







ACCREDITED CALIBRATION CENTER











# Elimhd Short form Catalog

Reliable name in automatic control systems and turn-key contracts







E-72

E-2000M



TADE

### **DIGITAL INDICATING CONTROLLERS**

Designed by using microcontroller technology, 48x48 mm (E-48), 72x72 mm (E-72), 96x96 mm (E-2000M) size, for on/off and PID control, conforming IEC 668. These controllers have 2x4 digits LED display, range between -1999 and +9999, configurable universal inputs. They have easy programming facilities to provide on/off and PID forms, auto-tuning option and are used in every field of industry.



E-220



E-230



E-680



### ADVANCED UNIVERSAL DATA LOGGERS /

### SCANNERS E-690 Series universal data loggers/scanners are advanced new generation micro-controller based industrial instruments.

The universal inputs and outputs of the instrument can be easily programmed by the user. E-600 Series indicate measurements has 6, 12, 18, 24, 30 or 36 channels universal input, 2 common alarm relays and independent alarm relays up to 6, 12, 18 pieces, with its I/O cards easily plugged in or out by users.

With a high accuracy, microprocessor based, programmable flow indicator-totalizer are widely used

in many kinds of flow applications. Linear or square-root option and batch control features are available.

F-690



F-1200



### **HEAD-MOUNTED TEMPERATURE** CONTROLLER

FLOW INDICATOR-TOTALIZER

(96x96 mm.)

E-KC-100 Series head-mounted temperature, two-wire converters are new generation microcontroller based industrial instruments in plastic case. These converters can be used to convert the thermocouples, resistance thermometers to standard 4-20 mA. The configuration of the converter is done by PC, using a software programme supplied by Elimko.

### **HEAD-MOUNTED TYPE TEMPERATURE** CONVERTER WITH HART PROTOCOL

E-KC-200-H is a head type two-wire temperature transducer conforming to the HART protocol. The converter converts the measured value to a 4-20mA current signal according to the configured scale. Thermocouple and resistance thermometer type temperature sensors can be connected to the input of the converter. DC mV and resistor can also be connected to the converter input. E-KC-200-H converter can be configured with the HART configurator or a special PC software available from Elimko.

### E-700 CONVERTER

These are instruments used in all areas of industry to convert signals of sensors or transducers into current or voltage with standard and non-standard ranges. Converters are programmable, configuration could be done by PC using a software program. RS 485 is optional.

E-KC-100



E-KC-200-H



### E-700



E-770 E-780 E-790



E-770, E-780 and E-790 series signal converters are slim type industrial devices. These panel, rail-mounted serial converters. designed using a micro-controller in compliance with IEC/ TR 60668 standards, are especially preferred in industrial applications due to their small size. It is used in all areas of the industry to convert the signals received from the sensor (transducer) units into standard or special current signals and transmit them to measurement and control devices.



E-70

E-90

E-55

E-75

E-95

### **DIGITAL INDICATING CONTROLLERS**

These series controllers are designed using new generation micro-controllers for on/off and PID control and in sizes 48x48 mm (E-50), 72x72 mm (E-70), 96x96 mm (E-90), conforming IEC 668. Controllers have easy programming facilities to provide on/off and PID forms with 4 digits LED display range between -1999 and +9999, configurable universal inputs (T/C, R/T, mA) with 16 bit resolution, low calibration drifts with environmental conditions. These are economical series to use in wide range of applications.

### **DIGITAL TIMERS**

Designed for timing applications by using microprocessor based industrial timers. These series are 48x48 mm (E-55), 72x72 mm (E-75), 96x96 mm (E-95) in sizes, conforming to IEC 668. The timers in these series have 2x3 digit LED display range up to 999, is able to offer a multitude of time ranges and operating made with simple two buton programming. They could be programmed from 0.1 second to 999 hours in different operating forms.



### **DIGITAL INDICATING CONTROLLER**

E-58 series controllers are designed using new generation micro-controllers for on/off and PID control. The unit has dimensions of 48x48 mm, conforming IEC 668. These series have 2x4 digits LED display range between -1999 and +9999, configurable universal inputs (T/C, R/T, mV, mA) with 16 bit resolution, low calibration drifts with environmental conditions. The instruments' depth are less than the similiar controllers,

E-58

### DIGITAL INDICATING CONTROLLERS



E-49 and E-94 Series controllers are designed using new generation micro-controllers for on/off and PID control. E-49 (48x96 mm) and E-94 (96x48 mm ), conforming IEC 668. These controllers have 2x4 digits LED display range between 1999 and +9999, configurable universal inputs (T/C, R/T, mV, mA) with 16 bit resolution, low calibration drifts with environmental conditions. They have easy programming facilities to provide on/off and PID forms and are used in every field of industry.

