



Antonio Gordillo / 20 Mayo 2021 / IMA Marketing

Welcome

Presentación

Novedades 2021

Sistemas de Entradas y Salidas



New 2021 Controladores / I/O's / Lighting and Signaling

Agenda

➤ I/O's Systems

- AXL SE new modules
 - New modules Axioline F
 - New modules Inline
 - AXL P BK PN TPS
 - AXL P Hotswap
 - PROJECT+
 - CLIPX Engineering
-





Axioline SE Smart Elements How to add Modules

Modular Safety Solutions - From E-stops to PROFI-safe controllers

Agenda

- Axioline Smart Elements
- Axioline F PROFI-safe Analog
- Further Information



Modular Safety Solutions - From E-stops to PROFIsafe controllers

Axioline Smart Elements



Axioline Smart Elements

MORE SPACE FOR
YOUR CREATIVITY



Axioline Smart Elements

Portfolio overview

ANALOG INPUT		ANALOG OUTPUT		DIGITAL INPUT		DIGITAL OUTPUT		FUNCTION MODULES		SAFETY MODULES		SYSTEM MODULES	
	AI4 I 1088062		AO4 I 1088123		DI16 1088127		DO16 1088129		IOL4 1088132		PSDI8 1079241		SC-A 1088134
	AI4 U 1088104		AO4 U 1088126		DI16 NPN 1105559 new		DO16 NPN 1105560 new		CNT1 1088131		PSDO4 1079231		SC new 1167159
	RTD4 PT100 1088106								RS485 1088128		SSDI8 1190012 new	AXL F- BACKPLANE	
									INC1 SYM 1088130		SSDO4 1190017 new		BP 4 1088135
													BP 6 1088136
19 Axioline Smart Elements													

Axioline Smart Elements

Remember: PROIsafe Axioline Smart Elements

- PROIsafe modules available from stock
- Slim solution together with SPLC 1000
- Space saving in the control cabinet



Axioline Smart Elements

Axioline Smart Elements with SafetyBridge

- Input and Output module for SafetyBridge
- Compatible with the AXL F logic module AXL F LPSDO8/3 1F
- Same parameters as the Axioline F SafetyBridge System



