

Your Global Automation Partner

TURCK

TBEN-L-SE-M2

Managed Ethernet Switch in IP67



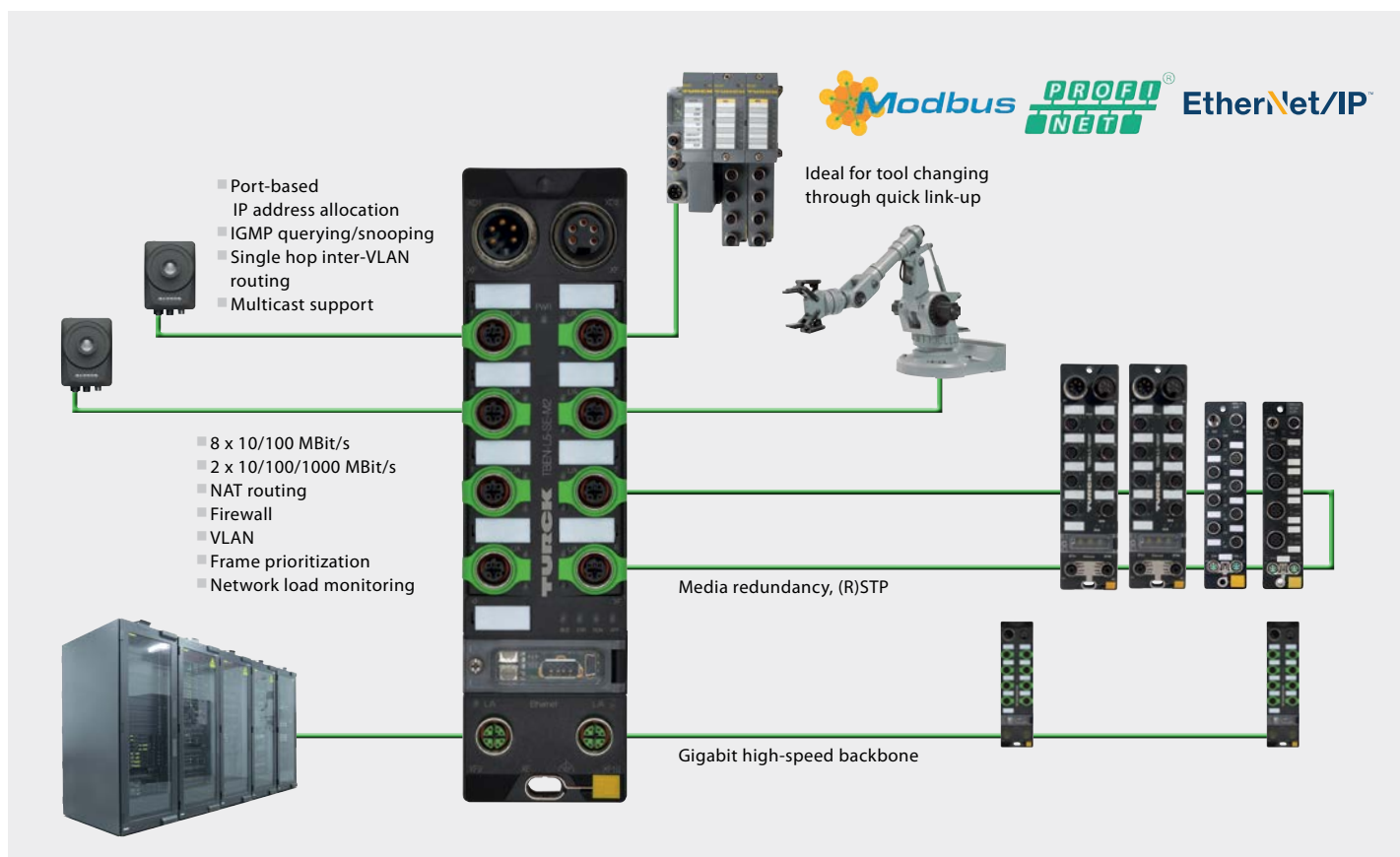
Managed Ethernet Switch in IP67

Secure turbocharger for IIoT

Extremely fast, compact, robust and secure: The TBEN-L managed Ethernet switch combines these features, thus enabling the creation of decentralized Ethernet connections directly at the machine. With two GBit