2256 2256 ....

### UNIVERSAL-ADVANCED CONTROLLERS

E-200 Series universal-advanced controllers are designed by using microcontrollers. The unit has dimensions of 96x96 mm, conforming IEC 668 and advanced programming facilities to provide PID, motorized valve with position feedback, external set point, remote set point, digital inputs, auto-tune option. Communication port is RS 485 mod bus.

E-210



### FURNACE CONTROLER

E-250 is a furnace controller with 3 relay outputs for 1 thermocouple input and various functions. 2 sets of 4 digits 7 segment displays and keys on the front panel allow easy adjustment of temperature set point, cooking and steaming times. The front panel dimensions of the device are 96x96 mm. Power supply can be selected as optional 24 VAC or 220 VAC.

E-200



### UNIVERSAL ADVANCED DIGITAL CONTROLLERS

E-220 Series universal process control devices are designed E-220 Series Universal process control devices are designed for on/off and PID control using an advanced new generation micro-controller. These 96x96 mm industrial devices have a TFT display, conform to the IEC/TR 60668 standard, and the universal inputs and outputs are easily programmable by the user. A special software is used for manual and automatic adjustment of PID parameters which include the latest technological developments. This allows much more precise adjustments

### UNIVERSAL ADVANCED DIGITAL CONTROLLERS

E-230 Series universal process control devices are designed for on/off and PID control using an advanced new generation micro-controller. These 96x96 mm industrial devices have a TFT micro-controller. These social minimultifial devices have a 1 FT touchscreen, conform to the IEC/TR 60668 standard, and the universal inputs and outputs are easily programmable by the user. A special software is used for manual and automatic adjustment of PID parameters which include the latest technological developments. This allows much more precise adjustments.



microcontroller based industrial instruments, dimensions of 96x192 mm, conforming IEC 668. Universal inputs and outputs of the device can be programmed easily by the user. The instrument can be connected to a PC via RS 485 mod bus. Standard units have 8, 16, 24, 32 channels for alarm and data logging purpose.



### **INSTRUMENTS - INDUSTRIAL COMPUTERS**



### E-PR-110 PAPERLESS RECORDER & CONTROLLERS

E-PR-110 series are paperless recording and control devices designed by using new generation micro controllers. 5.7" touch-sensitive LCD screen, 144x144 mm panel dimensions, 8 GB memory, 3, 6, 9, 12, 15, 18, 21, 24-channel universal inputs



E-PR-200

E-DB-10

### E-PR-200 PAPERLESS RECORDER & CONTROLLERS

E-PR-200 series are new generation paperless recording and control devices designed by using innovative design and programmable input and output modules, 288x288 mm panel dimensions, 12.1" touchsensitive LCD screen, 8 GB memory, up to 54 channels of universal inputs



### FLOW INSTRUMENTS

E-1200 series instruments, microprocessor based, programmable flow indicator - totalizer with a high accuracy are widely used in many kinds of flow applications. Linear or square root option and batch control features are avaliable. (96x96mm)

E-DB-10 series instruments designed with microprocessor, measure the pressure and tempereture of the line whose flow rate is being measured and makes necessary corrections automatically. High accuracy E-DB-10 series flow rate computer can be used in every field of industry. It has square root feature. (96x192mm)



### FILTER TIMER

E-FT-10 device is a programmable timer with pressure control, designed for use in filter cleaning systems. The device consists of a control unit and output cards controlled by the control unit. There are 8 cards on the main unit and there are up to 16 outputs on each output card. The devices may alert the failures of any solenoid connected to its outputs with an alarm relay to the user.

E-FT-10



### VIBRATOR DRIVER

The E-VS-100 Series vibrator drivers are microprocessor based, designed to drive vibrators used for product feeding in blending, dozing, bagging and filling systems. The vibrators are widely used in iron & steel, glass, ceramic, cement, fertiliser and food industries to generate mechanical vibrations and enable the flow of granular material. The device can also be connected to a system via RS485 interface



### DIGITAL WOOD MOISTURE CONTENT METER

E-AR-20 Series Digital Wood Moisture Content Meter are designed by using new generation micro-controllers. confirming to IEC 668 and programmable easily. E-AR-20 is used at such industrial benches as wood process & coating , chipboard production ... E-AR-20 Series Digital Wood Moisture Content Meter has two displays, one is for humidity values and the other is for temperature shown at the same time.

