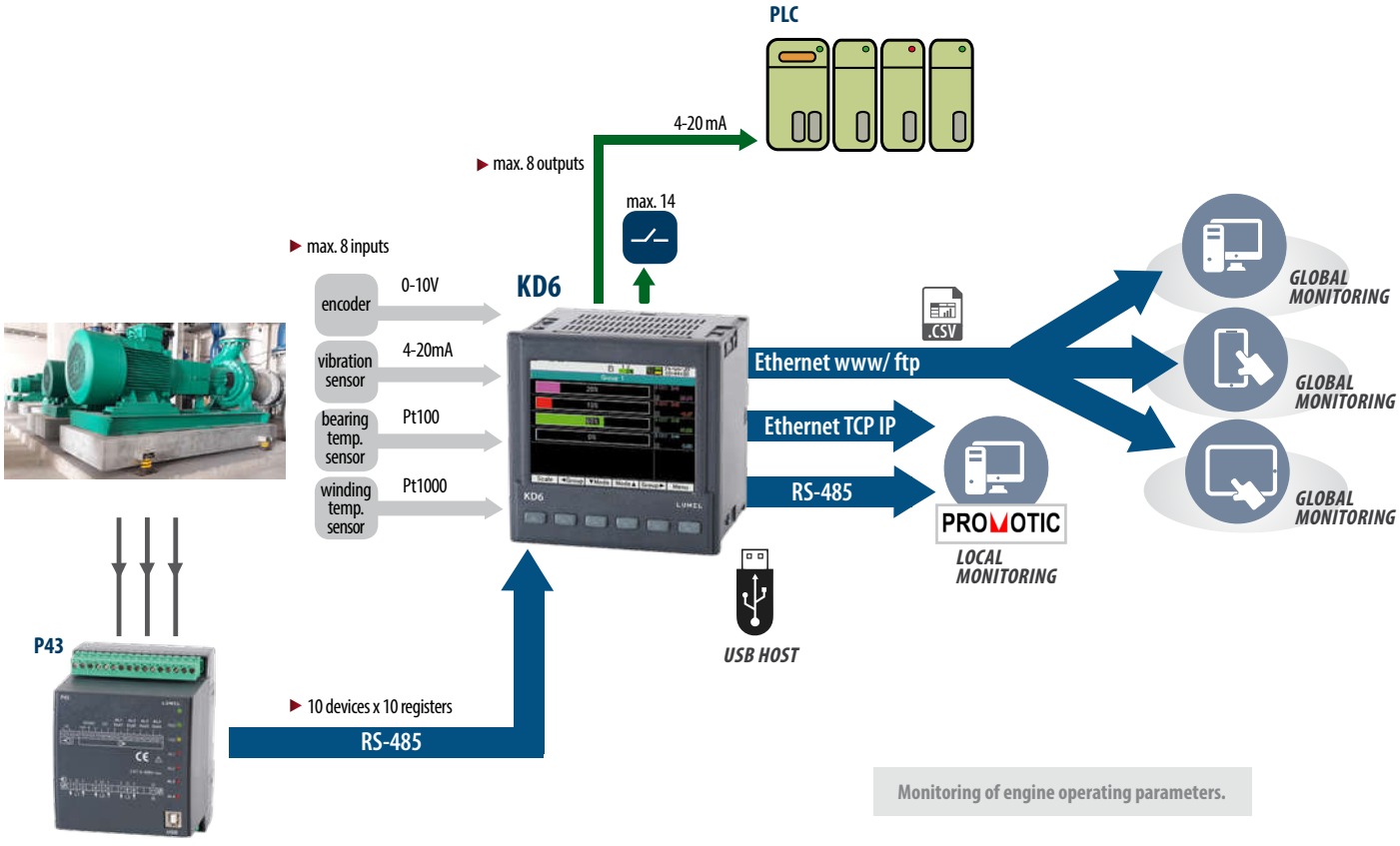


KD6 - SCREEN RECORDER

- **Up to 60 logical channels** (max. up to 8 analog channels).
- Input:
  - measuring programmable (0,4 or 8),
  - binary (2 or 6),
  - digital Modbus RTU Master (10 devices up to 10 registers).
- Outputs:
  - relays (2, 6 or 8),
  - analog 0/4...20mA (0, 4 or 8),
  - supplying output 24V d.c. / 30mA,
  - digital RS-485 Modbus.
- **Graphical color display**: LCD TFT 3.5", 320 x 240 pixels, **fully configurable by a user.**
- **Archiving of measured parameters in the internal file system memory with a capacity of 8GB.**
- Data logging in the form of CSV.
- Extensive alarm, math and scaling functions.
- Data presentation in digital form, in form of analog indicators, line charts, bargraphs.
- Independent recording for each group of logical channels (interval, registration trigger mode.
- Built-in USB HOST 2.0.
- **Modern and user-friendly Ethernet interface** 10/100 BASE-T:
  - protocol: MODBUS TCP/IP, HTTP, FTP,
  - services: www server, ftp server, DHCP client.
- Programming of parameters using **free eCon software**.
- NTP client for synchronization with a time server.
- Overall dimensions: 96 x 96 x 77 mm.

