

IP MIGRATION MADE SIMPLE

NVT PHYBRIDGE FLEX8 SWITCH DATA SHEET



Fast Ethernet and PoE++ (50W per port) over multi-pair UTP with up to 2,000ft (610m) reach.

The NVT Phybridge FLEX8 plug-and-play long reach PoE Switch is a versatile, high-powered, enterprise-class solution with 8 downlink ports delivering fast Ethernet (100Mbps full duplex, symmetrical) and PoE++ (50W per port) over multi-pair UTP for up to 2,000ft (610m) – that’s 6Xs the distance of typical PoE switches. The FLEX8 switch has two, 1Gb uplink ports for daisy chain deployments and comes standard with a 190W external power supply and a universal mounting kit for wall or rack mounting.

FLEX8 is designed to make the migration to IP quick, easy and cost-effective by leveraging 1-, 2- or 4-pair UTP infrastructure. FLEX8 is an enabler of Modern LAN principles and is IoT⁶ certified. Benefits include:

- Accelerating your return on investment by reducing infrastructure costs.
- Collapsing planning and deployment time.
- Eliminating infrastructure barriers, risks, disruption and costs.
- Creating a robust IP platform that is easy to configure, deploy and manage.

Unlike other Network Switches, FLEX8 Delivers:

Speed, Reach and Power

The FLEX8 switch leverages new or existing 1-, 2- or 4-pair UTP cable. It can operate in standard mode (without an adapter) up to 328ft (100m), and in long reach PoE mode (with an adapter) for extended reach to 2,000ft (610m). The FLEX8 switch auto detects data rate for maximum bandwidth and transmission distance. It is equipped with a speed toggle which can be positioned to force 10Mbps when necessary to establishing a link.

Cable Type	Data Rate	Reach
4-Pair CAT5E	100Mbps	2,000ft (610m)
2-Pair CAT5E	100Mbps	1,000ft (305m)
	10Mbps	2,000ft (610m)
1-Pair CAT5E*	100Mbps	1,000ft (305m)
	10Mbps	2,000ft (610m)

* For single-pair deployments the FLEX-Link or FLEX4 Adapter needs to be locally powered

Adapter Accessories for FLEX8

	FLEX-Link	FLEX-C	FLEX4
Power	<ul style="list-style-type: none"> • Maximum 50W, delivered on 4-pairs • Local power option to support greater power delivery to IP device • Adapter is IEEE-compliant and will negotiate power requirements with IP device 	<ul style="list-style-type: none"> • Maximum 30W, delivered on 2-pairs (spare pairs) • No local power option available • Does not negotiate power requirements with IP device • Device should be IEEE compliant 	<ul style="list-style-type: none"> • Maximum 30W, delivered on 2-pairs • Local power option to support greater power delivery to IP device • Adapter is IEEE-compliant and will negotiate power requirements with IP device
Casing	Metal	Plastic	Metal
Single-pair Supported	Yes (needs local power)	No	Yes (needs local power)
EN 50121-4 Standard	Yes (Approved to operate in a Railway/Subway environment)	No	Yes (Approved to operate in a Railway/Subway environment)

Features

- 8 port plug-and-play unmanaged switch delivering fast Ethernet and PoE++ (up to 50W) over multi-pair UTP with up to 2,000ft (610m) reach.
- 8 x 10/100Mbps (symmetrical, full duplex) downlink ports supporting up to 50W of power per port.
- 2 x 1Gb uplink ports
- Can support 1-, 2- or 4-pair UTP cabling infrastructure
- Can operate in standard mode (without a FLEX Adapter) and long reach PoE mode for extended reach to 2,000ft (610m)
- Auto detects data rate for maximum bandwidth and transmission distance utilization
- Speed toggle to force 10Mbps speed when necessary to establish a link.
- LED indicators for operating status and cable diagnostics
- Supports Multicast, Unicast and Broadcast
- EN 50121-4 Standard for Railway/ Subway environments
- Operating temperature from -10°C to +65°C
- Designed and manufactured in North America
- 5-Year Warranty
- Power consumption: 6W
- IoT⁶ certified



PoE Power Available to FLEX-Link, FLEX4 and FLEX-C

FLEX-Link/FLEX4	20ft (6m)	250ft (76m)	500ft (152m)	750ft (228m)	1,000ft (305m)	1,250 (381m)	1,500ft (457m)	1,750ft (533m)	2,000ft (610m)
4-Pair UTP/STP	50W	47W	44W	41W	38W	35W	32W	30W	27W
2-Pair UTP/STP	30W	30W	27W	25W	22W	20W	17W	14W	12W

The FLEX-Link can support up to 50W of power using all 4-pairs or maximum of 30W using 2-pairs. FLEX4 can accept up to 120W of power and it can output up to 30W of power for 802.3af/at compliant devices. To account for cable losses and increase PoE delivery, the FLEX-Link and FLEX4 adapters have the option of using a local external power supply. The FLEX-Link and FLEX4 are IEEE-compliant and will negotiate power with the IP device.