E-AR-20



### MICROPROCESSOR-BASED VERSATILE **CONTROLLER FOR OVENS**

E-FK-100 series controller is microprocessor-based versatile controller for ovens, especially bakery ovens. Oven temperature, baking period, steam supply and fan operation periods are controlled according to the program entered into controller. Different recipes can be entered into the controller, user can operate the oven according to the recipe selected.



### PEAK VALUE MEASURING INSTRUMENTS

These instruments are used to measure the peak value of any parameter. E-200 series instruments are in 96x96 mm case and easy to programme for simple functions. Advanced E-AC-10-T type instruments have lots of functions and can be connected to a centralized computer via RS 485.



E-AC-10



E-AC-1000



E-AC-10-CRS



E-AC-10-BKB





E-AC-10-ÇPK





E-AC-10-TKB

### WEIGHING EQUIPMENTS

These units are used in weighing, solid flow rate measurements and controls and in every field in the industry

### E-AC-10

These series of weighing converters are devices designed using microcontrollers and used in weighing applications. The 5 buttons on the front of the monofilm block screen are used for programming and operations such as tare and calibration of the device.

### E-AC-1000

These series devices are Industrial devices designed using advanced new generation microcontroller for Belt Feeders, Impact Type Weigher-Dosing, Fill - Discharge Type Weigher – Dosing, Dosing Belt, Dosing Screw, Coriolis Type Flow Meter and Feeder. It has a 5" TFT touch screen in 96x192 mm panel sizes, conforming IEC 60668 standarts. It has RS485 Modbus, Ethernet and optional Profibus Communication.

### **CORIOLIS COMPUTER**

E-AC-10-CRS is an industrial computer which controlls the coriolis type weighers in industry, in sizes 96x192 mm, conforming IEC 668 standarts. The operator can program the device using 6 button keypad. 2x20 digit LCD indicator and 7 function LEDS are located on front panel of the device, showing the operation status. It communicates with computers via RS 485.

### **BELT WEIGHER CONTROLLER**

E-AC-10-BKB is designed using advanced new generation micro-controller for belt weighers, in 96x192 mm panel sizes, conforming IEC 668 standarts. The operator can program the device using 5 button keypad. 9 digit LED indicator, 5 function LEDS are located on front panel of the device, showing the operation status. These series are used for controlling of belt weighers, weigh feeders, impact type weighers, fill-dis charge type weighers.

### WEIGH-FEEDER CONTROLLER

E-AC-10-DBK is designed using advanced new generation micro-controller for weigh-feeders, in 96x192 mm panel sizes, conforming IEC 668 standarts. The operator can program the device using 5 button keypad. 9 digit LED indicator, 5 function LEDS are located on from constraint of the device using the program to the second of the device of the program to the second of the device of the device of the second of the device of the device of the second of the device of front panel of the device, showing the operation status. These series are used for controlling of belt weighers, weigh feeders, impact type weighers, fill-discharge type weighers.

### IMPACT TYPE WEIGHER CONTROLLER

E-AC-10-CPK is designed using advanced new generation micro-controller for impact type weighers, in 96x192 mm panel sizes, conforming IEC 668 standarts. The operator can program the device using 5 button keypad. 9 digit LED indicator, 5 function LEDS are located on front panel of the device, showing the operation status. These series are used for controlling of belt weighers, weigh feaders, impact type weighers, fill-discharge type weighers.

### WEIGHT CONVERTER

E-AC-10-CB series weight converter is designed using micro controllers for weighing applications. Weight signal is taken from the load cells connected to the device and displayed on the indicator. The operator can program the device using 5 button keypad. 6 digit LED indicator, 4 function LEDS are located on front panel of the device showing the operation status. Instrument is in sizes of 96x192 mm conforming IEC 668 standart.

### **BAG FILLING MACHINE COMPUTER**

E-AC-10-TKB is an industrial computer which provides automatic control for various types of bag and big-bag filling machines. Its stores programs up to 25 different bag sizes, and operates with the selected one.



E-AC-10-T



E-AC-10-DBK





### SENSORS-TRANSMITTERS-SWITCHES CALIBRATION CENTER



### STRAIGHT TYPE THERMOCOUPLES

Straight type thermocouples with metal or ceramic protection tubes widely used in processes from -200°C to +2320°C are produced in accordance with DIN 43710 and IEC60584 standards.



### L -TYPE THERMOCOUPLES

Generally used in the temperature measurement of salt baths and metallic solutions, I-type thermocouples are designed to protect the thermocouple head against heat and corrosive gases over the bath.



