



# Welcome

## Sistemas PoE y videovigilancia

### Parte 2

Webinar IMA Mayo 2021

## Sistemas PoE y Videovigilancia Parte 2



Fecha	27 Mayo 2021
Hora	16:00
Hora	17:00
Duración	1 hora
Costo	gratuito

Conozca el portafolio de productos Phoenix Contact para realizar PoE

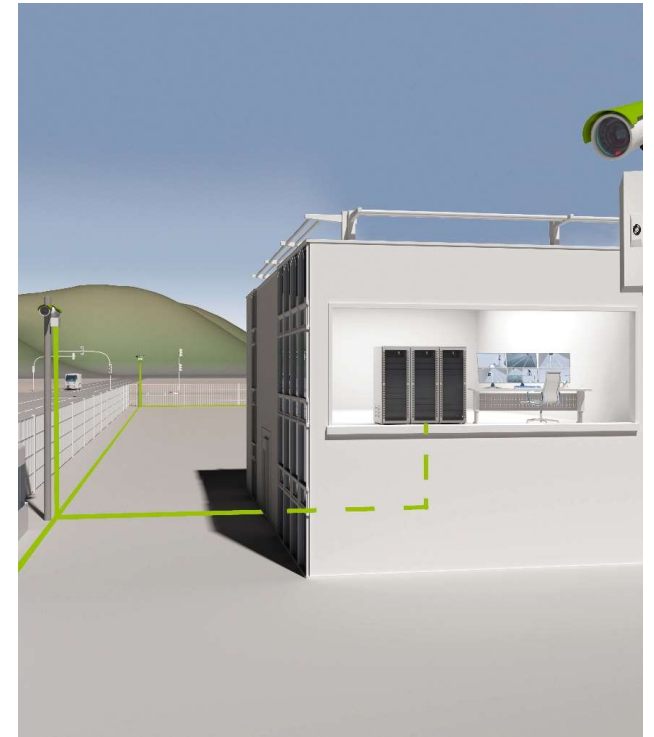
Aprenda a seleccionar los productos más sencillos PoE que puede utilizar para realizar una integración de ellos en una aplicación PoE que cumpla la necesidad de aplicaciones fáciles y sencillas en puntos de requerimiento PoE.

Webinars

# Agenda

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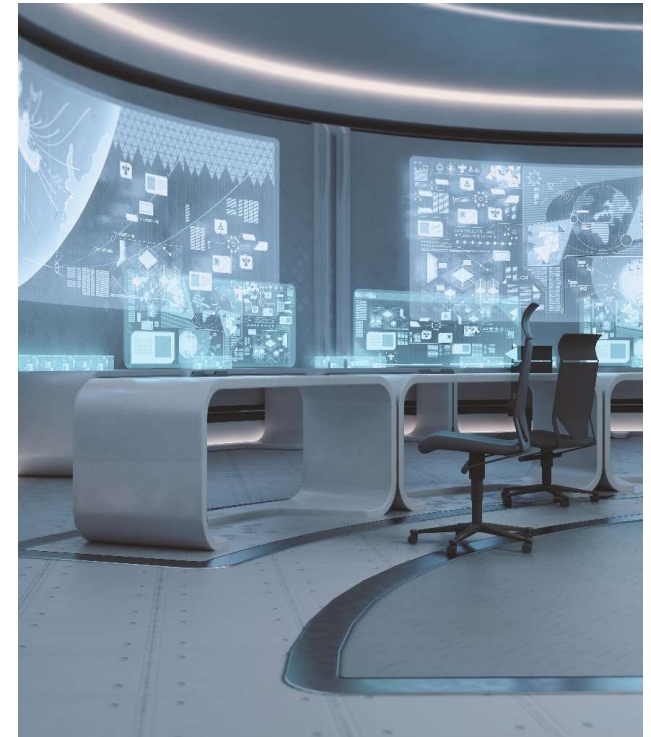
- Portafolio de Productos PoE
  - Injector
  - Unmanaged Switch
  - Managed Switch
  - Splitter
  - Other products PoE
- 



## Surveillance Infraestructure

# Overview

- Security
- Access
- Recording
- Process
- Paths
- Warning
- Alarm
- Control
- Actions
- Light
- Dark
- Temperature
- PoE
- Fiber optic
- Cameras
- Wireless
- Control Room
- Doors
- Bars
- Tunnels
- Traffic Light
- Urban Monitoring
- Police
- Fire Department



Product Portfolio

# Phoenix Contact PoE Portfolio



## Product Portfolio

# From the Injector to the Splitter



Injectors



Unmanaged Switches



Managed Switches



Splitter



Smart Camera Box



## Product Portfolio

# PoE- Injector or switch



### Injector

- Plug and play one port
- Hi Power (60W)
- Price advantage by one port
- Patch Panel technology
- Surge protection
- Shield current diagnostics
- galvanic isolation

### Unmanaged Switch

- Plug and play several ports
- SFP fiber ports
- Remote monitoring of connected PDs

