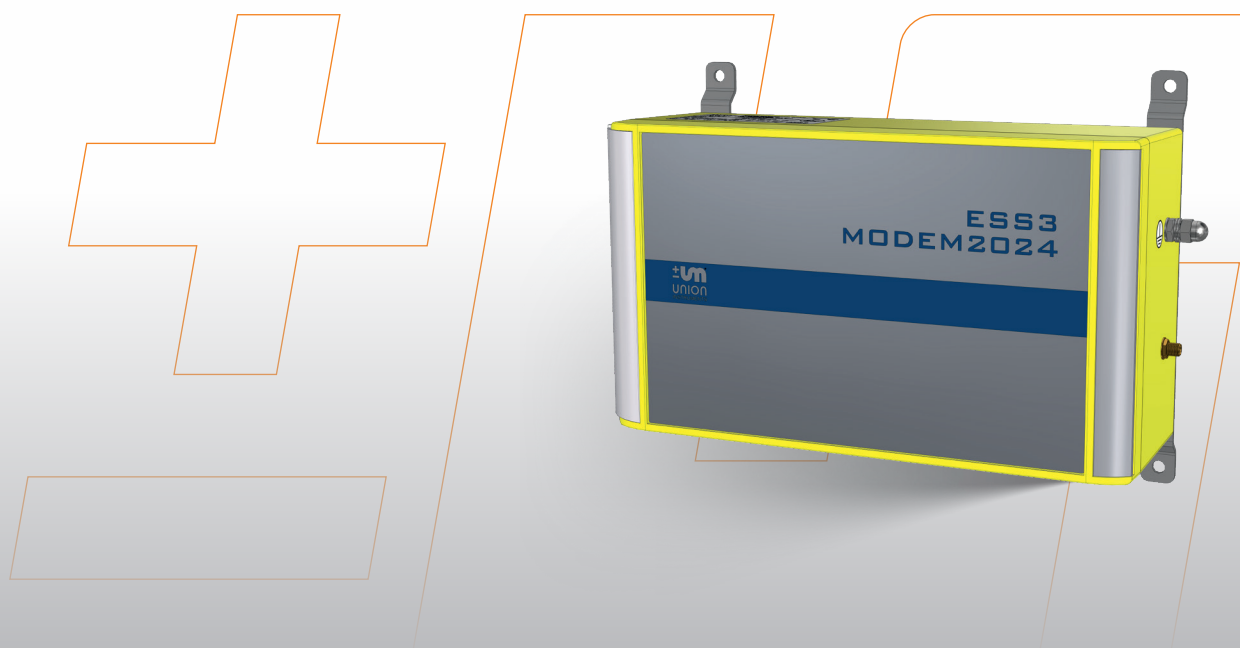


Data logger

ESS3 MODEM2024





Data logger

ESS3 MODEM2024

Application and functional description – MODEM2024

The ESS3 MODEM2024 from UNION Instruments GmbH is used for the remote transmission of measurement data, status messages, and alarms from the ESS3 S4 data logger. Data transmission is carried out wirelessly via the LTE mobile network.

The modem enables automatic alarm notifications when defined pressure limits are exceeded or undershot, as well as when external contacts are triggered, for example from safety shut-off valves (SSV) or door contacts. Alarm and status messages can be sent via email or SMS.

Connection to the ESS3 S4 is established via a serial intrinsically safe interface and is suitable for use in potentially explosive atmospheres classified as Zone 2.

Device configuration is performed conveniently via Bluetooth using the UNION Connect app.

The recorded measurement data is transmitted via email either directly to the gas supplier's control system or stored and visualized in the UNION Data-Lab software.

The MODEM2024 can be powered either by an internal battery or an external 24 V DC supply, providing maximum flexibility for monitoring gas pressure regulating systems without a permanent power supply.

Typical applications

- The ESS3 MODEM2024 is particularly suitable for:
- Remote monitoring of gas pressure regulating stations and pump stations in water supply systems
 - Automatic alarm notification when defined threshold values are exceeded or undershot
 - Transmission of pressure and temperature measurements to control centers of gas and water utilities
 - Applications without fixed network connectivity and external power supply

Explosion protection

- The modem itself is not suitable for installation in hazardous (Ex) areas
- Intrinsically safe interface to the ESS3 station
- The ESS3 station may be operated in ATEX Zone 2

Product advantages

- Reliable remote monitoring via LTE
- Automatic alarm forwarding
- Easy commissioning via app
- Long battery life
- Flexible power supply options
- Robust wall-mounted enclosure for industrial applications

Alarm and reporting functions

- Up to 5 configurable email recipients
- Up to 5 configurable SMS recipients
- Alarm notification when threshold values are exceeded (upper/lower limits)
- Regular measurement data reports (time- or data-based)
- Individual channel activation
- Status and statistical functions
- Log file download via app

Technical data ESS3 MODEM2024

General data	
Device type	LTE data modem for remote transmission
Application	Indoor installation, fixed mounting
Connection	ESS3 station (intrinsically safe interface)
Data transmission	Email (SMTP), SMS via LTE
Configuration	Bluetooth® via UNION Connect app (Android + iOS)
Power supply	
Battery pack	2 × 3.6 V lithium, 70 Ah
Typical battery lifetime	approx. 1 year (1 transmission/day)
Alternative supply	24 V DC
Current consumption (24 V DC)	Power safe: 70 µA; average: 20 mA; peak: up to 100 mA
Environmental conditions	
Operating temperature	–20 °C to +60 °C
Storage temperature	–20 °C to +60 °C
Mounting	Wall mounting
Weight	approx. 3 kg



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