### **INSET TYPE THERMOCOUPLES**

In inset type thermocouples, thermocouple element wire is placed in a primary protective tube, and it is integrated with the ceramic terminal block. This unit is called the inset, which is placed in a second protection tube. When there is a failure in the thermocouple, the inset can be changed without changing the outer tube.



### PORTABLE THERMOCOUPLES

Portable thermocouples have many applications, and are widely used in surface and environment temperature measurement. Elimko product range includes a wide variety of portable thermocouples.



### EXHAUST THERMOCOUPLES

According to their place of use, exhaust thermocouples are produced in straight or angle types. Cable connection point can be placed under spring protection, and they are generally produced with fixed cable.



### **BAYONET TYPE THERMOCOUPLES**

This type of thermocouples are generally used in mild processes. Produced with fixed cables, they are installed by spring compression, using bayonet cap and nipple.



### MINERAL-INSULATED THERMOCOUPLES

As they are produced in bendable-flexible and small diameter types, MI thermocouples are widely used in portable applications. In high temperature applications they can be used as cable, and are ideal for under-car temperature monitoring in long tunnel furnaces.



### **RESISTANCE THERMOMETERS**

Resistance thermometers are widely used in various processes from -200°C to +850°C, and preferred at especially low temperatures as they are much more accurate than the thermocouples. Standard types are used up to 500°C and special types up to 850°C.



### **COMPENSATION CABLES**

Connections between thermocouples and instruments are made with special cables called thermocouple compensation cables. For all kinds of thermocouples, compensation cables with different insulations are available.



### **CAPACITIVE TYPE LEVEL SWITCHES**

E-KSS-100 series level switches operate according to capacitance change principle. Available in rigid bar and flexible electrode in different lengths, they are widely used in level sensing of solids and liquids.

E-KSS-100



B

### CONDUCTIVITY TYPE LEVEL SWITCHES

E-CSS-100 series level switches have a wide range of application in sensing liquids. This series of switches can be used in conductive liquids, and are preferred in tanks and other vessels to sense lower, upper and intermediate levels of liquids.

E-CSS-100



### MOTORIZED TYPE LEVEL SWITCHES

E-MSS-110 series level switches are used to sense lower, upper and intermediate levels of solids in silos, tanks and other vessels. If the level of the material has not reached the switch, blades rotate freely; when the level reaches the switch, the material blocks the blades and right then the motor closes the relay.



### RADAR LEVEL SENSOR

E-RLT-100 series Radar Level Sensors are designed to measure the level of material in silos. 24 GHz K-Band FMCW Radar provides high resolution reliable measurement with narrow beam microwave transmission. Optional two-wire 4-20mA electrical interface with optional HART output simplifies installation and reduces maintenance costs. The antenna options with different lengths can be adapted to various process conditions.



F-KC-100

### **TEMPERATURE TRANSMITTER**

It is a complete unit with E-KC-100 series converter installed on thermocouple or resistance thermometer heads. It needs 24VDC supply and operates as two-wire 4-20 mA temperature transmitter.



### **TEMPERATURE-HUMIDITY TRANSMITTER**

E-RHT-10 is a microprocessor based transmitter that uses a single chip relative humidity and temperature sensor module. It provides 12/14 bit (humidity/ temperature) serial digital output for each reading. The sensor includes two calibrated micro sensors for relative humidity and temperature. Transmitter is mounted in a waterproof plastic case and it is available with or without display unit.



### THERMOWELL AND FLANGES

Thermowells offer protection from high pressure, aggressive and corrosive environments. They can be designed to accept thermocouples, RTD's or filled systems. These thermowells could be produced flanged or screwed contruction types.



### ACCREDITED TEMPERATURE CALIBRATION CENTER

Elimko Temperature Calibration Center is accredited by TÜRKAK which is the member of European Cooperation for Accreditation (EA), according to the TS EN ISO/IEC 17025 Standarts. Various kinds of temperature instruments, thermocouples, resistance thermometers and other temperature sensors are calibrated in this laboratory with a low measurement uncertainability.



### WEIGHING SYSTEM MEASURING THE FLOW RATE AND DOSING OF THE SOLIDS

### BELT WEIGHERS

Elimko Belt scales are designed to measure the flow rate on each kind of belt conveyors. Elimko also produces weighing belt conveyors for better accuracy. Accuracy of the first type is 1% and accuracy of the second and third types are 0.5%. First and second types, accuracies are only valid for belts with hot or cold vulcanized smooth joint. Elimko belt scales and weighing belt conveyors, E-BK-100 types use E-AC-10-BKB and E-BKB-1000 types use E-AC-1000 type controller for high accuracy. E-AC-10-BKB and E-AC-1000 controller measures weight and speed with 16 bit accuracies. Controller has standard RS485 Modbus Communication and it can have Profibus communication as an option.



