI 32 52

Item	Part no.	Description
X-DI 32 52	985010236	Digital input module (32 channels, 8.2 VDC, Proximity Switch)
X-CB 005 51	985025023	Connector board (screw terminals, single module)
X-CB 005 52	985025056	Connector board (screw terminals, dual module)
X-CB 005 53	985025024	Connector board (system cable, single module, single FTA)
X-CB 005 54	985025061	Connector board (system cable, dual module, single FTA)
X-CB 005 55	985025065	Connector board (system cable, single module, dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 002 03 8	985050720-8	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 8	985050756-8	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 002 03 15	985050720-15	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 15	985050756-15	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 002 03 30	985050720-30	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 30	985050756-30	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 002 04 5	985050721-5	System cable with flying leads (non-halogen line, X-DI 32 02, X-DI 32 05)
X-CA 009 01 8	985050752-8	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 009 01 15	985050752-15	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 009 01 30	985050752-30	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 002 01 8	985050707-8	System cable (single FTA)
X-CA 002 01 15	985050707-15	System cable (single FTA)
X-CA 002 01 30	985050707-30	System cable (single FTA)
X-CA 002 02 5	985050719-5	System cable with flying leads
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 008 02L	985230010	Field Termination Assembly left (spring terminals, dual system cable). For the redundant connection of non-adjacently located modules.

1.5.10 X-DI 16 01

Item	Part no.	Description
X-DI 16 01	985210222	Digital input module (16 channels, 120 VAC, SIL 3)
X-CB 007 01	985020131	Connector board (spring terminals, single module)
X-CB 007 02	985020132	Connector board (spring terminals, dual module)
X-CB 007 03	985020133	Connector board (system cable, single module, FTA)
X-CB 007 04	985020134	Connector board (system cable, dual module, FTA)
X-CA 004 01 8	985050728-8	System cable set, comprising 8 cables (single/dual FTA)
X-CA 004 01 15	985050728-15	System cable set, comprising 8 cables (single/dual FTA)
X-CA 004 01 30	985050728-30	System cable set, comprising 8 cables (single/dual FTA)
X-CA 004 02 5	985050731-5	System cable set, comprising 8 cables with flying leads
X-FTA 004	985030017	Spring Terminal Assembly for X-DI 16 01

1.6 HIMax Counter Modules

1.6.1 X-CI 24 01

Item	Part no.	Description
X-CI 24 01	985210220	Counter module (24 channels, 0...20 kHz, SIL 3)
X-CB 013 01	985220094	Connector board (screw terminals, single module)
X-CB 013 02	985220100	Connector board (screw terminals, dual module)
X-CB 013 03	985220106	Connector board (system cable, single module, single/dual FTA)
X-CB 013 04	985220112	Connector board (system cable, dual module, single FTA)
X-CA 005 03 8	985050735-8	System cable (single FTA), halogen-free, UL/CSA
X-CA 005 03 15	985050735-15	System cable (single FTA), halogen-free, UL/CSA
X-CA 005 03 30	985050735-30	System cable (single FTA), halogen-free, UL/CSA
X-CA 005 04 5	985050736-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 016 04 5	985050782-5	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 016 04 8	985050782-8	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 016 04 15	985050782-15	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 016 04 30	985050782-30	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 005 01 8	985050704-8	System cable (single FTA)
X-CA 005 01 15	985050704-15	System cable (single FTA)
X-CA 005 01 30	985050704-30	System cable (single FTA)
X-CA 005 02 5	985050734-5	System cable with flying leads
X-CA 016 02 5	985050781-5	System cable with flying leads for signal conditioners
X-CA 016 02 8	985050781-8	System cable with flying leads for signal conditioners
X-CA 016 02 15	985050781-15	System cable with flying leads for signal conditioners
X-CA 016 02 30	985050781-30	System cable with flying leads for signal conditioners
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 002 02L	985030019	Field Termination Assembly left (spring terminals, two-wire-connector, dual system cable)
X-FTA 002 02R	985030025	Field Termination Assembly right (spring terminals, two-wire-connector, dual system cable)

1.6.2 X-CI 24 51

Item	Part no.	Description
X-CI 24 51	985010233	Counter module (24 channels, 0...20 kHz)
X-CB 013 51	985025094	Connector board (screw terminals, single module)
X-CB 013 52	985025100	Connector board (screw terminals, dual module)
X-CB 013 53	985025106	Connector board (system cable, single module, single FTA)
X-CB 013 54	985025112	Connector board (system cable, dual module, single FTA)
X-CA 005 03 8	985050735-8	System cable (single FTA), halogen-free, UL/CSA
X-CA 005 03 15	985050735-15	System cable (single FTA), halogen-free, UL/CSA
X-CA 005 03 30	985050735-30	System cable (single FTA), halogen-free, UL/CSA
X-CA 005 04 5	985050736-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 016 04 5	985050782-5	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 016 04 8	985050782-8	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 016 04 15	985050782-15	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 016 04 30	985050782-30	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 005 01 8	985050704-8	System cable (single FTA)
X-CA 005 01 15	985050704-15	System cable (single FTA)
X-CA 005 01 30	985050704-30	System cable (single FTA)
X-CA 005 02 5	985050734-5	System cable with flying leads
X-CA 016 02 5	985050781-5	System cable with flying leads for signal conditioners
X-CA 016 02 8	985050781-8	System cable with flying leads for signal conditioners
X-CA 016 02 15	985050781-15	System cable with flying leads for signal conditioners
X-CA 016 02 30	985050781-30	System cable with flying leads for signal conditioners
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 002 02L	985030019	Field Termination Assembly left (spring terminals, two-wire-connector, dual system cable)
X-FTA 002 02R	985030025	Field Termination Assembly right (spring terminals, two-wire-connector, dual system cable)

1.7 HIMax Digital Output Modules

1.7.1 X-DO 32 01

Item	Part no.	Description
X-DO 32 01	985210219	Digital output module (32 channels, 24 VDC, 0.5 A, short-circuit monitoring LS, individual channel shut-off, SIL 3/Cat. 4/PL e)
X-CB 009 01	985020021	Connector board (screw terminals, single module)
X-CB 009 02	985020042	Connector board (screw terminals, dual module)
X-CB 009 03	985020022	Connector board (system cable, single module, single/dual FTA)
X-CB 009 04	985020043	Connector board (system cable, dual module, single FTA)
X-CA 006 03 8	985050741-8	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 006 03 15	985050741-15	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 006 03 30	985050741-30	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 006 04 5	985050742-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 006 01 8	985050737-8	System cable (single/dual FTA)
X-CA 006 01 15	985050737-15	System cable (single/dual FTA)
X-CA 006 01 30	985050737-30	System cable (single/dual FTA)
X-CA 006 02 5	985050740-5	System cable with flying leads
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 002 02L	985030019	Field Termination Assembly left (spring terminals, two-wire-connector, dual system cable)
X-FTA 002 02R	985030025	Field Termination Assembly right (spring terminals, two-wire-connector, dual system cable)

1.7.2 X-DO 32 51

Item	Part no.	Description
X-DO 32 51	985010224	Digital output module (32 channels, 24 VDC, 0.5 A, protected outputs, group shut-off)
X-CB 009 51	985025021	Connector board (screw terminals, single module)
X-CB 009 52	985025042	Connector board (screw terminals, dual module)
X-CB 009 53	985025022	Connector board (system cable, single module, single FTA)
X-CB 009 54	985025043	Connector board (system cable, dual module, single FTA)
X-CA 006 03 8	985050741-8	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 006 03 15	985050741-15	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 006 03 30	985050741-30	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 006 04 5	985050742-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 006 01 8	985050737-8	System cable (single/dual FTA)
X-CA 006 01 15	985050737-15	System cable (single/dual FTA)
X-CA 006 01 30	985050737-30	System cable (single/dual FTA)
X-CA 006 02 5	985050740-5	System cable with flying leads
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 002 02L	985030019	Field Termination Assembly left (spring terminals, two-wire-connector, dual system cable)
X-FTA 002 02R	985030025	Field Termination Assembly right (spring terminals, two-wire-connector, dual system cable)

1.7.3 X-DO 24 01

Item	Part no.	Description
X-DO 24 01	985210203	Digital output module (24 channels, 24 VDC, 0.5 A, line monitoring LS/LB, individual channel shut-off, SIL 3)
X-CB 009 01	985020021	Connector board (screw terminals, single module)
X-CB 009 02	985020042	Connector board (screw terminals, dual module)
X-CB 009 03	985020022	Connector board (system cable, single module, single/dual FTA)
X-CB 009 04	985020043	Connector board (system cable, dual module, single FTA)
X-CA 006 03 8	985050741-8	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 006 03 15	985050741-15	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 006 03 30	985050741-30	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 006 04 5	985050742-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 006 01 8	985050737-8	System cable (single/dual FTA)
X-CA 006 01 15	985050737-15	System cable (single/dual FTA)
X-CA 006 01 30	985050737-30	System cable (single/dual FTA)
X-CA 006 02 5	985050740-5	System cable with flying leads
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 002 02L	985030019	Field Termination Assembly left (spring terminals, two-wire-connector, dual system cable)
X-FTA 002 02R	985030025	Field Termination Assembly right (spring terminals, two-wire-connector, dual system cable)

1.7.4 X-DO 24 02

Item	Part no.	Description
X-DO 24 02	985210214	Digital output module (24 channels, 48 VDC, 0.5 A, line monitoring LS/LB, individual channel shut-off, SIL 3/Cat. 4/PL e)
X-CB 010 01	985020035	Connector board (screw terminals, single module)
X-CB 010 02	985020044	Connector board (screw terminals, dual module)
X-CB 010 03	985020036	Connector board (system cable, single module, single/dual FTA)
X-CB 010 04	985020045	Connector board (system cable, dual module, single FTA)
X-CA 006 03 8	985050741-8	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 006 03 15	985050741-15	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 006 03 30	985050741-30	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 006 04 5	985050742-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 006 01 8	985050737-8	System cable (single/dual FTA)
X-CA 006 01 15	985050737-15	System cable (single/dual FTA)
X-CA 006 01 30	985050737-30	System cable (single/dual FTA)
X-CA 006 02 5	985050740-5	System cable with flying leads
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 002 02L	985030019	Field Termination Assembly left (spring terminals, two-wire-connector, dual system cable)
X-FTA 002 02R	985030025	Field Termination Assembly right (spring terminals, two-wire-connector, dual system cable)

1.7.5 X-DO 12 01

Item	Part no.	Description
X-DO 12 01	985210204	Relay output module (12 channels, 230 VAC/DC, current measurement, cycle counting, SIL 3/Cat. 4/PL e)
X-CB 011 01	985020017	Connector board (screw terminals, single module)
X-CB 011 02	985020057	Connector board (screw terminals, dual module)
X-CB 011 03	985020018	Connector board (system cable, single module, single/dual FTA)
X-CB 011 04	985020062	Connector board (system cable, dual module, single/dual FTA)
X-CB COVER 01	985050001	Cover for connector board (screw terminals)
X-CA 012 04 5	985050765-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 012 01 8	985050762-8	System cable (single/dual FTA)
X-CA 012 01 15	985050762-15	System cable (single/dual FTA)
X-CA 012 01 30	985050762-30	System cable (single/dual FTA)
X-CA 012 02 5	985050763-5	System cable with flying leads
X-FTA 005 02L	985030020	Field Termination Assembly left (spring terminals, single/dual system cable)

1.7.6 X-DO 12 02

Item	Part no.	Description
X-DO 12 02	985210218	Digital output module (12 channels, 24 VDC, 2 A, short-circuit monitoring LS, individual channel shut-off, SIL 3)
X-CB 012 01	985020093	Connector board (screw terminals, single module)
X-CB 012 02	985020099	Connector board (screw terminals, dual module)
X-CB 012 03	985020105	Connector board (system cable, single module, single/dual FTA)
X-CB 012 04	985020111	Connector board (system cable, dual module, single FTA)
X-CA 008 03 8	985050750-8	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 008 03 15	985050750-15	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 008 03 30	985050750-30	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 008 04 5	985050751-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 008 01 8	985050746-8	System cable (single/dual FTA)
X-CA 008 01 15	985050746-15	System cable (single/dual FTA)
X-CA 008 01 30	985050746-30	System cable (single/dual FTA)
X-CA 008 02 5	985050749-5	System cable with flying leads
X-FTA 006 01L	985030018	Field Termination Assembly left (spring terminals, single system cable)
X-FTA 006 02L	985030021	Field Termination Assembly left (spring terminals, dual system cable)

1.7.7 X-DO 12 51

Item	Part no.	Description
X-DO 12 51	985010226	Relay output module (12 channels, 230 VAC/DC)
X-CB 011 51	985025017	Connector board (screw terminals, single module)
X-CB 011 53	985025018	Connector board (system cable, single module, single FTA)
X-CA 012 04 5	985050765-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 012 01 8	985050762-8	System cable (single/dual FTA)
X-CA 012 01 15	985050762-15	System cable (single/dual FTA)
X-CA 012 01 30	985050762-30	System cable (single/dual FTA)
X-CA 012 02 5	985050763-5	System cable with flying leads
X-FTA 005 02L	985030020	Field Termination Assembly left (spring terminals, single/dual system cable)

1.8 HIMax Analog Input Modules

1.8.1 X-AI 32 01

Item	Part no.	Description
X-AI 32 01	985210213	Analog input module (32 channels, 4 ... 20 mA, line monitoring, SIL 3/Cat. 4/PL e)
X-CB 008 01	985220019	Connector board (screw terminals, single module)
X-CB 008 02	985220059	Connector board (screw terminals, dual module)
X-CB 008 03	985220020	Connector board (system cable, single module, single FTA)
X-CB 008 04	985220064	Connector board (system cable, dual module, single FTA)
X-CB 008 05	985020066	Connector board (system cable, single module, dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 005 03 8	985050735-8	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 8	985050756-8	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 005 03 15	985050735-15	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 15	985050756-15	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 005 03 30	985050735-30	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 30	985050756-30	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 005 04 5	985050736-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 016 04 5	985050782-5	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 016 04 8	985050782-8	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 016 04 15	985050782-15	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 016 04 30	985050782-30	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 005 01 8	985050704-8	System cable (single FTA)
X-CA 009 01 8	985050752-8	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 005 01 15	985050704-15	System cable (single FTA)
X-CA 009 01 15	985050752-15	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 005 01 30	985050704-30	System cable (single FTA)

Item	Part no.	Description
X-CA 009 01 30	985050752-30	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 005 02 5	985050734-5	System cable with flying leads
X-CA 016 02 5	985050781-5	System cable with flying leads for signal conditioners
X-CA 016 02 8	985050781-8	System cable with flying leads for signal conditioners
X-CA 016 02 15	985050781-15	System cable with flying leads for signal conditioners
X-CA 016 02 30	985050781-30	System cable with flying leads for signal conditioners
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 007 02L	985230013	Field Termination Assembly left (spring terminals, dual system cable). For the redundant connection of non-adjacently located modules.

1.8.2 X-AI 32 02

Item	Part no.	Description
X-AI 32 02	985210229	Analog input module (32 channels, 4 ... 20 mA, SOE, line monitoring, SIL 3)
X-CB 008 01	985220019	Connector board (screw terminals, single module)
X-CB 008 02	985220059	Connector board (screw terminals, dual module)
X-CB 008 03	985220020	Connector board (system cable, single module, single FTA)
X-CB 008 04	985220064	Connector board (system cable, dual module, single FTA)
X-CB 008 05	985020066	Connector board (system cable, single module, dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 005 03 8	985050735-8	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 8	985050756-8	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 005 03 15	985050735-15	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 15	985050756-15	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 005 03 30	985050735-30	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 30	985050756-30	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 005 04 5	985050736-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 016 04 5	985050782-5	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 016 04 8	985050782-8	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 016 04 15	985050782-15	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 016 04 30	985050782-30	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 005 01 8	985050704-8	System cable (single FTA)
X-CA 009 01 8	985050752-8	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 005 01 15	985050704-15	System cable (single FTA)
X-CA 009 01 15	985050752-15	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 005 01 30	985050704-30	System cable (single FTA)

Item	Part no.	Description
X-CA 009 01 30	985050752-30	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 005 02 5	985050734-5	System cable with flying leads
X-CA 016 02 5	985050781-5	System cable with flying leads for signal conditioners
X-CA 016 02 8	985050781-8	System cable with flying leads for signal conditioners
X-CA 016 02 15	985050781-15	System cable with flying leads for signal conditioners
X-CA 016 02 30	985050781-30	System cable with flying leads for signal conditioners
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 007 02L	985230013	Field Termination Assembly left (spring terminals, dual system cable). For the redundant connection of non-adjacently located modules.

