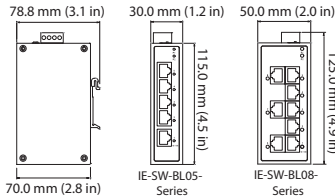


Unmanaged Switches – Basic Line

Unmanaged Fast Ethernet Switches

- 10/100BaseT(X) (RJ45 connector), 100BaseFX (multi/single-mode, SC or ST connector)
- Redundant dual 12/24/48 V DC, 18 to 30 V AC power inputs
- IP30 aluminum housing
- Rugged hardware design well suited for hazardous locations (Class I Div. 2 /ATEX) and maritime environments (DNV/GL)
- -40 to 75 °C operating temperature range (T models)



Technical data

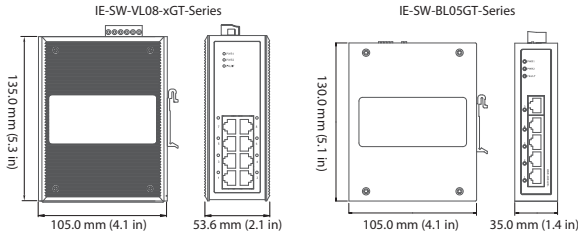
Technology	
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3x for Flow Control
Processing Type	Store and Forward
Flow Control	IEEE 802.3x flow control, back pressure flow control
Switch Properties	
MAC Table Size	1 K
Packet Buffer Size	512 Kbit
Interface	
Fiber Ports	100BaseFX ports (SC/ST connector, multi-mode, single-mode)
RJ45 Ports	10/100BaseT(X) auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection
DIP Switches	Enable/Disable broadcast storm protection
LED Indicators	Power, 10/100M (TP port), 100M (fiber port)
Optical Fiber	
	100BaseFX
	Multi-mode Single-mode
Wavelength	1300 nm 1310 nm
Max. TX	-10 dBm 0 dBm
Min. TX	-20 dBm -5 dBm
RX Sensitivity	-32 dBm -34 dBm
Link Budget	12 dB 29 dB
Typical Distance	5 km (50/125 µm multimode cable) 40 km (9/125 µm singlemode cable)
Saturation	-6 dBm -3 dBm
Power Requirements	
Input Voltage	12/24/48 VDC (9.6 to 60 VDC), 18 to 30 VAC (47 to 63 Hz), redundant dual inputs
Input Current	IE SW BL05 5TX: 0.1 A @ 24 V IE SW BL05 SC/ST/SCS: 0.11 A @ 24 V IE SW BL08 8TX: 0.13 A @ 24 V IE SW BL08 2SC/2ST: 0.22 A @ 24 V IE SW BL08 SCS: 0.17 A @ 24 V
Overload Current Protection	1.1 A
Connection	1 removable 4-contact terminal block
Reverse Polarity Protection	Present
Physical Characteristics	
Housing	Aluminum, IP30 protection
Dimensions	IE-SW-BL05-Series: 30 x 115 x 70 mm (1.18 x 4.52 x 2.76 in) IE-SW-BL08-Series: 50 x 115 x 70 mm (1.96 x 4.52 x 2.76 in)
Weight	IE-SW-BL05-5TX: 175 g IE-SW-BL08-8TX: 275 g
Installation	DIN-Rail mounting
Environmental Limits	
Operating Temperature	Standard Models: -10 to 60 °C (14 to 140 °F) Wide Temp. Models: -40 to 75 °C (-40 to 167 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)

Environmental Limits			
Ambient Relative Humidity	5 to 95 % (non-condensing)		
Regulatory Approvals			
Safety	UL508		
Hazardous Location	UL/cUL Class I, Division 2, Groups A, B, C and D; ATEX Zone 2, Ex nC IIC		
EMI	FCC Part 15, CISPR (EN55022) class A		
EMS	EN61000-4-2 (ESD), level 3; EN61000-4-3 (RS), level 3; EN61000-4-4 (EFT), level 3; EN61000-4-5 (Surge), level 3; EN61000-4-6 (CS), level 3; EN61000-4-8; EN61000-4-11		
Maritime	DNV, GL (IE-SW-BL05-4TX-1SCS/SC/ST: pending)		
Shock	IEC 60068-2-27		
Freefall	IEC 60068-2-32		
Vibration	IEC 60068-2-6		
MTBF (mean time between failures)			
Time	425,000 hrs		
Database	Telcordia (Bellcore), GB		
Warranty			
Warranty Period	5 years		
Ordering Information			
Port Variants	Model Type	Operating Temperature	Order No.
5 * RJ45	IE-SW-BL05-5TX	-10 to +60 °C	1240840000
	IE-SW-BL05T-5TX	-40 to +75 °C	1240850000
4 * RJ45, 1 * SC-Multimode	IE-SW-BL05-4TX-1SC ¹⁾	-10 to +60 °C	1240890000
4 * RJ45, 1 * ST-Multimode	IE-SW-BL05-4TX-1ST ¹⁾	-10 to +60 °C	1240880000
4 * RJ45, 1 * SC-Singlemode	IE-SW-BL05-4TX-1SCS ¹⁾	-10 to +60 °C	1240870000
8 * RJ45	IE-SW-BL08-8TX ¹⁾	-10 to +60 °C	1240900000
6 * RJ45, 2 * SC-Multimode	IE-SW-BL08-6TX-2SC	-10 to +60 °C	1240910000
	IE-SW-BL08T-6TX-2SC	-40 to +75 °C	1240920000
6 * RJ45, 2 * ST-Multimode	IE-SW-BL08-6TX-2ST ¹⁾	-10 to +60 °C	1240930000
7 * RJ45, 1 * SC-Singlemode	IE-SW-BL08-7TX-1SCS ¹⁾	-10 to +60 °C	1240950000
¹⁾ Model with extended operating temperature -40 to +75 °C on request			
Accessories			
	Model Type		Order No.
19" Rack Mounting Kit	RM-KIT		1241440000

