

## Non-Contact temperature measurement,

flexible, precise and reliable!

Industrial Services

**SIEMENS**

# Non-Contact temperature measurement in the range from -30 °C to +3000 °C

ARDOMETER MPZ - Spectral pyrometer - 7MC3001  
ARDOCOL MPZ - Two-color pyrometer - 7MC3021



The **ARDOMETER** and **ARDOCOL** series of pyrometers, with their lightweight yet robust and service-proven metal housings, are designed for use under the toughest and most adverse ambient conditions without any additional external protection. The pyrometer is flanged onto the system by means of a connection head with a quick-release lock from the proven range of Siemens connectors. (Technical data sheets available on request)

- Measuring ranges 0 °C to +3000 °C (adjustable)
- Very short response times  $\leq 2$  ms
- Analog output: 0/4 - 20 mA linear
- Digital output: RS 232 interface, with RS422/485 as an option
- Parameter adjustment by coding switches or interface
- Viewer with marking scale
- Modular design, enabling any combination of basic unit and focusable optics
- Integrated mean value/peak function
- Protection type IP 65

ARDOCELL PZ - pyrometer - 7MC3061



The **ARDOCELL PZ** series of pyrometers are field devices which can be used with Profibus for non-contact temperature measurement in harsh industrial environments. Thanks to the Profibus DP interface, these pyrometers can be directly integrated into decentralized automation solutions without converters. This reduces the cabling and commissioning effort while facilitating the parameter adjustment process. Company-specific solutions can thus be created more easily and at lower cost. For technical specifications, see **ARDOMETER / ARDOCOL MPZ**

#### Additional features:

- High-power LED display
- With through-the-lens sighting or laser spotlight for target marking
- Configuration by means of pushbutton or interface
- Integrated servicing and diagnostic functions
- Plug-in outlet for the Profibus version

ARDOCELL PS/PL - pyrometer  
7MC3050 / 7MC3070



- Measuring range -30 °C to +3000 °C in several sub-ranges
- Analog output 0/4 - 20 mA linear
- Very short response times
- External adjustable emissivity coefficient
- Robust stainless steel housing, diameter 30 mm
- Operating voltage 24 V
- Protection type IP 65

#### Only for PL pyrometers:

- Adjustable optics to match the target distance
- Spotlight for permanent and exact target indication

## ARDOCELL PM - mini-pyrometer PM11 / PM21



- Measuring range 0 °C to +1200 °C in several sub-ranges
- Analog output 0 - 2 V / 0 - 4 V linear
- Minimum dimensions of only 36 x 20 x 52 mm
- Integration of the optics and complete electronics in a compact housing
- Large distance ratio
- External emissivity adjustment
- Operating voltage 24 V
- IP 65

## Fittings and accessories program

For all the pyrometer series, there is a wide range of fittings and accessories that enable use of the devices even in the roughest ambient conditions. Finally, a range of fastening components is available. A top-mounted video camera module enables permanent monitoring of the measuring point from the central control station.

## ARDOPTIX - portable two- and/or one-color-pyrometer – 7MC3081 / 7MC3090



The **ARDOPTIX** series comprises three powerful, microprocessor-controlled pyrometers. The construction and functionality of the devices are identical. Only the measuring ranges, measuring fields, and measuring methods are different. The **ARDOPTIX** differs in measuring method between spectral pyrometer 7MC3081 ... and the two-color/spectral pyrometer (switchable) 7MC3090 ...

- Measuring range from +250 °C to +2500 °C in several sub-ranges
- Replaceable and focusable optics
- Through-the-lens sighting with marking for true target size detection, plus internal 4-digit LCD display
- Adjustable emissivity coefficient
- Minimum and maximum value storage
- Integrated data storage for 200 measured values
- Digital output: RS232 interface
- IP 65

## ARDOPORT - portable pyrometer 7MC3080



- Measuring range -30 °C to +2000 °C in several sub-ranges
- Smallest target diameter 5 mm
- Spotlight for reliable determination of optimum target distance
- Robust aluminum housing enables use in harsh industrial environments
- High precision and high resolution
- Simple to use and read thanks to large multi-functional display
- Adjustable emissivity coefficient
- Compact, easy-to-handle design
- Minimum/maximum value storage
- Integrated data storage for 64 measured values
- IP 65 (explosion-protected version also available)

# Wherever temperature is concerned – Industrial Services



Industrial Services – the technical service provider of Siemens AG for industry and infrastructure – keeps your systems fit for an entire lifetime.

If temperatures are decisive variables that have a crucial effect on your processes, we can offer you a wide range of non-contact temperature measuring devices – for the most diverse applications. We also support you with our service activities in all aspects of measurement and help you ensure and maintain your high quality standards.

## Measurement alone is not enough!

### Sale and rental of instruments and tools

From individual measuring instruments to site containers with all the equipment you need – you can not only buy measuring instruments and tools from us, you can also rent them flexibly and at a very favorable price.

Based on the duration and frequency of use, we tell you whether rental or purchase is the best alternative in each case.

### Calibration service and repairs

So that you can always rely on the measured values recorded in your plant, our calibration experts offer you a customized service tailored to your individual needs. We perform electrical, physical and mechanical factory and DKD calibration (DKD = German Calibration Service), monitor testing and calibration cycles, and efficiently organize all your calibration processes.

We process and carry out repairs not only for our own pyrometers. Devices, components and systems from other manufacturers are also in good hands with us.

### User advice and special measurements

Our measuring system specialists are happy to provide you with all the advice you need concerning procurement, technical features and possible uses of the equipment you need.

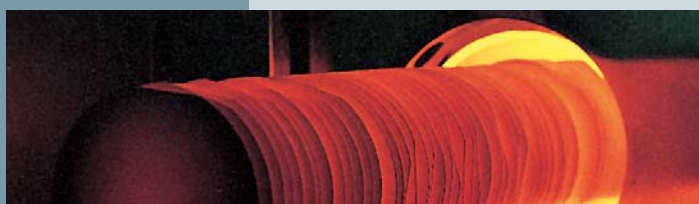
If you yourself do not have the necessary know-how, we will also perform the measurements on site for you.

## The right tool for the job, examples:



### Glass industry / Glass design

For temperature measurement in the glass feeder, at glass drops, at the glass molds or in the cooling stretch, Siemens pyrometer supports continuous monitoring and central control of the process in each production sequence.



### Crystal growth system

The pyrometer from Siemens are extremely precise and provide the kind of stable long-term temperature measurement capability required in the production of semiconductor and glass crystals.



### Steel industry

Temperature has a significant influence on the manufacturing and processing of products throughout the metals industry.



### Rolling mill, galvanizing plant

Fast and accurate detection of the temperature is the precondition for maintaining uniform quality during the rolling of billets and ingots and for the coating of metal strips.



### Annealing kiln

A contactless, wear-free measurement system for the direct and rapid detection of the object temperature guarantees optimum kiln control.



### Measuring at the pouring stream

The system, based on a two-color pyrometer with a pouring stream display, enters the temperature per casting automatically.



### Cement plant, rotary kiln

Measurement of the temperature at the sintering zone and the clinker temperature at the kiln inlet and outlet, checking of the shell temperature in case of damage to the refractories.

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