

# ComFacts

## safeethernet

### Features

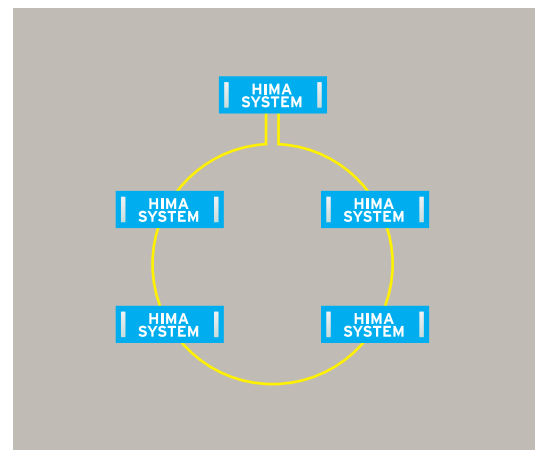
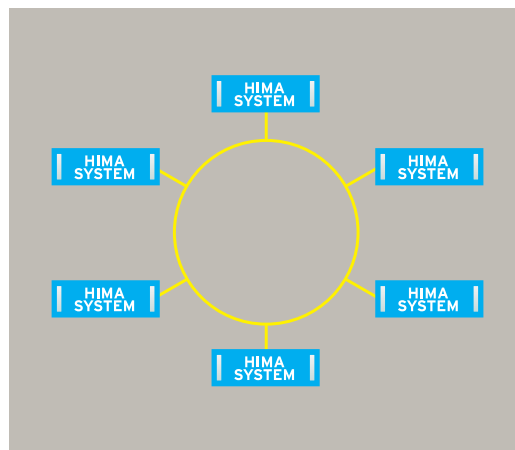
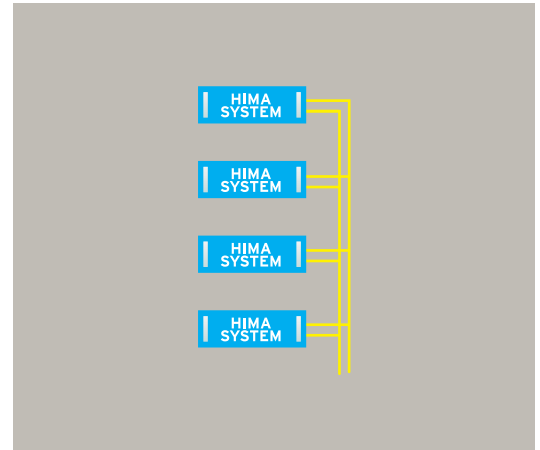
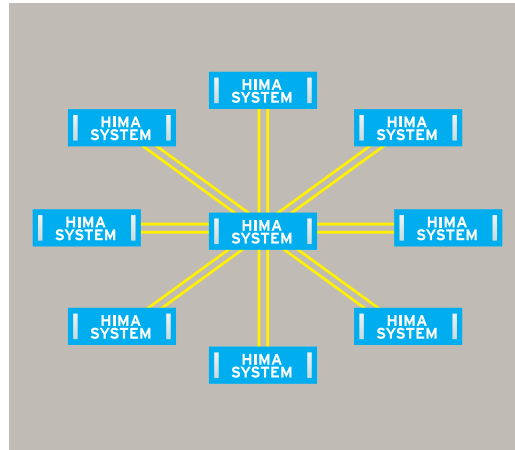
- Data transmission at 1 GBit/s
- Fast response times, even for networked applications
- Virtually no limit in the physical expansion
- Utilises standard Ethernet components and functions for safety-critical applications
- Enables a range of different network topologies
- Fully compatible with industrial use

### Communication mediums

- Copper
- ISDN
- SHDSL
- Fibre optic
- Satellite
- WLAN

### Benefits

- Integrates safety-related and non-safety-related data in one standard Ethernet network – without compromising safety
- Can be integrated into existing Ethernet networks
- Utilises cost-efficient standard Ethernet components made by any manufacturer
- Redundancy concepts and safeethernet reload assure uninterrupted system operation
- Quick, step-by-step commissioning
- Economical remote diagnostic and maintenance concepts



safeethernet on any Ethernet infrastructure - virtually no limit in the expansion

## safeethernet enables safety-related networking of decentralised/distributed SIL 3 applications

To create applications requiring networked safety systems, HIMA developed safeethernet as early as 16 years ago. safeethernet is based on standard Ethernet technology (IEEE 802.3) and enables easy and efficient networking of HIMA safety systems in the widest range of industrial and application fields. Safety-related data transmission can thus be easily integrated into already existing Ethernet networks via all common types of transmission media.

