

# KD8 SCREEN RECORDER

## FEATURES:

IP65



MOD BUS



## INPUTS:



## OUTPUTS:



RS 485

USB

## GALVANIC ISOLATION:

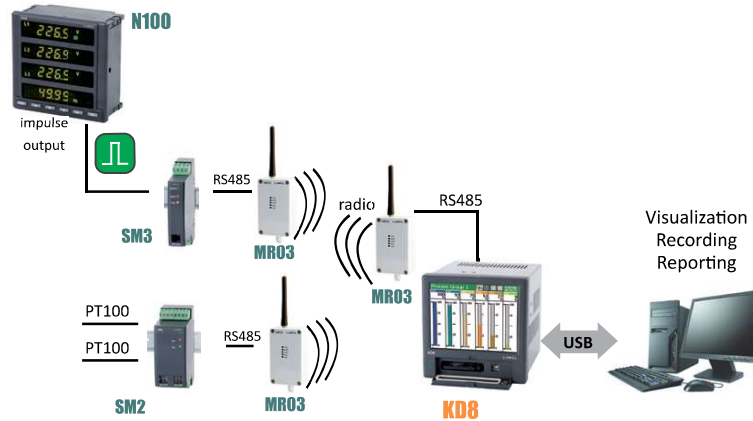


Digital interface



- Intuitive servicing - LCD TFT 5.7" screen, with touch panel.
- Data archiving on CompactFlash card, capacity up to 4 GB.
- IP65 protection grade on the front panel.
- 3 or 6 analog programmable measuring inputs.
- 6 or 12 alarms outputs.
- 4 or 8 digital inputs.
- Visualization of measurements in digital form, analog indicators, diagrams, bargraphs.
- RS-485 and USB serial interfaces.
- MS Windows® CE operating system.
- PC softwares: KD8 SETUP, KD CHECK, KD CONNECT, KD ARCHIVE.
- Programmable events.
- Menu available in various language versions.

## EXAMPLE OF APPLICATION

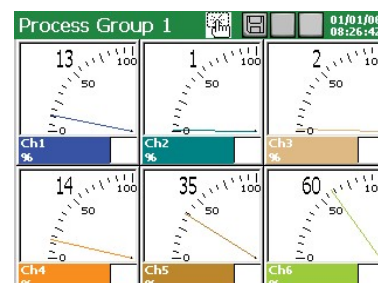
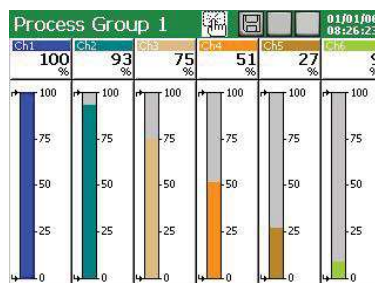
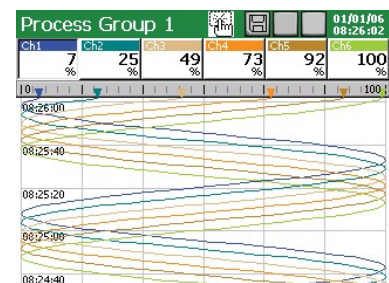
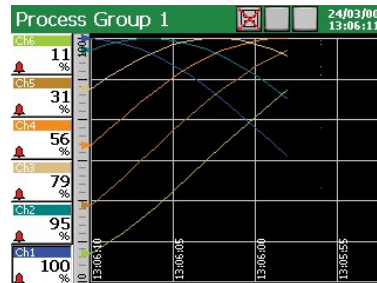


System of measurement, control and recording of temperature and energy with wireless communication.

## EXAMPLES OF MEASURING DATA PRESENTATION

### Various forms of data display:

- linear diagrams,
- digital indicators,
- analog views,
- bargraphs,
- tables and others. (manual and automatic switching between screens.)



Export department:  
Tel.: +48 68 45 75 139 /  
/276/ 386  
Fax: +48 68 32 54 091  
e-mail: export@lumel.com.pl