### Managed Switch

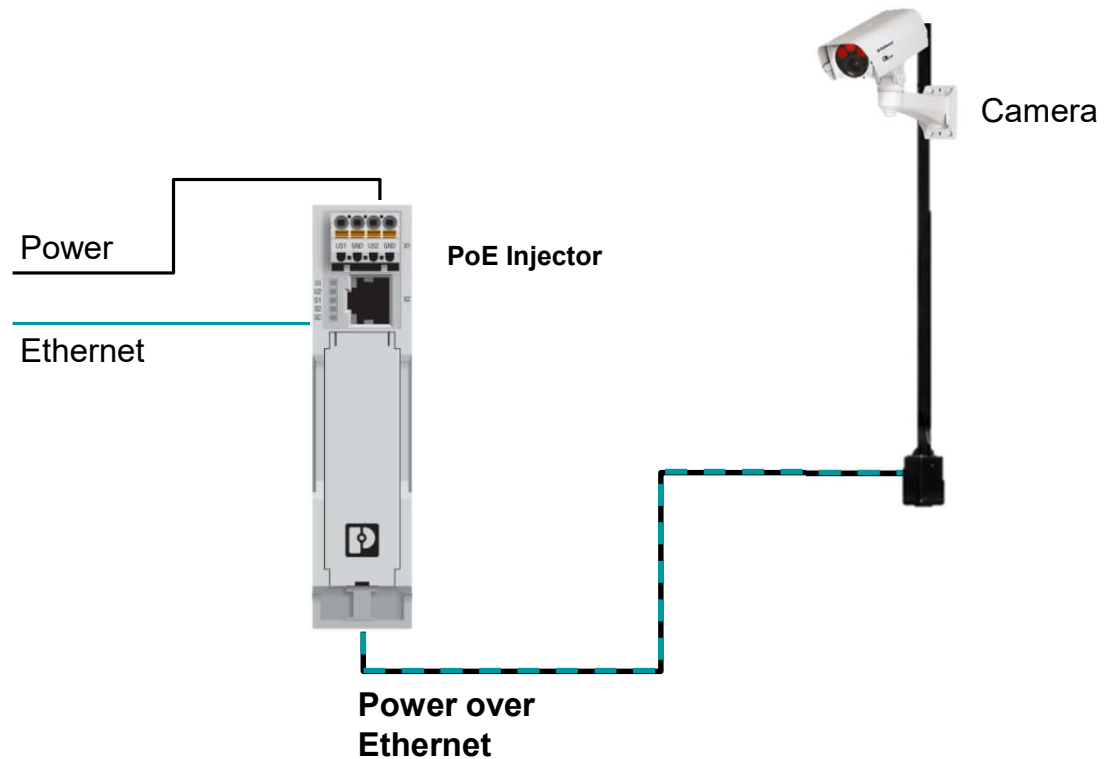
- Managed features like redundancy, monitoring, configuration, security
- SFP fiber ports
- Hi Power (60W)
- Prioritize PDs
- Remote control of PDs
- PoE Watchdog
- Force power to non-compliant PDs

Product Portfolio

## PoE Injectors

### Injector

- Plug and play one port
- Hi Power (60W)
- Price advantage by one port
- Patch Panel technology
- Surge protection
- Shield current diagnostics
- galvanic isolation





Product Portfolio

## PoE Injectors

Surge protection

shield current monitoring on the PoE cable side.  
An LED indicates differences in potential or other shield currents caused by the effects of EMC

