

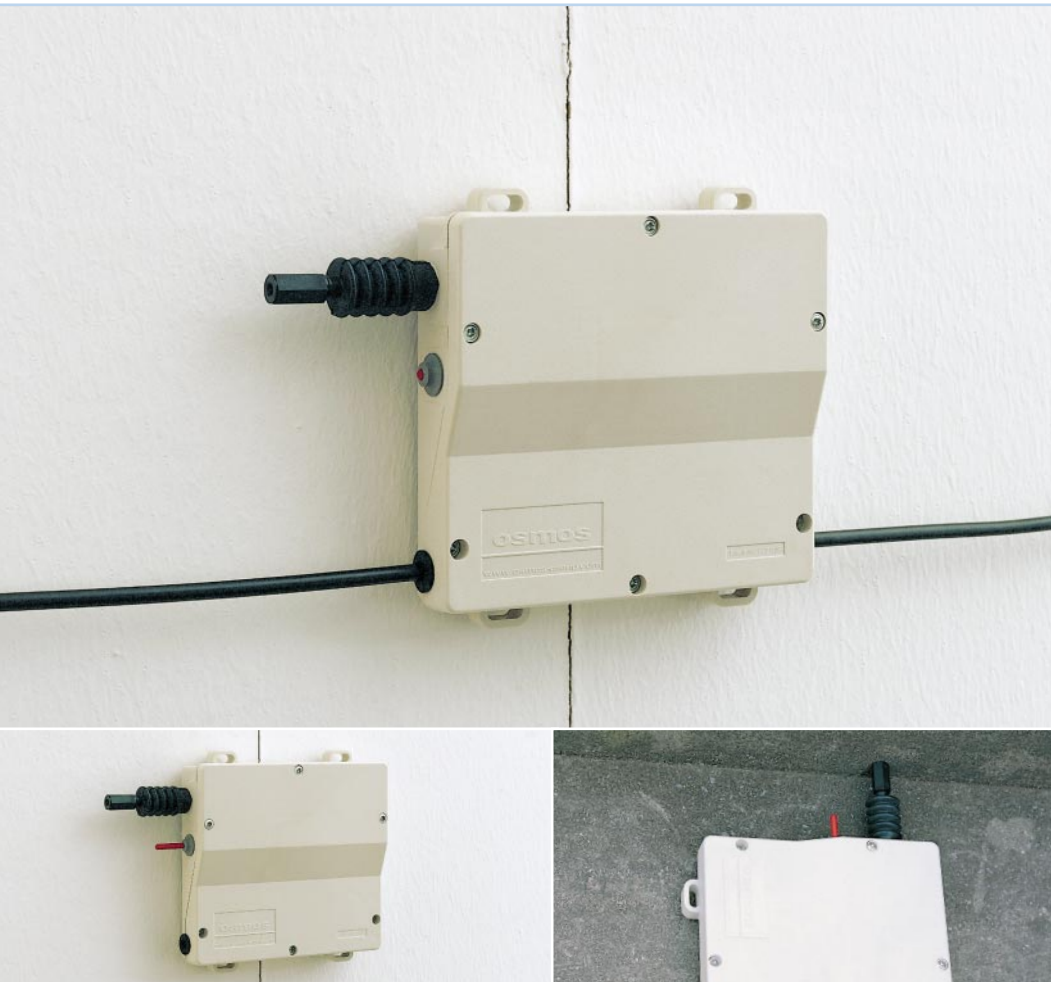
# X-Trigger

## Description

As a sensor, the X-Trigger measures changes in length between two points which usually also serve as fastening points and are ideally located on both sides of the object to be monitored, for example, a joint or fissure.

On transgression of a previously specified threshold value, the optical characteristics of the X-Trigger change; this is signaled at once via an optical cable to an opto-electronic converter, the OSMOS monitoring station. The X-Trigger accordingly offers a yes/no decision. Events are localized only after they have occurred.

The X-Trigger can be operated in various modes, in accordance with the available budget and anticipated risk. In addition to the 'permanent' and 'sleeping' modes, a special feature here is the 'prepared' mode in which the X-Trigger can be mounted without a cable and activated subsequently when required.