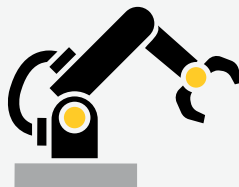
high-speed backbone ports, the switch offers enough bandwidth for a high-performance data flow of the eight standard ports (100 MBit/s). Supported by the fastest linkup times and cut-through forwarding,

the switch ensures high cycle rates even in tool changing applications. In many applications it therefore saves wiring effort and supports modular machine concepts without the need for a control cabinet.



Secure network

The switch offers NAT routing for the secure integration of machines without IP address conflicts. The embedded firewall ensures managed and above all secure data exchange. The network load monitoring function of the switch helps to diagnose impending overloads early in order to intervene in advance.

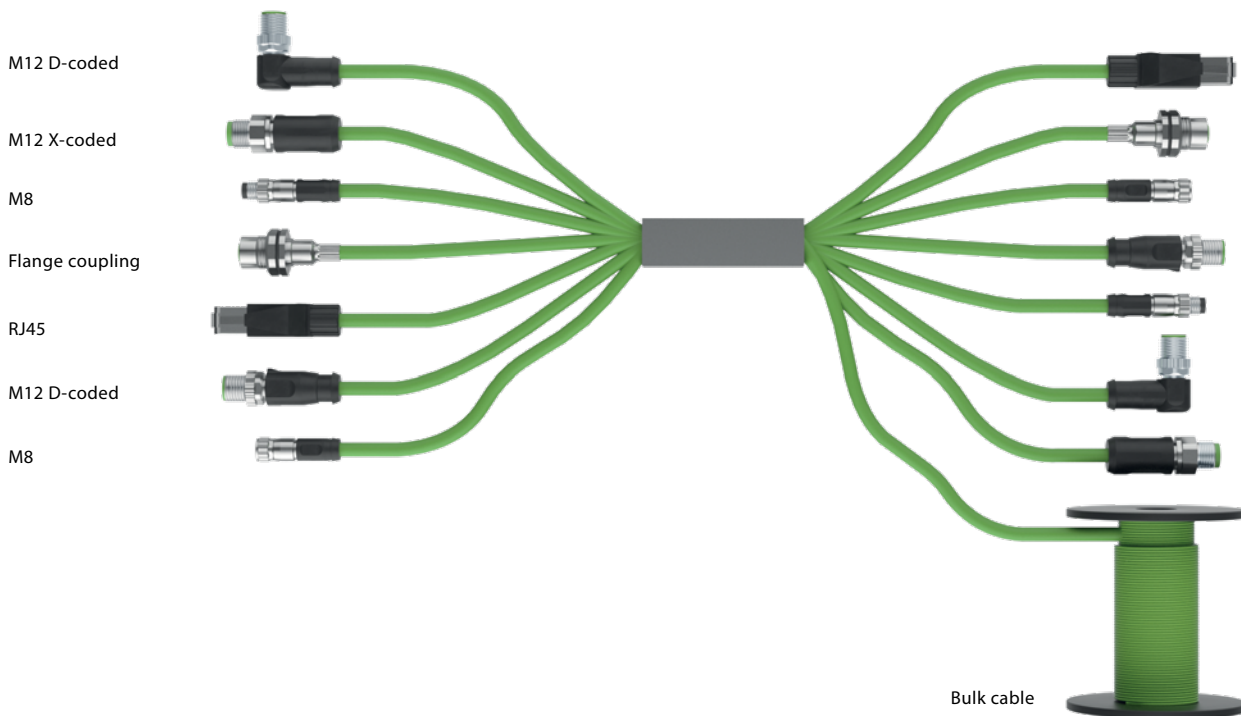


Ideal for tool changing

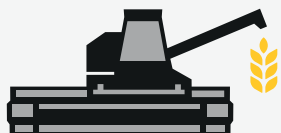
In robot applications for car body construction, the throughput of the application depends on the speed of the automatic tool changing. The quick link-up technology enables the switch to support tool start times with fast startup or quick connect in less than 150 ms.

