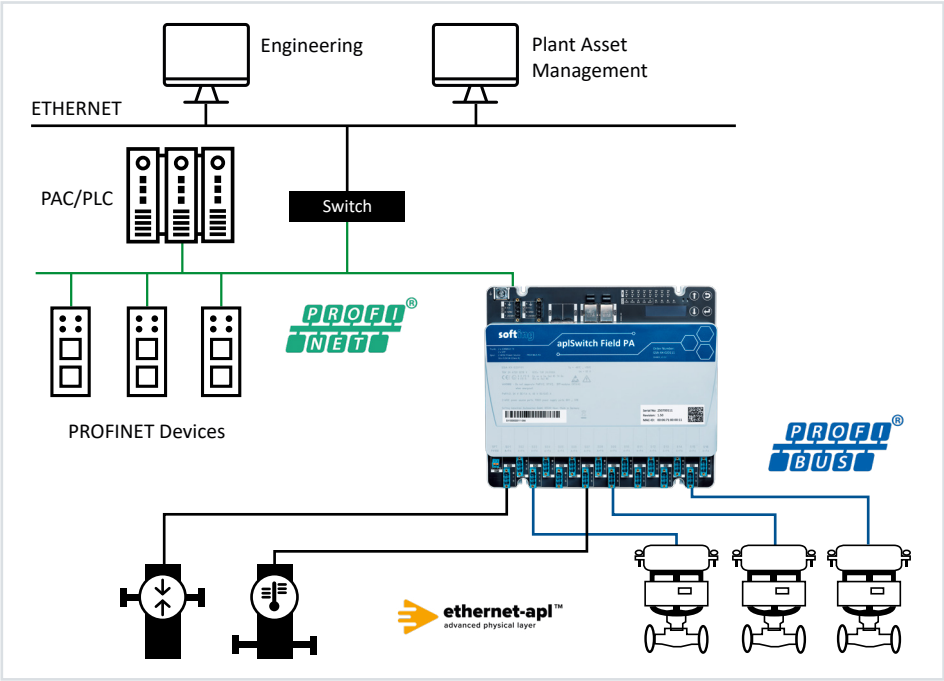
aplSwitch Field PA

16 Port Ethernet-APL Field Switch with PA proxy for use in Zone 2

- **Transparent connection of intrinsically safe Ethernet-APL field devices to Industrial Ethernet networks**
- **Supplies the field devices with intrinsically safe power**
- **Installable in Ex Zone 2**
- **Easy integration into automation systems**



Ethernet APL for Seamless and Reliable Integration into DCS and AMS Systems

- 16 Ethernet-APL spur „2-WISE“ ports
- PROFINET enabled switch with support for PROFINET MRP ring topology
- Support for all major DCS and AMS systems like Emerson, Siemens, ABB and others
- Ensuring stable networks via ingress/egress support

Extensive Diagnostics

- Integrated PROFINET diagnostic functions for commissioning, maintenance and troubleshooting
- Local display for instant commissioning diagnostics
- Enhanced FDI support for easy device integration and parameterization

Allows Installation in Hazardous Areas

- All product variants can be installed in Ex zone 2
- Field Devices located in Ex zone 0 and 1 can be connected to the switch
- Rugged and robust housing for field installation

Connects Ethernet-APL and PROFIBUS PA Devices

- Easy migration of the existing PA infrastructure to the APL topology
- Support either Ethernet-APL or PROFIBUS PA devices or a mixture of these devices on one switch
- PROFIBUS PA devices over integrated PROFINET proxy