Top photo: X-Trigger as a fissure width monitor, wired; Bottom left photo: X-Trigger as a sleeping alarm fuse; Bottom right photo: X-Trigger as a probe.

## Applications



Wired X-Trigger on an extended wall.



X-Trigger following actuation, visual alarm.

# Technical specifications

## Measuring range

45 available settings, taking into consideration the operating modes: permanent sleeping and prepared.	Adjustable threshold values: 0.5 / 1.0 / 2.0 / 3.0 / 4.0 (mm) 	Trigger release: Tension    Pressure X            - -            X X            X            (immobility)
Sensitivity:	0.01 mm	
Absolute sensitivity:	± 5 % of the set threshold value	
Response speed:	Dead time = 5 ms	
Temperature range:	-20 °C to +60 °C, operating range -30 °C to +85 °C, storage	
Temperature sensitivity:	15 x 10 <sup>-6</sup> m/K	
Reversible measurement setting:	> 100 'trigger' without drift	
Electromagnetic compatibility:	Insensitive and neutral <i>(use in areas endangered by radiation and explosion is possible)</i>	
Resistance to media:	Ultraviolet-light and oil resistant (including seal)	
Service life:	> 20 years	
Connection:	Customizable fiber-optic cable with a length of up to 4 kilometers to the OSMOS monitoring station	
<i>Without intermediate amplification:</i>	<i>Sheathed, special OSMOS optical cable with plug connection.</i>	

## Housing

Housing dimensions [L x W x D]:	[145 x 160 x 40] mm
Weight:	400 g
Sensing head:	50-mm steel probe
Material:	PC 30 GF (Makrolon®, Bayer)
Protection class:	IP65
Release signal a) not wired: b) wired:	Signal pin (red) for visual checks On-site with an OSMOS optical-waveguide cable, audio, SMS, fax, modem, e-mail

## Test

Mechanical shock test:	1 m free fall
Impact strength:	7.5 kJ/m <sup>2</sup>
Vibration test:	Structural safeguarding against false alarms

## Accessories

Measurement-path decoupler for trigger-irrelevant tolerance:	On request
Measurement enlarger (> 4 mm):	On request
Measurement-base enlarger:	On request

## Order

Please fill out the spaces below. Select an underscored letter or value for each of the option fields provided.

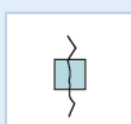
Quantity:	<input type="text"/>	Example:	Quantity:	<input type="text" value="22"/>
Sensor type:	<input type="text" value="XT"/>	Sensor type:	<input type="text" value="XT"/>	
Threshold value:	<input type="text"/> 0.5 / 1.0 / 2.0 / 3.0 / 4.0	Threshold value:	<input type="text" value="2.0"/>	
Direction:	<input type="text"/> <u>T</u> ension / <u>P</u> ressure <u>I</u> mmobility	Direction:	<input type="text" value="T"/>	
Application:	<input type="text"/> <u>F</u> issure / <u>S</u> ensor	Application:	<input type="text" value="F"/>	
Operating mode:	<input type="text"/> <u>P</u> ermanent / <u>S</u> leeping <u>N</u> ot wired	Operating mode:	<input type="text" value="P"/>	

## Color selection

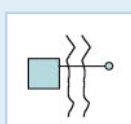
Standard color:	Beige	UN 8014
Colors available on request:	Yellow	UN 1245
	White	UN 0005
	Rust	UN 8005
	Black/grey metallic	UN 9017

This color selection is available at extra charge and a minimum order quantity of 100 units. Additional colors are available at extra charge for quantities in excess of 300 units.

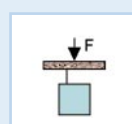
# Application possibilities



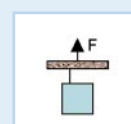
Fissures < 40 mm



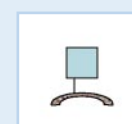
Fissures > 40 mm



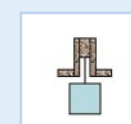
Sagging



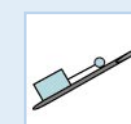
Distancing



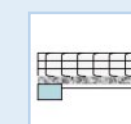
Curvature



Spandrel gaps



Guying, inclined ropes



Tension monitoring