LUMEL S.A.  
ul. Sulechowska 1  
65-022 Zielona Góra  
POLAND  
WWW.LUMEL.COM.PL

## INPUTS

Input signal	Measuring range/ Accuracy class (%)	Minimal subrange/ Accuracy class (%)
Voltage	0 .. ±9999 mV 0.15	5 mV 0.25
Current	0 .. ±20 mA 0.15	1 mA
Thermocouple (TC): J (Fe-CuNi)	-200 .. 1200°C 0.1	100°C 1
K (NiCr-NiAl)	-200 .. 1370°C	130°C 0.7
N (NiCrSi-NiSi)	-200...1300°C	200°C 0.5
E (NiCr-CuNi)	-200...1000°C	100°C 1
R (PtRh13-Pt)	0 .. 1760°C 0.2	540°C 0.3
S (PtRh10-Pt)	0 .. 1760°C	570°C 0.3
T (Cu-CuNi)	-200 .. 400°C 0.1	110°C 0.9
B (PtRh30-PtRh6)	400 .. 1820°C 0.2	1000°C 0.2
L (GOST)	-200 .. 800°C 0.1	90°C 0.2
K (GOST)	-200 .. 1370°C	130°C 0.7
Resistance transmitter (RTD): Pt 100	-200 .. 850°C 0.15	0.25
Pt 500		0.3
Pt 1000		0.3
Ni 100	-60 .. 180°C	50°C 0.25
Cu 100	-50 .. 180°C	
GR.21 (GOST'78) (GOST'94)		
50P (GOST'78) (GOST'94)	-260 .. 1100°C	
100P (GOST'78)		
100P (GOST'94)		
50M (GOST'78) (GOST'94)	-200 .. 200°C	
100M (GOST'78) (GOST'94)		
Potentiometric transmitter	50 .. 2000 Ω	
Resistance transmitter	0 .. 2000 Ω	
Logic input	control signal 0/5 .. 24 V d.c.	switching frequency up to 50 Hz

## OUTPUTS

Output type	Properties
Relay	- electromagnetic relays: ≤ 250 V a.c./1 A or ≤ 30 V d.c./1 A

## DIGITAL INTERFACE

Interface type	Properties
RS-485	interface: MODBUS Slave, baud rate 0.3 .. 256 kbit/s, transmission mode: ASCII/ RTU
USB	device V.1.1, socket USB-B

## EXTERNAL FEATURES

Supply voltage	90 .. 230 .. 253 V	input power ≤ 30 VA
Temperature	operating: 0 .. 23 .. 55°C	storage: -20 .. 60°C
Humidity	< 70%	condensation inadmissible

## RATED OPERATING CONDITIONS

Display field	LCD 5.7" TFT type	320 x 240 pixels, with touch screen
Overall dimensions	144 x 144 mm	panel cut-out dimensions: 138+1 x 138+1 mm
Weight	< 2 kg	
Protection grade	from frontal side: IP65	from terminal side: IP20

## SAFETY AND COMPATIBILITY REQUIREMENTS

Electromagnetic compatibility	noise emissions	acc. to EN 61000-6-4
	noise immunity	acc. to EN 61000-6-2
Isolation between circuits	500 V d.c.	acc. to EN 61010-1
Isolation between supply and measuring system	2 kV	
Pollution level	2	
Installation category	II	
Maximal operating voltage in relation to earth	for the measuring system, relays and supply: 500 V	acc. to EN 61010-1
Altitude above sea level	< 2000 m	

**SOFTWARES ASSISTING THE KD8 RECORDER WORK:**

### KD ARCHIVE

Software destined to review and analyse archive data from the recorder on a PC computer, stored in a binary format with digital signature.

### KD8 SETUP

Software destined to configure recorder settings by means of a PC computer.

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Tel.: +48 68 45 75 139 /  
/276/ 386  
Fax: +48 68 32 54 091  
e-mail: export@lumel.com.pl

LUMEL S.A.  
ul. Sulechowska 1  
65-022 Zielona Góra  
POLAND  
**WWW.LUMEL.COM.PL**

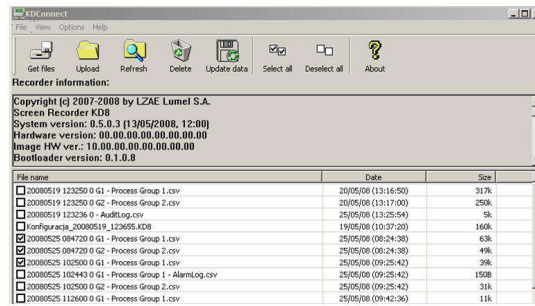
# KD8 SCREEN RECORDER

## EXEMPLARY FUNCTIONS OF KD8 ASSISTING SOFTWARES

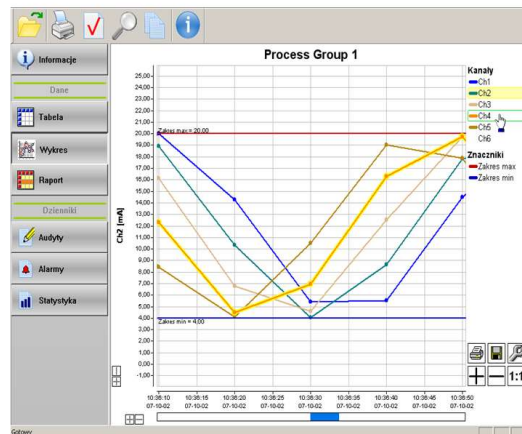
### SOFTWARES ASSISTING THE KD8 RECORDER WORK:

#### KD CONNECT

Software destined for the communication between the recorder and the PC computer through the USB interface in order to download archive data and record/erase on the CF card.