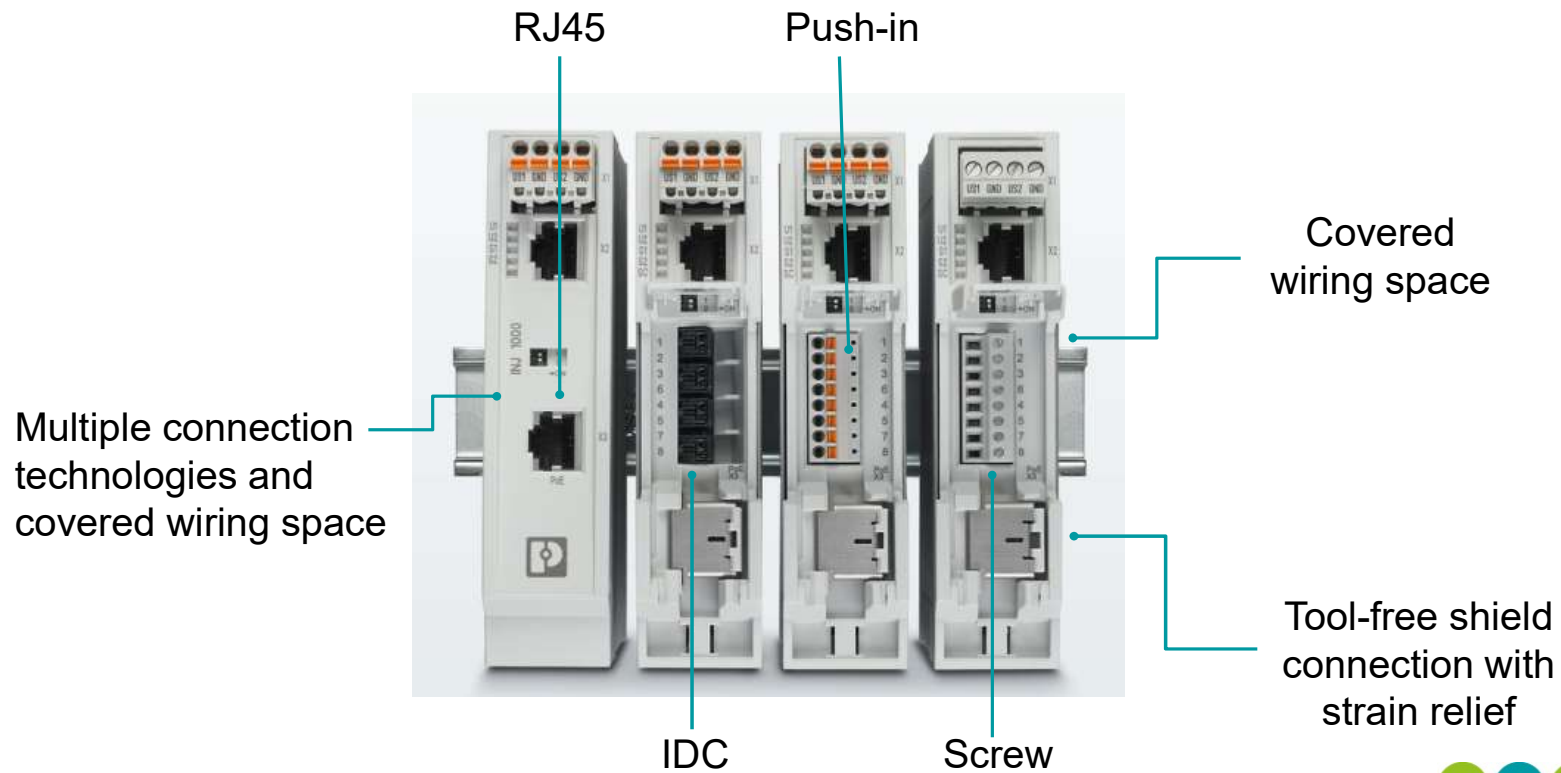


Different performance standards, temperature range and power classes

Electrical isolation,  
→ Power supply and PoE port are electrically isolated

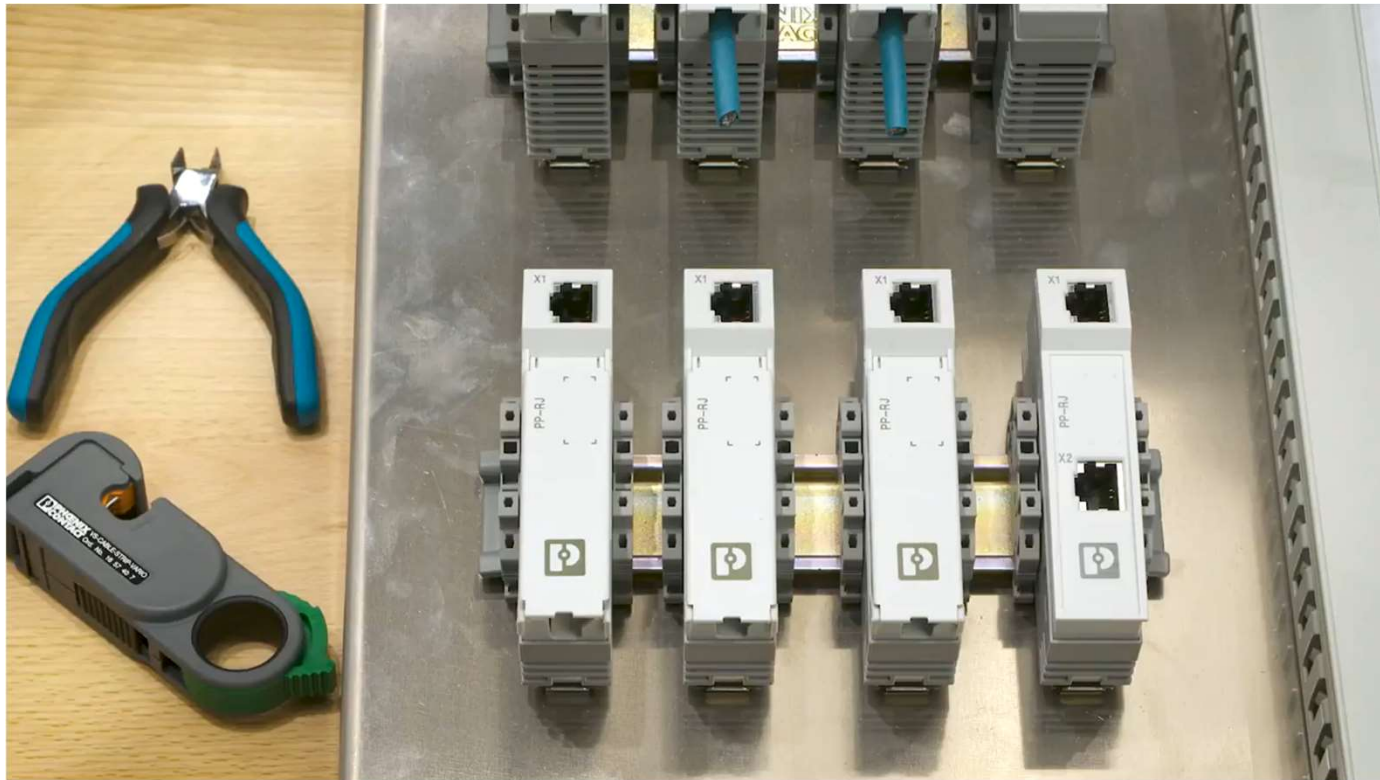
Product Portfolio

## PoE Injectors





## Cabling Patch Panel



Cabling Patch Panels ..... similar to PoE Injector

## Product Portfolio

# PoE Injectors

**i** Webcode: #1789



### Description

**PoE Injector  
INJ 1000**

**PoE Injector  
INJ 2000**

### Interfaces

RJ45 / RJ45

RJ45 / RJ45

RJ45 / RJ45

RJ45 / IDC

RJ45 / Push-in

RJ45 / Screw

### Temperature range

0 °C ... +60 °C

-40 °C ... +75 °C

-40 °C ... +75 °C

-40 °C ... +75 °C

-40 °C ... +75 °C

-40 °C ... +75 °C

### Galvanic isolation

No

Yes

### Surge protect., shield cur.

No

Yes

Typ  
Art.-Nr. PoE at/af, 15/30W

INJ 1000  
2703005

INJ 1000-T  
2703006

INJ 1100-T  
2703009

INJ 2102-T  
2703012

INJ 2103-T  
1004065

INJ 2101-T  
2703011

Typ  
Art.-Nr. PoE++ 60W

INJ 1010  
2703007

INJ 1010-T  
2703008

INJ 1110-T  
2703010

INJ 2112-T  
2703014

INJ 2113-T  
1004066

INJ 2111-T  
2703013

PoE-Injector with  
2 Port PoE  
10/100 mbps, 2x15W

FL IF 2PSE  
2-Port-PoE-Injector,  
Extension module for  
FL SWITCH GHS  
10/100 mbps, 2x15W

## Product Portfolio

# Unmanaged PoE-Switches







	FL SWITCH 1708 M12 POE
Ports	8 POE+
Temperature Range	-40 ... +70°C
Power supply	24 V DC (18-30 VDC)
Protection	IP 67
Max Power Data Rate	200 W / 30W max/Port 10/100/1000 mbps

	FL SWITCH 1001- 4POE
Ports	4 POE+
Temperature Range	-40 ... +75°C
Power supply	18-57 VDC
Protection	IP 20
Max Power Data Rate	120 W / 30W per Port 10/100 mbps

## Product Portfolio

# 1000 Series Unmanaged PoE Switch

\* USP

1000 Series Unmanaged				
Description	FL SWITCH 1000T-2POE-GT-2SFP	FL SWITCH 1001T-4POE-GT	FL SWITCH 1001T-4POE-GT-SFP	FL SWITCH 1000T-8POE-GT-2SFP
Article	1026765	1026937	1026932	1026929
