



**„Fired up“.** In Aurich (Northern Germany) a wind turbine burnt out completely.



**The flow-captor from Weber...**  
...can prevent the worst - it monitors the cooling circuit for the gearing system of wind turbines.

## Sensors protect wind energy plants

*It is, after all not a common sight but every once in a while wind turbines can be seen as - in the truest sense of the world - they are „on fire“ for the energy shift.*

In fact fires rarely occur in wind turbines but if it happens the resulting damages can cost millions. In all cases the complete wind turbine is affected.

Weber's flow-captor is installed to monitor the flow and the temperature of the coolant to eliminate any risk of fire. The flow-captor ensures the technical readiness of the wind energy plant. When the coolant flow is interrupted the sensor sends a signal to the maintenance centre. At the same time the rotating of the blades will be stopped what prevents overheating of the moving parts of the turbine.

Usually one or two sensors are installed into the unit. The sensors monitor the flow and the temperature of the coolant. The coolant is a mixture of 45% glycol and 55% water to ensure liquidity of the medium at temperatures from -40° C to +70° C.

As there is a wide variety of different wind turbine types the sensor manufacturer should be able to design the sensors according to particular requirements. Normally it concerns the length of the sensor probe - different pipe sizes require different immersion depths - and the mixture ratio of the coolant.

Also the sensor should have a legible functions display. The say „less means really more“ is definitely valid here. The technician at site must immediately recognize the cause for a malfunction in order to avoid long downtimes.

Weber's flow-captor has been specially designed for this application. The development department of weber Sensors would be able to meet all specific requirements of the wind turbine manufacturers.