

Your Global Automation Partner

TURCK

TCG20

Multi-Functional Cloud Gateways with Wi-Fi and UMTS

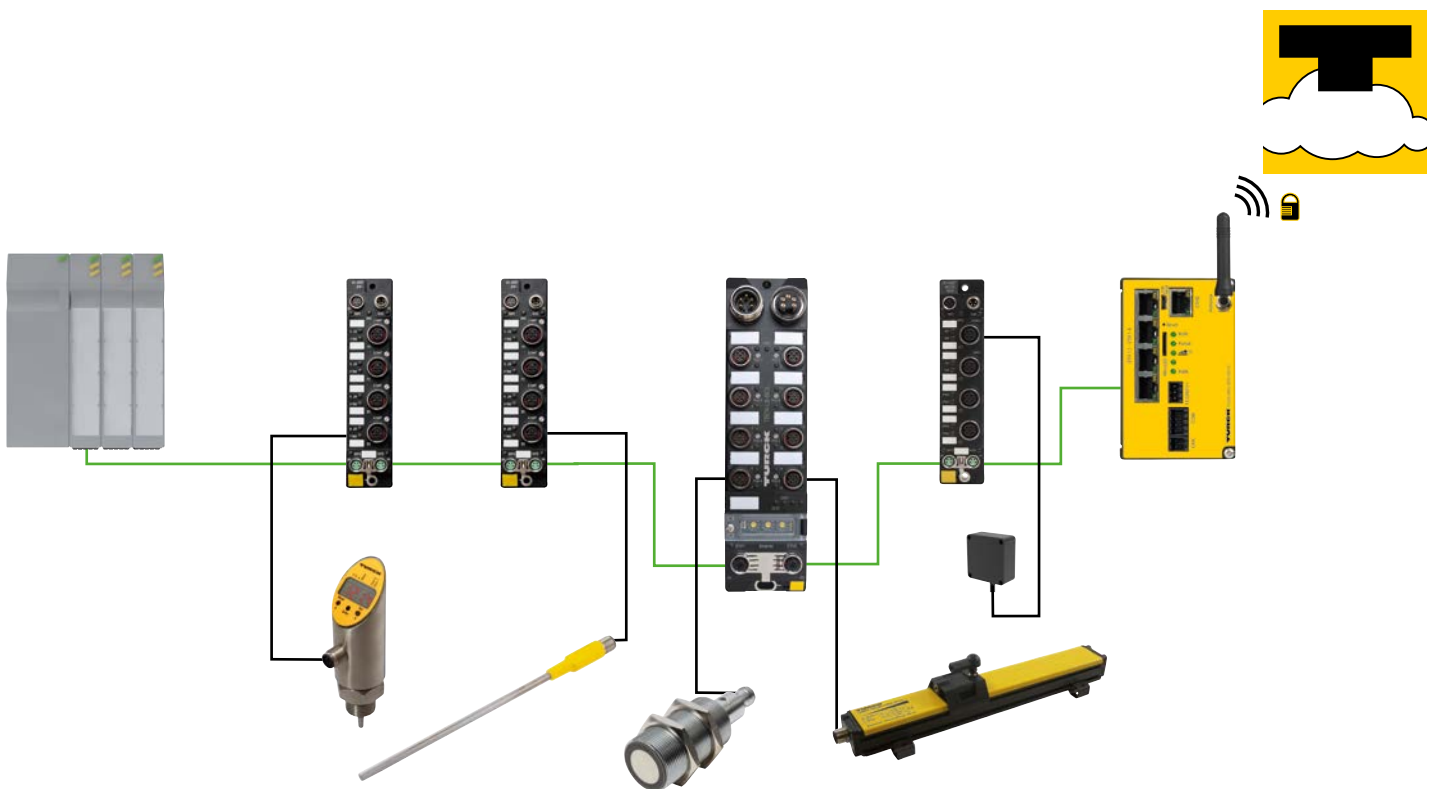


Integration into Existing Networks

The EDGE gateways in the TCG20 series offer several interfaces for simple integration into automation networks. In particular, these products are flexible enough to be installed in existing systems. The interfaces and protocols offered allow data to be exchanged with higher-level PLCs in the networks. Several interfaces can also be used in parallel. As a result, established systems

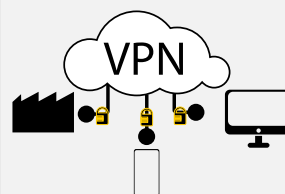
that already have their own controllers can be integrated quickly and effortlessly into cloud systems without the need to replace the existing hardware. Thanks to the built-in web-based EDGE PLC with its intuitive graphical editor, data can be pre-processed and prepared as required with the TCG20 series without any additional hardware or software.