Downloading and erasing of archive data by means of the PC computer - KD CONNECT.



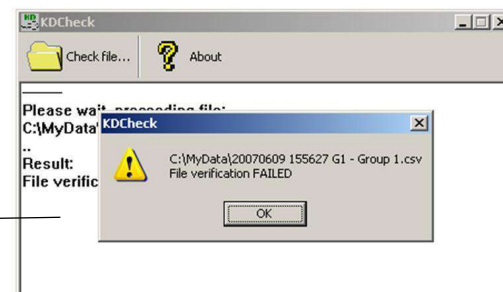
Review of archive data through the PC computer - KD ARCHIVE.

#### KD CHECK

Software destined to verify the digital signature in archive data stored in text format.



Configuration of the KD8 recorder by means of the PC computer - KD8 SETUP.



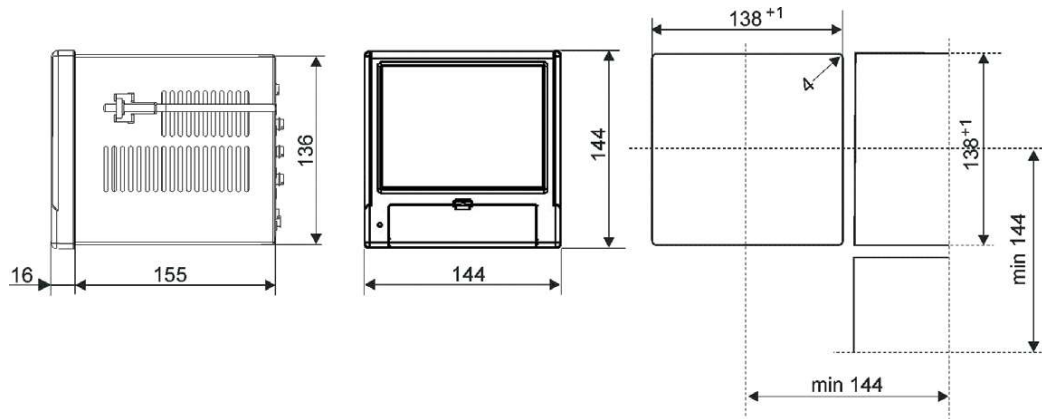
Checking result: incorrect file verification

Verification of the digital signature of text data - KD CHECK.

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Tel.: +48 68 45 75 139 /  
/276/ 386  
Fax: +48 68 32 54 091  
e-mail: export@lumel.com.pl

LUMEL S.A.  
ul. Sulechowska 1  
65-022 Zielona Góra  
POLAND  
WWW.LUMEL.COM.PL

## OVERALL DIMENSIONS



## SEE ALSO:



Temperature sensors.



Interface converter PD10.



KD7 recorder.

## ORDERING

Screen Recorder KD8 -	X	X	X	X	XX	X
<b>Measuring inputs:</b>						
3 programmable measuring inputs	1					
6 programmable measuring inputs	2					
<b>Alarms and binary inputs:</b>						
without alarms and binary inputs		0				
alarms (NO relays) + binary inputs <sup>1)</sup>		1				
<b>Supply:</b>						
90..253 V a.c.			1			
<b>Softwares servicing the recorder from PC:</b>						
KD Connect, KD Check				1		
KD Connect, KD Check, KD Archive, KD8 Setup				2		
<b>Version:</b>						
standard					00	
custom-made <sup>2)</sup>						XX
<b>Acceptance tests:</b>						
without extra quality inspection requirements						8
with an extra quality inspection certificate						7
with calibration certificate						4
according to customer's request <sup>2)</sup>						X

<sup>1)</sup> for each 3 measuring inputs a package with 6 alarms and 4 binary inputs is installed

<sup>2)</sup> after agreeing with the manufacturer

### Example of order:

the code **KD8-1-0-1-1-00-0** means:

- KD8** - recorder of KD8 type,
- 1** - with 3 programmable measuring inputs,
- 0** - without alarms and binary inputs,
- 1** - supply: 90 .. 253 V a.c.,
- 1** - with KD Connect and KD Check softwares,
- 00** - in standard version,
- 0** - without extra quality inspection requirements.

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Fax: +48 68 32 54 091  
e-mail: [export@lumel.com.pl](mailto:export@lumel.com.pl)

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65-022 Zielona Góra  
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