Ports	2 RJ45 POE x 2 SFP	5 RJ45 (4 POE)	5 RJ45 (4 POE) x 1 SFP	8 RJ45 POE x 2 SFP
Speed	10/100/1000 Mbit/s *	10/100/1000 Mbit/s *	10/100/1000 Mbit/s *	10/100/1000 Mbit/s *
Power Port/Module	30 Watt / 60 Watt	30 Watt / 120 Watt	30 Watt / 120 Watt	30 Watt / 120 Watt
Input Voltage	52 – 57 VDC	18 - 57 VDC *	18 - 57 VDC *	18 - 57 VDC *
Dimensions	42.8 x 100 x 100 *	30 x 149 x 108	30 x 149 x 108	64 x 145 x 136



# POE Updates




## Two New Variants

- Galvanically Isolated
- 27mm form factor
- Factory Automation Target





Network

## PoE Unmanaged Switches

			
<b>Article No.</b>	<b>1026765</b>	<b>1026937</b>	<b>1026932</b>
<b>Type Description</b>	FL SWITCH 1000T-2POE-2SFP	FL SWITCH 1001T-4POE-GT	FL SWITCH 1001T-4POE-GT-SFP
<b>Ports</b>	2 RJ45 POE x 2 SFP	5 RJ45 (4 POE)	5 RJ45 (4 POE) x 1 SFP
<b>Speed</b>	10/100/1000 Mbit/s	10/100/1000 Mbit/s	10/100/1000 Mbit/s
<b>PoE Power Budget</b>	30W per port 60W per Switch	30W per port 120W per Switch	30W per port 120W per Switch
<b>Supply Voltage</b>	55 VDC 52 - 57 VDC	24/48 VDC 18 - 57 VDC	24/48 VDC 18 - 57 VDC
<b>Temperature Range</b>	-40 to 75C	-40 to 75C	-40 to 75C
<b>Dimensions (mm) W x H x D</b>	42 x 100 x 101	30 x 149 x 108	30 x 149 x 100

new

		
<b>Article No.</b>	<b>1102077</b>	<b>1102079</b>
<b>Type Description</b>	FL SWITCH 1001-4POE-GT	FL SWITCH 1000-8POE-GT
<b>Ports</b>	5 RJ45 (4 POE)	8 RJ45 POE
<b>Speed</b>	10/100/1000 Mbit/s	10/100/1000 Mbit/s
<b>PoE Power Budget</b>	30W per port 120W per switch	30W per port 120W per switch
<b>Supply Voltage</b>	24/48 VDC 19 - 57 VDC	24/48 VDC 19 - 57 VDC
<b>Temperature Range</b>	-10 to 60C	-10 to 60C
<b>Dimensions (mm) W x H x D</b>	27 x 130 x 120	27 x 130 x 120

# Industrial Ethernet

## Unmanaged switches with PoE

new

Web code #1557	Unmanaged Power over Ethernet switches				
	FL SWITCH 1000T-2POE-GT-2SFP	FL SWITCH 1001T-4POE-GT	FL SWITCH 1001T-4POE-GT-SFP	FL SWITCH 1001-4POE-GT	FL SWITCH 1000-8POE-GT
Order No.	1026765	1026937	1026932	1102077	1102079
					