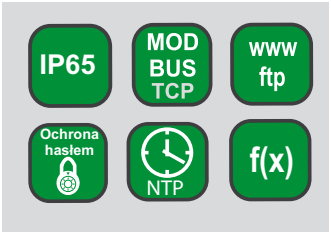
EXAMPLE OF APPLICATION



Monitoring of engine operating parameters.

KD6 - SCREEN RECORDER

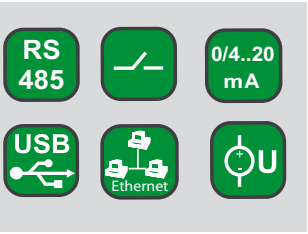
FEATURES



INPUTS



OUTPUTS



GALVANIC ISOLATION



TECHNICAL DATA

INPUTS

Sensor type / Input signal		Standard	Range		Basic error
RTD	PT100	EN 60751:2009	-200...850 °C	-328...1562 °F	0.2%
	PT500		-200...850 °C	-328...1562 °F	
	PT1000		-200...850 °C	-328...1562 °F	
Fe-CuNi (J)		EN 60584-1:2014	-100...1200 °C	-148...2192 °F	
Cu-CuNi (T)			-100...400 °C	-148...752 °F	
NiCr-NiAl (K)			-100...1370 °C	-148...2498 °F	
PtRh10-Pt (S)			-5...1760 °C	23...3200 °F	
PtRh13-Pt (R)			-5...1760 °C	23...3200 °F	
PtRh30-PtRh6 (B)			200...1820 °C	392...3200 °F	
NiCr-CuNi (E)			-100...1000 °C	-148...1832 °F	
NiCrSi-NiSi (N)			-100 ...1300 °C	-148...2372 °F	
Voltage			±10 V, ±300 mV, ±75 mV, 10 V, 300 mV, 75 mV,		
Current			±40 mA, 40 mA		
Resistance R			0...4000 Ω		

ADDITIONAL INPUTS

Binary inputs	2 or 6 inputs;	0 V d.c. – inactive binary input, 5...24 V d.c. – active binary input

OUTPUTS

Output type	Properties
Analog	current: 0/4 .. 20 mA programable, load resistance ≤ 400 Ω
Relays	2, 6, 8 relays, NOC, load 250V / 0,5A a.c. or 30V / 5A d.c.
Suplying output	1x output 24V d.c. /30 mA

DIGITAL INTERFACE

Interface type	Properties	
RS-485	1x Modbus Master/Slave interface 1x Modbus Slave interface	Transmission mode Modbus RTU: 8N2, 8E1, 8O1 Bauderate: 9.6, 19.2, 38.4, 57.6, 115.2 kbit/s Address:1...247
Ethernet	Modbus TCP/IP, NTP protocoll	WWW server, FTP server, DHCP client
	10/100 Base-T	RJ45 socket
USB	HOST 2.0	

EXTERNAL FEATURES

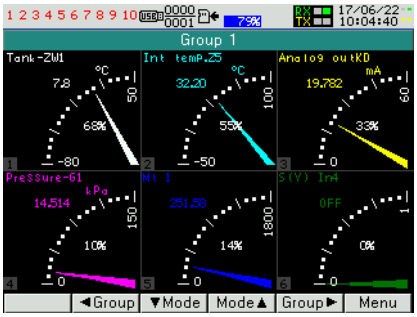
Readout field	graphical color display: LCD TFT 3.5", 320 x 240 pixels	
Overall dimensions	96 x 96 x 77 mm	panel cut-out dimensions: 92.5 x 92.5 mm
Weight	0.3 kg	
Protection grade	fron frontal side: IP65	from terminal side: IP20

