

# DISPLAY AND CONTROL SYSTEMS

High-performance processor systems  
Reliable display and control units



ECOCONTROL 1000

ECOCONTROL 6000

REMOTE 6000



# ECOCONTROL 6000/1000/600

Three ECOCONTROL processor systems form the SIKORA premium segment of display and control devices. Intelligent software technology, clear arrangements and easy usability are their convincing characteristics.

Choose the extremely innovative and powerful ECOCONTROL 6000, the unique ECOCONTROL 1000 or the smart ECOCONTROL 600. Each of these display and control systems exceeds all expectations in their class.

The innovative display of the line, including pictograms of the connected devices, provides a unique overview, while the numeric and graphic display of the measuring values, trend diagrams, and statistics fulfill every demand regarding the process visualization.

The 22", 15" and 10" TFT monitors and the intuitive touch screen control of the ECOCONTROL 6000, 1000 and 600 processor systems represent an intelligent and cutting-edge technology.

All ECOCONTROL processor systems contain a time or length related trend diagram for all values, combined with a graph of the distribution of the single values (statistical distribution curve), and a comprehensive statistic with the minimum, maximum and mean value, standard deviation, Cp and Cpk values. The operation is intuitive with the menu-driven touch screen.



ECOCONTROL 6000  
with 22" monitor



ECOCONTROL 1000  
with 15" monitor



ECOCONTROL 600  
with 10" monitor

## Software packages (optional)

### Automatic diameter/wall thickness control

In combination with the control module SET POINT, the ECOCONTROL systems deliver quality assurance and cost reduction. They ensure a continuous, automatic control of the diameter or wall thickness to the nominal value by controlling either the line speed or the extruder rpm.

### Hot/Cold Module HC 2000 (ECOCONTROL 6000/1000)

With the Hot/Cold Module HC 2000, the material shrinkage is continuously calculated and considered automatically for the control of the diameter and/or wall thickness.

### FFT Analysis/Preventive Maintenance

Optionally, the ECOCONTROL 6000 visualizes periodical variations of the product parameter from an FFT analysis of the measuring values. This software package was developed with the support of competent partners of the industry and detects weak points of the production in time in terms of preventive maintenance.

### Data storage

The data storage on a SSD medium is a standard for the ECOCONTROL 6000 and 1000. For the ECOCONTROL 600, an external media storage (USB, optional LAN) is available. Time, length or reel related production reports are available for each of the three ECOCONTROL devices (6000, 1000 and 600).

