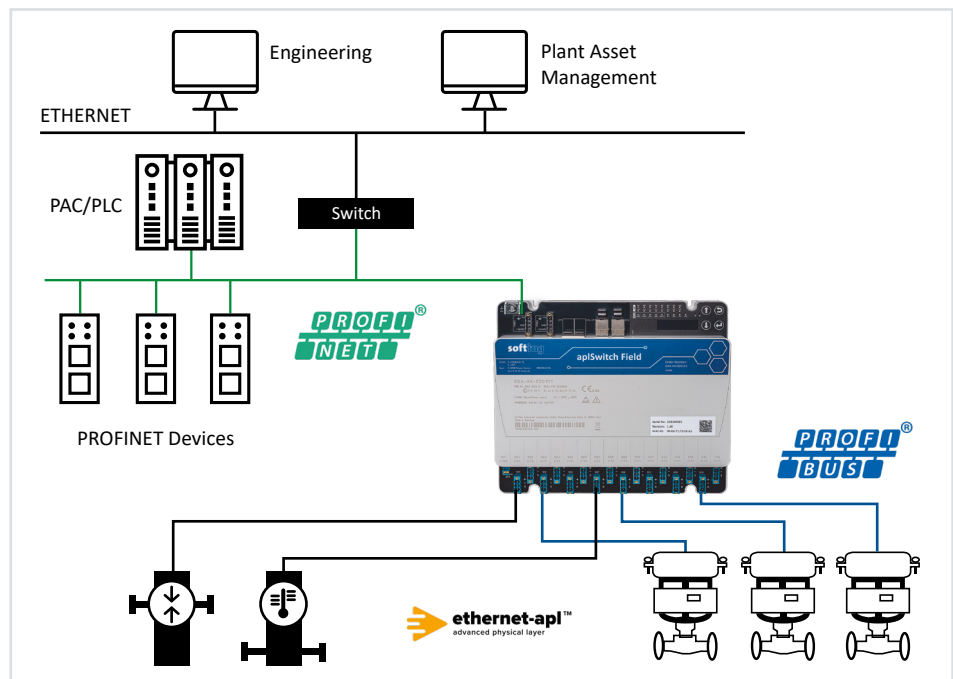


aplSwitch Field PA



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 for Ethernet-APL or PROFIBUS PA devices or a mixture of these devices on one switch
- PROFIBUS PA devices over integrated PROFINET proxy

apISwitch Field PA

Technical Data

Explosion Protection	Application range (zones)	2
	Ex interface zone	0 1 2 20 21 22
	IECEx gas certificate	in preparation
	IECEx gas explosion protection	Ex ec ia [ia Ga] IIC T4 Gc
	IECEx dust certificate	in preparation
	IECEx dust explosion protection	[Ex ia Da] IIIC
	ATEX gas certificate	in preparation
	ATEX gas explosion protection	E II 3 (1) G Ex ec ia [ia Ga] IIC T4 Gc
	ATEX dust certificate	in preparation
	ATEX dust explosion protection	E II (1) D [Ex ia Da] IIIC
Notes	Certificates in preparation	
Safety Data	Max. voltage Uo	17.5 V
	Max. current Io (Ex ia)	380 mA
	Max. power Po (Ex ia)	1.67 W
	Max. permissible external capacity Co for IIC	0.25 µF
	Max. permissible external inductance Lo for IIC	0.15 mH
	Max. ext. capac. Co (IIB/IIIC)	1.5 µF
	Max. ext. induc. Lo (IIB/IIIC)	0.5 mH
	Internal inductance Li (coil)	negligible
	Internal capacitance Cii (coil)	negligible
	AC rated insulation voltage Um	60 V
Intrinsic safety concept	2-WISE (CLC IEC/TS 60079-47)	
Electrical Data	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)
	Cable shield earthing inter. 1	direct
	Interface 2 version	100BASE-FX
	Transfer rate interface 2	100 MBit/s
	Number of ports interface 2	2 (XT3, XT4)
	Connection type interface 2	SFP (optional)
	Link network 1 LED	LED, yellow
Link network 2 LED	LED, yellow	
Link network 3 LED	LED, yellow	
Link network 4 LED	LED, yellow	
Auxiliary Power	Auxiliary power nominal voltage	24 V DC, 48 V DC
	Auxiliary power voltage range	19.2 57.6 V DC
	Auxiliary power 1 LED	LED, green
	Auxiliary power 2 LED	LED, green
	Max. current consumpt. 24 V DC	0.95 A
	Max. current consumpt. 48 V DC	0.5 A
	Max. power consumption 24 V DC	22.8 W
	Max. power consumption 48 V DC	22.8 W
	Max. power dissipation at 24 V	13 W
	Max. power dissipation 48 V	13 W
Auxiliary power connection	2 (PWR1, PWR2)	
Auxil. power connection type	Plug. spr.-cl. term. 4-pin BK Plugg. screw terminal 4-pin BK	
Con. cr.-sc. rgd min. aux. pwr	0.5 mm ²	
Con. cr.-sc. rgd max. aux. pwr	2.5 mm ²	
Con. cr.-sc. flx min. aux. pwr	0.5 mm ²	
Con. cr.-sc. flx max. aux. pwr	2.5 mm ²	
Galvanic Isolation	Test voltage for galvanic separation	Acc. to standard EN 60079-11
	Auxiliary power/spurs	≥ 1500 V AC
	Auxiliary power/100BASE-TX	≥ 1500 V AC
	Auxiliary power/SFP	≥ 1500 V AC
	100BASE-TX/SFP	≥ 1500 V AC
	Spurs/100BASE-TX	≥ 1500 V AC
Between spurs	none	

