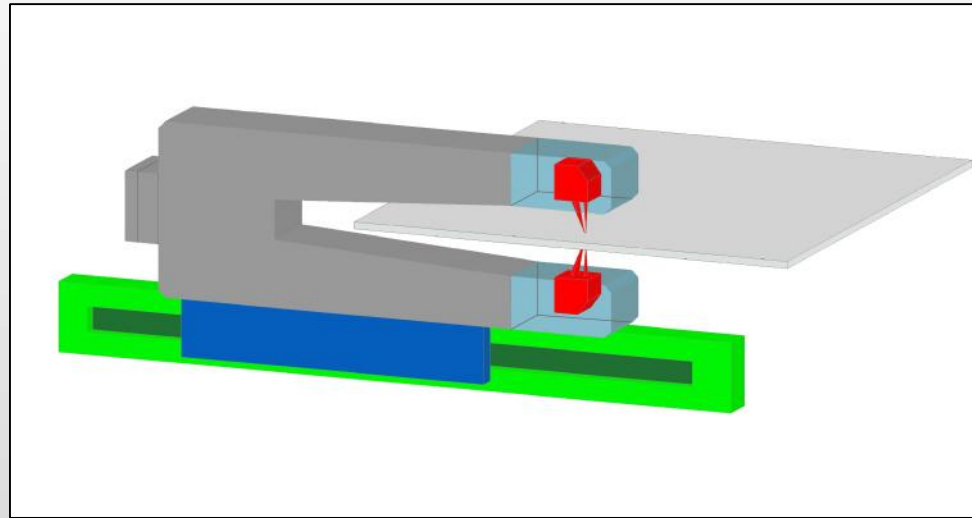




Specializing in Sensors for the Steel Industry  
**GORDY'S SENSORS**

*Need help with your application or to place an order?*  
CALL : (740) 967-2283 FAX: (740) 967-2855

## LASER Thickness Gauges - *KLT series*



### Typical applications:

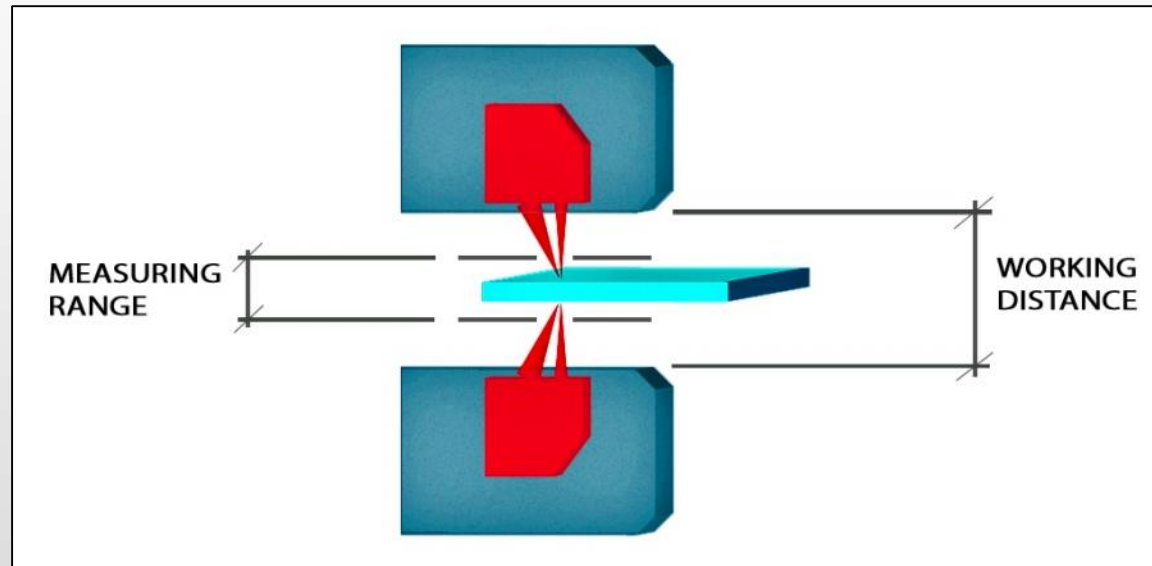
- metal strips and sheets
- wood, plastic and composite materials panels
  - foam and expanded foils and sheets
  - felts and carpets



