Product Information



CoverSensor with optical fiber

for building monitoring

The LANCIER *CoverSensor* has been specially developed for the monitoring of manhole covers and other building openings. Its self-contained design and the materials used have been engineered for use in harsh environments, such as those found in manhole structures. Without external function-determining elements, it is particularly insensitive to manipulation, corrosion and wear.



The **CoverSensor** ① is mounted on a slide ② under spring tension. It is screwed firmly to a manhole wall, for example, so that it touches the manhole cover ③ at a ferromagnetic point. The spring-loaded slide is pretensioned to compensate for tilting movements of the manhole cover. Mounting on doors and other building openings is similar.

A glass fiber ④ acts as a measuring wire and loops through up to four *CoverSensors*.

Opening the manhole cover changes the fiber's characteristics, thus causing the affected manhole to be detected and reported

by the LANCIER Monitoring system.

The alarm is triggered decentrally via relay outputs or via Modbus to a remote control system or via IP network to the LANCIER Monitoring UMS system.

Black box principle

The sensor has no moving external function determining elements and is therefore insensitive to manipulation, corrosion and wear.

LANCIER Monitoring GmbH

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Technical Data

Readout	via change in fiber optic attenuation
Connection cable length	5 m, others on request
Housing material	impact resistant polyethylene
Housing protection class	IP 68
Operating temperature	-20 +75 °C
Housing dimensions	125 x 80 x 40 mm (H x W x D)

Ordering Data

CoverSensor with optical fiber for building monitoring	Order-no. 075694.000
Monitoring units	
RM-Basic	
Supply, communication and display module for the RM-Bus	Order-no. 074001.100
RM-Fiber 4S	
Fiber optic attenuation measurement module with control panel and	
signal output via dry contacts	Order-no. 074705.09A

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System diagramme



Evaluation of the measurement data and alarm report with visualisation of its geographical position in the LANCIER Monitoring UMS System.

IP network via Ethernet, RS485 or GPRS



Monitoring station with measuring module RM-Fiber 4S

Fiber optic measurement loop