Axioline F PROFIsafe Analog

Axioline F PSAI



Safe analog current signals directly in the safety PIC



8 Analog input channels for the connection of current signals using the PROFIsafe protocol



Can be used with safety controller from Phoenix Contact and Siemens



Fast connection of the sensor to module, thanks to Push-In Technology

News from the I/O product families

Agenda

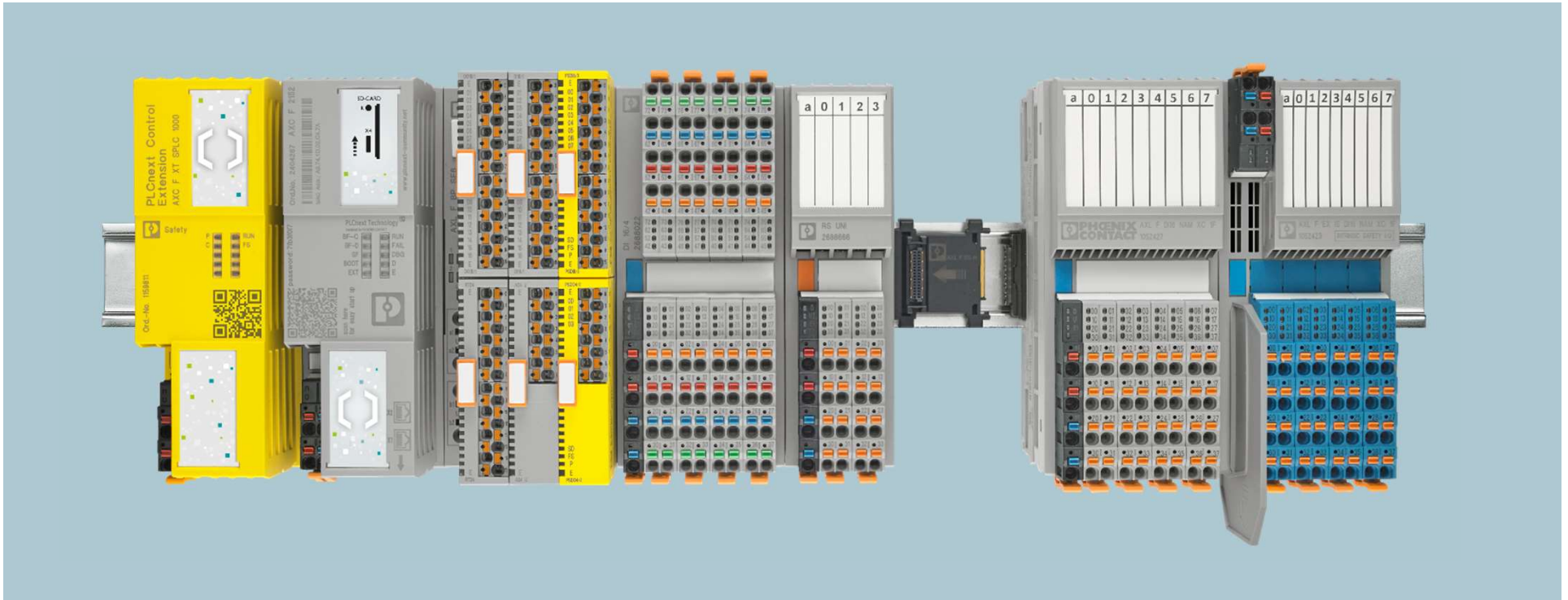
- News & new products
 - Axioline Smart Elements
 - I/Os for Zone 2
 - Inline
 - Axioline P



News from the I/O Product Families

News from the I/O product families

PLC and I/O system toolbox

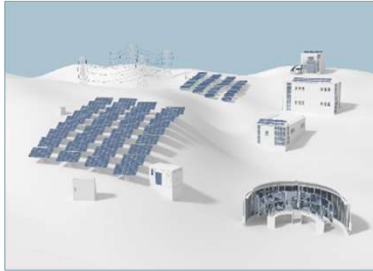


News from the I/O product families

PLC and I/O systems



BASIC



APPLICATIONS



COMPLEX



IO-Link



IO-Link



Ex HART
COMMUNICATION PROTOCOL

"PLC and I/O system"

Axioline Smart Elements

NEW PRODUCTS

Axioline Smart Elements

New products 2020



AXL SE DI16/1 NPN & DO16/1 NPN

- 16 Digital input / output NPN wired
- 24V DC
- Mainly used in North America and Asia

Actuators with NPN technology
Sensors with NPN technology

Available on stock



AXL SE SC

- Passive slot cover (housing)
- Active slot cover (AXL SE SC-A) can still be used to monitor unused slots

Covering empty slots

Available on stock



AXL SE SSDI8/3 & SSDO 4/2 2A

- Safety bridge integration
- Up to SIL CL 3 and cat. 4/PLe

Functional Safety

Available on stock

Axioline Smart Elements

Portfolio overview

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	RTD4 PT100 1088106								RS485 1088128		SSDI8 1190012 new	AXL F- BACKPLANE	
									INC1 SYM 1088130		SSDO4 1190017 new		BP 4 1088135
													BP 6 1088136
19 Axioline Smart Elements													new available for startportfolio

Axioline Smart Elements

Further new products 2021



1105562 - AXL SE DOR2 W 230

- 2 relays with changeover contacts
- 220 V DC/230 V AC
- max. 6 A per channel / Σ 12 A

Actuators with voltage >24 V DC
Actuators with current >2 A

Available 1st Q./2021



1182190 - AXL SE RTD4 PT1000

4 analog 16 bit input channels for the connection of resistance temperature detectors (**Pt 1000**)