- Non-contact measurement method: no marks on the material, no wear of the measuring sensor, insensitive to vibrations.
- High working distance to avoid material contact with the gauge.
- Completely safe non-contact technology without any hazard radiation.
- Independent from alloy, from material chemical composition, from density and from material color.
- Easy on-line calibration without skilled personnel.
- No demanding maintenance required.



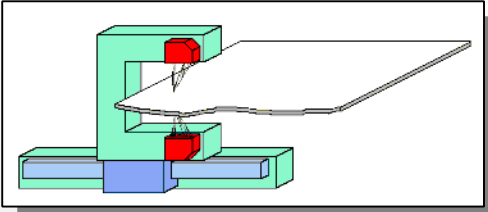
## Working principle



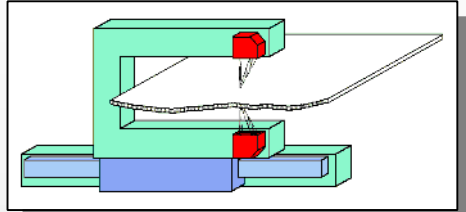
Laser triangulation with two opposite mounted measuring heads and automatic compensation of the oscillation of the material running in the measuring range.



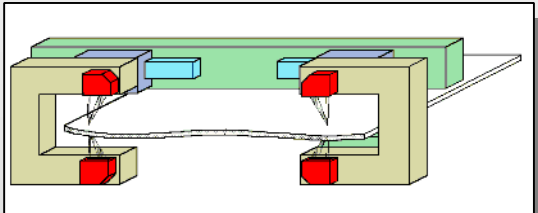
# Main measuring solutions



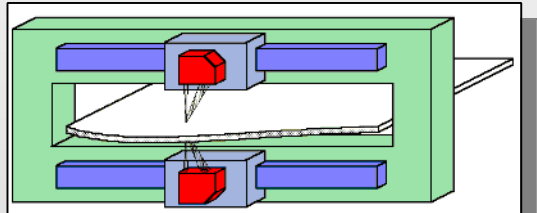
**KLT-100: edge single point**



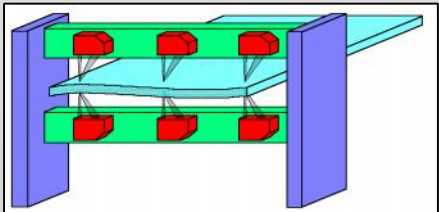
**KLT-1000: center line**



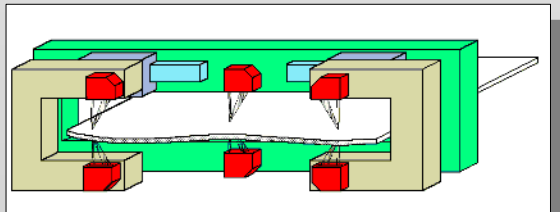
**KLT-2000: two edges**



**KLT/Scan: Scanning**



**KLT-3000: center line + two edges**



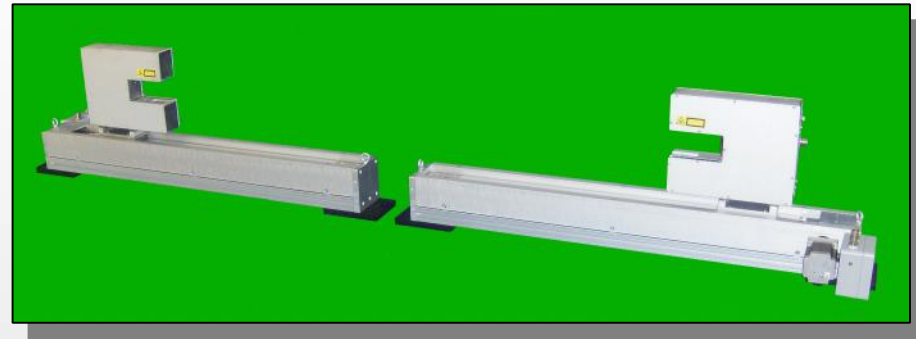


# Gordy's Sensors

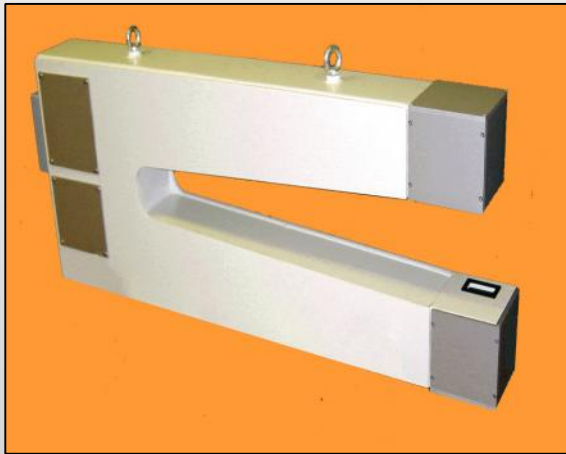
## Measuring units examples



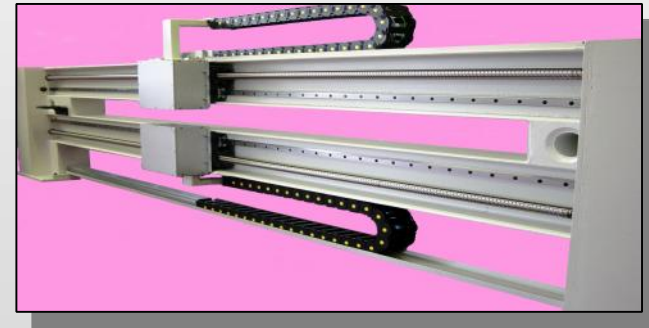