1.8.3 X-AI 32 51

Item	Part no.	Description
X-AI 32 51	985010225	Analog input module (32 channels, 4 ... 20 mA, line monitoring)
X-CB 008 51	985025019	Connector board (screw terminals, single module)
X-CB 008 52	985025059	Connector board (screw terminals, dual module)
X-CB 008 53	985025020	Connector board (system cable, single module, single FTA)
X-CB 008 54	985025064	Connector board (system cable, dual module, single FTA)
X-CB 008 55	985025066	Connector board (system cable, single module, dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 005 03 8	985050735-8	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 8	985050756-8	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 005 03 15	985050735-15	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 15	985050756-15	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 005 03 30	985050735-30	System cable (single FTA), halogen-free, UL/CSA
X-CA 009 03 30	985050756-30	System cable (dual FTA). For the redundant connection of non-adjacently located modules. Halogen-free, UL/CSA
X-CA 005 04 5	985050736-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 016 04 5	985050782-5	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 016 04 8	985050782-8	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 016 04 15	985050782-15	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 016 04 30	985050782-30	System cable with flying leads for signal conditioners, halogen-free, UL/CSA
X-CA 005 01 8	985050704-8	System cable (single FTA)
X-CA 009 01 8	985050752-8	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 005 01 15	985050704-15	System cable (single FTA)
X-CA 009 01 15	985050752-15	System cable (dual FTA). For the redundant connection of non-adjacently located modules.
X-CA 005 01 30	985050704-30	System cable (single FTA)
X-CA 009 01 30	985050752-30	System cable (dual FTA). For the redundant connection of non-adjacently located modules.

Item	Part no.	Description
X-CA 005 02 5	985050734-5	System cable with flying leads
X-CA 016 02 5	985050781-5	System cable with flying leads for signal conditioners
X-CA 016 02 8	985050781-8	System cable with flying leads for signal conditioners
X-CA 016 02 15	985050781-15	System cable with flying leads for signal conditioners
X-CA 016 02 30	985050781-30	System cable with flying leads for signal conditioners
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 007 02L	985230013	Field Termination Assembly left (spring terminals, dual system cable). For the redundant connection of non-adjacently located modules.

1.8.4 X-AI 16 51

Item	Part no.	Description
X-AI 16 51	985210228	Analog input/temperature module (16 channels, galvanically isolated channels, TC, Pt100, 4 ... 20 mA, +/-280 mV, SIL 1)
X-CB 020 51	985025174	Connector board (screw terminals, single module, TC, RTD, +/-280 mV)
X-CB 020 53	985025175	Connector board (system cable, single module, single FTA, TC, RTD, +/-280 mV)
X-CB 021 51	985225400	Connector board (screw terminals, single module, 4 ... 20 mA)
X-CB 021 53	985225401	Connector board (system cable, single module, single FTA, 4 ... 20 mA)
X-CA 014 03 8	985050768-8	System cable (single FTA), halogen-free, UL/CSA
X-CA 014 03 15	985050768-15	System cable (single FTA), halogen-free, UL/CSA
X-CA 014 03 30	985050768-30	System cable (single FTA), halogen-free, UL/CSA
X-CA 014 04 5	985050769-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 014 01 8	985050766-8	System cable (single FTA)
X-CA 014 01 15	985050766-15	System cable (single FTA)
X-CA 014 01 30	985050766-30	System cable (single FTA)
X-CA 014 02 5	985050767-5	System cable with flying leads
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)

1.9 HIMax Analog Output Modules

1.9.1 X-AO 16 01

Item	Part no.	Description
X-AO 16 01	985210210	Analog output module (16 channels, 4 ... 20 mA, pairwise galvanically isolated, SIL 3)
X-CB 014 01	985020025	Connector board (screw terminals, single module)
X-CB 014 02	985220058	Connector board (screw terminals, dual module)
X-CB 014 03	985020026	Connector board (system cable, single module, single/dual FTA)
X-CB 014 04	985220063	Connector board (system cable, dual module, single FTA)
X-CA 011 03 8	985050760-8	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 011 03 15	985050760-15	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 011 03 30	985050760-30	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 011 01 8	985050758-8	System cable (single/dual FTA)
X-CA 011 01 15	985050758-15	System cable (single/dual FTA)
X-CA 011 01 30	985050758-30	System cable (single/dual FTA)
X-CA 011 02 5	985050759-5	System cable with flying leads
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 002 02L	985030019	Field Termination Assembly left (spring terminals, two-wire-connector, dual system cable)
X-FTA 009 02L	985230022	Field Termination Assembly left (spring terminals, dual system cable, outputs in serial connection)
X-FTA 002 02R	985030025	Field Termination Assembly right (spring terminals, two-wire-connector, dual system cable)

1.9.2 X-AO 16 51

Item	Part no.	Description
X-AO 16 51	985010227	Analog output module (16 channels, 4 ... 20 mA)
X-CB 014 51	985025025	Connector board (screw terminals, single module)
X-CB 014 53	985025026	Connector board (system cable, single module, single FTA)
X-CA 011 03 8	985050760-8	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 011 03 15	985050760-15	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 011 03 30	985050760-30	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 011 01 8	985050758-8	System cable (single/dual FTA)
X-CA 011 01 15	985050758-15	System cable (single/dual FTA)
X-CA 011 01 30	985050758-30	System cable (single/dual FTA)
X-CA 011 02 5	985050759-5	System cable with flying leads
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)

1.10 HIMax HART Interface Module

1.10.1 X-HART 32 01

Item	Part no.	Description
X-HART 32 01	985210247	HART interface module (32 modems, SIL 3)
X-CB 016 01	985220187	Connector board (screw terminals, single module, X-AI 32 01, X-AI 32 02 with HART)
X-CB 016 02	985220188	Connector board (screw terminals, dual module, X-AI 32 01, X-AI 32 02 with HART)
X-CB 016 03	985220189	Connector board (system cable, single module, single/dual FTA, X-AI 32 01, X-AI 32 02 with HART)
X-CB 016 04	985220190	Connector board (system cable, dual module, single FTA, X-AI 32 01, X-AI 32 02 with HART)
X-CB 016 51	985025187	Connector board (screw terminals, single module, X-AI 32 51 with HART)
X-CB 016 52	985025188	Connector board (screw terminals, dual module, X-AI 32 51 with HART)
X-CB 016 53	985025189	Connector board (system cable, single module, single/dual FTA, X-AI 32 51 with HART)
X-CB 016 54	985025190	Connector board (system cable, dual module, single FTA, X-AI 32 51 with HART)
X-CB 017 01	985020192	Connector board (screw terminals, single module, X-AO 16 01 with HART)
X-CB 017 02	985220193	Connector board (screw terminals, dual module, X-AO 16 01 with HART)
X-CB 017 03	985020194	Connector board (system cable, single module, single/dual FTA, X-AO 16 01 with HART)
X-CB 017 04	985220195	Connector board (system cable, dual module, single FTA, X-AO 16 01 with HART)
X-CB 017 51	985025192	Connector board (screw terminals, single module, X-AO 16 51 with HART)
X-CB 017 53	985025194	Connector board (system cable, single module, single FTA, X-AO 16 51 with HART)

1.11 HIMax Overspeed Trip Module

1.11.1 X-MIO 7/6 01

Item	Part no.	Description
X-MIO 7/6 01	985210238	Over Speed Trip Module (3 Counter, 4 digital Input, 5 digital Output, 1 Relay channels, SIL 3)
X-CB 018 02	985020179	Connector board (screw terminals, dual module)
X-CB 018 04	985020180	Connector board (system cable, dual module, single FTA)
X-CB 018 06	985020181	Connector board (screw terminals, triple module)
X-CB 018 07	985020182	Connector board (system cable, triple module, single FTA)
X-CA 005 03 8	985050735-8	System cable (single FTA), halogen-free, UL/CSA
X-CA 008 03 8	985050750-8	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 005 03 15	985050735-15	System cable (single FTA), halogen-free, UL/CSA
X-CA 008 03 15	985050750-15	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 005 03 30	985050735-30	System cable (single FTA), halogen-free, UL/CSA
X-CA 008 03 30	985050750-30	System cable (single/dual FTA), halogen-free, UL/CSA
X-CA 005 04 5	985050736-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 008 04 5	985050751-5	System cable with flying leads, halogen-free, UL/CSA
X-CA 005 01 8	985050704-8	System cable (single FTA)
X-CA 008 01 8	985050746-8	System cable (single/dual FTA)
X-CA 005 01 15	985050704-15	System cable (single FTA)
X-CA 008 01 15	985050746-15	System cable (single/dual FTA)
X-CA 005 01 30	985050704-30	System cable (single FTA)
X-CA 008 01 30	985050746-30	System cable (single/dual FTA)
X-CA 005 02 5	985050734-5	System cable with flying leads
X-CA 008 02 5	985050749-5	System cable with flying leads
X-FTA 002 01L	985030015	Field Termination Assembly left (spring terminals, two-wire-connector, single system cable)
X-FTA 002 01R	985030023	Field Termination Assembly right (spring terminals, two-wire-connector, single system cable)
X-FTA 006 01L	985030018	Field Termination Assembly left (spring terminals, single system cable)

1.12 HIMax System Solution

Field devices that are installed in an explosive hazardous environment can be easily and efficiently connected to a HIMax system via Field Termination Assemblies (FTAs).

The FTAs are equipped with intrinsically safe devices, such as switching amplifiers. With these, signals can be exchanged between the hazardous area and the safe area. A selection of single and dual channel switching amplifiers is available for the respective applications.

The FTAs developed by HIMA in collaboration with MTL, Pepperl + Fuchs and PHOENIX CONTACT are connected to a HIMax system using certified standard system cables and provide a fast, quality approved and safe connection between the FTA and HIMax system!

To connect the FTAs, please use the system cables approved for the individual HIMax modules, e.g. as listed with the X-DO 32 01.

1.12.1 FTA - MTL

Field Termination Assemblies for mounting of MTL intrinsically safe modules (4500 Series).



For the products listed below the discontinuation policy of the vendor is mandatory.

Item	Part no.	Description
CPHX-AI320101	725030001	Termination Board for HIMax X-AI 32 01, X-AI 32 02, 16 slots, 32 channels, recommended module: MTL4544
HMU-HX-AI320104	725030004	Termination Board HART multiplexer, for HIMax X32 01, 32 channels, recommended module: MTL4580
CPHX-2DI320101	725030005	Termination Board for HIMax X-DI 32 01, X-DI 32 04, 32 slots, 32 channels, recommended modules: MTL4516, MTL4517
CPHX-AO160101	725030012	Termination Board for HIMax X-AO 16 01, 16 slots, 16 channels, recommended module: MTL4546Y, MTL4549Y
CPHX-AI-RM320102 - RS320103	725030013	Termination Boards, Master and Slave module, for HIMax X-AI 32 01, X-AI 32 02, 32 slots, 32 channels, recommended modules: MTL4541, MTL4544D
CPHX-DI-M320102 - S320103	725030014	Termination Boards, Master and Slave module, for HIMax X-DI 32 01, X-DI 32 04, 32 slots, 32 channels, recommended Modules: MTL4511, MTL4514
CPHX-SDI-M320104 - S320105	725030015	Termination Boards, Master and Slave module, for HIMax X-DI 32 01, X-DI 32 04, 32 slots, 32 channels, recommended module: MTL4501-SR
CPHX-DO-M320101 - S320102	725030016	Termination Boards, Master and Slave module, for HIMax X-DO 32 01, 32 slots, 32 channels, recommended module: MTL4521

1.12.2 FTA - Pepperl+Fuchs

Field termination assemblies for mounting of Pepperl+Fuchs intrinsically safe modules (H System).



For the products listed below the discontinuation policy of the manufacturer is mandatory.

Item	Part no.	Description
HiCTB32-HIM-RAC-SP-DI320X	725030017	System Board for HIMax X-DI 32 01 or X-DI 32 04, 32 slots, 32 channels, recommended modules: HiC2821 (DI), HiC2841 (DI)
HiCTB32-HIM-RAS-SP-DI320X	725030018	System Board for HIMax X-DI 32 01 or X-DI 32 04, 32 slots, 32 channels, recommended modules: HiC2821 (DI), HiC2841 (DI)
HiCTB16-HIM-RAC-SP-DI320X	725030019	System Board for HIMax X-DI 32 01 or X-DI 32 04, 16 slots, 32 channels, recommended modules: HiC2822 (DI), HiC2842 (DI)
HiCTB32-HIM-RAC-SP-DI3202	725030020	System Board for HIMax X-DI 32 02, 32 slots, 32 channels, recommended modules: HiC2831 (DI), HiC2853 (DI)
HiCTB32-HIM-RAS-SP-DI3202	725030021	System Board for HIMax X-DI 32 02, 32 slots, 32 channels, recommended modules: HiC2831 (DI), HiC2853 (DI)
HiCTB16-HIM-RAC-SP-DI3202	725030022	System Board for HIMax X-DI 32 02, 16 slots, 32 channels, recommended module: HiC2832 (DI)
HiCTB32-HIM-RAC-SP-DO3201	725030023	System Board for HIMax X-DO 32 01, 32 slots, 32 channels, recommended module: HiC2873 (DO)
HiDTB16-HIM-RAC-SP-DO3201	725030024	System Board for HIMax X-DO 32 01, 16 slots, 32 channels, recommended module: HiD2872 (DO)
HiCTB32-HIM-RAC-SP-AI320X	725030025	System Board for HIMax X-AI 32 01 or X-AI 32 02, 32 slots, 32 channels, recommended modules: HiC2025 (AI), HiC2081 (TI)
HiCTB32-HIM-RAS-SP-AI320X	725030026	System Board for HIMax X-AI 32 01 or X-AI 32 02, 32 slots, 32 channels, recommended module: HiC2027 (AI)
HiDTB16-HIM-RAC-SP-AI320X	725030027	System Board for HIMax X-AI 32 01 or X-AI 32 02, 16 slots, 32 channels, recommended module: HiD2030 (AI), HiD2082 (Temp.)
HiDTB16-HIM-NLC-SP-AI3201	725030028	System Board for HIMax X-AI 3201, 16 slots, 32 channels, recommended module: HiD2036 (AO/AI)
HICTB16-HIM-RAC-SP-AO1601	725030029	System Board for HIMax X-AO 1601 (single mode), 16 slots, 16 channels, recommended module: HiC2031 (AO)

1.12.3 FTA - PHOENIX CONTACT

Field termination assemblies for mounting of PHOENIX CONTACT intrinsically safe and galvanically isolated modules (MACX series).



For the products listed below the discontinuation policy of the manufacturer is mandatory.

