General

Further products from our range are briefly presented on the following pages. Detailed technical documentation as well as documents including ordering details and prices are available for all these instruments. We would be pleased to send you these on request. In the case of instruments which require more detailed advice because of their selectable configurations or evaluation software, we would be pleased to advice you personally or arrange for demonstration.

If you require:

function generators, timers and frequency meters

- oscilloscopes
- power supply unitsrpm counters, temperature meters, calibrators
- portable or flush-mounted recorders
- ■measuring, recording and fault acquisition units for 50/60-Hz networks
- SIREC system software with packages for TELEPERM M and SIMATEC
- ■sine-wave inverters
- rented instruments
- radiation pyrometers in 1996, we acquired the product responsibility and marketing for the Siemens radiation pyrometers such as ARDOMETER MP, ARDOMETER and ARDOCOL MP, for temperature ranges up to 2000 °C
- calibration services

please refer to the following pages.

Please contact us if you cannot find an appropriate instrument. We will endeavour to help you immediately.

Our address:

Head office

ATDTD MCH 5 Sales, measuring, test and recording equipment Radiation Pyrometers Tübinger Straße 1 - 5 80686 Munich, Germany Telephone +49 (89) 92 21-65 72 Fax +49 (89) 92 21-65 60

Repair/calibration

ATD TD MCH 5 Measuring technology Siemens calibration service SKD–E 028 Tübinger Straße 1 - 5 80686 Munich, Germany Telephone +49 (89) 92 21-64 01 Fax +49 (89) 92 21-62 01

DKD - calibration

ATD TD MCH 5 DKD-calibration laboratory DKD-K-00302 Tübinger Straße 1 - 5 80686 Munich, Germany Telephone +49 (89) 92 21-64 93 Fax +49 (89) 92 21-62 63

Function generators, timers and frequency meters

- Three signal waveforms: Sine wave, delta wave, square wave
- Frequency range 0.2 Hz to 2 MHz
- Output "OUTPUT": AC voltage U_{ss} max. 20V, DC-offset max ± 10 V
- Additional outputs: "OUTPUT - 30dB" and "SYNC OUT"
- All outputs shortcircuit-proof and floating
- "VCO IN" control input



Function generator D2003

\mathcal{C}

- 1 mHz to 44 MHzDigital SWEEP oscillator with
- LIN/LOG-function
- Variable symmetry
- Digital display of frequency, sweep, AC and DC
- Frequency counter up to 50 MHz
- Trigger and gate modes (-8AB)
- PLL mode (CD2013)



Function generator D2011

- Start Stop Reset
- by electrical remote control or by pushbutton
- Universally controllable start and stop
- byTT logic signals
- by floating contacts
 by live contacts between
- by live contacts between 6 V and 220 V, AC or DC
- Can be set for contact make, break or sweep function
- Can be set for signal change from H to L or from L to H
- Frequency measurement
- Model -8AA: 5 Hz to 120 MHz
- Model -8AB: 1 mHz to 120 MHz
- Model -8AC: 1 mHz to 1.2 GHz
- Speed measurement up to 2 x 10⁻⁸ rpm (models -8AB and -8AC)
- Period measurement up to max. 10⁵ s
- Event counting up to 10¹⁴
- High resolution as a result of reciprocal method of measurement
- Automatic range display
- Trigger indicator
- Easy-to-use as a result of microprocessor control system
- Five signal forms sine, delta and square wave, pulse, DC
- Frequency range to 1 mHz to 10 MHz
- Crystal-controlled frequency (PLL)
- High short-term and long-term stability
- Internal and external wobbling
- Internal, external and manual trigger and
- gate modes Can be used as wide-band amplifier
- IEC 625/IEEE 488 interface
- Storage of 10 instrument settings



Counter B2033, B2034



Synthesizer/function generator D2008

\langle	IEC 6	<u>25/IEE</u> E	488>
_	(C	Option)	



Digital timer

Function generators, timers and frequency meters

- Multi-output power supply
- Integrated measuring function
- Up to eight isolated outputs
- All outputs can also be used as eletronic load
- Low residual ripple and short response times
- Outputs can be switched on/off individually or in groups
- EC 625/IEEE 488 and V.24/RS 232 C interfaces