KLT-100



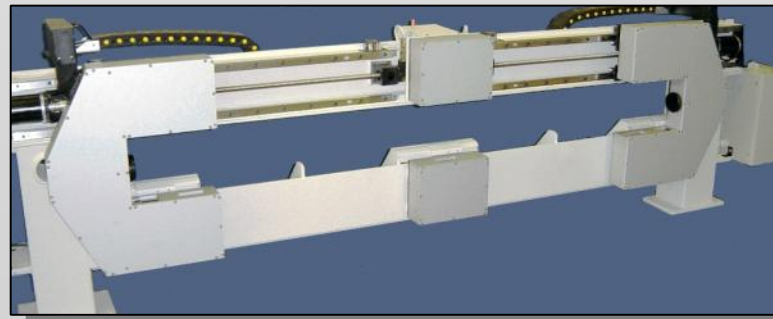
KLT-2000



KLT-1000



KLT-Scan

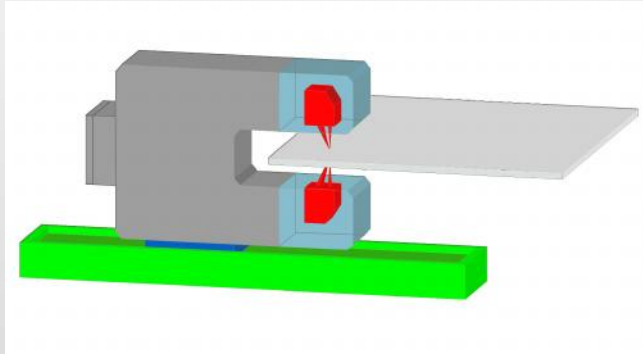


KLT-3000

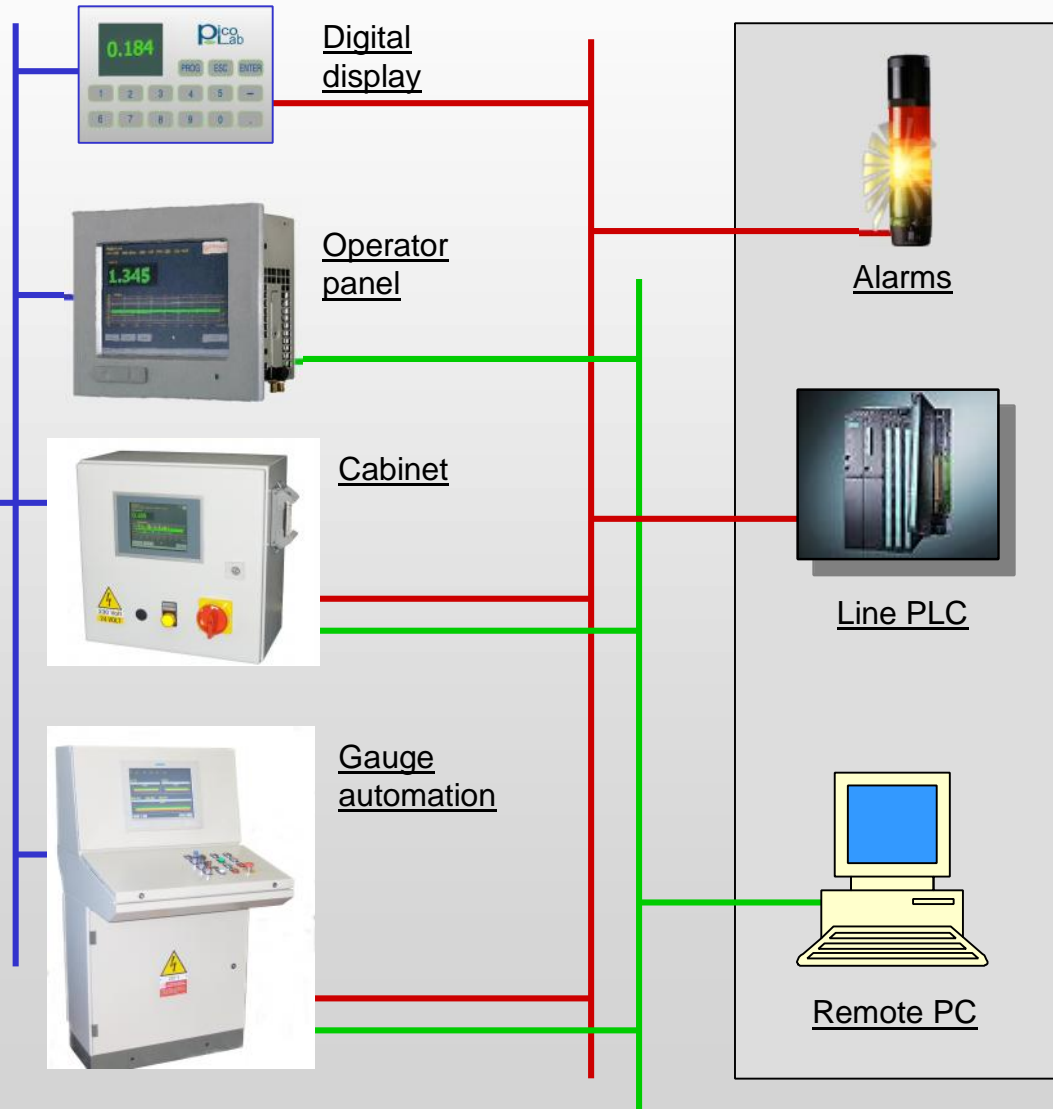


- Measuring heads with insulated double wall construction.
- Optical windows air purging system.
- Micrometric optical alignment of laser beams.
- Automatic regulation of laser room temperature.
- Fast and easy calibration system.
- Simultaneous sampling and real time digital processing.
- User friendly operator interface.
- Interface for any type of field bus.
- Full data sharing with Customer EDP system .