Ethernet Cables

Ethernet cables with X-coded M12 connectors suitable for the IP67 switch are now also available which can transfer up to 10 GBit/s. Turck is thus expanding its range of conventional Ethernet cables for industrial applications, which were previously D-coded for transfer rates of up to 100 MBit/s. These Ethernet connection cables and cordsets are available with M8, M12, RJ45 or flange connectors in lengths between 0.2 and 100 meters.

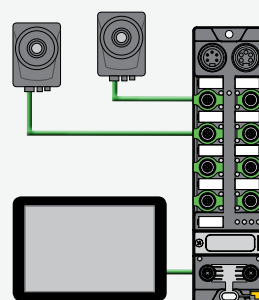


Bulk cable



Suitable for mobile equipment

The lower voltage threshold of 8 VDC, its UV resistance and protection against voltage spikes (load dump) makes the switch ideal for use in convenience functions for mobile equipment such as the connection of cameras.



Gigabit high-speed backbone

Two gigabit Ethernet ports enable the switch to also offer the throughput required for data-intensive applications like the transfer of video streams. The cut-through packet forwarding ensures here almost latency-free data transmission.

Types and Features

Ethernet switches

	TBEN-L4-SE-M2	TBEN-L5-SE-M2
Power supply	2 x 7/8" 4-pin	2 x 7/8" 5-pin
Packet forwarding	Cut-through	
Configuration	Web-based management, backup and restore of the configuration, Configuration via USB	
DHCP function	DHCP server	
	DHCP client, DHCP server option 82, port-based IP address assignment	
Protocols	HTTP, HTTPS, LLDP, SNMP V1-V3, NTP, IGMP (snooping/querier)	
Media redundancy	RSTP	
Profinet	Conformance class A	
Ethernet/IP	Single hop inter-VLAN routing	
Prioritization according to IEEE 802.1q	yes	
Other functions	VLAN, firewall, NAT routing, Port Mirroring	

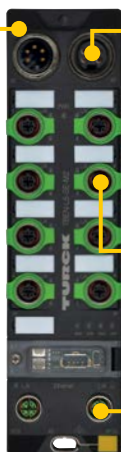
Cables

	Ethernet 8814/Cat 6A	Ethernet 4416/Cat 5e
Jacket material	PUR	
Jacket color	Green	
Flexibility	Good	Very good
Robot application	Not suitable	Suitable
Single wire	7 x 0.16 mm	7 x 0.25 mm
Strand layout	4 x 2 x 0.14 mm ²	2 x 2 x 0.32 mm ²
Oil-resistant	Acc. to DIN EN 60811-404	Acc. to DIN EN 60811-2-1
Drag chain suitability	Suitable	Well suited
UV resistant	yes	
Temperature range	-40...+80 °C	-40...+70 °C
RoHS compliant	yes	
Flame-retardant	Acc. to IEC 60332-1-2	Acc. to IEC 60332-1-2 and UL2556 VW1
Halogen free	yes	

Managed 10-port Ethernet switch in IP67

Robust housing

- 60 x 230 x 39 mm
- IP65/IP67/IP69K
- Fully potted
- UV resistant
- -40...+70 °C
- FE connection
- Marking to DIN EN 81346-2



Power supply

- Wide voltage range from 8 VDC...30 VDC
- Power-in, power-out, 7/8" or M12 L-coded
- Load-dump resistant

8 x 10/100 MBit/s Ethernet ports

- M12 D-coded
- Ideal for tool changing through quick link-up

2 x 10/100/1000 MBit/s Ethernet ports

- M12 X-coded, high-speed backbone

Over 30 subsidiaries and
60 representatives worldwide!