Stabizet 8 x 24

IEC 625/IEEE 488

- Computer-controllable laboratory power supply units
- Switching controller technology results in small size, low weight and low power loss
- Measuring functions for voltage, current and power with extremevalue memory
- Low residual ripple and fast response times
- On/off output control
- 9 instrument settings can be stored
- Lockable control elements
- Inrush current limiting and soft start
- Master/slave mode possible
- Interfaces: IEC 625/IEEE 488 and RS 232 C/V.24 (option)



Stabizet D2425

IEC 625/IEEE 488 (Option)

- "Auto-Ranging" output with 120 W
- or 240 W rated output
- Remote sensing
- Low residual ripple and
- short setting times
- Very good dynamic control parameters
- Output connections at the front and back
- Master-slave operation possible
- With overtemperature protection
- Compact type of design and low weight
- Low power loss; output ON/OFF function



Stabizet D2428

(Option)

- 1000 W / 1500 W output capacity with automatic power control
- Output voltage 130 V
- Output current to 50 A
- Precision 4-digit LED displays for voltage and current
- Analog remote control for voltage and current (option)
- Highly-effective power factor corrector for reactive power reduction
- Overvoltage (OVP) and overcurrent safety circuit (OCP)



Stabizet D2441

<u>IEC 625/IEEE 488</u>

Precision testing and simulation instruments



Calibrator 05



Position testing and simulation instrument CALIBRATOR 05, menukey operated

- for exact measurement and transmission of direct voltages and currents as well as resistance values in laboratories, test fields and plants
- for measuring and simulating the output signals of thermocouples and resistant thermometers with output in °C or °F
- for measuring and simulating the output signals of measurement transducers in two-wire or four-wire technology

Mains-independent operation is possible with 4 NiCd mono cell batteries, e.g. for installation and maintenance. Stand-by operation unrestricted in time through built-in charger, e.g. in workshops and test fields.

The CALIBRATOR 05 comes in a robust, anodized aluminium housing with 4 mm screw terminals to DIN, to which a Pt-100 simulator can be plugged.

On the front panel:

- 2 rotary switches for main functions (measurement, transmission, current, voltage/thermocouple, resistor/Pt 100 and measurement transducer simulation)
- Short stroke foil membrane keys for ON/OFF, range and output menus and display illumination
- Alphanumerical LC display with measured value and function display for operator guidance
- Slide switch for changing measuring current load
- Transmission and measurement of direct voltages and direct currents
- Simulation of 2-wire transmitters (sink operation)
- Setting of "transmission values" analog or in % of unit signals 0(4) up to 20 mA and fixed voltages
- Compact design (dimensions 195 m x 100 mm x 40 mm)
- LCD display
- Measuring tolerance ± 0.05 % of displayed value ± 2 digits
- Current supply via 4 non-chargeable batteries (IEC LR6) or through separate plug power pack AC 230 V (included in delivery); to choice chargeable NiCd or NIMH cells, chargeable with separate charger.

Calibrator 07



Calibrator DLP-01/DLP-03

Calibrator for one and/or three-phase systems

Settings

the amplitudes

setting the phase angle

setting the frequency

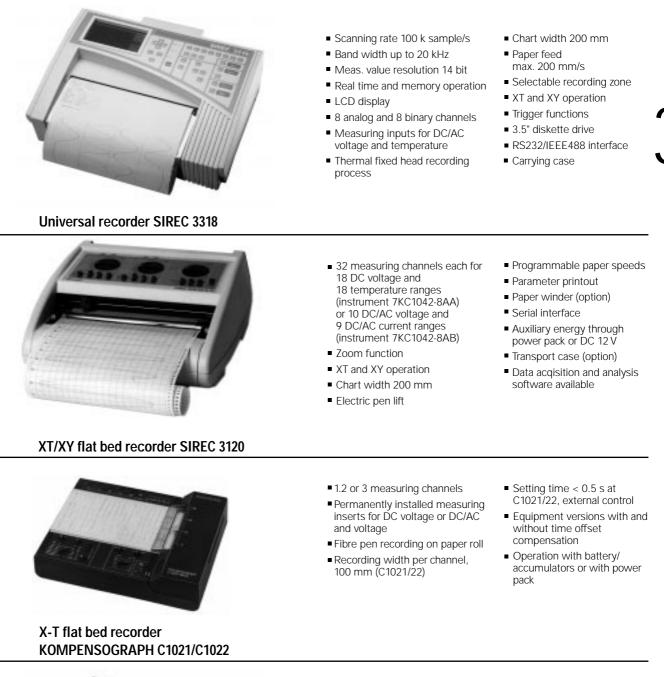
of voltages and currents, the active and reactive power and the energy flow direction through a hand-held operating unit or by means of Windows software WinDLP V3.0