The configuration of the interfaces and EDGE PLC is also carried out via a graphical editor directly in the device's web server, no additional software tools or time-consuming programming are required..



Web-Based EDGE PLC

The graphical editor allows the integrated EDGE PLC to be programmed quickly and easily on the web server of the device via any standard browser, without the need to purchase special software or licenses. Data can therefore be captured, pre-processed and transferred with ease.



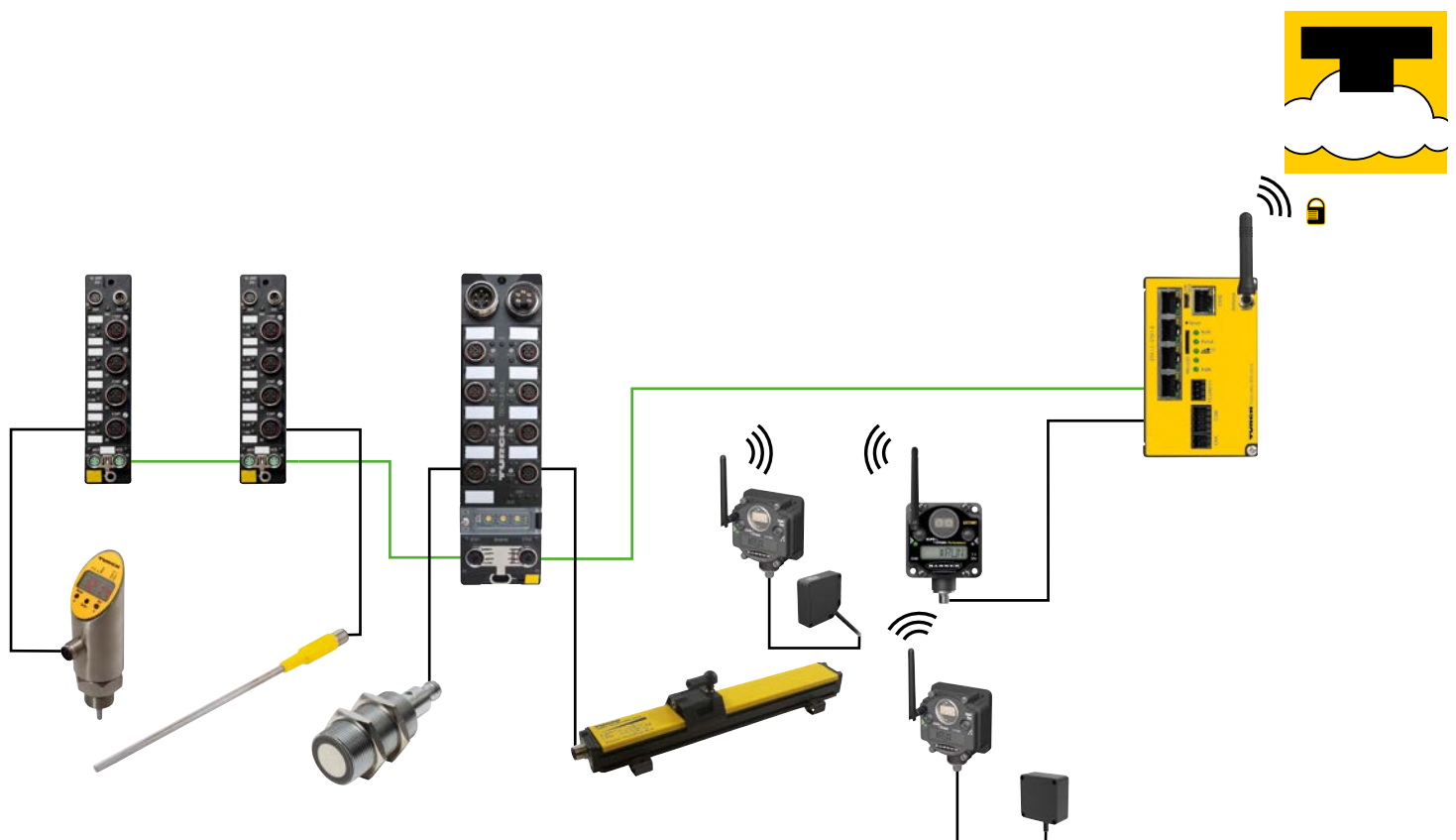
Remote Maintenance via VPN Client

The VPN client function allows remote maintenance access to be granted securely without any unnecessary complexity. In parallel with the cloud connection, this function also makes it possible to remotely access the TCG20 or other devices in the system. The VPN tunnel can be operated and monitored conveniently, directly from the Turck Cloud Portal.

Solutions for Autonomous Applications

With its variety of master and slave interfaces, the integrated EDGE PLC from the TCG20 series can do more than just connect existing systems. The gateways can also function as a controller in a network, exchange data with cloud systems and autonomously take on local control tasks. By functioning as a controller itself, the TCG20 renders an additional PLC unnecessary. The TCG20 also has the potential to be

installed in existing systems. For example, if data is recorded, processed and transmitted for predictive maintenance applications, the devices required for this process can be connected directly to the TCG20 and operated independently of the existing controllers. Any potentially risky modifications to the established controllers can therefore be completely avoided.



Flexible Radio Interfaces

In addition to the option of using existing Internet access routes via cable connections or Wi-Fi, the variants with a UMTS modem can use mobile networks. Mobile and decentralized applications can therefore be connected in a simple and cost-effective manner, even without any existing IT infrastructure.



Variety of Antennas