Robust temperature measurement
from -200 °C up to +850 °C

Available 1st Q./2021



1088130 - AXL SE INC1 ASYM

- Interface for 1 incremental encoder with **asymmetrical** signals (A, B, Z)
- 5 V DC and 24 V DC encoder supply

Position acquisition

Available 1st Q./2021

Axioline Smart Elements

Further new products 2021



1181790 - AXL SE DO4/2 2A EF

- 4 outputs with 2-wire technology; 2 A
- 24 DC power feed in with functional safe power switch off (for cat. 4/PL e)

Actuator current > 500 mA and/or channel-specific diagnosis

Available 2nd Q./2021



1181787 - AXL SE RS232

- 1 RS 232 interface
- No protocol implemented
- Handshake signals CTS and RTS

Connection of bar code scanner or modem

Available 3rd Q./2021



1182192 - AXL SE UTH4 EF

- 4 analog inputs for thermocouples conforming to DIN EN 60584
- 16 Bit resolution
- Supported TC types: B, E, J, K and S

Precise measurement of high temperatures up to +1768 °C

Available 4st Q./2021

Axioline Smart Elements

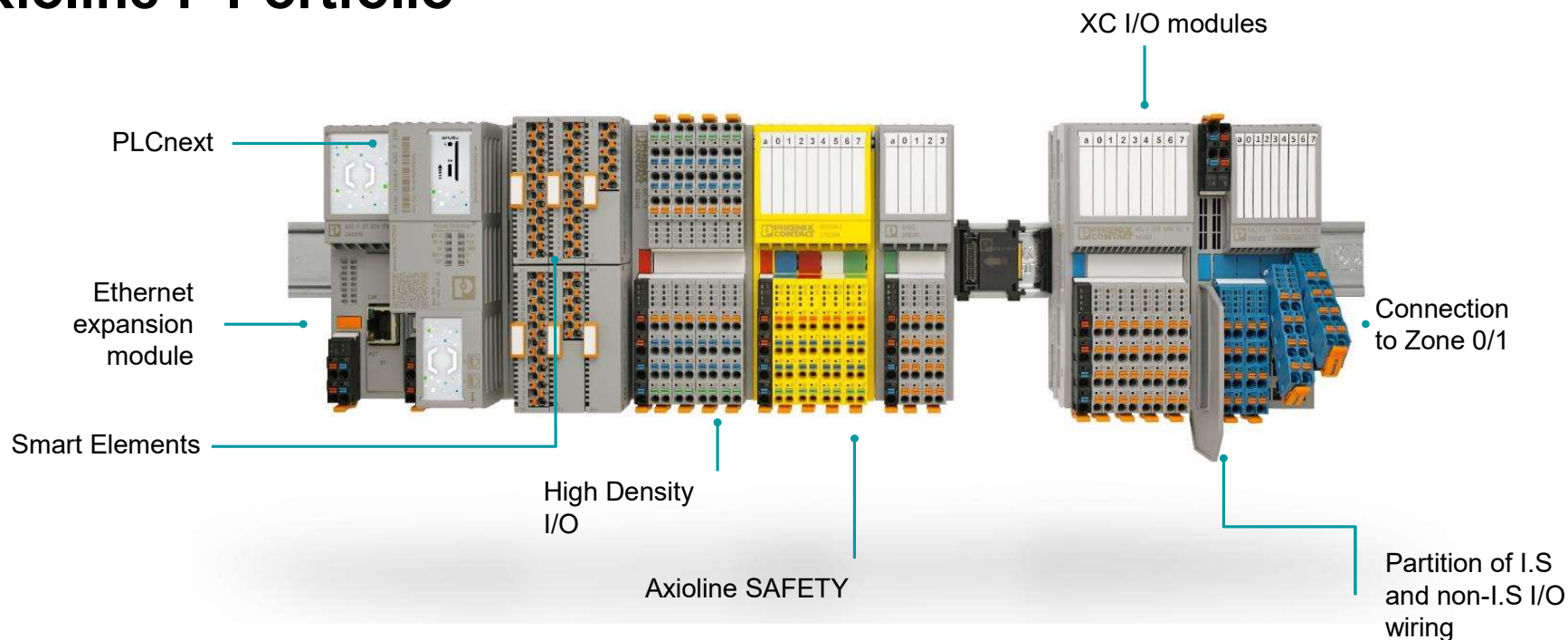
Portfolio overview with outlook for 2021