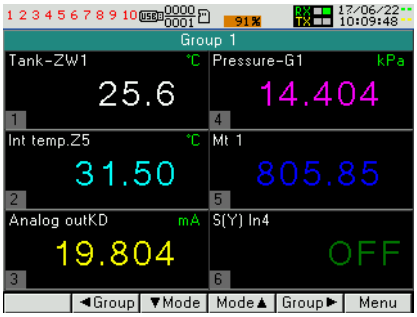
KD6 - SCREEN RECORDER

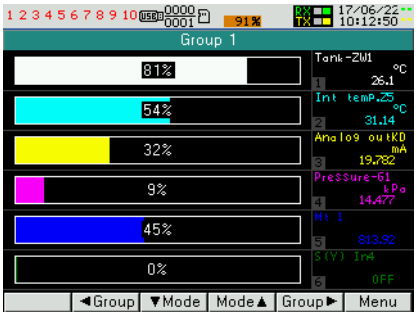
RATED OPERATING CONDITIONS		
Supply voltage	→○ 85...253 V a.c. (40...50...60 ... 400 Hz), 90...300 V d.c. or 20...60 V d.c.	power consumption ≤ 12 VA
Preheating time	30 min.	
Ambient temperature	-10...23...55°C, K55 class acc. to EN61557-12	
Humidity	0...40...60...95%	without condensation
Operating position	any	
Additional error (in % of the basic error)		from ambient temperature change: < 50% / 10°C

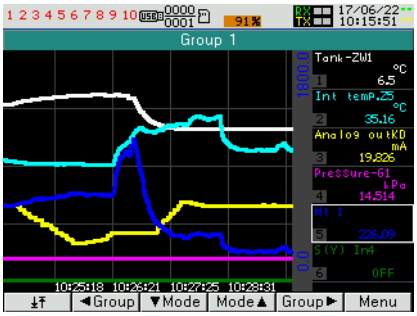
SAFETY AND COMPABILITY REQUIREMENTS		
Electromagnetic compatibility	noise immunity	acc. to EN 61000-6-2
	noise emissions	acc. to EN 61000-6-4
Isolation between circuits	basic	acc. to EN 61010-1
Polution level	2	acc. to EN 61010-1
Installation category	III	acc. to EN 61010-1
Maximal phase-to-earth voltage	• for supply circuit and relay outputs 300 V • for measuring input 50 V • for circuits of RS-485, Ethernet, analog outputs: 50 V	acc. to EN 61010-1
Altitude a.s.l.	< 2000 m	

DATA VISUALISATION





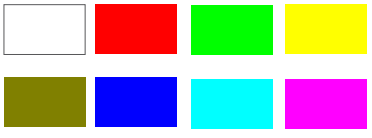




Various forms of data presentation:
- line charts
- digital indicators
- analog view
- bargraphs

up to 10 programmable screens
(6 parameters per page);
ability to change color for all screens

Available colors for digital indications:

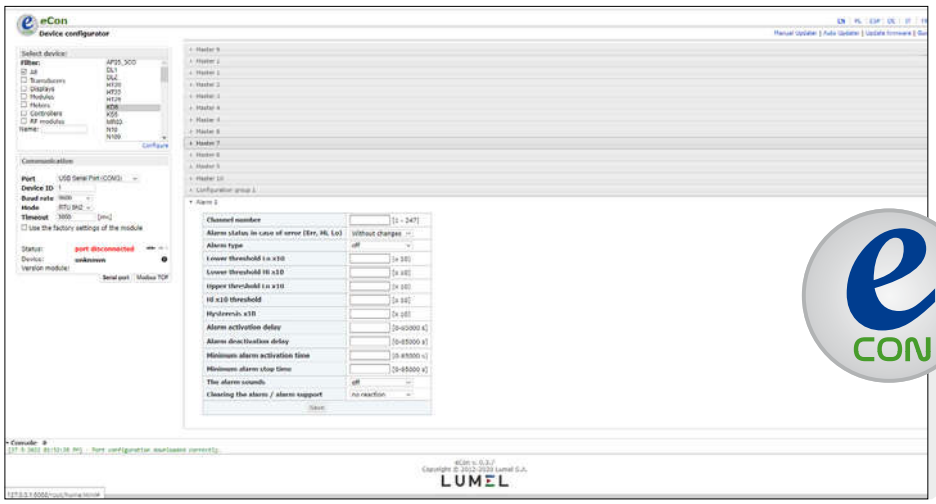




Easy to use and intuitive menu;
information bar with status of:
logical group archiving, USB port status,
status of used memory storage,
Ethernet and RS-485 interface,
time and data.