Ports	2 RJ45 POE x 2 SFP	5 RJ45 (4 POE)	5 RJ45 (4 POE) x 1 SFP	5 RJ45 (4 POE)	8 RJ45 POE
PoE Power Budget	30W per port 60W per Switch	30W per port 120W per Switch			
Recommended Power Supply	TRIO-PS-2G/1AC/48DC/5 – 2903159 QUINT4-PS/1AC/48DC/5 – 2904610	0...90W total POE Power Output: UNO-PS/1AC/24DC/150W – 2904376 TRIO-PS-2G/1AC/24DC/5 – 2903148 QUINT4-PS/1AC/24DC/5 – 2904600			91...120W total PoE Power Output UNO-PS/1AC/24DC/240W – 2904372 TRIO-PS-2G/1AC/24DC/10 – 2903149 QUINT4-PS/1AC/24DC/10 – 2904601
Dimensions (W x H x D)	42 x 100 x 101	30 x 149 x 108	30 x 149 x 100	27 x 130 x 120	27 x 130 x 120
Temperature range	-40 to 75C	-40 to 75C	-40 to 75C	-10 to 60C	-10 to 60C
Power Supply	52-57V DC, redundant	18-57V DC, redundant	18-57V DC, redundant	19-57V DC	19-57V DC
Alarm Contact	Yes	Yes	Yes	No	No
Degree of protection	IP30	IP30	IP30	IP20	IP20
General	All standard FL SWITCH 1000/SFNT functions			All standard FL SWITCH 1000 functions	
LED diagnostics	Link Indication, Data Speed, PoE status, Link Failure			Link Indication, Data Speed, PoE status	
DIP Switch	Enable/Disable alarm per port			No	
QoS	Yes			Yes, Automation Protocol Prioritization	
Packset Size	Jumbo Frames (Frame Size 10240 Bytes/Frame)			Jumbo Frames (Frame Size 9216 Bytes/Frame)	
PoE Designation	PoE+ (IEEE 802.3at)			PoE+ (IEEE 802.3at)	
PoE Mode	Mode A: Power over data pairs			Mode A: Power over data pairs	
Galvanic Isolation	No			Yes	

Surveillance Infrastructure




## PoE portfolio



Video PoE products

## 4000 Series Managed PoE Switch

\* USP

4000 Series Managed			
Description	FL SWITCH 4000T-SFP	FL SWITCH 4000T-8POE-2SFP	FL SWITCH 4004T-8POE-4SFP
Article	1026924	1026923	1026922
Ports	4 RJ45 POE, 1 SFP	8 RJ45 POE, 2 SFP	12 RJ45 (8 POE), 4 SFP
Speed	10/100 Mbit/s RJ45 1000 Mbit/s SFP	10/100 Mbit/s RJ45 1000 Mbit/s SFP	10/100/1000 Mbit/s*
Power Port/Module	60 Watt / 180 Watt*	60 Watt / 180 Watt*	60 Watt / 240 Watt*
Input Voltage	52 – 57 VDC	52 – 57 VDC	52 – 57 VDC
Dimensions	75 x 170 x 152	75 x 170 x 152	68 x 170 x 152 *

Product Portfolio

## 4000 Series Managed PoE Switch

\* USP

<b>4000 Series Managed</b>			
Description	FL SWITCH 4000T-SFP	FL SWITCH 4000T-8POE-2SFP	FL SWITCH 4004T-8POE-4SFP
Article	1026924	1026923	1026922
Ports	4 RJ45 POE, 1 SFP	8 RJ45 POE, 2 SFP	12 RJ45 (8 POE), 4 SFP

- Power management for each port
- PoE Watchdog
- Diagnostics and alert
- Auto/Forced Modes
- Power Priority
- Power Down Alarm
- Time management to save energy costs



## 4000 Series Managed Features



### Introducing 3 New Managed Features

- PoE Configuration
  - Allows configuration of all PoE functions, by port
- PoE Scheduling
  - Allows PoE power to be scheduled by hour of day and day of week
- PoE Watchdog
  - Allows connected PDs to be monitored, and automatically rebooted or powered off in the event of a failure



# PoE Configuration

View overall PoE system settings such as power supply, consumption, and configuration of power budget

## Enable/Disable PoE per port

## Configure the power budget by port

Set port power priority by port in event of power requirements exceeding “System Power Budget”

PoE Configuration

Help

PoE System Status

Main Supply Voltage	47.00 (V)
Actual Power Consumption	0.00 (W)
System Power Budget	180.00 (W)

The value of 'System Power Budget' should greater than the sum of all port's 'Consumption'.

PoE Port Setting

Port	Operating Mode	Fixed Power Limit (W)	Power Priority	Power Down Alarm	Status	PD Class	Current (mA)	Consumption (W)
1	Enable	30.00	High	<input type="checkbox"/>	Searching	N/A	0	0
2	Enable	30.00	High	<input type="checkbox"/>	Searching	N/A	0	0
3	Enable	30.00	High	<input type="checkbox"/>	Searching	N/A	0	0
4	Enable	30.00	High	<input type="checkbox"/>	Searching	N/A	0	0
5	Enable	30.00	High	<input type="checkbox"/>	Searching	N/A	0	0
6	Enable	30.00	High	<input type="checkbox"/>	Searching	N/A	0	0
7	Enable	30.00	High	<input type="checkbox"/>	Searching	N/A	0	0
8	Enable	30.00	High	<input type="checkbox"/>	Searching	N/A	0	0

To activate Power Down Alarm, PoE Power Down must be enabled on the [Alarm Contact](#) page.