Item	Part no.	Description
TC-XC96-AI32-EX-PRS-HIMAX01	725030030	Termination Carrier, 32pcs. 1-channel analog Ex i-Isolators for X-AI 32 01, with HART, recommended MACX modules: ~ MCR-EX-SL-RPSSI-I(-SP), ~ MCR-SL-RPSSI-I, ~ MCR-EX-SL-RTD-I(-SP), ~ MCR-SL-RTD-I(-SP), ~ MCR-EX-SL-TC-I(-SP), ~ MCR-SL-TC-I
TC-XC96-AI32-EX2-PRS-HIMAX01	725030031	Termination Carrier 32pcs. 1-channel analog Ex i-Isolators for X-AI 32 01, with HART, Signalsplit (SIS, DCS), recommended MACX modules: ~ MCR-EX-SL-RPSSI-2I(-SP), ~ MCR-SL-RPSSI-2I
TC-XC96-AI32-2EX-PS-HIMAX01	725030032	Termination Carrier 16 pcs. 2-channel analog Ex i-Isolators for X-AI 32 01, with HART, recommended MACX modules: ~ MCR-EX-SL-RPSS-2I-2I(-SP), ~ MCR-SL-RPSS-2I-2I
TC-XC96-AO16-EX-PS-HIMAX01	725030033	Termination Carrier für 16 pcs. 1-channel Ex i-Isolators for X-AO 16 01 with HART, recommended MACX modules: ~ MCR-EX-SL-IDSI-I(-SP), ~ MCR-SL-IDSI-I
TC-XC96-DI32-EX2-PR-HIMAX01	725030034	Termination Carrier 32 pcs. 1-channel digital Ex i-Isolators for X-DI 32 01 and X-DI 32 04, recommended MACX modules: ~ MCR-EX-SL-NAM-2RO(-SP), ~ MCR-SL-NAM-2RO(-SP), ~ MCR-EX-SL-NAM-2T(-SP), ~ MCR-SL-NAM-2T(-SP)
TC-XC96-DI32-2EX-P-HIMAX01	725030035	Termination Carrier 16 pcs. 2-channel digital Ex i-Isolator for X-DI 32 01, recommended MACX modules: ~ MCR-EX-SL-2NAM-RO(-SP), ~ MCR-SL-2NAM-RO, ~ MCR-EX-SL-2NAM-T(-SP), ~ MCR-SL-2NAM-T
TC-XC96-DI32-EX-PR-HIMAX02	725030036	Termination Carrier 32 pcs. 1-channel, Namur- digital Ex i- Isolators for X-DI 32 02, recommended module: MACX MCR-EX-SL-NAM-NAM(-SP)
TC-XC96-DO32-EX-HIMAX01	725030037	Termination Carrier for 32 pcs. Ex i- Solenoid driver X-DO 32 01, recommended MACX modules: ~ MCR-EX-SL-SD-21-25-LP(-SP), ~ MCR-EX-SL-SD-21-40-LP(-SP), ~ MCR-EX-SL-SD-24-48-LP(-SP), ~ MCR-EX-SL-SD-21-60-LP(-SP)

1.13 Additional Information

Description of the part numbers

Example:

X-DI 32 01	985210201	Digital Input Module (32 Channels, 24 VDC, SIL 3), coated
X-DI 32 51	985010245	Digital Input Module (32 Channels, 24 VDC), uncoated

Description of the ordering code

The system cable will be produced with standard length 5 m (with flying leads), 8 m, 15 m and 30 m (system cable with double-sided cable plugs).



All other lengths will be produced on request and by order only. The delivery time will be longer. Price on request.

Example:

X-CA 001 01 15																														
X-CA 001 01 15	X	HIMax																												
X-CA 001 01 15	CA	System cable																												
X-CA 001 01 15	001	<p>Allocation cable type</p> <table border="1"> <tr> <td>001</td><td>single/dual FTA, X-DI 32 01, X-DI 32 03, X-DI 32 04</td></tr> <tr> <td>002</td><td>single FTA, X-DI 32 02, X-DI 32 05, X-DI 32 52</td></tr> <tr> <td>003</td><td>single/dual FTA, X-DI 64 01></td></tr> <tr> <td>004</td><td>single/dual FTA, X-DI 16 01</td></tr> <tr> <td>005</td><td>single FTA, X-AI 32 01, X-AI 32 02, X-CI 24 01, X-AI 32 51, X-CI 24 51</td></tr> <tr> <td>006</td><td>single/dual FTA, X-DO 24 01, X-DO 32 01, X-DO 24 02</td></tr> <tr> <td>007</td><td>single/dual FTA, X-DO 12 01</td></tr> <tr> <td>008</td><td>single/dual FTA, X-DO 12 02</td></tr> <tr> <td>009</td><td>dual FTA, X-DI 32 02, X-DI 32 05, X-AI 32 01, X-AI 32 02</td></tr> <tr> <td>010</td><td>single/dual FTA, X-DO 24 01, X-DO 24 02</td></tr> <tr> <td>011</td><td>single/dual FTA, X-AO 16 01, X-AO 16 51</td></tr> <tr> <td>012</td><td>single/dual FTA, X-DO 12 01</td></tr> <tr> <td>013</td><td>dual FTA, X-HART 32 01</td></tr> <tr> <td>014</td><td>single FTA, X-AI 16 51</td></tr> </table>	001	single/dual FTA, X-DI 32 01, X-DI 32 03, X-DI 32 04	002	single FTA, X-DI 32 02, X-DI 32 05, X-DI 32 52	003	single/dual FTA, X-DI 64 01>	004	single/dual FTA, X-DI 16 01	005	single FTA, X-AI 32 01, X-AI 32 02, X-CI 24 01, X-AI 32 51, X-CI 24 51	006	single/dual FTA, X-DO 24 01, X-DO 32 01, X-DO 24 02	007	single/dual FTA, X-DO 12 01	008	single/dual FTA, X-DO 12 02	009	dual FTA, X-DI 32 02, X-DI 32 05, X-AI 32 01, X-AI 32 02	010	single/dual FTA, X-DO 24 01, X-DO 24 02	011	single/dual FTA, X-AO 16 01, X-AO 16 51	012	single/dual FTA, X-DO 12 01	013	dual FTA, X-HART 32 01	014	single FTA, X-AI 16 51
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X-CA 001 01 15			
X-CA 001 01 15	01	Type (System Cable → FTA → red. FTA)	
	01	01	System cable between CB and FTA
	02	02	System cable with flying leads
	03	03	System Cable between CB and FTA Smoke Density: IEC 61034-1, IEC 61034-2 Burning Rate/Combustion: IEC 60332-2 Halogen free: IEC 60754-1
	04	04	System cable with flying leads Burning Rate: UL c/us 758/1581 CSA FT2 Construction: UL c/us 20549/10493
X-CA 001 01 15	15	Cable Length in meters	

2 HIQuad X

2.1 HIQuad X H51X, H41X

 Our HIQuad systems were modernized in 2018 with new processor modules to ensure the longevity of the HIQuad system family. The systems with new processor modules are called **HIQuad X**.

With validity of this price list, the HIQuad H41q/H51q central modules are in the legacy phase. The duration of the legacy phase depends on our general lifecycle specification. The I/O level is in principle untouched and continued in HIQuad X.

2.1.1 Base Racks and System Fan

Item	Part no.	Description
F-BASE RACK 01	996142100	Base rack H51X, 19 inches, 4 units high
F-BASE RACK 02	996142200	Base rack H41X, 19 inches, 4 units high, 12 slots for I/O modules
F-BASE RACK 11	996140602	Extension rack H51X, H41X, H51q, 19 inches, 4 units high, 16 slots for I/O modules

2.1.2 System Power Supply

Item	Part no.	Description
F-PWR 01	984714100	Power supply module 24 VDC / 5 VDC, 50 W, H41X, H51X
F-PWR 01, coated	984714102	Power supply module 24 VDC / 5 VDC, 50 W, H41X, H51X, conformal coated
F-PWR 02	984714200	Watchdog supply module for extension rack, H51X
F-PWR 02, coated	984714202	Watchdog supply module for extension rack, H51X, conformal coated
F 7133	984713302	4 channel power distribution for H51X, H51q for extension rack F-BASE RACK 11 inclusive miniature fuse 5x20, 4 A-T, H
Sicherung/Fuse 5X20/4A/T	570174409	Miniature fuse 5x20, 4 A-T, H
H 7034	994703400	Mains Filter 24 V DC

2.1.3 Central Processing and I/O Processing Modules

Item	Part no.	Description
F-CPU 01	984866100	Processor module H51X, H41X (2x RJ-45, SIL 3)
F-CPU 01, coated	984866102	Processor module H51X, H41X (2x RJ-45, SIL 3), conformal coated
F-IOP 01	984850100	I/O processing module (SIL 3) with redundant system bus
F-IOP 01, coated	984850102	I/O processing module (SIL 3) with redundant system bus, conformal coated

2.1.4 Communication Modules

Item	Part no.	Description
F-COM 01	984867200	Communication module for Ethernet, Profibus DP and serial communication (2x RJ-45, 1 x 9-pole D-Sub (2x RS 485))
F-COM 01, coated	984867202	Communication module for Ethernet, Profibus DP and serial communication(2x RJ-45, 1 x 9-pole D-Sub (2x RS 485)), conformal coated
DP plug 1	520009394	PROFIBUS DP cable plug (1 pc.), angled version
DP cable	904105000	PROFIBUS DP cable, per meter

2.1.5 Mechanical Parts (M Types)

Item	Part no.	Description
F-BLK 01	989590060	Cover plate 4 SU, 3 U high, completely
M 3431	605290001	Front plate 19 inches, 1 U high
M 3432	605290002	Front plate 19 inches, 2 U high
M 3434	605290003	Front plate 19 inches, 4 U high
M 3443	781990004	Labelling field 19 inches, 1 U high, depth 203.5 mm with 1 cable duct 40x60 mm
M 3444	781990005	Labelling field 19 inches, 1 U high
M 3445	781990006	Labelling field 19 inches, 1 U high, depth 203.5 mm with 2 cable ducts 15x60 mm
M 3446	781990007	Cable duct for cable routing 19 inches, 1 U high, depth 307 mm
M 3447	781990010	Labelling field 19 inches, 1 U high, with guide rings 60x32 mm
M 7201	781990008	Air duct, 19 inches, 1 U high
M 7202	781990009	Air duct with labelling field, 19 inches, 1 U high

2.2 I/O Modules

2.2.1 Digital Input Modules

Item	Part no.	Description
F 3221	984322102	16 channel input module for mech. switch and 1-Signal
Z 7116/3221	990000403	LED cable plug, unwired
Z 7116/3221/C5	933221100-5	LED cable plug, wired with 5 m cable
Z 7116/3221/Cx	933221100	LED cable plug, wired, also available for redundant connection
F 3224A	984322460	4 channel (Ex) i input module, proximity switches, line monitoring, ATEX
Z 7114/3224	990000413	LED cable plug, unwired
Z 7114/3224/Ex/C5	933224200-5	LED cable plug, wired with 5 m cable, blue
Z 7114/3224/Ex/Cx	933224200	LED cable plug, wired blue
LiYY 8x0,5 BL	909504000	per meter connection cable type LiYY 8 x 0.5 mm ² , blue
Z 7114/3224/Cx	933224100	LED cable plug, wired grey
LiYY 8x0,5 GR	909406000	per meter connection cable type LiYY 8 x 0.5 mm ² , grey
F 3236	984323602	16 channel safety-related digital input module, SIL 3/Cat.4
Z 7116/3236	990000411	LED cable plug, unwired
Z 7116/3236/C5	933236100-5	LED cable plug, wired with 5 m cable
Z 7116/3236/Cx	933236100	LED cable plug, wired, also available for redundant connection
LiYY 16x0,25 GR	906306000	per meter connection cable type LiYY 16 x 0.25 mm ² , grey
F 3237	984323702	8 channel safety-related input module, SIL 3/Cat.4, for proximity switches, line monitoring
Z 7108/3237	990000417	LED cable plug, unwired
Z 7108/3237/C5	933237100-5	LED cable plug, wired with 5 m cable for safety-related proximity switches
Z 7108/3237/Cx	933237100	LED cable plug, wired, also available for redundant connection
LiYY 16x0,5 GR	904806000	per meter connection cable type LiYY 16 x 0.5 mm ² , grey
Z 7108/3237/C5/S	933237102-5	LED cable plug, wired with 5 m cable for Namur-proximity switches according to EN 60947-5-6
F 3238	984323802	8 channel safety-related (Ex) i input module for proximity switches, SIL 3/Cat.4, 8 SU, with line monitoring, ATEX
Z 7008/3238/ Ex	990000424	LED cable plug, unwired (not suitable for redundant connection)
Z 7008/3238/Ex /C5	933238100-5	LED cable plug, wired with 5 m cable for safety-related proximity switches

Item	Part no.	Description
Z 7008/3238/Ex/Cx	933238100	LED cable plug, wired blue
LiYY 16x0,5 BL	908504000	per meter connection cable type LiYY 16 x 0.5 mm ² , blue
Z 7008/3238/Ex/C5/S	933238101-5	LED cable plug, wired with 5 m cable for Namur-proximity switches according to EN 60947-5-6
F 3240	984324002	16 channel safety-related digital input module, SIL 3/Cat.4, input voltage 110 VDC, 127 VAC
Z 7130/3240	990000444	LED cable plug, unwired
Z 7130/3240/C5	933240100-5	LED cable plug, wired with 5 m cable
Z 7130/3240/Cx	933240100	LED cable plug, wired
LiYY 20x0,25 GR	907906000	per meter connection cable type LiYY 20 x 0.25 mm ²
F 3248	984324802	16 channel safety-related digital input module, SIL 3/Cat.4, input voltage 48 VDC
Z 7130/3248	990000452	LED cable plug, unwired
Z 7130/3248/C5	933248100-5	LED cable plug, wired with 5 m cable
Z 7130/3248/Cx	933248100	LED cable plug, wired
LiYY 20x0,25 GR	907906000	per meter connection cable type LiYY 20 x 0.25 mm ²
LiYY 16x0,25 GR	906306000	per meter connection cable type LiYY 16 x 0.25 mm ² , grey

2.2.2 Digital Output Modules

Item	Part no.	Description
F 3322	984332202	16 channel output module for binary and digital signals, 12W
Z 7136/3322	990000412	LED cable plug, unwired
Z 7136/3322/C5	933322100-5	LED cable plug, wired with 5 m cable
Z 7136/3322/Cx	933322100	LED cable plug, wired
LIYY 16x0,5 GR	904806000	per meter connection cable type LiYY 16 x 0.5 mm ² , grey
Z 7136/3322/Cx/P2	933322200	LED cable plug, wired, 2-pole connection
LIYY 32x0,38 GR	907806000	per meter connection cable type LiYY 32 x 0.38 mm ² , grey
F 3325	984332502	6channel (Ex) transmitter supply module for safety-related F 6221, ATEX
Z 7025/3325	990000453	Cable plug, unwired
Z 7025/3325/Ex/C5	933325101-5	LED cable plug, wired with 5 m cable
Z 7025/3325/Ex/Cx	933325101	Cable plug, wired, also available for redundant connection
LIFYCY 6x2x0,2 BL	906004000	per meter connection cable type LiFYCY 6 x 2 x 0.2 mm ² blue
F 3330	984333002	8 channel safety-related output module, 12 W, SIL 3/Cat.4
Z 7138/3330	990000407	LED cable plug, unwired
Z 7138/3330/C5	933330100-5	LED cable plug, wired with 5 m cable
Z 7138/3330/Cx	933330100	LED cable plug, wired
LIYY 8x0,5 GR	909406000	per meter connection cable type LiYY 8 x 0.5 mm ² , grey
Z 7138/3330/Cx/P2	933330200	LED cable plug, wired, 2-pole connection
LIYY 16x0,5 GR	904806000	per meter connection cable type LiYY 16 x 0.5 mm ² , grey
F 3331	984333102	8 channel safety-related output module, 12 W, SIL 3/Cat.4; with line monitoring
Z 7138/3330	990000407	LED cable plug, unwired
Z 7138/3331/C5	933331100-5	LED cable plug, wired with 5 m cable
Z 7138/3331/Cx	933331100	LED cable plug, wired
LIYY 8x0,5 GR	909406000	per meter connection cable type LiYY 8 x 0.5 mm ² , grey
Z 7138/3331/Cx/P2	933331300	LED cable plug, wired, 2-pole connection
LIYY 16x0,5 GR	904806000	per meter connection cable type LiYY 16 x 0.5 mm ² , grey
F 3333	984333302	4 channel safety-related output module, 48 W, SIL 3/Cat.4
Z 7134/3333	990000416	LED cable plug, unwired