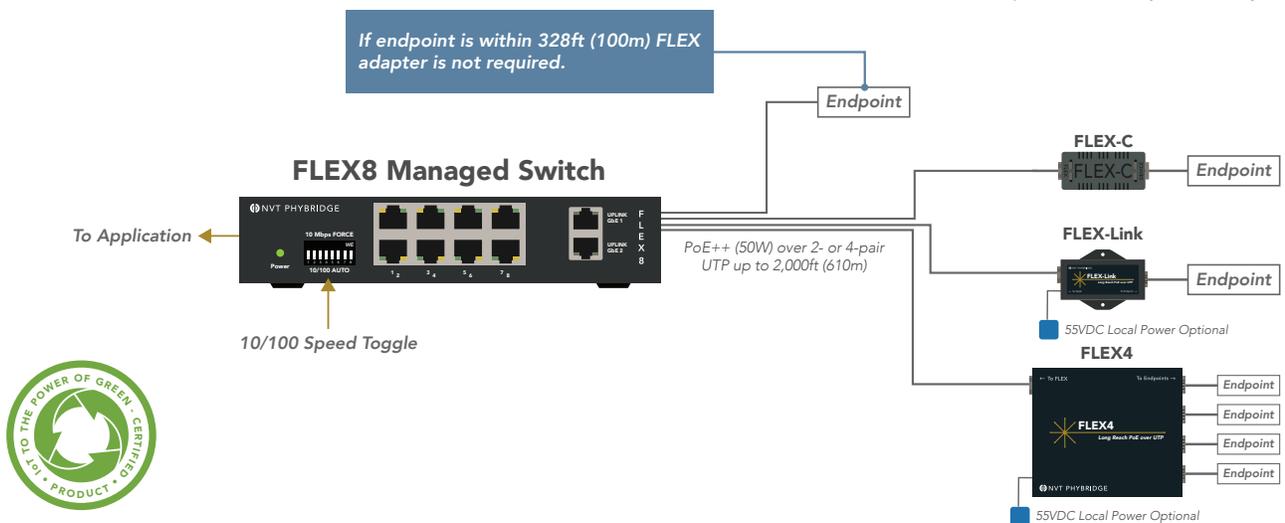
FLEX-C	20ft (6m)	250ft (76m)	500ft (152m)	750ft (228m)	1,000ft (305m)	1,250 (381m)	1,500ft (457m)	1,750ft (533m)	2,000ft (610m)
4-Pair UTP/STP	30W	30W	30W	29W	27W	26W	25W	23W	22W
2-Pair UTP/STP	30W	30W	27W	25W	22W	20W	17W	14W	12W

The FLEX-C supports IEEE-compliant devices and can support up to 30W of power using 2-pairs. If additional power is required use the FLEX-Link instead.

FLEX8 Technical Specifications

Model	FLEX8
Part Number	NV-FLX-08
Dimensions	7.09" x 4.53" x 1.45" (LxWxH) 18cm x 11.5cm x 3.68cm, (LxWxH)
Weight	1.3 lbs (0.59 kgs)
Interface: Ethernet Uplink (Trunk IP)	2 RJ45 ports: 10/100/1000 Base-T autosensing, independent speed selection, Ethernet IEEE 802.3, CAT5e copper cable
Interface: Downlink (PoE and IP to Adapter)	8 x RJ45 Jacks Speed: 10/100Mbps (full duplex)
Power Supply	48-58VDC (55VDC, 190W power supply included)
Power Consumption	6W
Power Injection (PoE)	DC voltage: 48VDC to 58VDC IEEE 802.3af/at If power is provided on all 4-pairs then maximum 50W; If power is provided on 2-pairs then maximum 30W
Operating Temperature	+14°F to +149°F (-10°C to +65°C) Tests conducted against international safety standard at maximum ambient temperatures of +104°F (40°C)
Humidity	10% to 95% (non-condensing) at +95°F (+35°C)

Specifications subject to change without notice.



Compliance and Agency Approval

EMC	Emissions (Class B) FCC Part 15, ICES-003, EN 55032:2012, EN 50121-4:2015 Immunity: EN 55024:2010, EN 50121-4:2015
Safety	UL 60950-1 2nd Ed 2014-10-14, CAN/CSA C22.2 No. 60950-1-07 2nd Ed 2014-10 IEC 60950-1:2005+A1+A2, EN 60950-1:2006+A1+A2+A11+A12,
Environment	RoHS Directive 2011/65