Submit

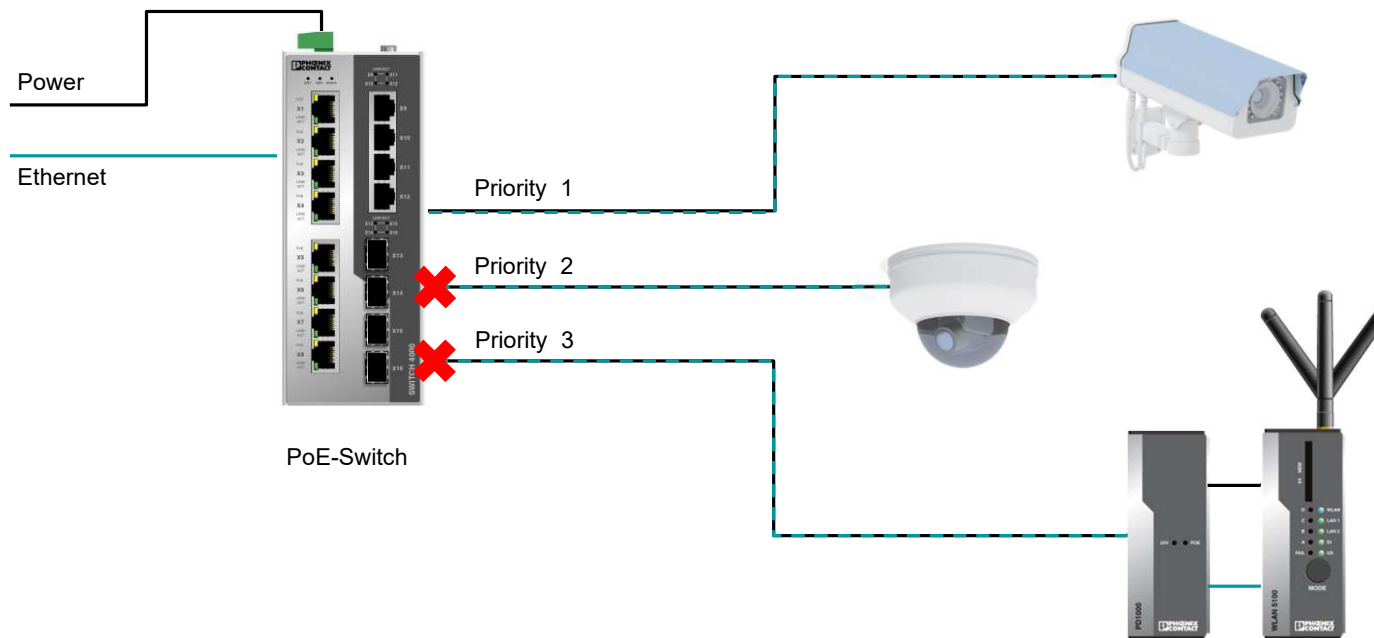
Check this box to trigger an alarm in PoE power is not being delivered to the PD

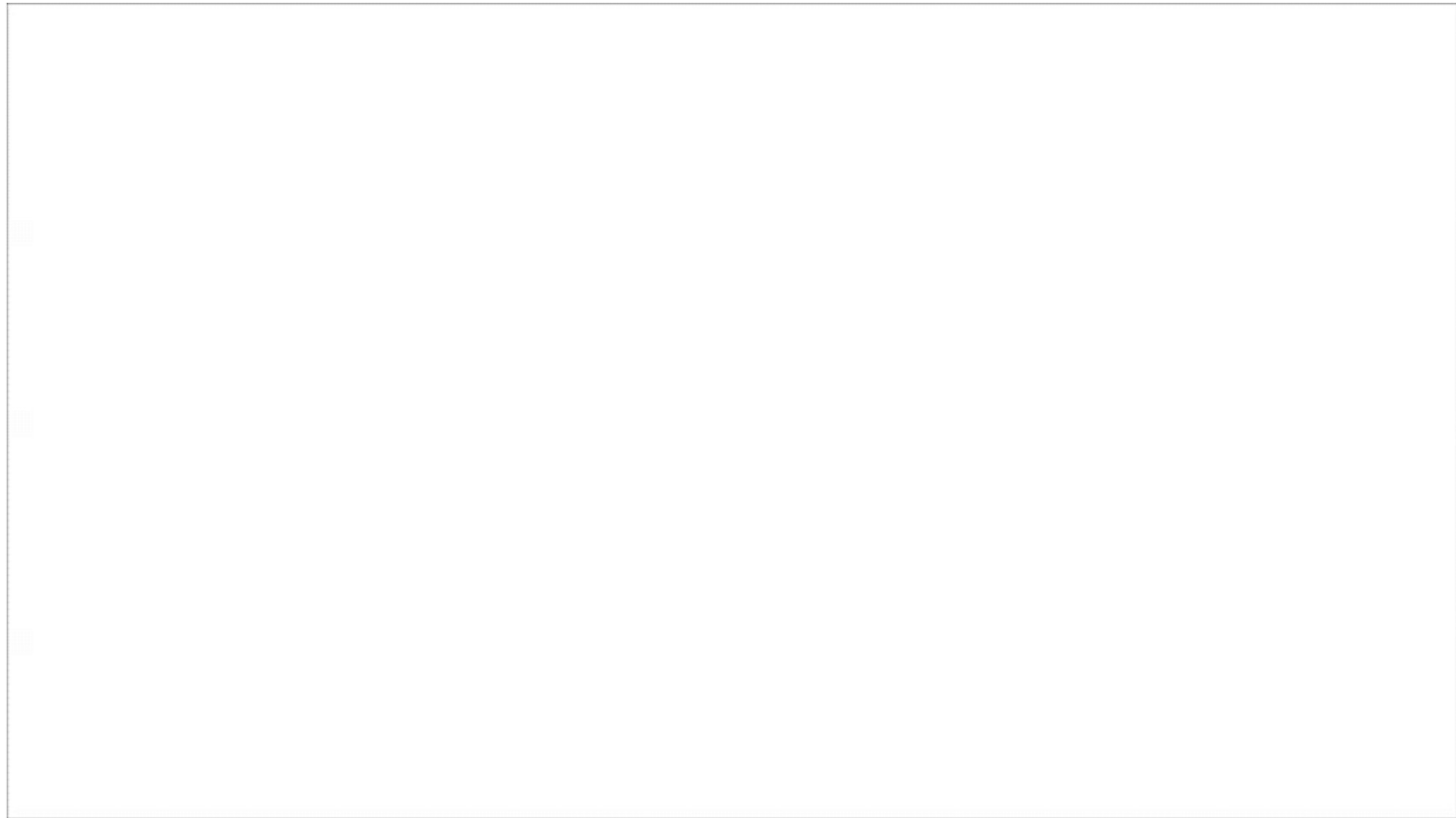
Displays the operating status of the PoE port