For stationary and mobile use:

Control of measurement converters, displays, limit signal transducers, energy counters and digital protective relay Simulation of single phase and three-phase networks with freely selectable values for U, I,

For technical characteristic values and detailed product information please send for separate data sheet or demo diskette with description.

Process recorder in carrying case



Paper format DIN A4
Recording speed > 80cm/s
Fibre pen recording
Electrostatic paper holder

 Time basis for X-acis, 8 deflection speeds

5 direct voltage measuring ranges

Pen lift



X-Y recorder KOMPENSOGRAPH C1924

Siemens ART 2 · 1999

Process recorders in carrying case

- Universal modular system with 4, 8, 12 or 16 analog channels, 16 digital channels
- DC voltage, thermocouples PT100
- Paper width 270 mm, paper feed speed 1 mm/h at 20 cm/s
- Scanning rate: 250 kHz/channel, resolution 14 Bit, Band width: 30 kHz
- Color display TFT 10"4
- Mathematical functions, RS232C interface
- Memory: 4 MB, 3.5" diskette
- Options
- AC-TRMS and currents (via shunt)
- Transient mode: 1 MHz / channel, resolution 12 Bit Memory: 32 MB, PCMCIA card or hard disc



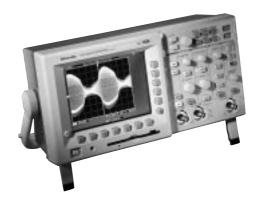
Oscillograph Recorder SIREC 3316

- Portable data acquisition recorder 16 digital channel
- Thermocouples, PT100
- Mathematical ONLINE calculation of signals and data transfer for ONLINE visualization on notebook or PC
- Ethernet Interface for fast data transmission and networking several instruments
- Stand alone operation
- Options
- Digital channels insulated version
- PCMCIA hard disc



RECSYS C2001

- 100 MHz / 300 MHz / 500 MHz band width
- 1,25 GS/s / 2,5 GS/s / 5 GS/s scanning rate
- ■as 2 and 4 channel instrument
- Options
- Interface RS232, video or GPIB, RS 232
- FFT, advanced or video trigger
 Accumulator pack, 19" installation set



Digital memory oscilloscope

Process recorders

SIPROM software 7ND3630

Setting could not be easier -

Each process runs differently in the same way as the demands on the recording software vary. SIPROM software sets standards in this respect as far as performance and safe handling is concerned.

Fantastic performance

You can configure your measuring station individually and calibrate the recorder easily and clearly

... and with maximum flexibility

The SIPROM software runs under Windows on any standard PC.

Time-tested SIREC technology with even more safety Our service offer - even more safety for you!

You automatically purchase this when you decide to go for a SIREC process recorder.

You should not be satisfied with less.

SIREC P/PA 7ND3020



144 x 144

SIREC L/LA 7ND3121 / 3125



144 x 144

The low-cost multipoint recorders 144 x 144 with 6 channels

- 6 measurement channels
- Measuring cycle 1.5 s for all channels
- Recording with fibre pen head, 6 colors
- Operating modes: Graphic: dot or joined dots selectable Alphanumeric (text output): Printout of channel no., limit symbols and data/time, during pauses in operation; printout of measuring parameters
- Measured variables (free adaptation by user) Direct current, DC voltage Temperature (connection via thermocouples and resistance thermometers) Resistance (two or three-wire system)
- Limit value monitoring
- Event marking
- Real time calendar/clock