ANALOG INPUT		ANALOG OUTPUT		DIGITAL INPUT		DIGITAL OUTPUT		FUNCTION MODULES		SAFETY MODULES		SYSTEM MODULES	
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	RTD4 PT100 1088106						DOR2 1105562 1st Q./2021		RS485 1088128		SSDI8 1190012 new	AXL F- BACKPLANE	
	RTD4 PT1000 1182190 1st Q./2021						DO4 2A 1181790 2nd Q./2021		INC1 SYM 1088130		SSDO4 1190017 new		BP 4 1088135
	UTH4 EF 1182192 4th Q./2021								INC1 ASYM 1088130 1st Q./2021				BP 6 1088136
25 Axioline Smart Elements									RS232 1181787 3rd Q./2021				

I/Os for Zone 2

I/Os for Zone 2

Axioline F Portfolio



- To date, all installed in the Safe Zone
- Remember, Blue goes to the very right!



IECEX:
EX ec IIC T4 Gc

(C)UL-EX LIS:
Class I, Div. 2, Groups A,
B, C, D T4

ATEX:
Ex II 3G; Ex nA IIC T4 Gc

NEW!

I/Os for Zone 2

PLCnext 2152	PROFINET Bus Coupler	EtherNet/IP Bus Coupler	MODBUS TCP Bus Coupler
2404267	1068857	1167192	2701949
			
			



New products 2021

Axioline F I/O system Bus couplers for extreme conditions



	
Bus coupler for EtherNet/IP™	Bus coupler for PROFINET
Push-In	
AXL F BK EIP XC	AXL F BK PN TPS XC
1167192	1068857

Main features

- Extended temperature range: -40°C ... +70°C
- Permissible humidity (operation): 5% ... 95%
- Noise emission: Class B in accordance with EN 61000-6-3
- Noise immunity: 8 kV air discharge according to EN 61000-6-2
- Maximum altitude: 3,000 m above mean sea level without derating



COMPLETE line



IECEx:
EX ec IIC T4 Gc

(C)UL-EX LIS:
Class I, Div. 2, Groups A,
B, C, D T4

ATEX:
Ex II 3G; Ex nA IIC T4 Gc

NEW!

Version	Analog IN	Analog OUT	Digital IN	Digital OUT
Regular XC	AI 4 I 2702007	AO 4 2702154	DI 16 2701224	DO 16 2701228
Non-I.S.	AI 8 1052434	AO 4 1087080	DI 16 1052427	
				
Intrinsically Safe	AI 8 1052432	AO 4 1087081	DI 16 1052423	DO 4 SD 24-48 1086901
				DO 4 SD 21-60 1086902
				



I/Os for Zone 2

IP65/67 Standalone I/Os for field installation



IP65/67 Standalone I/Os for field installation



IP20 Modular I/Os for control cabinet

**PROFI
NET**

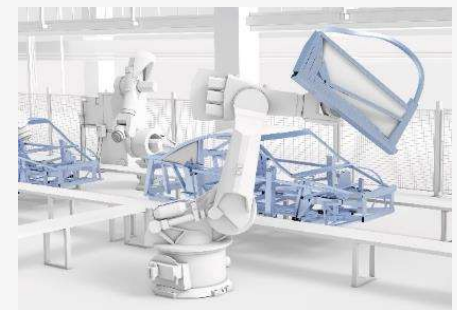


I/Os for Zone 2 **Axioline E**

Industries



Machine building / Plant engineering



Automotive

The Axioline E-PROFINET metal devices are designed together with the accessory item AXL E ATEX PROTECTION SET for installation in Zone 2 potentially explosive areas