Item	Part no.	Description
Z 7134/3333/C5	933333100-5	LED cable plug, wired with 5 m cable
Z 7134/3333/Cx	933333100	LED cable plug, wired
LiYY 4x1,5 GR	906506000	per meter connection cable type LiYY 4 x 1.5 mm ² , grey
Z 7134/3333/Cx/P2	933333200	LED cable plug, wired, 2-pole connection
LiYY 8x1,5QM GR	909306000	per meter connection cable type LiYY 8 x 1.5 mm ² , grey
F 3334	984333402	4 channel safety-related output module, 48 W, SIL 3/Cat.4 with line monitoring
Z 7134/3333	990000416	LED cable plug, unwired
Z 7134/3334/C5	933334100-5	LED cable plug, wired with 5 m cable
Z 7134/3334/Cx	933334100	LED cable plug, wired
LiYY 4x1,5 GR	906506000	per meter connection cable type LiYY 4 x 1.5 mm ² , grey
Z 7134/3334/Cx/P2	933334300	LED cable plug, wired, 2-pole connection
LiYY 8x1,5QM GR	909306000	per meter connection cable type LiYY 8 x 1.5 mm ² , grey
F 3335	984333502	4 channel (Ex)j output module for digital signals, SIL 3/Cat.4, ATEX
Z 7035/3335	990000455	LED cable plug, unwired
Z 7035/3335/Ex/C5	933335100-5	LED cable plug, wired with 5 m cable
Z 7035/3335/Ex/C5/S	933335101-5	LED cable plug, wired with 5 m cable for redundant operation
Z 7035/3335/Ex/Cx	933335100	LED cable plug, wired
LiYY 8x0,5 BL	909504000	per meter connection cable type LiYY 8 x 0.5 mm ² , blue
F 3349	984334902	8 channel safety-related output module, 48 VDC or 24 VDC, with line monitoring and individual single channel shut down, SIL 3/Cat.4
Z 7150/3349	990000457	LED cable plug, unwired
Z 7150/3349/C5/24P2	933349100-5	LED cable plug, wired with 5 m cable, 2-pole connection with 24 VDC
Z 7150/3349/C5/48P2	933349200-5	LED cable plug, wired with 5 m cable, 2-pole connection with 48 VDC
Z 7150/3349/Cx/24P2	933349100	LED cable plug, wired, 2-pole connection
Z 7150/3349/Cx/48P2	933349200	LED cable plug, wired, 2-pole connection
LiYY 16x0,5 GR	904806000	per meter connection cable type LiYY 16 x 0.5 mm ² , grey
LiYY 2x1 GR	905106000	per meter connection cable type LiYY 2x1 mm ²

Item	Part no.	Description
F 3422	981342202	8 channel relay module, 30 VAC/DC, 120 W, floating NO contact
Z 7139/3422	990000408	LED cable plug, unwired
Z 7139/3422/C5	933422100-5	LED cable plug, wired with 5 m cable
Z 7139/3422/Cx	933422100	LED cable plug, wired
LIYY 16x0,5 GR	904806000	per meter connection cable type LiYY 16 x 0.5 mm ² , grey
F 3430	984343002	4 channel safety-related relay module, 110 VDC, 250 VAC, SIL 3/Cat.4
Z 7149/3430	990000446	LED cable plug, unwired
Z 7149/3430/C5/P2	933430100-5	LED cable plug, wired with 5 m cable
Z 7149/3430/Cx/P2	933430100	LED cable plug, wired
LIYY 8x1,5QM GR	909306000	per meter connection cable type LiYY 8 x 1.5 mm ² , grey
LIYY 16x0,5 GR	904806000	per meter connection cable type LiYY 16 x 0.5 mm ² , grey
LIYY 2x1 GR	905106000	per meter connection cable type LiYY 2x1 mm ²

2.2.3 Analog Input Modules

Item	Part no.	Description
F 6215	981621502	8 channel analog input module, for current and voltage, PT100
Z 7127/6215	990000419	Cable plug, unwired
Z 7127/6215/C5/I	936215400-5	Cable plug, wired with 5 m cable
LiYCY 20x0,25 GR	909806000	per meter connection cable type LiYCY 20 x 0.25 mm ² , grey
F 6217	984621702	8 channel safety-related analog input module, SIL 3/Cat.4, for current and voltage
Z 7127/6217	990000440	Cable plug, unwired
Z 7127/6217/C5/I	936217400-5	Cable plug, wired with 5 m cable
Z 7127/6217/Cx	936217200	Cable plug, wired, also available for redundant connection
LiYCY 20x0,25 GR	909806000	per meter connection cable type LiYCY 20 x 0.25 mm ² , grey
Z 7128/6217	990000443	Cable plug, unwired, with transmitter supply
Z7128/6217/C5/ITI	936217800-5	Cable plug, wired with 5 m cable, with transmitter supply
Z 7128/6217/Cx	936217800	Cable plug, wired, with transmitter supply, ITI, also available for redundant connection
LiYCY 24x0,14 GR	905406000	per meter connection cable type LiYCY 24 x 0.14 mm ² , grey
LiYCY 12x0,25 GR	908806000	per meter connection cable type LiYCY 12 x 0.25 mm ² , grey
F 6221	984622102	8 channel safety-related analog input module, (Ex)i, SIL 3/ Cat.4, for current and voltage, ATEX
Z 7063/6221/.../U1V	990000454	Cable plug, unwired, for voltage input
Z 7063/6221/.../ITI	990000456	Cable plug, unwired, for current input, assembly kit incl. 8x 50 Ohm shunt
Z 7063/6221/Ex/C5/I	936221105-5	Cable plug, wired with 5 m cable
Z 7063/6221/Ex/Cx/ITI	936221101	Cable plug, wired for F 6221 and F 3325, also available for redundant connection
LiFYCY 8x2x0,20 BL	906204000	per meter connection cable type LiFYCY 8 x 2 x 0.2 mm ² blue

2.2.4 Analog Output Modules

Item	Part no.	Description
F 6705	981670502	2 channel safety-related analog output module, SIL 3/ Cat.4 current 0/4 ... 20 mA
Z 7126/6705	990000420	Cable plug, unwired
Z 7126/6705/C5	936705100-5	Cable plug, wired with 5 m cable
Z 7126/6705/Cx	936705100	Cable plug, wired, also available for redundant connection
Z 7126/6705/CxRser	936705300	Cable plug, wired, redundant connection
LiYCY 8x0,5 GR	908906000	per meter connection cable type LiYCY 8 x 0.5 mm ² , grey
F 6706	981670602	2 channel analog output module, current 0/4 ... 20 mA
Z 7126/6705	990000420	Cable plug, unwired
Z 7126/6706/C5	936706100-5	Cable plug, wired with 5 m cable
Z 7126/6706/Cx	936706100	Cable plug, wired, also available for redundant connection
Z 7126/6706/CxRser	936706300	Cable plug, wired, redundant connection
LiYCY 8x0,5 GR	908906000	per meter connection cable type LiYCY 8 x 0.5 mm ² , grey

2.2.5 Counter Module

Item	Part no.	Description
F 5220	984522002	2 channel safety-related counter module, SIL 3/Cat.4
Z 7152/5220/PSW/PU24/P2	990000449	Cable plug, unwired for proximity switches or 24 VDC
Z 7152/5220/PU5/P2	990000450	Cable plug, unwired für 5 VDC
Z 7152/5220/C5/PSW/P2	935220100-5	Cable plug, wired for proximity switches with 5 m cable, 2-pole connection
Z 7152/5220/Cx	935220100	Cable plug, wired
LiYCY 6x2x0,5 GR	904306000	per meter connection cable type LiYCY 6 x 2 x 0.5 mm ² , grey

2.2.6 Accessories

Item	Part no.	Description
BV 7201-x	990000307	Data cable Connection cable between terminal modules H 7015 and H 7016, H 7015A and H 7018, length x m

Item	Part no.	Description
LIYCY 21x2x0,34	909906000	Data cable per meter connection cable type LIYCY 21 x 2 x 0.34 mm ² , grey, for BV 7201

2.3 Additional Information

2.3.1 Description of the Ordering Code for Wired Cable Plugs

 The cable plugs will be produced with standard length 5 m, 8 m, 10 m, 15 m and 20 m. All other lengths will be produced on request and by order only. The delivery times are extended. Price on request.

The price for redundant connectors is calculated from two wired cable plugs plus the required length of system cable. Detailed information can be found in our catalogues.

Example:

F3221 and Z7116/3221/C5		Module F 3221 and LED cable plug Z 7116, wired with 5 m connecting cable LiYY 16 x 0.5 mm ² , grey																												
F6217 and Z7128/6217/C5/ITI		Module F 6217 and cable plug Z 7128, wired with 5 m cable, with transmitter supply																												
Z7128/6217/C5/ITI	Z7128	Order number of the cable plug																												
Z7128/6217/C5/ITI	6217	Type number of the related F module																												
Z7128/6217/C5/ITI	C5	<table border="1"> <tbody> <tr> <td>C</td><td>cable LiYY or LiYCY, nn = length in meters</td></tr> <tr> <td>W</td><td>single cores, colour coded, nn = length in meters</td></tr> <tr> <td>ExW</td><td>single cores blue Ex, nn = length in meters</td></tr> <tr> <td>ExC</td><td>cable with blue cover Ex, nn = length in meters</td></tr> </tbody> </table>	C	cable LiYY or LiYCY, nn = length in meters	W	single cores, colour coded, nn = length in meters	ExW	single cores blue Ex, nn = length in meters	ExC	cable with blue cover Ex, nn = length in meters																				
C	cable LiYY or LiYCY, nn = length in meters																													
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Z7128/6217/C5/ITI	ITI	<table border="1"> <tbody> <tr> <td>I</td><td>0/4 ... 20 mA active transmitter</td></tr> <tr> <td>IT</td><td>0/4 ... 20 mA passive transmitter</td></tr> <tr> <td>ITI</td><td>0/4 ... 20 mA active and passive transmitter</td></tr> <tr> <td>U60mV</td><td>0 ... 60 mV</td></tr> <tr> <td>U1V</td><td>0 ... 1 V</td></tr> <tr> <td>U5V</td><td>0 ... 5 V</td></tr> <tr> <td>U10V</td><td>0 ... 10 V</td></tr> <tr> <td>2P</td><td>Pt 100 two-wire technique</td></tr> <tr> <td>3P</td><td>Pt 100 three-wire technique</td></tr> <tr> <td>U>65V</td><td>voltage > 65 V and single wires</td></tr> <tr> <td>P2</td><td>2-pole connection</td></tr> <tr> <td>24P2</td><td>2-pole connection with 24 VDC</td></tr> <tr> <td>48P2</td><td>2-pole connection with 48 VDC</td></tr> <tr> <td>WD</td><td>with watchdog contacts for HRS-systems</td></tr> </tbody> </table>	I	0/4 ... 20 mA active transmitter	IT	0/4 ... 20 mA passive transmitter	ITI	0/4 ... 20 mA active and passive transmitter	U60mV	0 ... 60 mV	U1V	0 ... 1 V	U5V	0 ... 5 V	U10V	0 ... 10 V	2P	Pt 100 two-wire technique	3P	Pt 100 three-wire technique	U>65V	voltage > 65 V and single wires	P2	2-pole connection	24P2	2-pole connection with 24 VDC	48P2	2-pole connection with 48 VDC	WD	with watchdog contacts for HRS-systems
I	0/4 ... 20 mA active transmitter																													
IT	0/4 ... 20 mA passive transmitter																													
ITI	0/4 ... 20 mA active and passive transmitter																													
U60mV	0 ... 60 mV																													
U1V	0 ... 1 V																													
U5V	0 ... 5 V																													
U10V	0 ... 10 V																													
2P	Pt 100 two-wire technique																													
3P	Pt 100 three-wire technique																													
U>65V	voltage > 65 V and single wires																													
P2	2-pole connection																													
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48P2	2-pole connection with 48 VDC																													
WD	with watchdog contacts for HRS-systems																													

		<table border="1"><tr><td>PU5</td><td>5 VDC pulse</td></tr><tr><td>PU24</td><td>24 VDC pulse</td></tr><tr><td>PSW</td><td>proximity switch pulse</td></tr></table>	PU5	5 VDC pulse	PU24	24 VDC pulse	PSW	proximity switch pulse
PU5	5 VDC pulse							
PU24	24 VDC pulse							
PSW	proximity switch pulse							
...R, Rser, S		<table border="1"><tr><td>R</td><td>plug R1 and R2 for redundant inputs. The cable length between the redundant plugs R1 and R2 amounts to 0.85 m</td></tr><tr><td>Rser</td><td>plug R1 and R2 for redundant analog output, current in series</td></tr><tr><td>S</td><td>order includes drawing, special design</td></tr></table>	R	plug R1 and R2 for redundant inputs. The cable length between the redundant plugs R1 and R2 amounts to 0.85 m	Rser	plug R1 and R2 for redundant analog output, current in series	S	order includes drawing, special design
R	plug R1 and R2 for redundant inputs. The cable length between the redundant plugs R1 and R2 amounts to 0.85 m							
Rser	plug R1 and R2 for redundant analog output, current in series							
S	order includes drawing, special design							

3 HIMatrix

3.1 HIMatrix F Series

3.1.1 HIMatrix F60



Protocols and submodules for field bus communication have to be ordered separately.
Please find details on protocols in chapter **6**.

Item	Part no.	Description
GEH 01	982200103	Rack HIMatrix F60 for PS 01, CPU and up to 6 IO-boards
PS 01	982200096	Power supply
CPU 03 SILworX	982200139	CPU, add. 4-port-switch 100 Base-Tx with safeethernet, 2 FB interfaces, SIL 3/Cat.4/PL e, to be programmed with SILworX
AI 8 01	982200214	8-channel analog input module, SIL 3/Kat.4/PL e
AO 8 01	982200215	8-channel analog output module, SIL 3/Cat.4/PL e
CIO 2/4 01	982200099	2-channel counter module with 4 digital outputs, counting range 0 Hz to 1 MHz, SIL 3/Cat.4/PL e
DI 32 01	982200114	32-channel digital input module, configurable with line control, SIL 3/Cat.4/PL e
DIO 24/16 01	982200100	24/16-channel digital input/output module, configurable with line control, SIL 3/Cat.4/PL e
DO 8 01	982200112	8-channel relay module, SIL 3/Cat.4/PL e
MI 24 01	982200115	24-channel analog input module or input module for proximity switches, SIL 3/Cat.4/PL e
H 7032	994703202	Filter and protection module for the connection of 2-wire transmitters to the MI 24, 8 channels
H 7033	994703302	Filter and protection module for the connection of 3-wire transmitters to the MI 24, 8 channels
BLK 01	605282106	Cover plate 4 SU, 3 U high, for HIMatrix F60

For Transportation and Mobile Applications

All following modules with coated PCBs, operation -25° ... 70°C, shock tested according to IEC 61373 Class 1B.

Item	Part no.	Description
GEH 014	982400000	Rack HIMatrix F60 for PS 01, CPU and up to 6 IO-boards
PS 014	982400001	Power supply
CPU 034 SILworX	982200004	CPU, add. 4-port-switch 100 Base-Tx with safeethernet, 2 FB interfaces, SIL 3/Cat.4/PL e, to be programmed with SILworX
AI 8 014	982400002	8-channel analog input module, SIL 3/Cat.4/PL e
CIO 2/4 014	982400003	2-channel counter module with 4 digital outputs, counting range 0 Hz to 1 MHz, SIL 3/Cat.4/PL e
DI 32 014	982400004	32-channel digital input module, configurable with line control, SIL 3/Cat.4/PL e
DIO 24/16 014	982400005	24/16-channel digital input/output module, configurable with line control, SIL 3/Cat.4/PL e
MI 24 014	982400006	24-channel analog input module or input module for proximity switches, SIL 3/Cat.4/PL e

3.2 Compact Systems with SILworX



Protocols and submodules for field bus communication have to be ordered separately.
Please find details on protocols in chapter 6.

Item	Part no.	Description
F35 03 SILworX	982200497	HIMatrix F35, 24 digital and 8 analog inputs, 2 counter inputs, 8 digital outputs, add. 4-port switch 100 Base-T with safeethernet, 3 FB interfaces, SIL 3/Cat.4/PL e, to be programmed with SILworX
F30 03 SILworX	982200496	HIMatrix F30, 20 digital inputs configurable with line control, 8 digital outputs, add. 4-port switch 100 Base-Tx with safeethernet, 3 FB interfaces, SIL 3/Cat.4/PL e, to be programmed with SILworX
F3 DIO 20/8 02 SILworX	982200484	Remote I/O device, 20 digital inputs configurable with line control, 8 digital outputs, add. 2-port switch 100 Base-Tx with safeethernet, SIL 3/Cat.4/PL e
F3 DIO 16/8 01 SILworX	982200486	Remote I/O device, 16 digital Inputs configurable with line control, 8 digital 2-pole outputs, add. 2-port switch 100 base-Tx with safeethernet, SIL 3/Cat.4/PL e
F3 DIO 8/8 01 SILworX	982200487	Remote I/O device, 8 digital Inputs configurable with line control, 6 digital Outputs, 2 digital 2-pole outputs, add. 2-port switch 100 base-Tx with safeethernet, SIL 3/Cat.4/PL e
F3 AIO 8/4 01 SILworX	982200483	Remote I/O device, 8 analog inputs (0 ... 10 V), 4 analog not safety-related outputs (0 ... 20 mA), add. 2-port switch 100 Base-Tx with safeethernet, SIL 3/Cat.4/PL e
F2 DO 16 02 SILworX	982200485	Remote I/O device, 16 relay outputs to 30 VAC/ 60 VDC, add. 2-port switch 100 Base-Tx with safeethernet, SIL 3/Cat.4/PL e
F2 DO 16 01 SILworX	982200480	Remote I/O device, 16 digital outputs 24 VDC with 1 A, add. 2-port switch, 100 Base-Tx with safeethernet, SIL 3/Cat.4/PL e
F2 DO 8 01 SILworX	982200481	Remote I/O device, 8 relay outputs to 250 VAC/ DC, add. 2-port switch 100 Base-Tx with safeethernet, SIL 3/Cat.4/PL e
F2 DO 4 01 SILworX	982200482	Remote I/O device, 4 digital power outputs 24 VDC with 5 A, add. 2-port switch 100 Base-Tx with safeethernet, SIL 3/Cat.4/PL e
F1 DI 16 01 SILworX	982200479	Remote I/O device, 16 digital inputs configurable with line control, 4 clock outputs for input line control, add. 2-port switch 100 Base-Tx with safeethernet, SIL 3/Cat.4/PL e

For Transportation and Mobile Applications

All following modules with coated PCBs, operation -25° ... 70°C, shock tested according to IEC 61373 Class 1B.