# Modular system architecture



Measuring unit





## Simple operator interface

### Only the necessary:

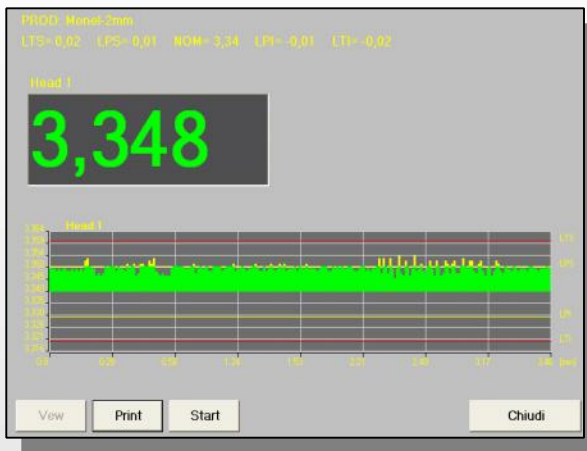


- Tolerance settings on industrial keyboard
- Color differentiated digital display
- Tolerance alarms
- Automatic calibration
- Compact dimensions (105 x 70 mm)
- Display 1,7"
- Only one measuring point
- Can be mounted on the measuring unit

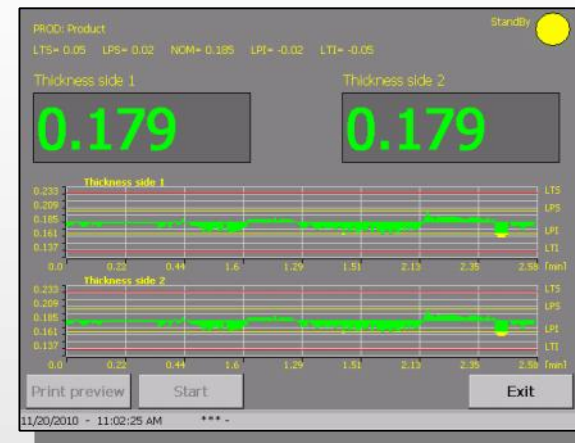


**Gordy's Sensors**

# Advanced operator interface



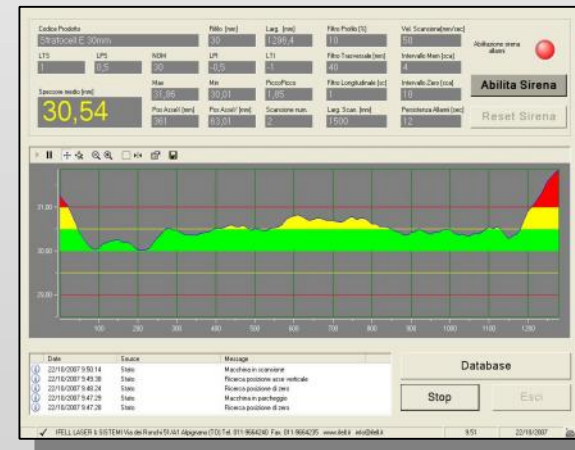
Single channel 5,7" graphical panel



Dual channel 5,7" graphical panel



Multichannel 15" graphical panel



Scanning system 15" graphical panel



# Gordy's Sensors

## Parameter settings and tests

Lingua: Italiano | Tempo Integr. [s]: 1

Ritardo [s]: 1 | Agg.Grafico [s]: 1

FCM [±1mm]: 0

1	2	3
4	5	6
7	8	9
,	0	+/-
CLR		BS

Abilita ricette

LTS [0+2mm]: 0.4 | LPS [0+1mm]: 0.2 | NOM [0+30]: 2 | LPI [0+-1mm]: -0.2 | LTI [0+-2mm]: -0.4