new

Confidential – For internal use only

I/Os for Zone 2

Available
in stock

Axioline E-PROFINET metal portfolio for Zone 2

AXL E PN DI16 M12 6M	AXL E PN DIO16 M12 6M	AXL E PN DI8 DO8 M12 6M	AXL E PN DI8 DO4 2A M12 6M	AXL E PN IOL8 DI4 M12 6M
2701516	2701517	2701515	2701518	2701519
 HW ≥ 04	 HW ≥ 04	 HW ≥ 05	 HW ≥ 04	 HW ≥ 04
AXL E ATEX PROTECTION SET				
1182217				
 new				

Inline

NEW PRODUCTS 2021

Confidential – For internal use only



Inline

New products 2021



1199811 - IB IL DALI MM-V2-PAC

Dali2 multi master with integrated DALI power supply unit

For building automation

Available 2nd Q./2021



ECO

1185434 - IB IL RTD 4/NTC-ECO

4-channel analog temperature measurement terminal (RTD) for the connection of NTC temperature sensors

Preferred for building automation

Available 2nd Q./2021



2702372 - IL ETH BK-PAC

Ethernet bus coupler, new generation

Universally applicable

Available 3rd Q./2021

Inline for Building Automation

Inline

Inline for building automation

“ The combination of the ILC 2050 BI and the Inline I/Os guarantees system openness, reliability and comfortable handling - resulting in a simple solution for building automation. ”



powered by
niagara
framework

Modular controller



I/O terminals



Contact the Building Technologies Sales
Team about the Emalytics Building
Management Solution

Inline for Basic Applications

Inline

THE INLINE SYSTEM

Redesigned
&
reduced in price
since 2021



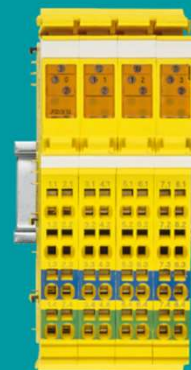
CONTROLLERS

Scales performance,
I/Os integrated programmable
with PC Worx



BUS COUPLERS

Compact, PROFINET,
EtherCAT®, CANopen +
Modbus TCP in 2021



I/Os

Compact, easy start-up,
safe and non-safe I/Os

Inline

THE INLINE SYSTEM

THE INLINE SYSTEM

The complete portfolio of Inline is
available.
You can count on Inline in the future!

The Inline system: basic idea

The Inline system

“The Inline system is a subset of the complete product range of Inline Controllers, bus couplers and I/Os. It also consists of controllers, bus couplers and I/Os which fit perfectly together for the use in simple applications.”

YOUR ADVANTAGES

- ✓ Scalable automation system for simple tasks
- ✓ Adapted choice of modules with easy handling
- ✓ Quick start-up due to less parameterization efforts
- ✓ Attractively priced products



The Inline system: basic idea

A good idea but not a limited portfolio

“The Inline system” consists of an optimized portfolio of articles which all have a simple handling and are attractively priced. Hereby this offer of Inline articles can be used well in price sensitive applications with lower automation requirements...



... but if necessary the **complete portfolio** of Inline Controllers (ILC) and the Inline I/O system is still available and can be used at any time to expand the range of functions and solutions.