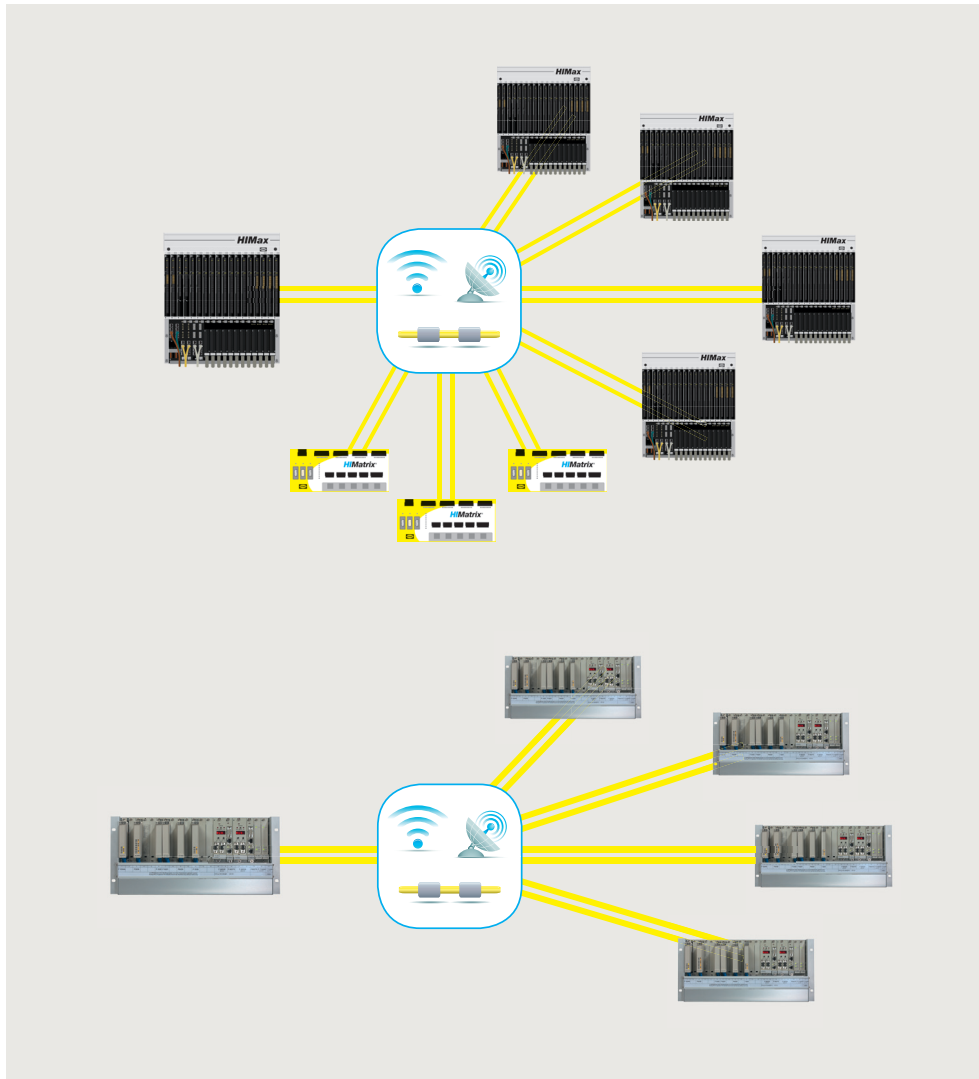


SAFETY  
NONSTOP

## High flexibility and transparency

Ethernet network technology can be flexibly adapted to any application. It facilitates planning, start-up, maintenance and extensions.

Each station within the network has access to every other station. This allows centralised programming, diagnosis and visualisation.



## Typical applications

### Process safety

- Steam crackers
- Polyethylene, polypropylene and PVC production plants
- Fertiliser plants
- Onshore and offshore facilities and platforms
- Pipelines
- Tank farms and gas storage facilities
- Loading stations
- Refineries
- Burner and combustion plants
- Turbines and compressors
- Batch processes

### Rail sector

- Signalling
- Railway crossings
- Rolling stock
- Power supply

### Logistic and machine safety

- Material handling systems
- Cranes, crane networks and lifting equipment in production facilities or on docks
- Driverless transport systems (DTS)
- Punching and presses
- Painting plants
- Robot cells
- Lifts
- Sluices and polders
- Lifters and elevating platforms
- Cableways
- High-bay warehouses
- Complete solutions for airports

## Safety systems

Safety related networking with safeethernet:

- Up to 255 systems on each HIMax® Ethernet segment
- Up to 128 systems on each HIMatrix® Ethernet segment
- Up to 64 connections (each up to 1100 Byte) between two systems
- Up to 99 systems on each HIQuad Ethernet segment

## Certificates

TÜV-certified up to SIL 3