The low-cost multipoint recorders 144 x 144 with front-mounted PC interface

- 1, 2, 3 analog measuring channels, 2 digital measuring channels
- Measured variables (free adaptation by user)
- Measuring cycle 150 to 300 ms
- Input signals
 L: DC U/I
 LA: DC U/I, TC, RTD, R
- Limit value monitoring
- Event marking
- All adjustments and settings using levers at front and via the PC interface

In addition with SIREC LA

- Alphanumeric output with additional fibre pen
- Chart paper: also grid-free paper
- Limit value lines freely adjustable for every channel

Measuring, recording and interference value acquisition instruments for 60/50-Hz networks



Oscillostore P513



MULTIREG C1732



MULTISCAN C2733

- Measuring, recording and fault-monitoring device for 60/50 Hz power supply networks
- Suitable for analyzing purposes in 1, 3 and 4-wire systems
- 14 measurement functions on the basic instrument; additional functions can be loaded
- Parallel acquisition and calculation of all values within one network period
- 8 differential measurement inputs, up to 4 available for currents
- Three-channel transient monitoring at a scanning frequency of up to 2 MHz
- Signal analysis up to the 50th harmonic
- Powerful operating, representation and evaluation functions; graphics, zoom, cursor
- Synchronous and event-controlled memory mode with the full range of parameterization options, for up to 500,000 measured values
- Printer for logging settings and measured data
- Disk drive for parameters and measured data and for loading the operating language and options
- Software calibration
- CE and GS symbols

Common technology

- Saving of 7 user programs, automatic switchover between 2 programs
- Measured variables (through connection models: Direct voltage, direct current, alternate current, alternate voltage temperature (through thermocouples and resistant thermometer) resistance (2, 3 or 4 wire circuit)
- Measuring cycle 1.5 s for 32 measuring channels
- Mathematical linking
- Measuring range and alarms freely programmable
- Programmable alarm marking and alarm output for each channel in the case of exceeded limit value
- Serial interfaces: RS 232, RS 422-A, RS 423-A, RS 485, insulated
- Parallel interface: system interface IEC 625/IEEE 488
- Table or built-in unit 19"
- Operator guide in German

Multireg C1732 technology pending

- Saving of all instrument setting on diskette
- Loading of parameters and measuring program from diskette
- Data analysis/processing through regular standard evaluation
- software or SIREC software
 Operating modes: display (numerical or as bar), curve presentation, table printout
- 32 meas. channels, without time offset, channel ext. with MULTISCAN
- Zooming (range expansion), zoning (column presentation)
- Line recorder function through point connection with faster change in measured value
- Low noise piezoelectric recording process, 8-colors, immediately visible recording
- measured value memory online on 3.5" diskettes
- measured value recording time 280 minutes up to 48 days (dependent on saving cycle for 32 channels)
- Text and scale printout
- Date/time printout and channel recognition
- Operator guide in German, English, French, Spanish and Italian
- Remote control and remote operation, freely programmable

Multireg C2733 technology pending

- Freely programmable measured value converter for connection maximum 32 analog signals (≈32 channels) on a PC
- Maximum 14 MULTISCAN controllable through PC (equivalent to 448 analog signals)
- extension of a MULTIREG C1732 or a PIEZOGRAPH (hybrid built-in redorder with possible extension by 32 measuring channels with the MULTIREG C1732)
- 1.5 s measuring cycle for all 32 measuring channels
- Alarm link

Rental Equipment



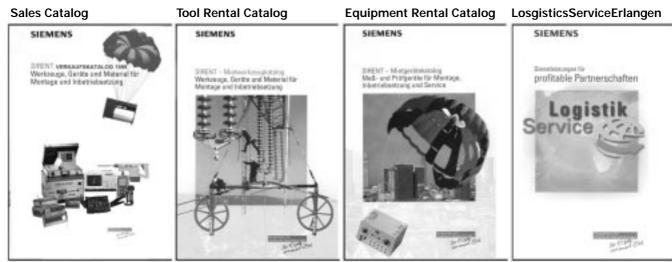
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- Data technology equipment
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- Special tools

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Please send me further information on:

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- Rented equipment
- Catalog ART1 "Measuring, testing and recording equipment"
- Catalog ART3 "Radiation pyrometers"

Head office

ATDTD MCH 5 Sales, measuring, test and recording equipment Radiation Pyrometers Tübinger Straße 1 - 5 80686 Munich, Germany Telephone +49 (89) 92 21-65 72 Fax +49 (89) 92 21-65 60

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DKD - calibration

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Conditions of sale and delivery

In Germany

The general terms of sale and delivery for the electrical industry apply, including the addendums concerning extended ownership rights.