Unmanaged Gigabit Switches – Basic/Value Line

Unmanaged Gigabit Ethernet Switches

- Fiber optic options for extending distance and electrical noise immunity
- Redundant dual 12/24/48 VDC power inputs
- Relay output warning for power failure and port break alarm
- Broadcast storm protection



Technical data

Technology	
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3ab for 1000BaseT(X) IEEE 802.3z for 1000BaseX IEEE 802.3x for Flow Control
Processing Type	Store and Forward
Flow Control	IEEE 802.3x flow control, back pressure flow control
Switch Properties	
MAC Table Size	8 K
Packet Buffer Size	1088 Kbit (IE-SW-BL05-5GT), 1408 Kbit (IE-SW-VL08-xGT)
Interface	
Fiber Ports	100/1000BaseSFP slot (IE-SW-VL08-6GT-2GS)
RJ45 Ports	10/100/1000BaseT(X) auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection
DIP Switches	One for port break alarm, one for Enable/Disable broadcast storm protection
LED Indicators	PWR1, PWR2, FAULT, 10/100/1000M
Alarm Contact	1 relay output with current carrying capacity of 1 A @ 24 VDC
Power Requirements	
Input Voltage	12/24/48 VDC (9.6 to 60 VDC), redundant dual inputs
Input Current	IE-SW-BL05-5GT: 0.20 A @ 24 V IE-SW-VL08-8GT: 0.32 A @ 24 V IE-SW-VL08-6GT-2GS: 0.34 A @ 24 V
Connection	1 removable 6-contact terminal block
Reverse Polarity Protection	Present
Physical Characteristics	
Housing	Metal, IP30 protection
Dimensions	IE-SW-BL05-5GT: 35 x 130 x 105 mm (1.37 x 5.12 x 4.13 in) IE-SW-VL08-xGT: 53.6 x 135 x 105 mm (2.11 x 5.31 x 4.13 in)
Weight	IE-SW-BL05-5GT: 290 g IE-SW-VL08-xGT: 630 g
Installation	DIN-Rail mounting
Environmental Limits	
Operating Temperature	Standard Models: 0 to 60 °C (32 to 140 °F) Wide Temp. Models: -40 to 75 °C (-40 to 167 °F) (on request)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Ambient Relative Humidity	5 to 95 % (non-condensing)
Regulatory Approvals	
Safety	UL508
Hazardous Location	UL/cUL Class I, Division 2, Groups A, B, C, and D; ATEX Zone 2, Ex nC IIC
EMI	FCC Part 15, CISPR (EN55022) class A

Regulatory Approvals			
EMS		EN61000-4-2 (ESD), level 3; EN61000-4-3 (RS), level 3; EN61000-4-4 (EFT), level 3; EN61000-4-5 (Surge), level 3; EN61000-4-6 (CS), level 3	
Maritime		DNV, GL	
Shock		IEC 60068-2-27	
Freefall		IEC 60068-2-32	
Vibration		IEC 60068-2-6	
MTBF (meantime between failures)			
Time		325,000 hrs (IE-SW-VL08-xGT series)	
Database		Telcordia (Bellcore), GB (IE-SW-VL08-xGT series)	
Warranty			
Warranty Period		5 years	
Ordering Information			
Port Variants	Model Type	Operating Temperature	Order No.
5 * RJ45 10/100/1000BaseT(X)	IE-SW-BL05-5GT	0 to 60 °C	1241250000
8 * RJ45 10/100/1000BaseT(X)	IE-SW-VL08-8GT	0 to 60 °C	1241270000
6 * RJ45 10/100/1000BaseT(X), 2 Combo Ports (10/100/1000 BaseT(X) or 100/1000BaseSFP)	IE-SW-VL08-6GT-2GS	0 to 60 °C	1241280000
Models with extended operating temperature -40 to +75 °C on request			
Accessories			
	Model Type		Order No.
19" Rack Mounting Kit	RM-KIT		1241440000