Item	Part no.	Description
F35 034 SILworX	982200006	HIMatrix F35, coated PCBs, operation -25°C...70°C, 24 digital and 8 analog inputs, 2 counter inputs, 8 digital outputs, add. 4-port switch, 100 Base-T with safeethernet, 3 FB interfaces, SIL 3/Cat.4/PL e
F30 034 SILworX	982200005	HIMatrix F30, coated PCBs, operation -25°C ... 70°C, 20 digital inputs configurable with line control, 8 digital outputs, add. 4-port switch 100 Base-Tx with safeethernet, 3 FB interfaces, SIL 3/Cat.4/PL e
F3 DIO 20/8 024 SILworX	982200512	Remote I/O device, coated PCBs, operation -25° ... 70°C, 20 digital inputs configurable with line control, 8 digital outputs, add. 2-port switch 100 Base-Tx with safeethernet, SIL 3/Cat.4/PL e
F3 DIO 16/8 014 SILworX	982400007	Remote I/O device, coated PCBs, operation -25° ... 70°C, 16 digital Inputs configurable with line control, 8 digital 2-pole outputs, add. 2-port switch 100 base-Tx with safeethernet, SIL 3/Cat.4/PL e
F3 DIO 8/8 014 SILworX	982400400	Remote I/O device, coated PCBs, operation -25° ... 70°C, 8 digital Inputs configurable with line control, 6 digital Outputs, 2 digital 2-pole outputs, add. 2-port switch 100 base-Tx with safeethernet, SIL 3/Cat.4/PL e
F3 AIO 8/4 014 SILworX	982200514	Remote I/O device, coated PCBs, operation -25° ... 70°C, 8 analog inputs (0 ... 10 V), 4 analog not safety-related outputs (0 ... 20 mA), add. 2-port switch 100 Base-Tx with safeethernet, SIL 3/Cat.4/PL e
F2 DO 16 014 SILworX	982200516	Remote I/O device, coated PCBs, operation -25° ... 70°C, 16 digital outputs 24 VDC with 1 A, add. 2-port switch, 100 Base-Tx with safeethernet, SIL 3/Cat.4/PL e
F2 DO 8 014 SILworX	982400011	Remote I/O device, coated PCBs, operation -25° ... 70°C, 8 relay outputs to 250 VAC/ DC, add. 2-port switch 100 Base-Tx with safeethernet, SIL 3/Cat.4/PL e
F1 DI 16 014 SILworX	982400010	Remote I/O device, coated PCBs, operation -25° ... 70°C, 16 digital inputs configurable with line control, 4 clock outputs for input line control, add. 2-port switch 100 Base-Tx with safeethernet, SIL 3/Cat.4/PL e

For Applications with High Mechanical Stress

Item	Part no.	Description
F35 032	982200520	Device similar to HIMatrix F35, coated PCBs, operation -20°C ... 70°C, stainless steel housing with aluminium mounting plate, shock-proof, for use in subsea applications according to API17F.

3.3 Accessories

Item	Part no.	Description
Z 7301	982220059	Shunt Adapter with 250 Ohm for 2 analog input channels for F35 and F3 AIO 8/4 01, IP 20
Z 7302	982220067	Shunt Adapter with 500 Ohm for 2 analog input channels for F35 and F3 AIO 8/4 01, IP20
Z 7303	982220077	Filter for light curtain ESPE (electro-sensitive protective equipment) for 4 digital input channels, protection class IP20
Z 7306	982220115	Shunt Adapter with 250 Ohm for 2 analog input channels with HART filter and short circuit protection for F35 and F3 AIO 8/4 01, IP20
Z 7307	982220127	Filter for light curtain ESPE (electro-sensitive protective equipment) for 4 digital input channels of F3 DIO 16/8 01, IP20
Z 7308	982220137	Shunt Adapter for contact with resistor, with voltage divider and over voltage protection for 2 analogue input channels of F35 or F3 AIO 8/4, IP 20
Z 7309	982220177	Shunt Adapter for Namur-proximity-switches with 500-Ohm resistor for 2 analog Inputs of F3 AIO 8/4, IP20
Z 7310	982200518	Filter for door switch "Euchner MGB-L" for 4 digital input channel
DP plug 1	520009394	PROFIBUS DP cable plug, angled execution
DP plug 2	520009397	PROFIBUS DP cable plug, straight execution
DP cable	904105000	PROFIBUS DP cable
Coding Pin	520000058	100 coding pins to avoid misplaced plugs of terminal connectors. The product discontinuation policy of the vendor is mandatory.
BV 7056	990000290	Connection cable between bus terminal H 7506 and the system HIMatrix, length 2 m
BV 7056	990000291	Connection cable between bus terminal H 7506 and the system HIMatrix, length 4 m

4 HIJunction Box

The HIJunction Box is part of a safety-related control system designed for continuous operation and high availability. The HIJunction Box is designed for use in applications in the process industry, the railway sector and for other areas with harsh environments (up to Ex zone 2). Communication with other components of a safety controller takes place via a bus connection. By using HIJunction Boxes, it is possible to minimize the use of marshalling panels and cable routes or to omit them completely.

Depending on the application, a HIJunction Box can be equipped with HIMatrix compact systems or HIMax components. For a detailed description of the individual components, refer to the corresponding manuals.

Item	Part no.	Description
HIJB HIMax 10 01 EX	991810000	HIJunction Box for HIMax, W=800, H=1200, D=400mm, Stainless Steel 316, IP66/NEMA 4X, Handle with Key lock, Earthing point outside, assembled with X-Baseplate 10 01 and tested, for EX-Zone 2
HIJB HIMax 10 31 EX	991810310	HIJunction Box for HIMax, W=800, H=1200, D=400mm, Stainless Steel 316, IP66/NEMA 4X, Handle with Key lock, Earthing point outside, assembled with X-Baseplate 10 31 and tested, for EX-Zone 2
HIJB HIMax 10 01 C EX	991810001	HIJunction Box for HIMax, W=800, H=1200, D=400mm, Stainless Steel 316, IP66/NEMA 4X, Handle with Key lock, Earthing point outside, assembled with X-Baseplate 10 01 and tested, with cooling element, for EX-Zone 2
HIJB HIMax 10 31 C EX	991810311	HIJunction Box for HIMax, W=800, H=1200, D=400mm, Stainless Steel 316, IP66/NEMA 4X, Handle with Key lock, Earthing point outside, assembled with X-Baseplate 10 31 and tested, with cooling element, for EX-Zone 2
HIJB HIMatrix EX	991880000	HIJunction Box for HIMatrix, W=800, H=1200, D=400mm, Stainless Steel 316, IP66/NEMA 4X, Handle with Key lock, Earthing point outside, assembled and tested, for EX-Zone 2
HIJB HIMatrix C EX	991880001	HIJunction Box for HIMatrix, W=800, H=1200, D=400mm, Stainless Steel 316, IP66/NEMA 4X, Handle with Key lock, Earthing point outside, assembled and tested, with cooling element, for EX-Zone 2

5 HiCore

5.1 HiCore 1

Item	Part no.	Description
HiCore 1 SoC HTPC1301 Samples	980300101	HiCore 1, package of 10 samples
HiCore 1 SoC HTPC1301 Package	980300100	HiCore 1, Package of 126 on Tray

5.2 HiCore 1 Development Environment

Item	Part no.	Description
HiCore 1 HTPC1301 Eval. Board	980100101	HiCore 1 HTPC1301 Evaluation Board B00-101-HIC (stand-alone board, e.g. as an additional option or as spare part)
HiCore 1 HTPC1301 Eval. Kit	980400101	Evaluation kit, consisting of HiCore 1 HTPC1301 Evaluation Board B00-101-HIC, HiCore 1 HTPC1301 Documentation, Antistatic mat, Power Supply 24V/DC 3000 mA

5.3 HiCore 1 Development Environment (Accessories)



The product discontinuation policy of the vendor is mandatory. Technology is subject of technical changes without prior notice.

Item	Part no.	Description
IAR Embedded Workbench for 8051	880800998	IAR Embedded Workbench for 8051
HAD2-KIT	880800997	HAD2-KIT
MOXA UPort 1150	892130020	USB to RS232/422/485 adapter for HiCore 1 (optional)

5.4 Technical Support

For development services and support around our HiCore products we will be pleased to provide you a suitable offer.

For further information please contact: hicore@hima.com.

6 Communication

6.1 General

- Each protocol can be used once per COM (HIMatrix: COM, HIQuad X: F-COM module, HIMax: X-COM module).
- Activations can be carried out by means of a license or hardware assembly.
- After the purchase, the license key can be generated on the extranet. Please log in to the extranet <https://www.hima.com/en/extranet> and register your options in the *quick links*. You can book multiple licenses on one SRS.
The generated license key can only be used for the resource with the specified SRS.
- For testing purposes protocols can be used free of charge without licensing for the first 5000 hours of operation.
- 2 COMs using redundant communication options require 2 licenses.
- The activation code is loaded into the resource with the PADT.
- When ordering, please indicate whether you want to use the protocols on certain slots.
- Please note that when installing communication modules (Modbus, PROFIBUS ...) the part no. and the designation of the basic device (HIMatrix COM, HIQuad X X-COM) will change.

Fieldbus Sub-module	[X, Y]	Description
X: FB submodule 1 Y: FB submodule 2	0	without fieldbus submodules
	1	RS485 for Modbus (M&S), COM User Task (CUT)
	2	PROFIBUS DP Master
	3	PROFIBUS DP Slave
	5	RS232 for CUT
	6	RS422 for CUT
	7	SSI for CUT
	8	CAN for CUT

Examples:

985260010	X-COM 010 10 equipped with RS485 submodul in slot <i>fieldbus submodule 1</i> . The slot <i>fieldbus submodule 2</i> is empty.
F35 030 25 982225497	HIMatrix F35 03, to be programmed with SILworX, equipped with PROFIBUS DP master in slot <i>fieldbus submodule 1</i> and RS232 for CUT in slot <i>fieldbus submodule 2</i> . Fieldbus 3 is available for Modbus master or slave.

Modbus

- In the F30 and F35 the fieldbus interface 3 (FB3) can be used for Modbus (Master or Slave) without additional equipment.
- In other slots Modbus has to be equipped by HIMA.
- All Modbus variants require software activation, which is bound to the SRS.

PROFIBUS

- For HIMatrix and for HIMax X-COM PROFIBUS master and PROFIBUS slave are to be installed by HIMA. Additional licensing is not required.
- PROFIBUS slave for HIQuad X F-COM always requires software activation, which is bound to the SRS.

Ethernet

- All Ethernet-based protocols require software activation, which is bound to the SRS.
- All Ethernet-based protocols can be used in a PES simultaneously, even if just one Ethernet cable is connected to the PES.

6.2 Overview for HIMax, HIQuad X and HIMatrix F



The HIMatrix F30 und F35 controllers are factory equipped with an RS485 interface on FB3. The licenses for protocols must be ordered additionally, see Chapter 6.

Fieldbuses

Protocol	Part No.	F30 03	F35 03	F60 CPU 03	F-COM 01	X-COM 01
	9822XY...	...496	...497	...139	9848672ZZ	9852600XY
Modbus Master	894000003	x	x	x	x	x
Modbus Slave	894000004	x	x	x	x	x
PROFIBUS Master	894000005	x	x	x		x
PROFIBUS Slave	894000006	x	x	x	x	x
RS-232	894000014	x	x	x		x
RS-422	894000017	x	x	x	x	x
RS-485	894000013	x	x	x	x	x
SSI	894000020	x	x	x		
CAN	89 4000021	x	x	x		
No. of Fieldbuses		3	3	2	2	2
No. of Protocols		6	6	6	6	6

6.3 Communication Protocols HIMax, HIQuad X and HIMatrix F

Item	Part no.	Description
HOPCS	892042400	HIMA Data Access OPC Server (Installation on PC)
HAES	892042420	HIMA Alarm + Event OPC-Server for HIQuad
X-OPC DA	894000015	License for OPC-DA (HIMax and HIMatrix)
X-OPC A+E	894000016	License for OPC-A+E (HIMax and HIMatrix F* 03)
Modbus TCP Master	894000001	License for Modbus Master Eth (Ethernet)
Modbus TCP Slave	894000002	License for Modbus Slave Eth (Ethernet)
Send/Receive	894000007	License for Send/Receive (Siemens-ethernet communication)
HIPRO-S V2	894000029	License for safe communication protocol HIPRO-S V2 on HIMax and HIMatrix to HIQuad
Modbus Master RS485	894000003	License for Modbus Master (RS485-Communication)
Modbus Slave RS485	894000004	License for Modbus Slave (RS485-Kommunikation)
PROFIBUS Master	894000005	Communication module for PROFIBUS DP Master
PROFIBUS Slave	894000006	Communication module for PROFIBUS DP Slave
ComUserTask	894000012	License for free coding in C with direct access to communication, no SIL
Remote Rack	894000024	License to build any valid Ethernet structure between X-SB (HIMax Racks). Currently only SPIDER II Giga, RFI-207-F4G-T3G and RFI-111-F4G-T7G are released for the use
HIMatrix SMR	894000025	License for the use of Sequence of Event Recording (SOE), Multi-tasking and Reload in HIMatrix F* 03
RS485-Modul	894000013	RS485 Module for the use with Modbus (Master or Slave) and COMUserTask on a free slot
RS232-Modul	894000014	RS232 Module for the use with COMUserTask on a free slot
RS422-Modul	894000017	RS422 Module for the use with COMUserTask on a free slot
SSI-Modul	894000020	SSI Module for the use with COMUserTask on a free slot
CAN-Modul	894000021	CAN Module for the use with COMUserTask on a free slot for HIMatrix HIMatrix F* 03
HIMax HART Package	895650007	HIMax HART Universal Application Interface

6.4 RS485 Networks

Item	Part no.	Description
PC485-PCI	890000100	Serial interface with 2 x RS-485, PCI-Bus
RS485-USB	892130019	Interface converter USB ↔ 2 x RS-485

6.5 Ethernet Networks

Item	Part no.	Description
SPIDER 5TX	990000136	Hirschmann Industrial Switch 5 x 100BaseT, 24 V DC
SPIDER 8TX	990000137	Hirschmann Industrial Switch 8 x 100BaseT, 24 V DC
SPIDER 4TX/1FX	990000138	Hirschmann Industrial Switch 4 x 100BaseT, 1x 100Base FX, 24 V DC, Multimode up to 3 km
RS20 4TX	990000139	Hirschmann Industrial Switch 4 x 100BaseT, 24 V DC, manageable, with HiPER-Ring
RS20 2TX/2FX	990000140	Hirschmann Industrial Switch 2 x 100BaseT, 2 x 100Base FX, 24 V DC, Multimode up to 3 km, manageable, with HiPER-Ring
RS20 2TX/2FX-SM	990000141	Hirschmann Industrial Switch 2 x 100BaseT, 2 x 100Base FX, 24 V DC, single-mode up to 40 km if the attenuation complies with maximum, manageable, with HiPER-Ring
RS20 8TX	990000142	Hirschmann Industrial Switch 8 x 100BaseT, 24 V DC, manageable, with HiPER-Ring
RS20 6TX/2FX	990000143	Hirschmann Industrial Switch 6 x 100BaseT, 2 x 100Base FX, 24 V DC, Multimode up to 3 km, manageable, with HiPER-Ring
RS20 6TX/2FX-SM	990000144	Hirschmann Industrial Switch 6 x 100BaseT, 2 x 100Base FX, 24 V DC, single-mode up to 40 km if the attenuation complies with maximum, manageable, with HiPER-Ring
SPIDER II Giga 5T/2S EEC	990000150	Hirschmann Industrial Switch 5 x 1000BaseT, 2 x 1000Base SFP - 40°C...70°C. Spider Giga can be used for HIMax Remote Rack. Distances up to 100 km. The EMI resilience equals the specifications of the manufacturer.
M-SFP-LX/LC EEC	990000151	Hirschmann Industrie SFP 1000Base FX 1 connection, single-mode up to 20 km or Multimode up to 550 m, -40°C...70°C, LC-connector
M-SFP-LX+/LC EEC	990000152	Hirschmann Industrial Switch SFP 1000Base FX 1 connection, single-mode up to 42 km, 40°C...70°C, LC-connector



If the following Westermo device is ordered via HIMA it is especially preconfigured for the use in Network mode of the system bus of HIMax (RemoteRack).