Avanzate | Ricette | **Nuovo FCM** | OK | Esci

Main parameters

Salvataggio dati

Tempo  Metrica

Intervallo[s]: 1 | Impulsi/Metro: 25

Salva su file |  Abilita inserimento nome file

Hard Disk 2\Documents

Stampa | .dat

Descrizione: Testa lato operatore

Testa lato motore

Inverti teste

Abilita Password

1	2
3	4
5	6
7	8
9	0
.	
BS	CLR

ADS: 5.10.134.107.1.1

801

CambiaPsw | OK | Esci

Advanced functions

Product code [max 30]: First example

FCM: 0

1	2	3
4	5	6
7	8	9
,	0	+/-
CLR		BS

LTS [0+2mm]: 0.05

LPS [0+1mm]: 0.02

NOM [0+30]: 0.185

LPI [0+-1mm]: -0.02

LTI [0+-2mm]: -0.05

New FCM | Close | OK

Product codes memorization

Measure1: 0.195

Top DistCH1: -1.454 | Bot.DistCH1: 1.988

Output: LTS, LPS, NOM, LTI, LPI

Input: Aq Data, StandBy

Close

Test interface



**Gordy's Sensors**

# Fast and easy calibration

• Calib. Assoluta

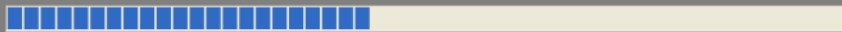
0,1-200[mm]

• Calib. Incrementale

0,001-10[mm]

Head 1

Calibrazione in corso



1	2	3
4	5	6
7	8	9
,	0	+/-
CLR		BS





**Gordy's Sensors**

# Documentation and traceability


**Print preview**

Product: First example  
LTS: 0.05  
LPS: 0.02  
NOM: 0.185  
LPI: -0.02  
LTI: -0.05

Min: 0.195  
Max: 0.195  
Mean: 0.195  
PeakPeak: 0.000  
Standard deviation: NaN  
CP: NaN  
CPK: NaN

Tolerance:  
LTS: 0%  
LPS: 0%  
NOM: 100%  
LPI: 0%  
LTI: 0%

Start 11/18/2010 10:08:19 AM



Print [+]

Print [-]

Close

report test\_18-09-2008\_17.07.dat

Prodotta: Test  
LTS: 0.4  
LPS: 0.2  
NOM: 2  
LPI: -0.2  
LTI: -0.4

Min: 2.315  
Max: 2.317  
Medio: 2.316  
Picco-Picco: 0.002  
Deviazione standard: 0.00048  
CP: 280.124  
CPK: -1341.667

Tolleranza:  
LTS: 0%  
LPS: 100%  
NOM: 0%  
LPI: 0%  
LTI: 0%

Start 18/09/2008 17:06:26

Spessore Head 1	Spessore Head 2	Data	Tolleranza Head 1	Tolleranza Head 2
2.317	0.000	17:06:26	LPS ---	0.0
2.317	0.000	17:06:27	LPS ---	1.2
2.317	0.000	17:06:27	LPS ---	2.4
2.317	0.000	17:06:28	LPS ---	3.4
2.316	0.000	17:06:28	LPS ---	4.0
2.316	0.000	17:06:29	LPS ---	5.0
2.316	0.000	17:06:29	LPS ---	6.2
2.316	0.000	17:06:30	LPS ---	7.2
2.316	0.000	17:06:30	LPS ---	8.3
2.316	0.000	17:06:31	LPS ---	9.3
2.316	0.000	17:06:31	LPS ---	10.3

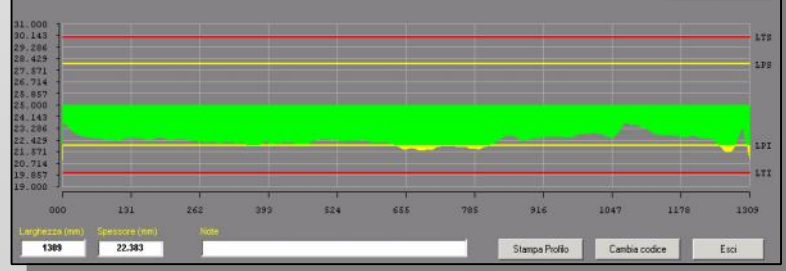
LASERCONTROL 11.8 Sistema di misura per il controllo di nastri ARCHIVIO DATI