KD6 - SCREEN RECORDER

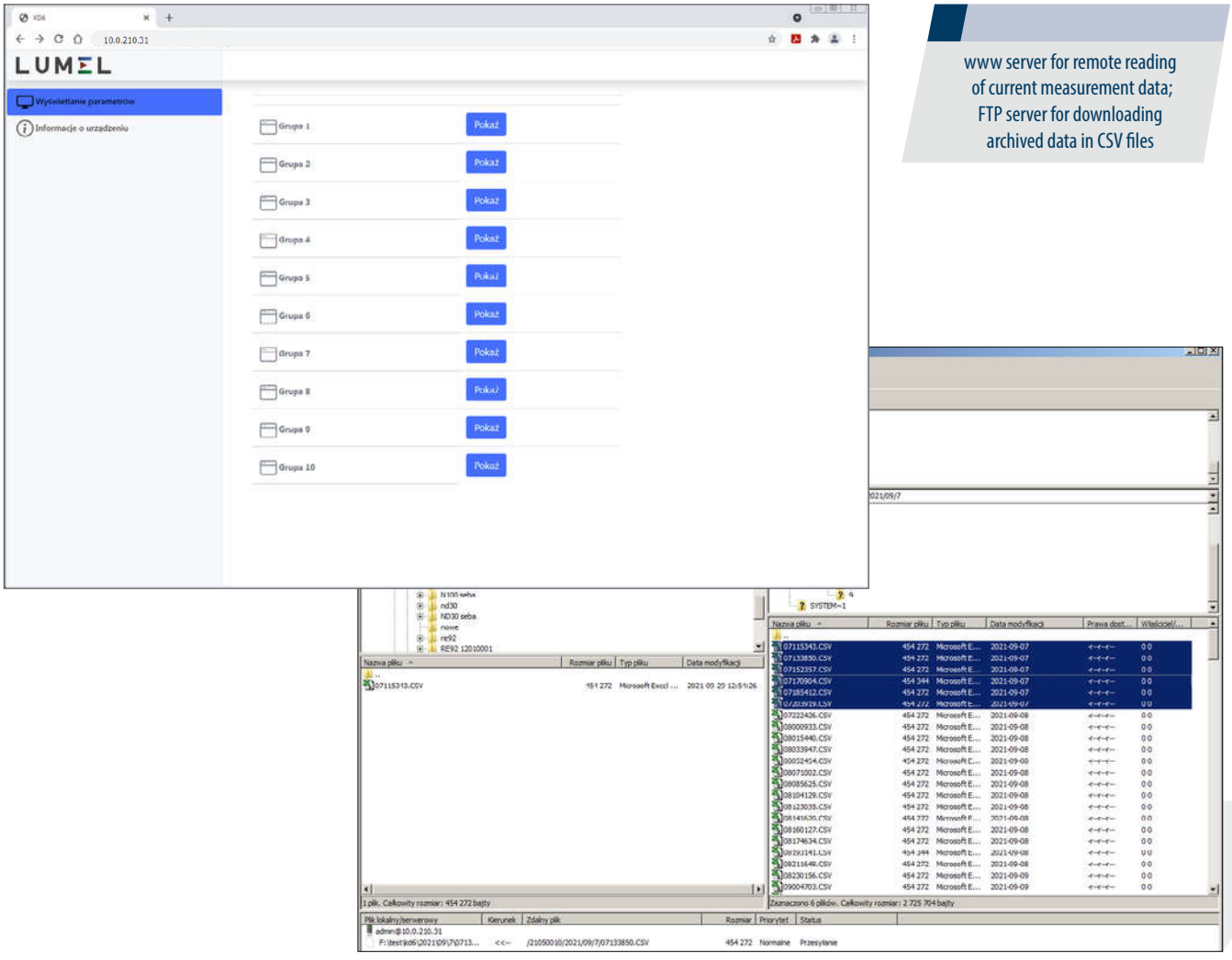
RECORDER CONFIGURATION WITH FREE **eCON** SOFTWARE



ability to configure and update of KD6 with free eCon software (via RS-485 or Ethernet interface)

Saving the configuration to a file and loading to many of the same recorders or creating a backup copy.

REMOTE READOUT OF PARAMETERS THROUG ETHERNET: **WWW SERVER, FTP**



www server for remote reading of current measurement data; FTP server for downloading archived data in CSV files

KD6 - SCREEN RECORDER

ORDERING CODE

KD6	X	X	X	XX	X	X
I/O module – slot X*:						
4 x programmable measuring inputs module	4					
I/O module – slot Y:						
without module		0				
6 x relay outputs module		1				
4 x relay outputs module + 4 x binary inputs separated from each other		2				
4 x analog outputs module + 4 xbinary inputs with common ground		3				
4 x programmable measuring inputs module		4				
Supply voltage:						
85...253 V a.c., 90...300 V d.c.			1			
20...60 V d.c.			2			
Version:						
standard				00		
custom-made**				XX		
Language:						
Polish/English					M	
other*					X	
Acceptance tests:						
with test certificate						0
with calibration certificate						2
acc.to customer's request**						X

* all possible variants for slot X are described in the user manual in chapter 11

** only after agreeing with the manufacturer

KD6-19_en

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Contact Number: +1.404.736.4903 **Web:**
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