Item	Part no.	Description
RFI-207-F4G-T3G	990000153	Managed L3 Industrial Switch, 3x10/100/1000Base-TX RJ45, 4xGbit SFP (100/1000) applicable for HIMax Remote Rack, -40 to +70°C, 16-60 VDC, no SFP-Transceivers. Distances up to 110 km available. The EMI resilience equals the specifications of the manufacturer. Product offers a DNV certification.
RFI-111-F4G-T7G	990000154	Managed L2 Industrial Switch, 3x10/100/1000Base-TX RJ45, 4x10/100/1000Base-TX RJ45 + 4xGbit SFP (100/1000) applicable for HIMax Remote Rack, -40 to +70°C, 16-60 VDC, no SFP-Transceivers. Distances up to 110 km available. The EMI resilience equals the specifications of the manufacturer. Product offers a DNV certification.
GTX100	880007090	GTX100
GSLC10-LX	880007091	GSLC10-LX
GSLC50-XD	880009102	GSLC50-XD

6.6 Patch Cables

Item	Part no.	Description
Patch IndustryPlug, L=0,5 m YE	892131049	RJ-45-CAT6, 1:1 with industrial plug, yellow, length 0.5 m
Patch IndustryPlug L= 1 m YE	892131040	RJ-45-CAT6, 1:1 with industrial plug, yellow, length 1 m
Patch IndustryPlug L= 2 m YE	892131042	RJ-45-CAT6, 1:1 with industrial plug, yellow, length 2 m
Patch IndustryPlug L= 5 m YE	892131045	RJ-45-CAT6, 1:1 with industrial plug, yellow, length 5 m
Patch IndustryPlug L= 7,5 m YE	892131047	RJ-45-CAT6, 1:1 with industrial plug, yellow, length 7.5 m
Patch IndustryPlug L= 10 m YE	892131048	RJ-45-CAT6, 1:1 with industrial plug, yellow, length 10 m
Patch IndustryPlug, L=0,5 m GN	892131129	RJ-45-CAT6, 1:1 with industrial plug, green, length 0.5 m
Patch IndustryPlug L= 1 m GN	892131120	RJ-45-CAT6, 1:1 with industrial plug, green, length 1 m
Patch IndustryPlug L= 2 m GN	892131122	RJ-45-CAT6, 1:1 with industrial plug, green, length 2 m
Patch IndustryPlug L= 5 m GN	892131125	RJ-45-CAT6, 1:1 with industrial plug, green, length 5 m
Patch IndustryPlug, L=7,5 m GN	892131127	RJ-45-CAT6, 1:1 with industrial plug, green, length 7.5 m
Patch IndustryPlug L= 10 m GN	892131128	RJ-45-CAT6, 1:1 with industrial plug, green, length 10 m
Patch IndustryPlug, L=0,5 m RD	892131139	RJ-45-CAT6, 1:1 with industrial plug, red, length 0.5 m
Patch IndustryPlug L= 1 m RD	892131130	RJ-45-CAT6, 1:1 with industrial plug, red, length 1 m
Patch IndustryPlug L= 2 m RD	892131132	RJ-45-CAT6, 1:1 with industrial plug, red, length 2 m
Patch IndustryPlug L= 5 m RD	892131135	RJ-45-CAT6, 1:1 with industrial plug, red, length 5 m
Patch IndustryPlug, L=7,5 m RD	892131137	RJ-45-CAT6, 1:1 with industrial plug, red, length 7.5 m
Patch IndustryPlug L= 10 m RD	892131138	RJ-45-CAT6, 1:1 with industrial plug, red, length 10 m

Item	Part no.	Description
Patch IndustryPlug, L=0,5 m BU	892131149	RJ-45-CAT6, 1:1 with industrial plug, blue, length 0.5 m
Patch IndustryPlug L= 1 m BU	892131140	RJ-45-CAT6, 1:1 with industrial plug, blue, length 1 m
Patch IndustryPlug L= 2 m BU	892131142	RJ-45-CAT6, 1:1 with industrial plug, blue, length 2 m
Patch IndustryPlug L= 5 m BU	892131145	RJ-45-CAT6, 1:1 with industrial plug, blue, length 5 m
Patch IndustryPlug L= 7,5 m BU	892131147	RJ-45-CAT6, 1:1 with industrial plug, blue, length 7.5 m
Patch IndustryPlug L= 10 m BU	892131148	RJ-45-CAT6, 1:1 with industrial plug, blue, length 10 m
Patch IndustryPlug, L=0,5 m GR	892131169	RJ-45-CAT6, 1:1 with industrial plug, grey, length 0.5 m
Patch IndustryPlug, L=1 m GR	892131160	RJ-45-CAT6, 1:1 with industrial plug, grey, length 1 m
Patch IndustryPlug, L=2 m GR	892131162	RJ-45-CAT6, 1:1 with industrial plug, grey, length 2 m
Patch IndustryPlug, L=5 m GR	892131165	RJ-45-CAT6, 1:1 with industrial plug, grey, length 5 m
Patch IndustryPlug, L= 7,5 m GR	892131167	RJ-45-CAT6, 1:1 with industrial plug, grey, length 7.5 m
Patch IndustryPlug, L=10 m GR	892131168	RJ-45-CAT6, 1:1 with industrial plug, grey, length 10 m

7 Software and Licenses

7.1 Software

- IEC 61131-3 compliant programming tool. Package includes First Steps manual in German (D) or English (E)
- Prices for multiple packages on request.
- For this software our service department offers maintenance contracts.

7.1.1 SILworX Full Licenses for HIMax, HIQuad X and HIMatrix F

Item	Part no.	Description
SILworX Full License, Hardlock, D	895200001	SILworX License for HIMax, HIQuad X and HIMatrix F, German, with hardlock
SILworX Full License, Hardlock, E	895210001	SILworX License for HIMax, HIQuad X and HIMatrix F, English, with hardlock
SILworX Full License, Softlock, D	895300001	SILworX License for HIMax, HIQuad X and HIMatrix F, German, with softlock
SILworX Full License, Softlock, E	895310001	SILworX License for HIMax, HIQuad X and HIMatrix F, English, with softlock
Initial-Licensing SILworX HL	99V200000	Initial-Licensing SILworX HL by HIMA

7.1.2 SILworX Full Licenses for HIMatrix F

Item	Part no.	Description
SILworX HIMatrix License, Hardlock, D	895200100	SILworX License for HIMatrix F, German, with hardlock
SILworX HIMatrix License, Hardlock, E	895210100	SILworX License for HIMatrix F, English, with hardlock
SILworX HIMatrix License, Softlock, D	895300100	SILworX License for HIMatrix F, German, with softlock
SILworX HIMatrix License, Softlock, E	895310100	SILworX License for HIMatrix F, English, with softlock
Initial-Licensing SILworX HL	99V200000	Initial-Licensing SILworX HL by HIMA

7.1.3 SILworX Maintenance Licenses for HIMax, HIQuad X and HIMatrix F

Item	Part no.	Description
SILworX Maintenance License, Hardlock, D	895200200	SILworX Maintenance License for HIMax, HIQuad X and HIMatrix F, German, with hardlock
SILworX Maintenance License, Hardlock, E	895210200	SILworX Maintenance License for HIMax, HIQuad X and HIMatrix F, English, with hardlock
SILworX Maintenance License, Softlock, D	895300200	SILworX Maintenance License for HIMax, HIQuad X and HIMatrix F, German, with softlock
SILworX Maintenance License, Softlock, E	895310200	SILworX Maintenance License for HIMax, HIQuad X and HIMatrix F, English, with softlock
Initial-Licensing SILworX HL	99V200000	Initial-Licensing SILworX HL by HIMA

7.1.4 SILworX License Upgrades

Item	Part no.	Description
SILworX Upgrade Full License	895400001	SILworX Full License, upgrade to latest version
SILworX Upgrade HIMatrix License	895400002	SILworX HIMatrix F License, upgrade to latest version
SILworX Upgrade Maintenance License	895400003	SILworX Maintenance License, upgrade to latest version
License Upgrade HIMatrix → Full	895411000	SILworX License Upgrade for HIMatrix F License to Full License. This includes the upgrade to latest version.
License Upgrade Maintenance → HIMatrix	895412000	SILworX License Upgrade for Maintenance License to HIMatrix F License. This includes the upgrade to latest version.
License Upgrade Maintenance → Full	895413000	SILworX License Upgrade for Maintenance License to Full License. This includes the upgrade to latest version.

7.1.5 SILworX Optional Features

Item	Part no.	Description
SILworX C-Code Function Block Option	895600006	Optional Feature for the creation of C-Code function blocks. This includes the upgrade to latest version.
SMART_SAFETY_TEST Option	895615008	Smart Safety Test Feature for Module- / Typical-Tests

7.1.6 ELOP II Licenses for H41q/ H51q

Item	Part no.	Description
ELOP II Professional, D	892042335	German, full package, hardlock with USB interface
ELOP II Professional, E	892042336	English, full package, hardlock with USB interface
ELOP II Operation, D	892042340	German, restriction: Only operation functions available, hardlock with USB interface
ELOP II Operation, E	892042341	English, restriction: Only operation functions available, hardlock with USB interface
ELOP II Professional Floating License	892042360	Full package server license, dynamical licenses management, hardlock with USB interface
Upgrade 1	892042315	ELOP II Professional, upgrade to latest version
Upgrade 2	892042325	ELOP II Operation, upgrade to latest version
PAR → USB (ELOP II)	892042365	Hardlock, exchange parallel → USB

7.1.7 Certified Function Blocks



The Certified Function Blocks include an online help in German and English language.

7.1.7.1 Certified Function Blocks Factory Automation

Item	Part no.	Description
H_BA01 SILworX	895600001	Certified Function Blocks for factory automation, for SILworX.

7.1.7.2 Certified Function Blocks Burner Technology

Function block libraries for burner technology, applicable to gas and oil burner.

Item	Part no.	Description
X(H)_BMS_Gas_Lib	892042570	Function block library for gas burner, for ELOP II and SILworX.
X(H)_BMS_Oil_Lib	892042571	Function block library for oil burner, for ELOP II and SILworX.
X(H)_BMS_Lib	892042572	Function block library for gas and oil burner, for ELOP II and SILworX
X_BCS_Heat_Lib	895650005	Function block library for power and combustion control, for SILworX

7.1.7.3 Function Blocks Turbo Machinery Control (TMC)

Turbo Machinery Control (TMC) function blocks for controlling and monitoring axial and radial compressors and steam turbines.

Item	Part no.	Description
X_TMC_Comp_Lib	895650001	Turbo Compressor Function-Blocks for Anti-Surge-Control and Protection, for SILworX
X-TMC_DT_LIB	895650004	Function-Blocks for standardized Operation, Control and Protection of Steam-Turbines, for SILworX
X_TMC_COMP_DT_LIB	895650006	Function-Blocks-Package consist of the Libraries X_TMC_COMP_LIB and X_TMC_DT_LIB

7.1.7.4 X-OTS - HIMax Safety Simulator

X-OTS - HIMax Safety Simulator to simulate HIMax/HIMatrix controller under SILworX as part of an OTS (Operator Training System) installation. As base a SILworX license min. version 4.116.0 is necessary! Base option is activated as option on an existing SILworX license!

Additional hardware (PC, network components) and eventually services are necessary to set up the system.

Item	Part no.	Description
X-OTS - HIMax Simulator - base option	895900001	X-OTS - HIMax Safety Simulator - Base option consisting of OTS resource programming in SILworX and 4 X-OTS licenses to simulate 4 HIMax systems
X-OTS - HIMax Simulator - additional license	894000027	Additional X-OTS license for every further HIMax/ HIMatrix-system to be simulated (graduated prices on request)

8 Electronic Systems

8.1 Planar4

8.1.1 Modules

Item	Part no.	Description
12 100	984012100	4channel input module, safety-related, SIL 4
13 110	984013110	2channel input module (Ex)i, safety-related, ATEX, SIL 4
22 100	984022100	4channel output module, safety-related, SIL 4
22 120	984022120	Output module, safety-related, SIL 4
22 121	984022121	Output module, safety-related, SIL 4
32 100	984032100	2channel relay amplifier, safety-related, SIL 4
32 101	984032101	2channel relay amplifier, safety-related, SIL 4, 48/60 VDC/AC
32 102	984032102	2channel relay amplifier, safety-related, SIL 4, 110/127 VDC/AC
32 103	984032103	2channel relay amplifier, safety-related, SIL 4, 220/230 VDC/AC
32 110	984032110	4channel relay amplifier, safety-related, SIL 2
42 100	984042100	4channel AND element, safety-related, SIL 4
42 110	984042110	8channel AND element, safety-related, SIL 4
42 200	984042200	Element combination, safety-related, SIL 4
42 300	984042300	8channel OR element, safety-related, SIL 4
42 400	984042400	4channel blocking element, safety-related, SIL 4
42 500	984042500	4channel selection element, safety-related, SIL 4
52 100	984052100	Time delay element, safety-related, SIL 4
52 110	984052110	4channel time delay element, safety-related, SIL 3
62 100	984062100	2channel limit monitor, SIL 4
80 105	984080105	Communication module
80 106	984080106	Communication module, PROFIBUS DP
80 107	984080107	Communication module, Ethernet (OPC)
80 110	984080110	Reset module, reset of the error LED (ERR)
90 100	984090100	4channel fuse module with fuse monitoring and LED display
90 300	984090300	2channel bypass module
Federl./Socket strip 32 pol. Löt/Solder.	520032415	Standard fem. connector with 32 soldering pins (z/d)

Item	Part no.	Description
Federl./Socket strip 32 pol. wire-wrap	520032416	Standard fem. connector with 32 pins (z/d), wire-wrap
Federl./Socket strip 32 pol. termipoint	520032429	Standard fem. connector with 32 pins (z/d), termipoint 1.6x0.8
DP plug 1	520009394	PROFIBUS DP cable plug, angled execution
DP cable	904105000	per m PROFIBUS DP cable

8.1.2 Subracks

Item	Part no.	Description
90 900	994090900	Subrack with bus PCB, 19 inches, 4 U high, 32-pole connector, soldering connection
90 901	994090901	Subrack with bus PCB, 19 inches, 4 U high, 28-pole connector, soldering connection (Ex)I, including 20 wiring protective covers
90 902	994090902	Subrack with bus PCB, 19 inches, 4 U high, 32-pole connector, termipoint 1.6 x 0.8 / wire-wrap
Verdrahtungsschutzhäube/Ex-Protection	633830001	20 wiring protective covers
90 910	994090910	Subrack with bus PCB, 19 inches, 4 U high, 32-pole connector, soldering connection, with separate power supply for each slot
90 911	994090911	Subrack with bus PCB, 19 inches, 4 U high, 28-pole connector, soldering connection (Ex)I, including 20 wiring protective covers, with separate power supply for each slot
90 912	994090912	Subrack with bus PCB, 19 inches, 4 U high, 32-pole connector, termipoint, 1.6 x 0.8, with separate power supply for each slot