The prices are in DM ex warehouse/factory including postage and packing free from the German border.

The prices do not include sales tax (VAT). It will be charged separately at the currently valid rate.

Unless stated otherwise on the pages of the catalog, we reserve the right to make changes, especially to the specified values, dimensions and weights.

The illustrations are non-binding.

We reserve the right to make price changes and will charge the prices which are valid at the time of delivery.

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The products listed in this catalog/price list can be subject to German and/or US export conditions.

Therefore exports subject to approval have to be approved by the responsible authorities. Information to this effect is provided on our confirmations of order, delivery notes and invoices.

There may also be an export authorization obligation because of the intended use and final destination of the products.

Calibration, adjustment and repair

Everything from one source to your advantage

The Siemens Calibration Service (SKD) Munich, is directly alongside our Service Departments.

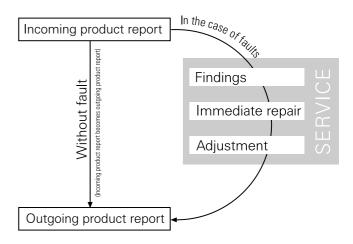
Should you ever discover errors when calibrating, which are not to be expected, then our trained staff can immediately draw you up an estimate for the repair work.

If you place an order for repairs with us we will carry out the repairs immediately and you can then continue to calibrate.

Finer adjustments are made by us free of charge. However, since in this case a report has to be drawn up we shall get in contact with you in good time.



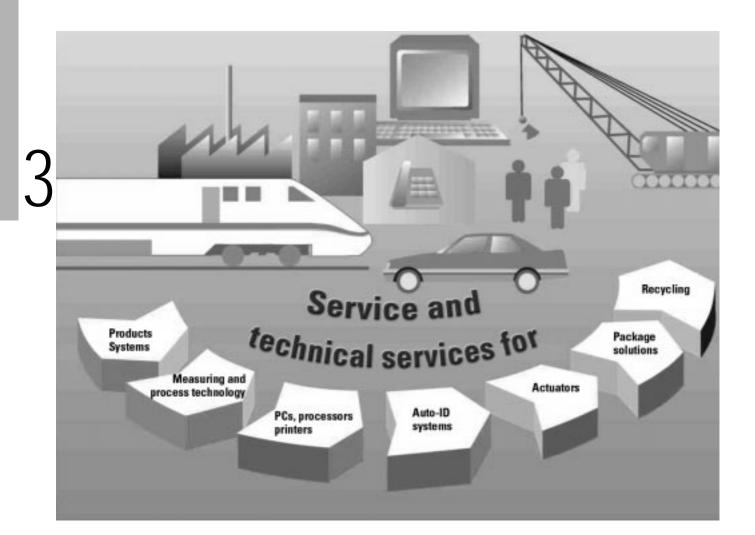
Schematic diagram on calibration procedures:



In the case of damage you will receive a written estimate in costs.

After approval the repairs will be made immediately and a new report issued.

We also offer in addition



Brief description

A very good functioning service and performance organisation is becoming more and more the key to all decisive advantage over competitors besides the mastery of technological processes.

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Portfolio

- Our service concept is innovative and customized
- Short run-through times
- Consultancy and acquisition
- Repairs under warranty
- Service specialists
- Round the clock irregularity service desk
- Maintenance work
- Bring in and on location service
- Depot and send-in service

Your advantage

- Reduced plant standstill times
- Concentration on key tasks
- Reduced failure times
- Business process optimisation
- Certified ISO 9000 partner
- Documentation of every piece of equipment serviced by us

Your contact partner:

Siemens AG Plant Construction and Technical Services + Service ATDTD MCH 5 Tübinger Str. 1-5 80686 Munich, Germany

Gerald Gassner

Tel./Fax: +49-89 9221-6586 / -3188 E-Mail: Gerald.Gassner@mchr2.siemens.de Internet: http://www.atd.siemens.de