NOM (mm)	LTI (mm)	LPI (mm)	LPS (mm)	LTS (mm)
25.000	5.000	3.000	3.000	5.000

banda larga

Profilo: Ora	Alarmi
003 14:50:26	28-02-2003 17.20.22 Superamento LTI -> Spessore Medio : 23.687
003 14:54:43	28-02-2003 17.20.40 Superamento LTI -> Spessore Medio : 23.757
003 14:57:51	28-02-2003 17.20.51 Superamento LTI -> Spessore Medio : 23.603
	28-02-2003 17.21.04 Superamento LTI -> Spessore Medio : 23.724
	28-02-2003 17.21.15 Superamento LTI -> Spessore Medio : 23.714
	28-02-2003 17.21.30 Superamento LTI -> Spessore Medio : 23.704
	28-02-2003 17.21.41 Superamento LTI -> Spessore Medio : 23.703
	28-02-2003 17.21.55 Superamento LTI -> Spessore Medio : 23.705
	28-02-2003 17.22.06 Superamento LTI -> Spessore Medio : 23.721
	28-02-2003 17.22.21 Superamento LTI -> Spessore Medio : 23.706
	28-02-2003 17.22.32 Superamento LTI -> Spessore Medio : 23.720
	28-02-2003 17.22.45 Superamento LTI -> Spessore Medio : 23.703
	28-02-2003 17.22.55 Superamento LTI -> Spessore Medio : 23.705
	28-02-2003 17.24.47 Superamento LTI -> Spessore Medio : 22.889

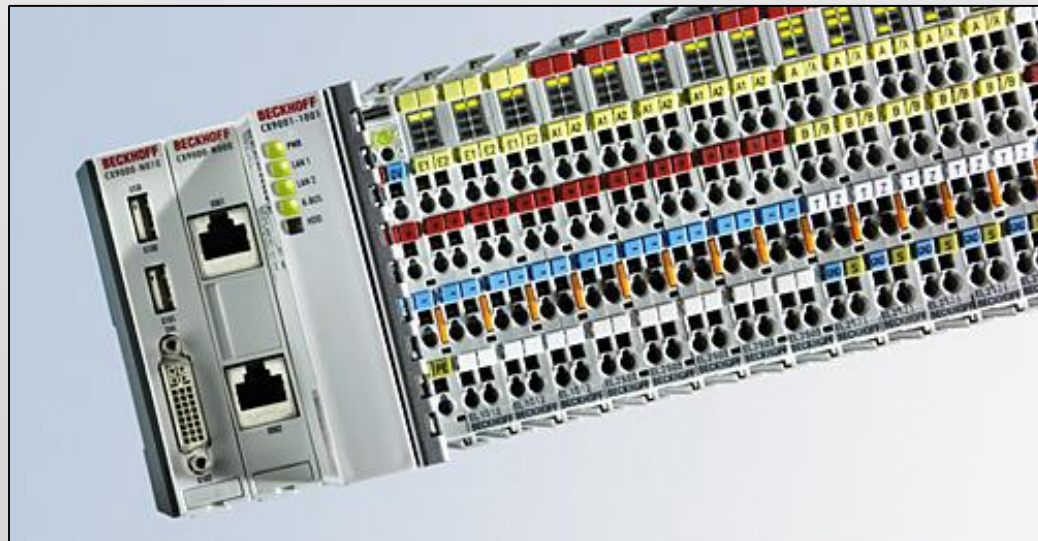
Da Data: 21/03/2003  
A Data: 21/03/2003  
Da Ora: 0 A Ora: 24  
Visualizza Alarmi  
Stampa Alarmi  
Stampa Alarmi selez.  
Visualizza TUTTI Alarmi



- Display and print of control report
- Local and/or remote data storage
- Data mining and analysis
- Data sharing with Customer EDP systems.



- Modular Beckhoff PC/PLC system.
- Parameter setting and remote commands through shared variables access.
- Data output on shared variables readable from external supervision system.
- Any type of field bus (Ethernet, Profibus, DeviceNet, etc...)



# Applications examples

