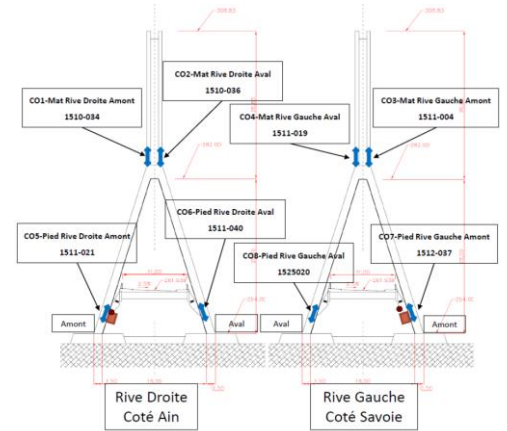


# Bridge over the Rhône River, Seyssel (01)

**osmos**

Integrated safety for structures



Location of Optical Strands on the bridge pylon

## Safety availability of a damaged road bridge

### Client

Ain County – Road Division – Civil Works Dpt.

### Instrumentation installed

- 1 EAS Monitoring Station
- 8 x 2-m long Optical Strands
- 1 temperature sensor

### Structure

Stay cable bridge built in 1987.  
Length: 220 m, 4 spans, the main being 115 m.  
Deck made of 2 girders of 1.80 m height and a concrete slab.  
The deck is supported by 18 couples of stay cables, kept by a 55 m high pylon.

The Optical Strands are positioned vertically on both legs of the pylon on the 2 faces (4 units), and the upper part on the 2 faces (4 units).

### Context

The pylon shows some signs of aging, especially vertical cracks on its both legs. The cause and evolution are unknown.

### Results

Deformations show until now that the behavior of the bridge remains in an acceptable range. The dynamic monitoring criteria (Dynamic Amplitude, reversibility, etc.) are for the moment respected.

### Client's Needs

The customer would like to know the state and the evolution of the structural health of the pylon, to ensure safety for users.

### Benefits for the client

The customer can keep the bridge open to traffic safely. Any drift of structural behavior will be immediately spotted by the monitoring system, so the client will decide of repair works at the right time.



Optical Strand on the pylon upper part



Optical Strand on a pylon leg