aplSwitch 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 supply FISCO
	Transfer rate spurs	10 MBit/s voll duplex 31,25 kBit/s
	Link spurs LED	S01 ... S16 LED, yellow
	Power Class	A
	Max. number of spurs power class A	16
	Max. number of spurs power class B	0
	Max. no. spurs PROFIBUS PA	16
	Open-circuit voltage pwr cl. A	13.65 V
	Opn-circ. vltge PROFIBUS PA Ua	13 V
	Output nom. cur. power class A	55.56 mA
	Output nom. curr. PROFIBUS PA	40.00 mA
	Output power power class A	0.54 W
	Output power PROFIBUS PA	0.38 W
	Cable shield earthing spurs	capacitive
	Spurs connections	16
	Spurs connection type	Plug. spr.-cl. term. 3-pin BU Plug. screw terminal 3-pin BU
	Con. cr.-sec. flex. min. spurs	0.50 mm ²
	Con. cr.-sec. flex. max. spurs	2.50 mm ²
Con. cross-sec. rgd min. spurs	0.50 mm ²	
Con. cross-sec. rgd max. spurs	2.50 mm ²	

Device Specific Data	Protocols 1	PROFINET
	Characteristic protocol 1	Device, conformity class B
	Availability protocol 1	System redundancy S2, MRP
	Functions protocol 1	Dynamic reconfiguration, Network load class I, Pruning Rate limiter GSDML
	Configuration protocol 1	EtherNet/IP
	Protocols 2	Adaptor
	Characteristic protocol 2	DLR
	Availability protocol 2	in progress
	Functions protocol 2	EDS
	Configuration protocol 2	Web server
	User interface	Display LEDs
	Device integration	FDI
	Ethernet functions	OPC UA SNMP
	Security	DHCP HTTPS Password management Port lock
	Real-time clock	Yes

Diagnostics	Physical layer 10BASE-T1L	SNR TDR Shield unbalance
	Physical layer PROFIBUS PA	Noise Jitter
	Communication	Lost packets LLDP
	Ambient condition	Temperature, humidity
	Diagnostics connections	1 x Pt100, 2-wire (SPT)
	Maintenance required LED	LED, blue
	Start-up process LED	LED, green
	LED group error	„ERR“ LED, red
	Diagnostics connection type	Spring clamp terminal 2-pin BU
	Con. cro.-sec. flex. min. dia.	0.25 mm ²
	Con. cro.-sec. flex. max. dia.	1.5 mm ²
	Cond. cro.-sec. rgd min. diag.	0.25 mm ²
	Cond. cro.-sec. rgd max. diag.	1.5 mm ²

apSwitch Field PA

Technical Data

Display	Display resolution	256 x 64 pixels
	Display	OLED WH/BK
	Display size in inches	2.00
	Display operation	4 operating keys, capacitive
	Retrievable information	Device data Ethernet diagnostics Physical layer diagnostics Operating keys
	Device reset	
Ambient Conditions	Ambient temperature	-40 °C ... +70 °C
	Storage temperature	-40 °C ... +80 °C
	Max. operating altitude	< 2000 m
	Max. relative humidity	95% (without condensation)
	Degr. of pollution (IEC 60664)	1 2
Mechanical Data	Degree of protection (IP) (IEC 60529)	IP30
	Fire resistance (UL 94)	V0
	Pollutant class	corr. to G3 (ISA-71-04-2013)
	Enclosure material	Aluminium, painted
	Dimensions (L x W x H)	260,000 x 292,000 x 52,600 mm
	Length	260 mm
	Width	292 mm
	Height	52.6 mm
	Weight	3.8 kg 8.38 lb
	Mounting / Installation	Mounting type
Mounting orientation		Horizontal Vertical
Components	SFP module	2 x 100BASE-FX

Scope of Delivery

Hardware	apSwitch Field PA
Documentation	Tbd - On website

Order Numbers

GSA-XX-020111	apSwitch Field PA
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Additional Products and Services

Terminal set Screw	Screw terminals, Contents: 16 x 3-pin, blue; 2 x 4-pin, black – ord# + weight tbd
Terminal set Spring	Spring clamp terminals, Contents: 16 x 3-pin, blue; 2 x 4-pin, black – ord# + weight tbd
Mounting plate	plus screws

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