## Technical Data ECOCONTROL

### 6000

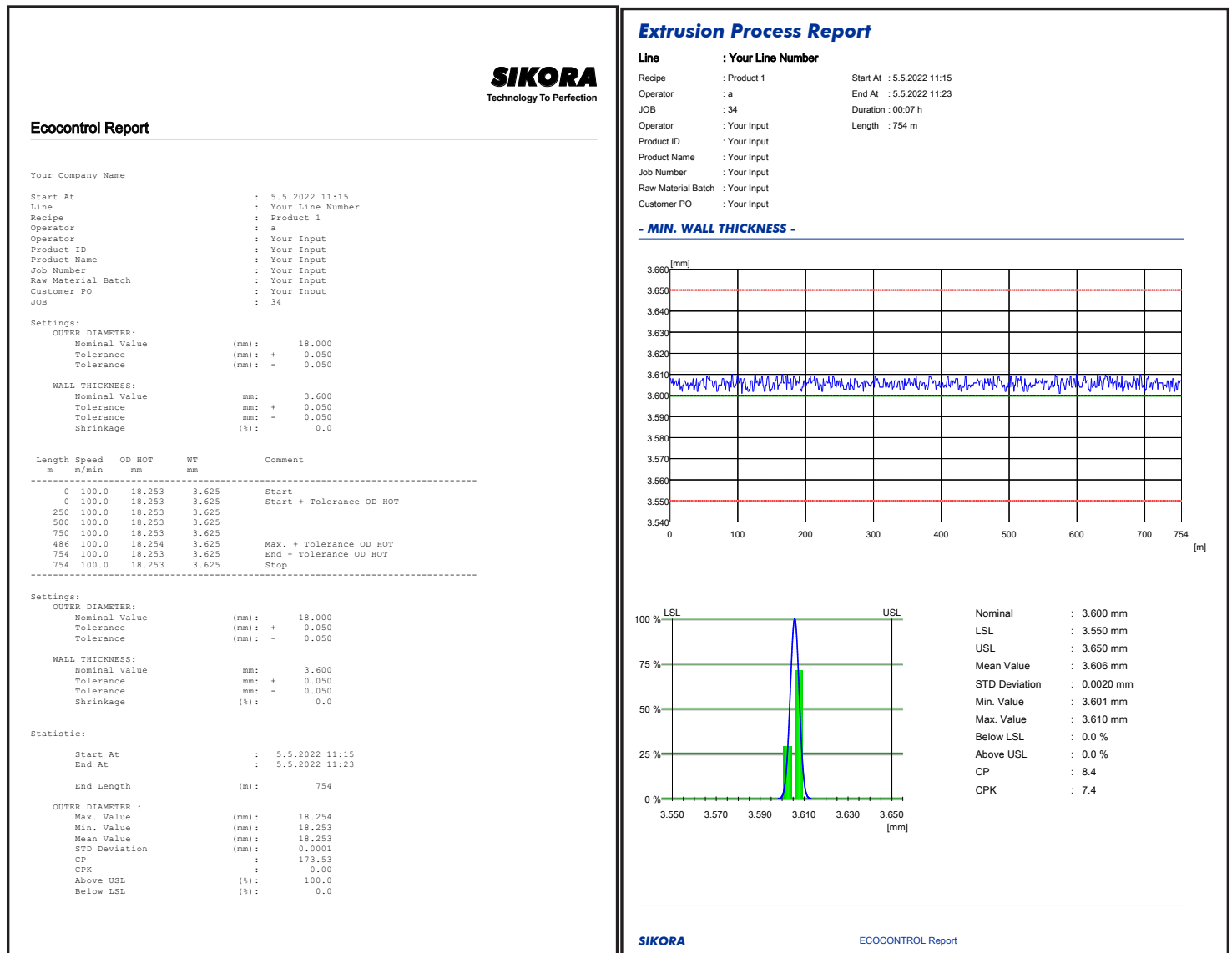
### 1000

### 600

	6000	1000	600
<b>Display</b>			
TFT color monitor	22" (vertical) (alternatively 15", horizontal)	15"	10"
<b>Inputs/Outputs</b>			
Serial interface RS485 for the connection to measuring devices	8*	4*	1
Electrically isolated digital inputs for the connection to testing devices	8*	4*	4*
Analog inputs 16 Bit, ± 10 V (bipolar)	8*	4*	-
Analog outputs 16 Bit, ± 10 V (bipolar)	8*	4*	-
Contact outputs for tolerance and status messages (max. 30 V, max. 0.5 A)	8*	4*	4*
Communication interface via RS232 or LAN	1*	1*	1*
Interface for printer	1*	1*	1*
Electrically isolated input for rotary pulse generators (0/15 V)	1	1	1
Electrically isolated interface module for control of the diameter (HC 2000)	1*	1*	-
USB customer interface	1	1	1
Industrial fieldbus (e.g. Profinet IO, EtherNet/IP, Profibus-DP, CANopen, DeviceNet)	Yes*	Yes*	No
LAN interface (selectable OPC DA2/UA/SuiteLink)	1*	1*	1*
Wi-Fi	1*	-	-
<b>Data Storage</b>			
	SSD	SSD	External media*
<b>Power Supply</b>			
	100 - 240 V AC ± 10 %, 50/60 Hz		

\* Depending on the equipment

## Examples for production reports



# — REMOTE 6000/DISPLAY 2000



REMOTE 6000



DISPLAY 2000

In addition to the premium processor systems, SIKORA offers reliable display and control devices that put basic functionality into focus.

#### Standard display and control device REMOTE 6000

The REMOTE 6000 is the standard display and control device, universally applicable for all SIKORA diameter measuring devices (LASER Series 2000/6000) as well as for LUMP 2000 event devices. The measuring values are displayed on a six-digit, 25 mm high, clear LED display. It is suitable for panel mounting or for assembly on the gauge head. The REMOTE 6000 includes a product library for up to 50 hose and tube recipes. Nominal values and tolerances can easily be recalled.

#### Automatic Control – Cost Savings

In combination with the control module SET POINT, an automatic control of the line speed or extruder rpm assures optimum process control and cost savings.

#### Interfaces

A serial interface for the connection to an external computer is standard for the collection of data or the PLC line control. An Ethernet interface for PLC connection is optionally available.

#### Typical features REMOTE 6000

- Large, clearly arranged display and keypad
- Automatic control module SET POINT (optional)
- Easy installation at any distance to the measuring head
- Serial interface for the connection to a measuring head, or a PC (optional)

#### LASER Series 2000/6000 with the REMOTE 6000

The REMOTE 6000, combined with a diameter gauge head of the LASER Series 2000/6000, shows the average diameter value clearly at the big LED display. Via a control key the average diameter of the measuring axis x, y or the ovality is selectable on the display.

#### LUMP 2000 with the REMOTE 6000

In combination with a LUMP 2000, the REMOTE 6000 shows the number as well as the type of faults. Clear symbols inform the operator if the fault is a lump or neckdown. Lump or neckdown information, such as the height, depth and length of the fault are stored, giving the operator the possibility to view previous faults.



Certified according to  
DIN EN ISO 9001

### Basic display device DISPLAY 2000

Interesting is the DISPLAY 2000 as a display device for the combination with the SIKORA diameter measuring devices of the LASER Series 2000/6000. It is suitable for the installation into a control cabinet as well as for the direct mounting at the gauge head. The digital display of the measuring value is 5-digit and device-specific configurable. In combination with the diameter measuring head, the DISPLAY 2000 shows the diameter values or the ovality.

Especially for applications that require a connection of the measuring system to the line control via a Profibus interface or whenever a clearly visible second display is requested, the DISPLAY 2000 is a reasonable and inexpensive supplement.

### Typical features DISPLAY 2000

- Digital display
- Selectable monitoring parameter (diameter, ovality)
- Installation at any distance to the gauge head
- Serial interface for the connection to a gauge head

## Technical Data REMOTE 6000

### Measuring Value Display

Digital, 6-digit e.g. 000.000 ... 500.000 mm  
Position of decimal point is adjustable

### Display Update

Programmable, factory setting 1/sec

### Nominal Value/Tolerance Selection

Via keypad (operation guided via a 4-digit LED display)

### Product Storage

Up to 50 product types, comfortable programming via the diagnosis software

### Tolerance Message/Control Action

- a) In clear text on LED display
- b) 4 potential-free contact outputs (optional)

### Interfaces

RS485 (gauge head), USB (for service)  
Optional: LAN/Ethernet+UDP

### Power Supply

100 - 240 V AC  $\pm$  10 %, 50/60 Hz

## Technical Data DISPLAY 2000

### 5-Digit Display

Digit height of 25 mm  
The bright, big figures are easy to read even from a distance of 12 m

### Interfaces

(Bi-directional serial interface) RS485

### Power Supply

100 - 240 V AC  $\pm$  10 %, 50/60 Hz

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