The variety of antenna designs offers flexible installation options for each application. In addition to being mounted directly onto the device, the antennas can also be screwed to a control cabinet wall or fixed to the wall of a building.

Types and Features

Interfaces

- 1/5 Ethernet ports (10/100 Mbps)
- 1 x serial interface RS232/RS485
- 1 x CAN port
- Wi-Fi client/access point, IEEE 802.11 a/b/g/n, 2.4/5 GHz dual band, WPA/WPA2-PSK
- UMTS 2G: GSM/GPRS/EDGE, 850–1900 MHz, 3G: UMTS/HSPA+, 800 to 2100 MHz

Master and slave protocols

- Modbus TCP client/server
- Modbus RTU client/server
- CANopen master/slave
- OPC-UA client/server
- MQTT client
- CODESYS network variables

Functions

- Fully integrated into the Turck Cloud
- All communication encrypted end to end (TLS v1.2, AES128/AES256)
- Built-in firewall
- VPN client
- NAT router
- SNMP manager
- DHCP server
- Position determined via trilateration (only for UMTS variants)
- SD card slot
- Real-time clock

Web-based EDGE PLC

- Data pre-processed and aggregated
- Gateway functions between the protocols
- Autonomous on-site logic
- Function blocks for all regular functions
- Data type conversions, logic operations, bit and byte operations, numeric operations, controllers, memory, sending/receiving SMS, VPN, time control, etc.
- Online view for testing and commissioning
- Up to 8192 I/O values and 1024 variables in the Cloud Portal

Overview of types

	Ident no.	Type designation	UMTS	WLAN	Ethernet ports
	100002555	TCG20-UMTS-1ETH-CRS-01	●	–	1
	100002556	TCG20-UMTS-5ETH-CRS-01	●	–	5
	100002557	TCG20-WLAN-1ETH-CRS-01	–	●	1
	100002558	TCG20-WLAN-5ETH-CRS-01	–	●	5
	100002559	TCG20-UMTS-WLAN-1ETH-CRS-01	●	●	1
	100002560	TCG20-UMTS-WLAN-5ETH-CRS-01	●	●	5

Accessories

	Ident no.	Type designation	Description
	100003125	TCG20-Antenna-Short-UMTS	For mounting directly on the device
	100003126	TCG20-Antenna-Glass-UMTS-1.5M	For adhesive mounting 1.5-m connection cable
	100003127	TCG20-Antenna-Cabinet-UMTS-1.5M	For mounting on the control cabinet wall 1.5-m connection cable
	100003128	TCG20-Antenna-Wall-UMTS-3.0M	Wall mounting 3-m connection cable

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