



# flow-captor CoolGuard

the safe sensing solution for industrial cooling systems.  
all-in-one monitoring of flow and temperature of coolant

**flow-captor CoolGuard** from Weber extends the range of Flow Switches and Flow Meters that EMC have successfully supplied to NZ industry for many years.

The CoolGuard operates according to a new calorimetric principle especially adapted to the CoolGuard's tasks.

It safeguards cooling efficiency by monitoring flow rate as well as temperature - protecting against malfunctions such as:

- decrease of flow rate below set point
- flow breakdown
- coolant temperature increase due to loss of cooling efficiency - may result in an overload of whole cooling installation

This way a secure protection against machine damage or unwanted shutdown is guaranteed.

**flow-captor CoolGuard** is especially designed for all types of cooling systems as a reliable alternative to failure prone mechanical flow switches, which lack the temperature-monitoring feature.

## Cooling system

Every cooling system relies on a consistent flow of coolant with the purpose of limiting a defined temperature range of the cooled application.

The cooling performance depends on the coolant's flow rate and temperature.



Weber flow-captor CoolGuard

## Specifications

- Low flow setpoint: 0.3m/s fixed
- Hi temp setpoint: 70°C fixed
- Medium temp: -4°C to +80°C
- Response time: 2 to 10 seconds
- Repeatability: <0.5%
- Hysteresis: approx 20% of setpoint value
- Pressure: up to 150 psi
- Housing: 316 stainless steel, 1/2" - 14MNPT thread, IP65
- Supply voltage: 18 to 30Vdc
- Output: PNP n.o. (closes with flow)

## Monitoring of cooling systems

Currently, traditional monitoring is limited to merely detecting the occurrence of a minimum flow by means of a mechanical flow switch, with an additional, separately installed temperature switch to monitor over temperature situations.

## Problem

The problematic nature of mechanical flow switches is founded in their inherent moving parts, which have always been prone to different media-based malfunctions such as deposits, sticking and corrosion.

These circumstances result in frequently missed flow decrease detections or complete flow break down.

## Solution... CoolGuard

**flow-captor CoolGuard** is the all-in-one solution for these problems.

As an electronic sensor it contains no moving parts at all, thus eliminating problems from the beginning.

**flow-captor CoolGuard** also combines monitoring of the coolant's flow and temperature in one device.

For literature on CoolGuard,  
please circle Enquiry No:

1205

Contact Howard Berry or Chris Gailer  
to discuss your applications

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www.emc.co.nz