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Technical Data

Explosion Protection	Installation (zones)	2, safe area
	Ex interface zone	0, 1, 2, 20, 21, 22
	IECEx certificate	IECEx TUR 24.0096X
	IECEx gas explosion protection	Ex ec ic [ia Ga] IIC T4 Gc
	IECEx dust explosion protection	[Ex ia Da] IIIC
	ATEX certificate	TÜV 24 ATEX 9218 X
	ATEX gas explosion protection	Ⓔx II 3 (1) G Ex ec ic [ia Ga] IIC T4 Gc
	ATEX dust explosion protection	Ⓔx II (1) D [Ex ia Da] IIIC
Safety Data Spurs (S01...S16)	Intrinsic safety concept	2-WISE (CLC IEC/TS 60079-47:2021) FISCO (IEC 60079-11, -25)
	Max. output voltage Class A U_o	14.9V
	Max. output current Class A I_o	379 mA
	Max. output power Class A P_o	998 mW
	Max. internal capacitance C_i	110 pF
	Max. internal inductance L_i	280 nH
	Max. safety voltage U_m	60V
Safety Data Pt100 (SPT)	Nominal output current I_N	1 mA
	Safety data according	ib
	Max. output voltage U_o	4.94 V
	Max. output current I_o	15.6 mA
	Max output power P_o	52 mW
	Max. internal capacitance C_i	11 nF
	Max. internal Inductance L_i	0 nH
Electrical Data	Max. safety voltage U_m	60 V
	Interface 1 version	100BASE-TX
	Transfer rate interface 1	10/100 MBit/s
	Number of ports interface 1	2 (XT1, XT2)
	Connection type interface 1	RJ45 (EIA/TIA 568B)
	Interface 2 version	100BASE-FX (optional)
	Transfer rate interface 2	100 MBit/s
	Number of ports interface 2	2 (XT3, XT4)
	Connection type interface 2	SFP (optional)
Auxiliary Power	Auxiliary power nominal voltage U_N	24 V DC, 48 V DC
	Auxiliary power voltage range	19.2.....57.6 V DC
	Max. current consumpt. 24 V DC I_N	0.95 A
	Max. current consumpt. 48 V DC I_N	0.5 A
	Max. power consumption	22.8 W
	Max. power dissipation	13 W
Galvanic Isolation	Test voltage for galvanic isolation	According to standard EN 60079-11
	Auxiliary power/spurs/100BASE	≥ 1500 V AC
	Between spurs	none

apISwitch Field PA

Technical Data

Field Device Interface	Spurs version	Ethernet-APL (10BASE-T1L) PROFIBUS PA
	Number of ports spurs	16
	Characteristic spurs	2-WISE power source FISCO
	Transfer rate spurs	10 MBit/s full duplex 31.25 kBit/s
	Power Class	A
	Max. number of spurs power class A	16
	Max. number of spurs power class B	0
	Max. number of spurs PROFIBUS PA	16
	Output nominal voltage range class A U_N	9.6...13.8 V
	Output nominal current power class A I_N	56 mA
	Output power power class A P_N	0.54 W
Device Specific Data	Protocols 1	PROFINET
	Characteristic protocol 1	Device, Conformance Class B
	Availability protocol 1	System redundancy S2, MRP
	Functions protocol 1	Dynamic reconfiguration, Network load class III Pruning Rate limiter
	Ethernet functions	SNMP DHCP
	Security	HTTPS Password management Port lock
	Real-time clock	Yes
Diagnostics	Physical layer 10BASE-T1L	SNR TDR Shield unbalance
	Communication	Lost packets LLDP
	Ambient condition	Temperature, humidity

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Technical Data

Display	Display resolution Display operation	256 x 64 pixels 4 operating keys, capacitive
Ambient Conditions	Ambient temperature Ambient temperature note 1 Storage temperature Max. relative humidity Max. operating altitude	-40 °C ... +70 °C -40 °C ... +65 °C (with SFP module) -40 °C ... +80 °C 95% non-condensing < 2000 m
Mechanical Data	Degree of protection (IEC 60529) with screw terminals Degree of protection (IEC 60529) with spring clamp terminals Fire resistance (UL 94) Pollutant class Enclosure material Dimensions (L x W x H) Weight	IP20 IP30 V0 Acc. to G3 (ISA-71-04-2013) Aluminium, painted 260 x 292 x 52,6 mm 2.9 kg
Mounting / Installation	Mounting orientation Mounting type	Horizontal Vertical On mounting plate
Components	SFP module	2 x 100BASE-FX

Scope of Delivery

Hardware	aplSwitch Field PA
Documentation	On website

Order Numbers

GSL-XX-020113	**aplSwitch Field PA** with screw terminals
GSL-XX-020112	**aplSwitch Field PA** with spring clamp terminals

Additional Products and Services

ACA-XX-020203	**Screw terminals**, Contents: 16 x 3-pin, blue; 2 x 4-pin, black
ACA-XX-020202	**Spring clamp terminals**, Contents: 16 x 3-pin, blue; 2 x 4-pin, black
AAA-XX-020301	**Multi-Mode Duplex SFP Transceiver**
on request	**Mounting plate for din rail** including 4 screws

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https://industrial.softing.com

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