8.1.3 Mechanical Parts

Item	Part no.	Description
M 2218	781940270	Distributor 10-pole, with socket
M 2225	634900000	Cover plate 4 SU, 3 U high, for Planar4
M 3410	721990001	Subrack BT 21L, 19 inches, 4 U high, 32-pol connector, soldering connection
M 3411	721990005	Subrack BT 21LE, 19 inches, 4 U high, 28-pol connector, soldering connection (Ex)i
M 3412	721990010	Subrack BT 21T16, 19 inches, 4 U high, 32-pol connector, terminal/wire-wrap
M 3414	721990020	Subrack BT 21W11, 19 inches, 4 U high, 32-pol connector, wire-wrap
M 3415	721990021	Subrack BT 21W11E, 19 inches, 4 U high, 28-pol connector, wire-wrap (Ex)i
M 3419	721990029	Subrack 19 inches, 4 U high, without equipment
M 4410	721990036	Cover plate for the rear side of a subrack
M 4411	605290005	Perforated cover plate for subrack

8.2 Devices on Mounting Rail, H-Types

Item	Part no.	Description
H 4007	994400702	Safety-related switching amplifier in terminal case, ATEX, SIL3/Cat.4 (Ex)i output 24 VDC
H 4011	994401102	Safety-related switching amplifier (Ex)i in terminal case for safety tested prox. switch, ATEX, SIL 3/Cat.4 with short circuit monitoring
H 4012	994401202	Safety-related switching amplifier (Ex)i in terminal case for safety tested prox. switch, ATEX, SIL 3/Cat.4 with break and short circuit monitoring, relay output for line faults
H 4116	992411602	Relay in terminal case, up to SIL2, switching voltage 250 VAC / 127 VDC, safe isolation
H 4134	992413450	Relay in terminal case, 230 VAC, switching voltage 250 VAC / 127 VDC, safe isolation
H 4135A	992413560	Safety-related amplifier in terminal case, SIL3/Kat.4, switching voltage 250 VAC / 220 VDC, safe isolation, with test socket
H 4136	992413602	Safety-related relay amplifier in terminal case, SIL3 input voltage 48 VDC, switching voltage 250 VAC / 127 VDC, safe isolation

Item	Part no.	Description
H 6200A	994620060	Safety-related (Ex)i analog isolator with integrated HART decoupling, SIL 3, ATEX, with transmitter power supply, device for standard rail mounting
H 7011	992701102	Diode Terminal for decoupling of outputs
H 7012	992701299	Module for test pulse suppression to connect testable output modules
H 7015A	992701503	Terminal module
H 7017	994701702	Shunt with low-pass filter for F 6217
H 7018	992701802	Terminal module
H 7020	520000001	Terminal module
Phoenix-FK-MCP 1,5/8	520000002	Combicon plug connector, 8pole for terminal modules
H 7021	992702105	Power supply filter for 48 VDC
H 7022	994702202	Test Signal Bypass of F 6705
BV 7201-x	990000307	Connection cable between terminal modules H 7015/H 7016 und H 7015A/H 7018
LIYCY-TP 21x2x0,34 GR	909906000	per m connection cable type LIYCY 21x2x0.34 mm2, grey, for BV 7201
H 7505	994750502	Interface converter RS 485 ↔ RS 232C
H 7506	992750602	Bus terminal RS 485

9 Power Supplies

9.1 Power Supplies and Installation Kits

9.1.1 Power Supplies PS/ M-Types

Item	Part no.	Description
PS 1000/230 010	982200080	Power supply unit, input voltage 230/240 VAC, output voltage 24 VDC, output power 40 A
PS 1000/230 011	982300080	Coated power supply unit, input voltage 230/240 VAC, output voltage 24 VDC, output power 40 A
PS 1000/115 010	982200084	Power supply unit, input voltage 120 VAC, output voltage 24 VDC, output power 40 A
PS 1000/115 011	982300084	Coated power supply unit, input voltage 120 VAC, output voltage 24 VDC, output power 40 A
M 3421	982200089	Subracks for up to 3 power supply units, with coding set for output voltage 24 VDC or 48 VDC units, 19 inches, 4 U high
M 4412	605240001	Cable tray for subracks M 3421
M 4413	605240002	Cover plate for subracks M 3421, 4 U high, 26TE
M 7201	781990008	Air duct, 19 inches, 1 U high
M 7202	781990009	Air duct with labeling field, 19 inches, 1 U high

9.1.2 Installation Kits 19 Inches

Item	Part no.	Description
K 7205	996720502	Fusing and current distribution, 63 A, 19 inches, 2 U high, with 18 circuit breaker slots, IP20 for up to 60 V DC
K 7206	996720602	Feeding and decoupling module, 63 A, 19 inches, 2 U high
K 7207	996720702	Diode on heat sink, max. 25 A, mounting on rail
K 7212	996721202	Feeding and current distribution, 35 A, 19 inches, 2 U high with 12 circuit breaker slots
K 7213	996721302	Fusing and current distribution, 35 A, 19 inches, 2 U high, with 12 circuit breaker slots
K 7214	996721402	Fusing and current distribution, 150 A, 19 inches, 2 U high with 18 circuit breaker slots for up to 60V DC
K 7216	996721602	Fusing and current distribution, 63 A, 19 inches, 2U high, with 8 circuit breaker slots for ETA2210 and 32 fuse holder for miniature fuse 5x20, for up to 60 V DC
Sicherungsaut/Circuit Breaker ETA2210-04	570350040	Circuit breaker ETA2210-04, 4 A
Sicherungsaut/Circuit Breaker ETA2210-16	570350160	Circuit breaker ETA2210-16, 16 A
Sicherung/Fuse 5X20/4A/T	570174409	Miniature fuse 5x20, 4 A-T, H
K 9202B	996920261	Cabinet fan with 2 axial fans and run monitoring
Grobfilter/Course filter	990000008	Course filter IP 40 with fan grill for cabinet roof fan K9202
Dachhaube/Roof Top Cover	679995219	Roof top cover, IP 42, in case course filter and fan grill are both mounted
K 9203A	996920360	Circulating fan drawer with 3 axial fans

9.1.3 Installation Kits Wall Mounting

Item	Part no.	Description
H 7201	985030007	Fuse distribution 2 x 60 A and 4 x ETA 2210, exclusive fuse
H 7202	985030008	Fuse distribution 2 x 4 x ETA 2210, exclusive fuse
Sicherungsaut/Circuit Breaker ETA2210-16	570350160	Circuit breaker ETA2210-16, 16 A
Sicherungsaut/Circuit Breaker ETA2210-04	570350040	Circuit breaker ETA2210-04, 4 A
ETA 8345-60A	570304061	60A ETA circuit breaker for H 7201
ETA 8345-30A	570304031	30A ETA circuit breaker for H 7201

10 Visualization

10.1 Visualization, Panels and Software

10.1.1 Control Panels



The product discontinuation policy of the vendor is mandatory. Technology is subject of technical changes without prior notice.

10.1.1.1 XV-102 Series

Item	Part no.	Description
XV-102-D4-57TVR10	880009972	XV-102-D4-57TVR10
XV-102-D4-70TWR10	880009973	XV-102-D4-70TWR10

10.1.1.2 XV-300 Series

Item	Part no.	Description
XV-303-70-B00-A00-1B	880009974	XV-303-70-B00-A00-1B
XV-303-10-B00-A00-1B	880009975	XV-303-10-B00-A00-1B

10.1.1.3 XP-503 Series

Item	Part no.	Description
XP-503-15-A10-A00-1B	880009976	XP-503-15-A10-A00-1B

10.1.1.4 Accessories

Item	Part no.	Description
LIC-OPT-1ST - Level	880006093	LIC-OPT-1ST - Level
LIC-OPT-2ND- Level	880006107	LIC-OPT-2ND- Level
SW-GALILEO	880006088	SW-GALILEO

10.1.2 Visualisation Software

For visualization purposes HIMA is using the standard software packages ControlMaestro from the company elutions and iFix from Intellution GE Fanuc. Both products are available as different packages (amount of tags, runtime, engineering) and with optional features.

iFix is available with different functionalities and number of tags. According to your requirements we will arrange the package.

An offer according your requirements and meeting your needs, consisting of all required visualization software and the application engineering, will be prepared upon your request.

The product discontinuation policy of the vendor is mandatory.

Item	Part no.	Description
HIMA-Event	892042089	Additional alarm window for Control Maestro
Fast Data Logging	892042091	Add-On for Fast Data Logging

The packages with USB Hardlock get the following part numbers:

Item	Part no.	Description
CM Logline	892042150	HIMA logging
CM-FULL-65000	892042166	Development package with integrated runtime module for 65000 I/O process points
CM-FULL-10000	892042164	Development package with integrated runtime module for 10000 I/O process points
CM-FULL-2000	892042163	Development package with integrated runtime module for 2000 I/O process points
CM-FULL-500	892042162	Development package with integrated runtime module for 500 I/O process points
CM-FULL-300	892042161	Development package with integrated runtime module for 300 I/O process points
CM-FULL-100	892042160	Development package with integrated runtime module for 100 I/O process points
CM-SR-65000	892042158	Runtime package for 65000 I/O process points
CM-SR-10000	892042156	Runtime package for 10000 I/O process points
CM-SR-2000	892042155	Runtime package for 2000 I/O process points
CM-SR-500	892042154	Runtime package for 500 I/O process points
CM-SR-300	892042153	Runtime package for 300 I/O process points
CM-SR-100	892042152	Runtime package for 100 I/O process points

10.1.2.1 iFix

Item	Part no.	Description
iFix / GENESIS64	8920421xx	Visualization based on iFix by Intellution GE Fanuc or GENESIS64 by Iconics

10.2 Visualisation, Stations

10.2.1 Programming and Visualisation Stations

All stations include Microsoft Operating System. The application software (programming and visualisation software) requires separate licenses. Operating system and keyboard layout, incl. installation and test, of ordered software components are available in German (D) or English (E).

Technology is subject to changes without notice. Modifications of the configuration on request. The product discontinuation policy of the vendor is mandatory.

Minitower Workstation (Minimum configuration)	
Processor	Intel Core i7
Memory	16 GB
Drives	256GB SSD, 16x DVD+/-RW
Monitor	22" (1920x1080)
Accessories	USB-Mouse + USB-Keyboard
Operating System	Windows 10 Professional
Warranty	3 years international on-site support by the manufacturer the next business day.

Notebook (Minimum configuration)	
Processor	Intel Core i5
Memory	16 GB GB
Drives	256GB SSD
Display	15,6" (1920x1080)
Accessories	External DVD+/-RW, USB-Mouse + Port-Replicator + Business case
Operating System	Windows 10 Professional
Warranty	3 years international on-site support by the manufacturer the next business day.

19 Inch Rack Workstation (Minimum configuration)	
Housing	19 inch rack, 4U high, 450 mm deep.
Processor	Intel Core i7
Memory	8 GB
Drives	256 GB SSD, 16x-DVD-RW
Monitor	not included (optional)

19 Inch Rack Workstation (Minimum configuration)	
Accessories	USB-Mouse + USB-Keyboard
Operating System	Windows 10 Professional
Warranty	3 years bring-in warranty

Item	Part no.	Description
Minitower Deutsch Win10	893011020	Operating System Windows 10 Professional 64 bit, RAM 8 GB, manuals, keyboard layout German
Minitower English Win10	893011021	Operating System Windows 10 Professional 64 bit, RAM 8 GB, manuals, keyboard layout English (US)
Notebook Deutsch Win10	893011030	Operating System Windows 10 Professional 64 bit, RAM 8 GB, manuals, keyboard layout German
Notebook English Win10	893011031	Operating System Windows 10 Professional 64 bit, RAM 8 GB, manuals, keyboard layout English (US)
19-INCH-RACK Workstation GER Win10	893015010	Operating System Windows 10 Professional 64 bit, RAM 8 GB, manuals, keyboard layout German
19-INCH-RACK Workstation ENG Win10	893015011	Operating System Windows 10 Professional 64 bit, RAM 8 GB, manuals, keyboard layout English (US)

11 Legacy Products

HIMA products are designed for long-term use. We already consider the delivery and timeliness of the components used during product development. When the end of the active life of a product is reached, it becomes legacy product.

We subject our product range to an annual review. In doing so it is determined which products are rated as legacy products and are added to the corresponding chapter of the price list. In addition to the product data, the year is listed, when the product has been declared legacy product. Thus, you get early information regarding a product's prospective end of life.

Legacy products are only available for a limited time period, although HIMA pursues a stocking of spare parts or repair support of at least ten years. Component-related, legal or normalized restrictions are reserved.

If the functionality is continued by a compatible follow-up product, the ability to deliver the legacy product will not be maintained after one year. Company specific agreements are to be considered independently.

After the legacy life phase the product is no longer available (obsolete).

On the HIMA Extranet (registration required) you can find a complete List of Legacy/Obsolete Products, stating the legacy/obsolete date and - if applicable - information about replacement products.

Manuals for legacy products, obsolete products and further information on replacement or alternative products can be requested by e-mail or by telephone:

Email: support@hima.com

Phone.: +49 6202 709-259 or -261

11.1 List of Legacy Products

The products listed below were rated as Legacy products and are only available for a limited time period.

It is recommended not to use these products for redesign. The use of Legacy products is permitted only under the current standards and regulations.

***SoL: Start of Legacy**

SoL	Item	Part no.	Description
2012	LIYCY 12x0,25 GR	908806000	per meter connection cable type LiYCY 12 x 0.25 mm ² , grey
2012	F 1101A	984110160	4channel new/first value annunciate, module, short switch time
2012	F 1102	984110202	4-channel new value/first value annunciator module, NC principle, individual acknowledgement
2012	F 2108	984210802	Safet-related delay module, for forming of time delays (3 types) and for forming of pulses at 0-1 and 1-0 signal changes
2012	F 3113A	984311360	8-channel output amplifier up to 12 W (also for visual indicators), LED display
2012	F 3117	981311702	4-channel safety-related switching amplifier for proximity switches or mechanical sensors
2012	F 3118	981311802	4-channel safety-related switching amplifier for proximity switches and mechanical contacts with wire break and short circuit monitoring
2012	F 3212A	984321260	2-channel (Ex)i buffer amplifier, galvanic isolation without additional power supply for the (Ex)i control circuit
2012	Federl./Socket strip (Ex)i 28 pol.	990000120	(Ex)i fem. connector with 28 soldering pins incl. coding pin
2012	F 3213A	984321360	2-channel (Ex)i buffer amplifier, inverted signal operation, line break monitoring, galvanic isolation without additional power supply for the (Ex)i control circuit
2012	F 3214A	984321460	2-channel (Ex)i buffer amplifier, galvanic isolation without additional power supply for the (Ex)i control circuit
2012	F 3215A	984321560	2-channel (Ex)i buffer amplifier, inverted signal operation, line break monitoring, galvanic isolation without additional power supply for the (Ex)i control circuit
2012	F 3226A	984322660	2-channel (Ex)i safety-related switching amplifier, with galvanic isolation for proximity switches and mechanical sensors with line short-circuit monitoring

SoL	Item	Part no.	Description
2012	F 3246A	984324660	2-channel (Ex) i safety-related switching amplifier, with galvanic isolation, for proximity switches and mechanical contacts with wire break and short circuit monitoring
2012	Federl./Socket strip (Ex) i 42 pol.	990000123	(Ex) i fem. connector with 42 soldering pins incl. coding pin
2012	F 3247A	984324760	2-channel (Ex) i safety-related switching amplifier, with galvanic isolation, for proximity switches and mechanical contacts with wire break and short circuit monitoring
2012	F 3315	981331502	4-channel (Ex) i safety-related switching amplifier, RC 6, 25 VDC, 3 W
2012	F 3316A	984331660	Safety-related switching amplifier, RC 6, 25 VDC, 24 W
2012	F 3318A	984331860	2-channel safety-related switching amplifier, RC 6, with (Ex) i output, ATEX, SIL 3
2012	F 3319A	984331960	Safety-related switching amplifier, RC 6, AND/OR logic, 25 VDC, 24 W, suitable for (Ex) d valves
2012	F 3324	981332402	2-channel safety-related switching amplifier, RC 6, 25 VDC, 12 W, 3-channel AND-input
2012	F 3326A	984332660	Safety-related switching amplifier, 60 VDC, 24 W, RC 6
2012	F 3328A	984332860	2-channel safety-related switching amplifier, RC 6 (Ex) i outputs, ATEX, SIL 3, 24 V and 16 V
2012	F 3329A	984332960	Safety-related switching amplifier with AND/OR pre-logic, 60 VDC, 24 W, RC 6
2012	F 3408	984340802	Relay amplifier AND/OR pre-logic, test socket, test pin
2012	F 3417A	984341760	4-channel safety-related relay amplifier, SIL 2, 1 switch-over contact each, safe isolation up to 250 V
2012	F 3421	981342102	4-channel relay amplifier, SIL 2, 1 switchover contact each, safe isolation up to 250 V
2012	F 4110A	984411060	8-channel safety-related AND gate, 2 inputs each, RC 6
2012	F 4111A	984411160	4-channel safety-related AND gate, RC 6, 4 AND/2 OR inputs each
2012	F 4112	981411202	2-channel safety-related AND gate, RC 6, 10 inputs each
2012	F 4203A	981420360	14-channel safety-related diode pre-unit, RC 6
2012	F 4204	981420402	6-channel safety-related OR gate, RC 6, 5-channel diode pre-unit
2012	F 4303A	984430360	4-channel safety-related blocking gate, RC 6

