

# TA-CMI

Measuring instrument



**TA**

Pressurisation & Water Quality › Balancing & Control › Thermostatic Control

ENGINEERING ADVANTAGE

The TA-CMI is a tough, effective tool for measuring differential pressure, flow and temperature in a hydronic system, and which allows you to pinpoint problems accurately and quickly. Robust, accurate and easy-to-use, the TA-CMI can be used on almost any system, while its small size means it is easy to take measurements in confined spaces.

> **User-friendly design**

Simple to use, the TA-CMI speeds up the measuring process.

> **Anti-freeze correction**

System data is easily adjusted to take the effect of anti-freeze agents into account.

> **Wireless communication**

For even greater ease-of-use, the TA-CMI has a wireless communication that is functional at a distance of up to five metres.



## > Technical description

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The TA-CMI is a computer programmed measuring instrument. It consists of an electronic differential pressure gauge and a micro computer that has been programmed with the TA valve characteristics which makes the direct reading of flow and differential pressures possible.

The TA-CMI has two main components:

- An instrument unit which contains a micro computer, input touch pad, LCD display and re-chargeable NiMH batteries.
- A sensor unit which contains a piezoresistive pressure sensor, one measurement valve and connections. The measurement valve has a safety function which protects the sensor from surges in differential pressure.

The instrument unit and the sensor unit communicate wirelessly or alternatively by cable.

**Measurement range:**

- Total pressure: max 2 500 kPa.
- Differential pressure: -9 to 200 kPa.
- Flow: During flow measurements the pressure range is 0.5 to 200 kPa.
- Temperature: -20 to 120°C

**Temperature liquid medium:**

-20 to 120°C

**Measurement deviation:**

- Differential pressure: The greater of ±1% of displayed value or ±0.2 kPa
- Flow: As for differential pressure + valve deviation.
- Temperature: <0.2°C + sensor deviation.

**Effective operating time:**

18 h between charges depending upon application.

**Ambient temperature for the instrument:**

- 0 to 40°C (during operation)
- 0 to 40°C (charging)
- 20\* to 60°C (storage)

\*) Do not leave water in the sensor when there is a risk of freezing. Storage above 40°C reduces battery life.

## > Case contents

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- Instrument unit
- Sensor unit
- Connection cable
- Temperature sensor Pt 1000
- Charger
- Measuring hoses:
  - 400 mm blue
  - 400 mm red with shut-off valve
- Chucks for old valves:
  - Red
  - Blue
- Measuring needles
- Chain for mounting
- User manual
- Calibration certificate

## Function

### Differential pressure measurement

Sensor for high total pressures and low differential pressures gives quick results and reliable readings.

### Temperature measurement

A Pt 1000 temperature sensor which allows measurement direct in the media is included. Air temperature can also be measured by using the temperature sensor (reading can be taken after a couple of minutes).

### Automatic calibration

The pressure sensor is automatically calibrated before each measurement sequence. The TA-CMI should be recalibrated once a year by the manufacturer.

### Automatic venting

The design of the sensor unit and a short flow-through during calibration eliminate measurement errors caused by insufficient venting.

### Media correction

The TA-CMI can calculate flows with different contents of glycol or similar anti-freeze additives in the water.

### Wireless communication

Wireless communication between the instrument and sensor unit (400 MHz and 900 MHz) or by cable.

### Battery

The re-chargeable NiMh batteries can not be exchanged by the user. The batteries will be exchanged at repair or calibration at the manufacturer.

## Articles



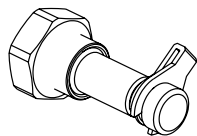
### 400 MHz

Language		Article No	EAN
SE		52 198-501	73 18793828903
GB	International version	52 198-502	73 18793829009
DK		52 198-503	73 18793829108
NO		52 198-504	73 18793829207
FI		52 198-505	73 18793829306
DE		52 198-506	73 18793829405
FR		52 198-507	73 18793829504
NL		52 198-508	73 18793829603
ES		52 198-509	73 18793829702
CZ		52 198-510	73 18793829801
PL		52 198-511	73 18793829900
RU		52 198-512	73 18793830005
HU		52 198-513	73 18793830104
PT		52 198-514	73 18793830203
IT		52 198-515	73 18793830302
CN		52 198-516	73 18793931207
UK	Specific for the UK	52 198-517	

### 900 MHz (The US, Canada and South America)

Language	Article No	EAN
US	52 198-550	73 18793830500
FR	52 198-551	73 18793830609
ES	52 198-552	73 18793830708
PT	52 198-553	73 18793830807

## Accessories



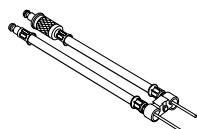
**Measuring nipple**  
Thread connections G1/2 and G3/4

Article No	EAN	
52 197-303	7318793536808	G1/2
52 197-304	7318793536907	G3/4



**Measuring nipple**  
Extension 60 mm  
Can be installed without draining of the system.

Article No	EAN
52 179-006	7318792812804



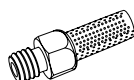
**Measuring hose with twin needle**

Article No	EAN	Length
52 199-999		150



**Measuring hose**  
Extension with shut-off valve

Article No	EAN	Length	
52 199-997	7318793817709	3 m	Red
52 199-998	7318793817808	3 m	Blue



**Filter**  
Spare part to measuring hoses

Article No	EAN
309 206-01	7318793741301



**Key for older measuring points**

Article No	EAN
52 187-004	7318792835902



**Allen key**

Article No	EAN		
52 187-103	7318792836008	3 mm	Pre-setting
52 187-105	7318792836107	5 mm	Draining

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For the most up to date information about our products and specifications, please visit [www.tahydraulics.com](http://www.tahydraulics.com).

7-5-10 TA-CMI 03.2011