Inline

PLC and I/O systems



BASIC

INLINE

- Easy handling
- Well suited for basic and low-priced applications



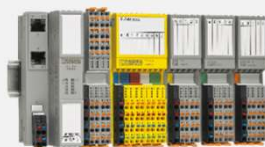
COMPLEX



INLINE



IO-Link



IO-Link



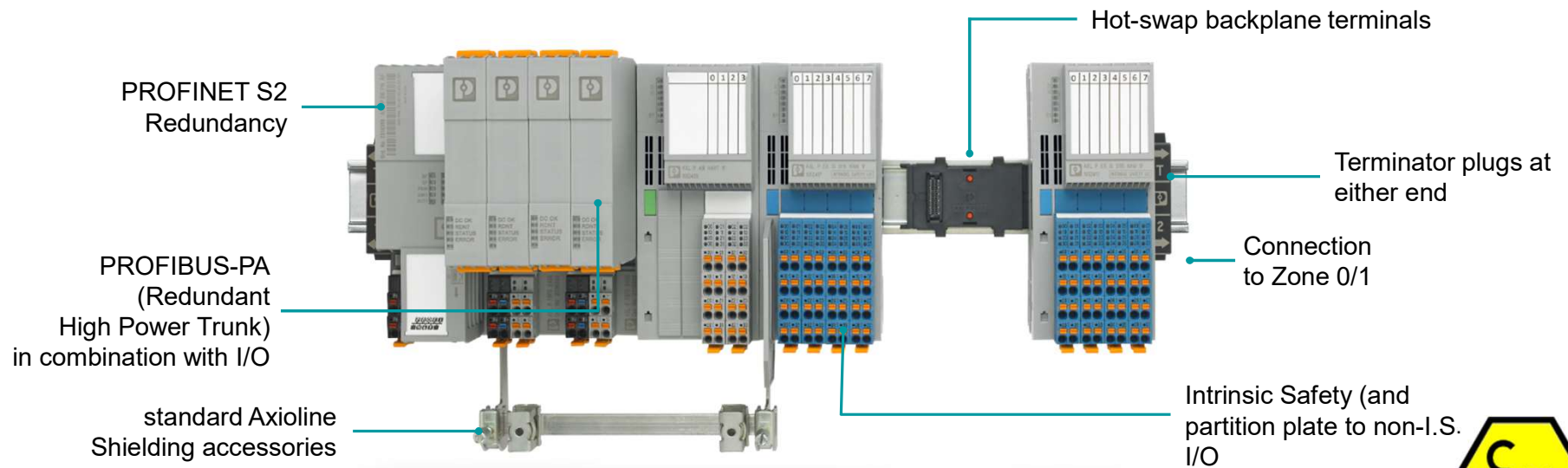
Ex HART
COMMUNICATION PROTOCOL

„PLC and I/O System“

Axioline P

I/O solutions for Process Industry

Axioline P – High Availability





PROFINET
controller

PROFINET



PROFIBUS PA

SIEMENS

PROFI
NET



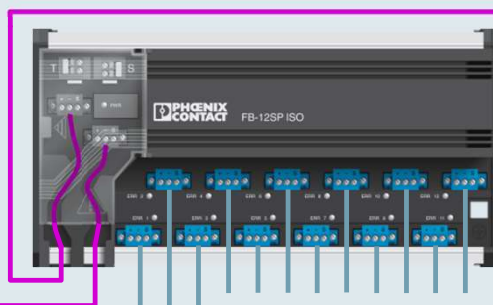
Zone 2

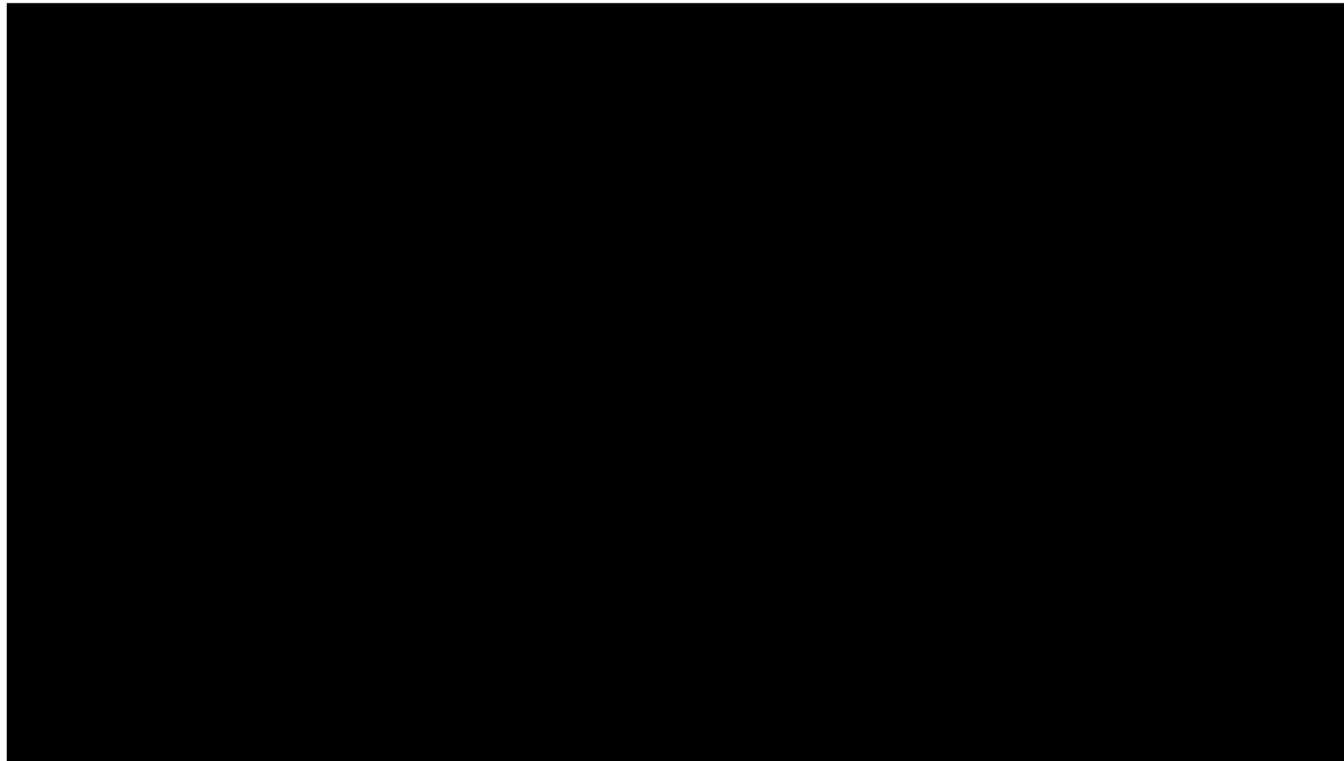


Zone 1



Zone 0





Axioline P Redundancy S2 PA / Proxy to PROFINET

I/O solutions for high availability applications

Platform Options

Axioline P Advanced Functionality

PROFIBUS-PA and I/O ✓

S2-Redundancy ✓

Hot Swap ✓