Displays monitoring data for the attached PDs in the form of PD class, current draw, and current consumption

Product Portfolio

## 4000 Series Managed – PoE Prioritization





## PoE Application

Surveillance Infrastructure

## INJ and PoE



Video presentation of INJ Injector and PoE products

PoE Module

## FL SWITCH GHS



FL SWITCH GHS 4G/12 - 2700271



FL IF 2PSE-F - 2832904



FL TIMESERVER NTP



FL TIMESERVER NTP

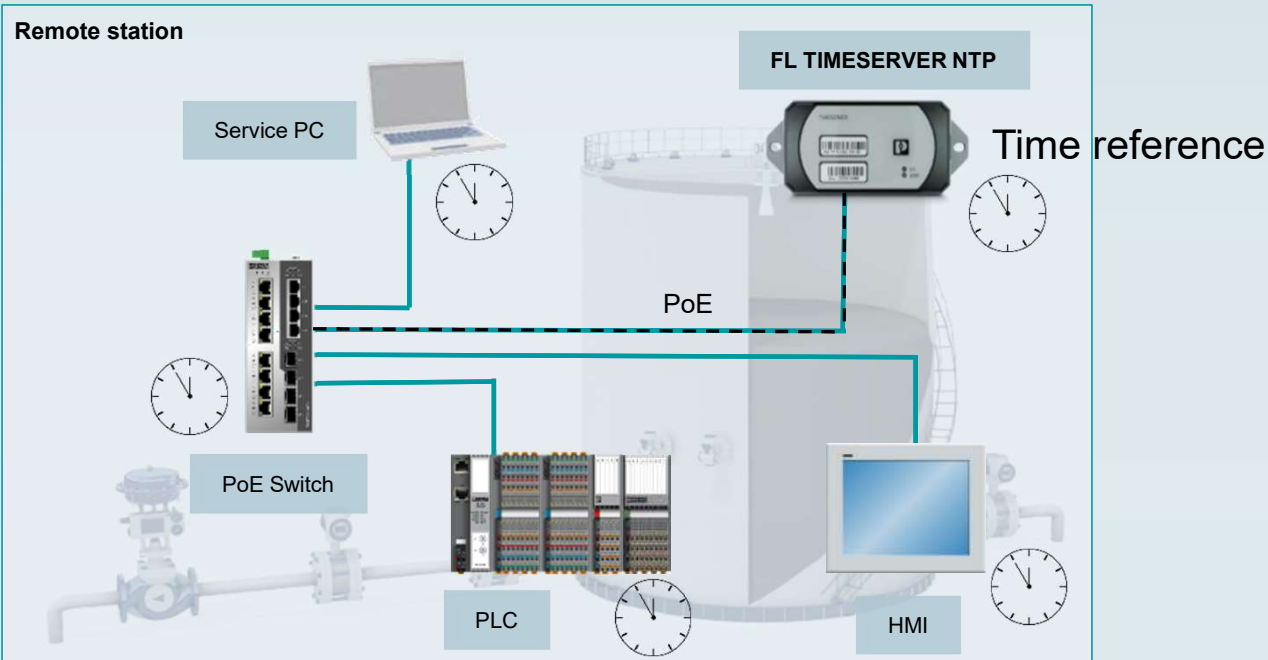


# FL TIMESERVER NTP

## Time synchronisation



GPS, Galileo  
and GLONASS





- Accurate time synchronization of Ethernet devices in a network via NTP protocol
- No Internet access necessary for more security