SoL	Item	Part no.	Description
2012	F 4304	981430402	Safety-related gate combination, RC 6 blocking gate, 4 AND gates, 2 OR gates
2012	F 4507 24/27V	981450702	4-channel equivalence monitoring, 24/27 VDC additional order text
2012	F 4509	981450902	4-channel safety-related 2 out of 3 selection module, RC 6
2012	F 6251	984625102	2-channel safety-related trip amplifier, SIL 3, rate of change monitoring
2012	F 7105A	984710560	6-channel current distribution, fuse monitoring and testing inclusive miniature fuses 5x20, 4 A-T, H
2012	F 7508	981750802	2-channel bypass module with non-interacting display amplifier
2012	F 7511	981751199	PCB without components
2013	Online Test Modul	892042530	Online Test Expansion for Engineering-Tool ELOP II Factory
2014	MMC	990000080	Multi Media Card for Service PDA
2015	CPU 01	982200126	Replaced by CPU 03 SILworX, 98 2200139
2015	F35 01	982200416	Replaced by F35 03 SILworX, 98 2200497
2015	F31 02	982200420	Replaced by F30 03 SILworX, 98 2200496
2015	F30 01	982200415	Replaced by F30 03 SILworX, 98 2200496
2015	F20 01	982200417	Replaced by F30 03 SILworX, 98 2200496
2015	F3 DIO 20/8 02	982200404	Replaced by F3 DIO 20/8 02 SILworX, 98 2200484
2015	F3 DIO 16/8 01	982200423	Replaced by F3 DIO 16/8 01 SILworX, 98 2200486
2015	F3 DIO 8/8 01	982200425	Replaced by F3 DIO 8/8 01 SILworX, 98 2200487
2015	F3 AIO 8/4 01	982200409	Replaced by F3 AIO 8/4 01 SILworX, 98 2200483
2015	F2 DO 16 02	982200422	Replaced by F2 DO 16 02 SILworX, 98 2200485
2015	F2 DO 16 01	982200406	Replaced by F2 DO 16 01 SILworX, 98 2200480
2015	F2 DO 8 01	982200407	Replaced by F2 DO 8 01 SILworX, 98 2200481
2015	F2 DO 4 01	982200408	Replaced by F2 DO 4 01 SILworX, 98 2200482
2015	F1 DI 16 01	982200405	Replaced by F1 DI 16 01 SILworX, 98 2200479
2015	F35 011	982200453	Replaced by F35 034 SILworX, 98 2200006
2015	F35 014	982200511	Replaced by F35 034 SILworX, 98 2200006
2015	F30 014	982200491	Replaced by F30 034 SILworX, 98 2200005
2015	F3 DIO 20/8 021	982200459	Replaced by F3 DIO 20/8 024 SILworX, 98 2200512

SoL	Item	Part no.	Description
2015	F3 DIO 20/8 024	982200513	Replaced by F3 DIO 20/8 024 SILworX, 98 2200512
2015	F3 DIO 8/8 014	982200492	Replaced by F3 DIO 8/8 014 SILworX, 98 2400400
2015	F3 AIO 8/4 011	982200457	Replaced by F3 AIO 8/4 014 SILworX, 98 2200514
2015	F3 AIO 8/4 014	982200515	Replaced by F3 AIO 8/4 014 SILworX, 98 2200514
2015	F2 DO 16 014	982200517	Replaced by F2 DO 16 014 SILworX, 98 2200516
2015	F1 DI 16 011	982200456	Replaced by F1 DI 16 014 SILworX, 98 2400010
2015	ELOP II Factory	892042520	German, Package with Online Test Module, Hardlock with USB interface
2015	ELOP II Factory	892042525	English, Package with Online Test Module, Hardlock with USB interface
2015	ELOP II Factory Floating License	892042540	Package with Online Test Module, dynamic administration of licenses in the network, hardlock with USB interface
2015	PAR → USB (ELOP II Factory)	892042555	Hardlock exchange parallel → USB
2015	H_BA01 Factory	892042552	Certified Function Blocks for factory automation, for ELOP II Factory.
2015	CPU 01 SILworX	982200137	Replaced by CPU 03 SILworX, 98 2200139
2015	F35 01 SILworX	982200473	Replaced by F35 03 SILworX, 98 2200497
2015	F31 02 SILworX	982200475	Replaced by F30 03 SILworX, 98 2200496
2015	F31 03 SILworX	982200498	Replaced by F30 03 SILworX, 98 2200496
2015	F30 01 SILworX	982200472	Replaced by F30 03 SILworX, 98 2200496
2015	F20 01 SILworX	982200474	Replaced by F30 03 SILworX, 98 2200496
2015	F35 011 SILworX	982200476	Replaced by F35 034 SILworX, 98 2200006
2015	F35 014 SILworX	982200510	Replaced by F35 034 SILworX, 98 2200006
2015	F30 011 SILworX	982200478	Replaced by F30 034 SILworX, 98 2200005
2015	F30 014 SILworX	982200499	Replaced by F30 034 SILworX, 98 2200005
2015	F3 DIO 20/8 021 SILworX	982200490	Replaced by F3 DIO 20/8 024 SILworX, 98 2200512
2015	F3 AIO 8/4 011 SILworX	982200489	Replaced by F3 AIO 8/4 014 SILworX, 98 2200514
2015	F1 DI 16 011 SILworX	982200488	Replaced by F1 DI 16 014 SILworX, 98 2400010
2015	H 4133	992413302	Relay with switching amplifier, 24 VDC, switching voltage 250 VAC / 127 VDC, safe isolation

SoL	Item	Part no.	Description
2015	K 7215	996721502	Fusing and current distribution, 150 A, 19 inches, 2 U high with 18 circuit breaker slots for up to 60V DC and integrated diagnostic display
2017	DI 24 01	982200113	24-channel digital input module, SIL 3/Cat.4/PL e, 110 VDC, 127 VAC
2018	M-CPU 01	982400705	HIMatrix M45 M-CPU, add. 2 port switch 100 Base-Tx with safeethernet, SIL 3/Cat. 4/PL e, to be programmed with SILworX
2018	M-COM 010 2	982400700	HIMatrix M45 M-COM; PROFIBUS Master + RS485 + RS422/RS485, add. 4-port switch 100 Base-Tx with option of none safety related Ethernet protocols, to be programmed with SILworX
2018	M-COM 010 3	982400701	HIMatrix M45 M-COM; PROFIBUS Slave + RS232 + RS422/RS485, add. 4-port switch 100 Base-Tx with option of none safety related Ethernet protocols, to be programmed with SILworX
2018	M-COM 010 8	982400702	HIMatrix M45 M-COM; CAN + RS485 + RS422/RS485, add. 4-port switch 100 Base-Tx with option of none safety related Ethernet protocols, to be programmed with SILworX
2018	M-COM 010 7	982400703	HIMatrix M45 M-COM; SSI + RS485 + RS422/RS485, add. 4-port switch 100 Base-Tx with option of none safety related Ethernet protocols, to be programmed with SILworX
2018	M-PWR 01	982400704	HIMatrix M45; Power module
2018	M-DO 2 01	982400706	HIMatrix M45; 2 failsafe relays SIL 3
2018	M-DI 8 01	982400707	HIMatrix M45; 8 inputs SIL 3
2018	M-DO 8 01	982400708	HIMatrix M45; 8 outputs 500 mA SIL 3
2018	M-CI 8 01	982400709	HIMatrix M45; 8 counters up to 10 kHz with timestamp of 1 µs resolution. Used as a pair a 4q counter is reachable. Two channels with software comparison will reach SIL 3
2018	M-LS 4 01	982400710	HIMatrix M45; Line supply Module 8 L-, 4 L+
2018	M-BLK 01	982410719	HIMatrix M45; blank housing
2018	M-SO CPU 01	982400715	HIMatrix M45; Socket for M-CPU
2018	M-SO COM 01	982400716	HIMatrix M45; Socket for M-COM
2018	M-SO I/O 01	982400711	HIMatrix M45; Socket single
2018	M-SO REL 01	982400713	HIMatrix M45; Socket for relay module
2018	M-SO PWR 01	982400714	HIMatrix M45; Socket for power module

SoL	Item	Part no.	Description
2018	M-SO BUS 01	982400717	HIMatrix M45; Socket for bus extension left side, to next M45-block 1 x RJ-45 jack
2018	M-SO BUS 02	982400718	HIMatrix M45; Socket for bus extension right side, from last M45-block (direction CPU) 1 x RJ-45 jack
2018	LIFYCY 12x2x0,2 BL	904404000	per meter connect. cable type LiFYCY 12 x 2 x 0.2 mm ² , blue
2018	LIFYCY 12x2x0,2 GR	904406000	per meter connect. cable type LiFYCY 12 x 2 x 0.2 mm ² , grey
2018	PROFINET Controller	894000018	License for PROFINET Controller Conformance Class A (PNO - ethernet communication)
2018	PROFINET Device	894000019	License for PROFINET Device Conformance Class A (PNO - ethernet communication)
2018	PROFIsafe Host	894000022	License for the use of the SIL 3 protocol PROFIsafe via PROFINET (additional license required)
2018	PROFIsafe Device	894000023	License for the use of the SIL 3 protocol PROFIsafe via PROFINET (additional license required)
2018	H 6210	994621002	HART multiplexer for 8 analog isolator H 6200A, device for standard rail mounting, SIL 2
2020	H41q-MS	997004235	TÜV-certified compact automation system, SIL 3/Cat.4, 19 inches, 5 U high, 13 I/O slots, add. slot for communication module, one CPU, (Kit: B 4235)
2020	H41q-HS	997104237	TÜV-certified compact automation system, SIL 3/Cat.4, 19 inches, 5 U high, 13 I/O slots, add. slots for communication module, highly available, redundant CPUs, (Kit: B 4237-1)
2020	H41q-HRS	997204237	TÜV-certified compact automation system, SIL 3/Cat.4, 19 inches, 5 U high, 13 I/O slots, add. slots for communication module, highly available, redundant CPUs and redundant I/O-busses, (Kit: B 4237-2)
2020	H51q-MS	997005231	TÜV-certified modular automation system, SIL 3/Cat.4, 19 inches, 5 U high, one CPU, (Kit: B 5231)
2020	H51q-HS	997105233	TÜV-certified modular automation system, SIL 3/Cat.4, 19 inches, 5 U high, highly available, redundant CPUs, (Kit: B 5233-1)
2020	H51q-HRS	997205233	TÜV-certified modular automation system, SIL 3/Cat.4, 19 inches, 5 U high, highly available, redundant CPUs and redundant I/O-busses, (Kit: B 5233-2)
2020	B 9302	997009302	I/O-rack, 16 I/O slots, 19 inches, 4 U high, with 0.5 m I/O-bus cable for H51q kits, (Kit: B 9302-0,5)

SoL	Item	Part no.	Description
2020	F 8650X	984865065	Safety-related CPU with 1 MByte for user memory, operating system and data memory, SIL 3/Cat.4, for systems H51q-MS, HS, HRS, with back-up battery. The required operating system must be specified in the order.
2020	Batterie/Battery Lithium, F865x	4400000018	Back-up battery
2020	F 8652X	984865265	Safety-related CPU with 1 MByte for user memory, operating system and data memory, SIL 3/Cat.4, for systems H41q-MS, HS, HRS, with back-up battery. The required operating system must be specified in the order.
2020	F 8621A	984862160	Coprocessor module, H41q, H51q. The required operating system must be specified in the order.
2020	F 8627X	984862765	Communication module, FastEthernet communication (safeethernet, OPC, Modbus TCP Slave and ELOP II via TCP protocol) 100 Base-T, RJ45
2020	F 8628X	984862865	Communication module, Fieldbus communication (PROFIBUS DP Slave and ELOP II via TCP protocol) 9-pole SUB-D and 100 Base-T, RJ45
2020	BV 7002-5	990000205	Data cable H 7505 ↔ printer with serial interface, length 5 m
2020	BV 7032-0,5	990000233	Data cable Systems H51q ↔ B 9302, length 0,5 m
2020	BV 7032-5	990000234	Data cable Systems H51q ↔ B 9302, length 5 m
2020	BV 7040-0,5	990000254	Data cable System ↔ H 7506, length 0,5 m
2020	BV 7040-2	990000248	Data cable System ↔ H 7506, length 2 m
2020	BV 7040-4	990000249	Data cable System ↔ H 7506, length 4 m
2020	BV 7043-15	990000256	Data cable System ↔ PG, length 15 m
2020	BV 7043-5	990000255	Data cable System ↔ PG, length 5 m
2020	BV 7043	520009389	Add. equipment 9 pole MIN D-adapter, socket–socket necessary using the BV 7043 for HIKA
2020	BV 7044-15	990000260	Data cable H 7505 ↔ PC (9 pin), length 15 m
2020	BV 7044-30	990000261	Data cable H 7505 ↔ PC (9 pin), length 30 m
2020	BV 7044-5	990000259	Data cable H 7505 ↔ PC (9 pin), length 5 m
2020	BV 7045-5	990000264	Data cable HIKA – connecting cable, length 5 m
2020	BV 7046-2	990000262	Data cable (redundant CPU) ↔ H 7506, length 2 m
2020	BV 7046-4	990000263	Data cable (redundant CPU) ↔ H 7506, length 4 m
2020	BV 7048-4	990000266	Data cable H41q, H51q System (redundant CPUs) ↔ H 7505, length 4 m

SoL	Item	Part no.	Description
2020	BV 7049-4	990000267	Data cable H41q, H51q Systems (redundant CPUs) ↔ fibre optic modem, length 4 m
2020	BV 7050-0,5	990000272	Data cable System ↔ fibre optic modem, length 0,5 m
2020	BV 7050-4	990000268	Data cable System ↔ fibre optic modem, length 4 m
2020	BV 7051-0,5	990000271	Data cable H 7506 ↔ fibre optic modem, length 0,5 m
2020	BV 7051-2	990000269	Data cable H 7506 ↔ fibre optic modem, length 2 m
2020	BV 7051-4	990000270	Data cable H 7506 ↔ fibre optic modem, length 4 m
2020	BV 7052-2	990000273	Data cable System ↔ H 7505, length 2 m
2020	BV 7052-4	990000274	Data cable System ↔ H 7505, length 4 m
2020	BV 7053-0,6	990000311	Data cable HSR-cable (RJ12-RJ12), length 0,6 m
2020	F 7126	990000111	Power supply module 24 VDC/5 VDC, H51q, 8 SU
2020	F 7130A	984713060	Power supply module 24 VDC / 5 VDC, H41q
2020	F 7131	981713102	Power supply monitoring, H51q with back-up battery
2020	Batterie/Battery Lithium	440000019	Back-up battery for F 7131
2020	F 7546	981754602	Bus termination module, H51q
2020	F 7553	984755302	PLC coupling module, H51q for I/O rack B 9302

12 Product Documentation

Equipment such as modules etc. is delivered without technical documentation. For the HIMA components in this price list you will find the technical documentation in German and English on the free HIMA DVD, or at www.hima.com/en

Content of the HIMA DVD (part no. 96 9000474)

Documentation

HIMax System
HIMatrix System
HIQuad X System
HIQuad System
Planar4 System
Other Products such as A-Series, DIN Rail Equipment, Planar F and Power Supply Units.

Software

ELOP II Full Version
SILworX Installation Full Version
X-OPC Server
X-OTS Simulator
HIMA OPC Server
HIMA A&E OPC Server
HART OPC Server

HI 800 779 E | TN 96 9900042

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