Powered Backplane ✓



Axioline P PROFINET I/O only system

PROFINET with I/O ✓

S2-Redundancy ✓

Hot Swap ✓

Powered Backplane ✓



NEW!

Axioline P

PLC and I/O systems



BASIC



AXIOLINE P

- Absolutely reliable
- Well suited for process automation



COMPLEX



INLINE



IO-Link



IO-Link



Ex HART
COMMUNICATION PROTOCOL

"AXIO F Control and I/O System"



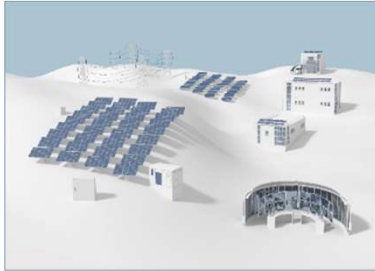
AXIOLINE P

Axioline P

PLC and I/O systems



BASIC



APPLICATIONS



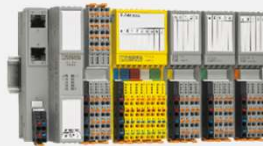
COMPLEX



INLINE



IO-Link



IO-Link



Ex HART
COMMUNICATION PROTOCOL

"AXIO F Control and I/O System"



AXIOLINE P

Axioline P

**Advanced
Functionality**



Example Axioline P Advanced Functionality S2 Redundancy



Thank you

NEWS from IMA