## FL TIMESERVER NTP Features



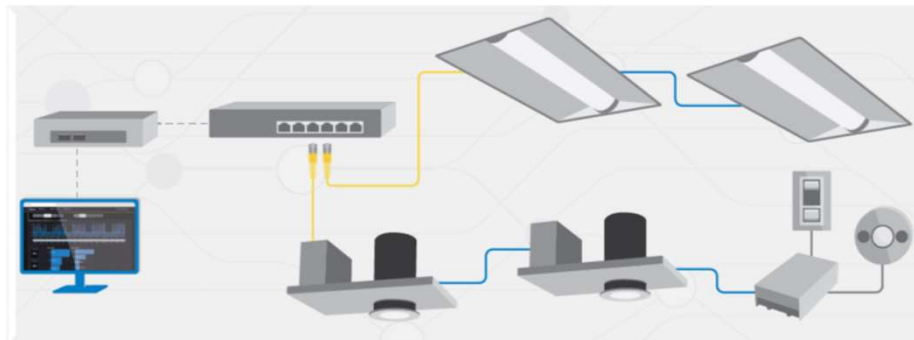
- NTP time server for Ethernet networks
- Gigabit Ethernet with **Power over Ethernet** supply 
- Alternative external  10 ... 30 V DC supply



IEEE 802.3 bt - the new standard

## IEEE Standard → PoE bt

- PTZ cameras, PanTilt Zoom with infrared lighting and heating
- Monitors
- PCs / HMI
- Kiosks
- POS terminals
- thin clients
- LED lighting



IEEE 802.3 bt - the new standard

## SCX → All-in-One device

The Smart Camera Box connects cameras installed in the field with the local network to transmit camera images to the video center.

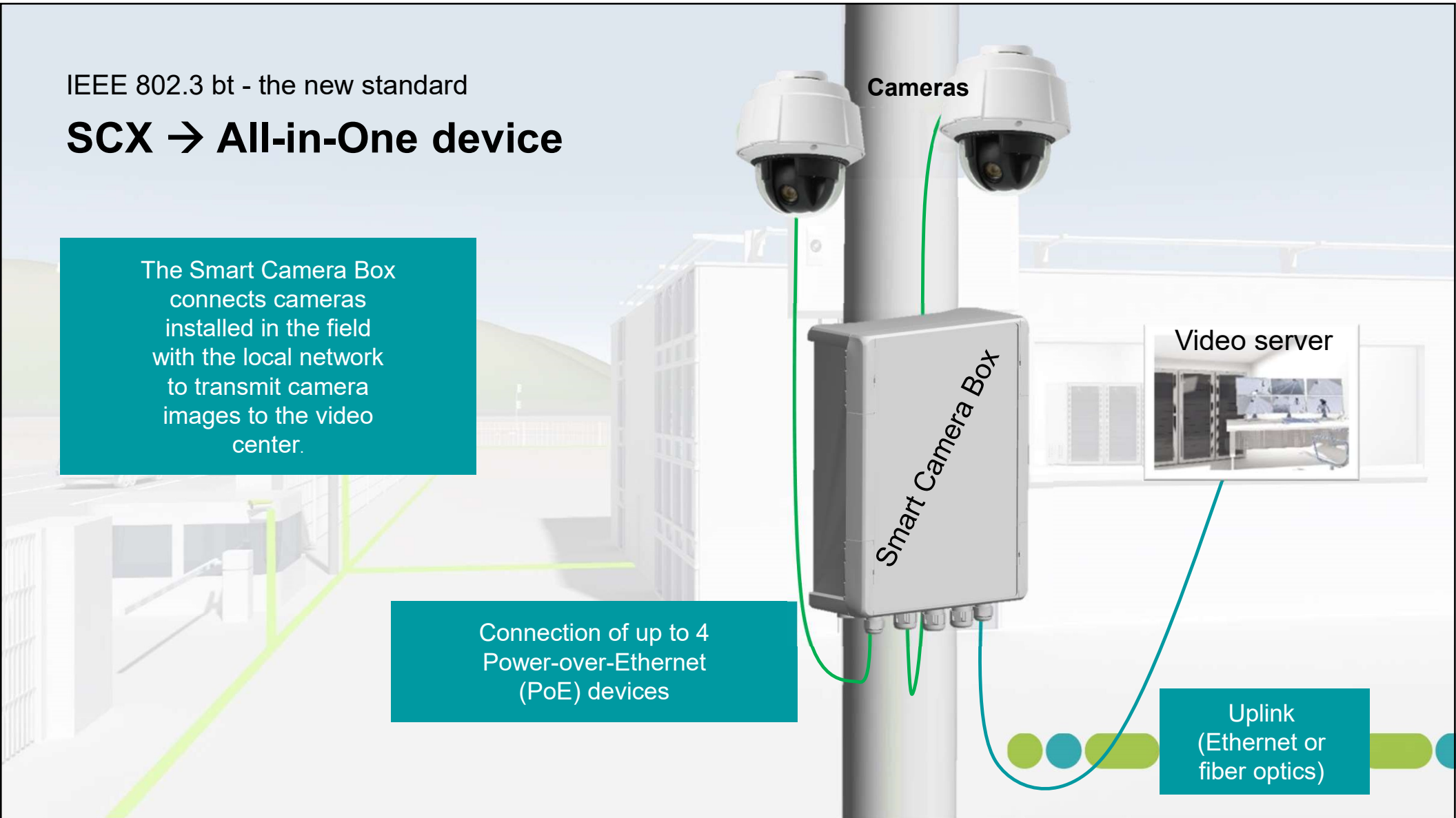
Connection of up to 4 Power-over-Ethernet (PoE) devices

Cameras

Smart Camera Box

Video server

Uplink  
(Ethernet or  
fiber optics)



Surveillance Infrastructure

## Phoenix Contact



Video Surveillance

Webinar IMA 2020

## Mayor información



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