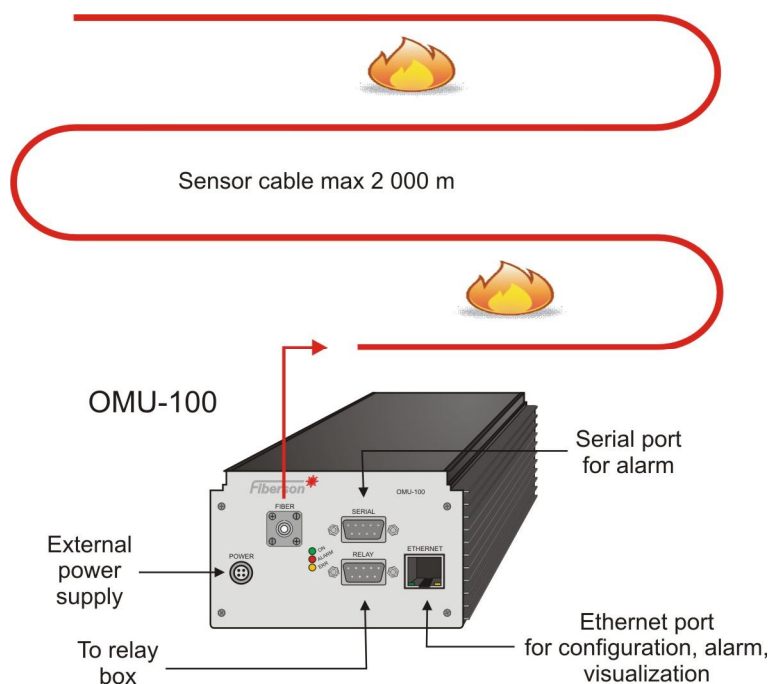


# ULRICA

## Fiber-Optic Distributed Heat Detection System

*The ULRICA distributed heat detection system from Fiberson can detect overheating and determine its location fast and accurately, with low cost and a minimum of maintenance.*

- Fire alarm systems
- Tunnels
- Ventilation ducts
- High voltage cables
- Escalators and conveyor belts
- Silos for crop and pellets
- Parking lots/buildings
- Warehouse-/factory premises
- .....



ULRICA can detect the location of fires or other discrete heat sources with high precision over a total length of 2000 m of sensor cable.

Alarms are transferred using traditional relay controlled signaling. Furthermore the system can be remotely configured over the internet via the Ethernet port using the configuration software. The system can be configured in up to 256 independent alarm zones.

The ULRICA system consists of a heat sensitive fiber-optic sensor cable (SKI-55), an optical monitoring unit (OMU-100), a relay box (RB-108), a testing equipment (TKI-65) and cable fastening equipment.

The sensor cable SKI-55 is robust but has small dimensions and low weight. The cable includes a line sensor with multimode fiber. At a temperature of +55°C the fiber will be exposed to micro bendings resulting in attenuation increases detected by the monitoring unit OMU-100.

The sensor cable is as easy to install as any ordinary fiber-optic cable.

The optical monitoring unit OMU-100 is an optical time domain reflectometer (OTDR) exclusively developed by Fiberson. It uses Rayleigh scattering to detect any local change in attenuation along the entire length of the sensor cable. The small dimensions and low weight of the OMU-100 makes it easily installed alongside other surveillance and alarm equipment. The OMU-100 unit can be run solely or be connected to centralized surveillance systems.

The relay box RB-108 is a module based unit which is simply connected to the OMU-100 and if required, in cascade with additional relay boxes. Each relay box is equipped with 8 relays.

Testing equipment TKI-65 is used to heat up sensor cable when you want to test the function of the sensor cable/ULRICA - system. It can also be used to verify positions in connection with configuration.

# Product Specification

## Monitoring unit OMU-100

Size	232 mm (L) 112 mm (W) 68 mm (H)
Weight	0.9 kg
Power supply	24 VDC, < 0.3 A (12–28 VDC)
Alarm relays	Max 2 A @ 30 V
Relay box interface	9 pin D-sub connector
Configurable alarm zones	up to 256
Front LED indicators	Green – On Red – Alarm Yellow – Internal error
Ethernet port	100 Mbps, full duplex
Fiber connector	FC/PC, multimode 62.5 µm graded-index



Monitoring unit OMU-100



Sensor cable SKI-55



Sensor cable installed with brackets and straps

## Relay box RB-108

Number of relays	8
Relay interface	RS-485

## Sensor Cable SKI-55

Length	Max 2 000 m
Dimension	Elliptical 6.5 × 4 mm
Jacket	PE, flame retardant, halogen free
Alarm activation temperature	+55° C (other on request)
Fiber type	Multimode 62.5 µm graded-index core



Relay box RB-108



Test equipment TKI-65

## Test equipment TKI-65

Heating cable + power supply