### MEASUREMENT BELT

The measurement belt is manufactured as a complete belt conveyor together with the measurement system in order to provide high accuracy. The structure of the belt conveyor has all the features to achieve high accuracy through the use of smoothly-processed rollers and uniform belt.



### APRON WEIGH FEEDER

E-CDB-100 is dosiged to use at heavy duty application which need apron feeder. It is weigh contreled apron feeder. Its mechanical and electrical proparties provides high accurey & high reliability. It is AC motor driven and it has standart RS485 mod bus communication and optionaly Profibus or Profinet or Ethernet communication.



#### IMPACT TYPE WEIGHER- DOZING

Material is passed through an inclined plane of a certain angle and flow rate and amount of passing material are measured with data received from load cell placed under inclined plane. System is mainly used for solid materials having free flow. It requires minimum maintenance. By adding conventional screw feeder, star feeder or similar feeding unit used commonly to impact type weigher, inclined impact type dozing unit is obtained.



### FILL – DISCHARGE TYPE WEIGHER – DOZING Fill – Discharge type weighers may be preferred for solid

and liquid flow rate measuring systems requiring high accuracy. Fill – Discharge type weighers receive the material to be measured into a weighing bunker, measure and unload. In the same system, Fill – Discharge type weigher is used as dozing unit for decreasing quantity measured based on principle of controlled decreasing in weight.



### CORIOLIS TYPE WEIGHER AND DOZING

Elimko coriolis type weigher and coriolis type dozing designed based on coriolis principle ensures highaccuracy weighting and dozing. Coriolis flow rate measurement system has been used in processes requiring high capacity and sensitive weighting such as applications in food, cement, glass etc. industries.



### WEIGHING UNITS

Various types of industrial weighing bins and platforms are produced for solids and liquids. The weighers can operate in weigh-in, weigh-out and weigh-control modes.



### **BELT WEIGH FEEDER**

Belt weigh feeders are designed high accuracy and various environmental conditions. AC motors that minimize maintenance problems are used in belt weigh feeders and its speed control unit provides high torque at low speeds. Belt weigh feeders are also produced with DC motors on request.



### DENSE PHASE PNEUMATIC TRANSPORTER

Dense phase Pneumatic transporter, is used to convey the bulk materials with small amount of air. It has different types for different materials. It is generally used for conveying medium to high density, heat sensitive, semiabrasive and/or very abrasive, cohesive, and/or very fragile materials in almost any particle size range over long distances. Examples include silica sand, glass batch, granulated sugar, powdered sugar, finished breakfast cereal etc.



### DOZING VALVE

E-DV-100 serial Dozing valves are the units used for controlling flow rate of powder materials mobilized through air during their transportation. They are used especially in feeding material to coriolis, impact type or dozing belt flow rate control systems. They can be produced in linear or square root characteristics.



### SAMPLING-SEPARATING-COLLECTING

Elimko has produced electronic controlled units with various electric components used in processes. E-SCU 100 is an unit which has 1 to 10 filling containers, each has 10 to 20 It sampling capacity. E-CBS-100 has the function of sampling. E-RSD-100 operates for separating samples. These products have been used in various processes as suitable to intended use and safely.



### LIGHT BELT WEIGHT FEEDERS

E-LBK-100 serious light load dozing belts (weight controlled belt feeders) are weight controlled belt feeders designed in such a way that they can operate with high accuracy in industrial mediums requiring lowweight weighting. Calibration having high accuracy which does not deteriorate in times thanks to its both mechanic and electronic structure. It has AC motor drive and Standard RS 485 modbus transmission possibilities.



### WEIGHING SCREW FEEDERS

Elimko weighing screw conveyors are designed to measure the flow rate of powder materials. They can be used as dosing screw feeder also. They can measure or feed 0,1 t/hr to 30 t/hr (0,1 m<sup>3</sup>/hr to 30 m<sup>3</sup>/hr) powder material at different industries.

#### APPLICATIONS OF; WEIGHING SYSTEMS, SOLID FLOW RATE MEASUREMENT AND DOSING ELEMENTS, BLENDING SYSTEMS

#### CEMENT SECTOR

Raw material preparation, kiln feeding, coal mills, raw mills and cement mills.

PLASTIC SECTOR

Various weighing and dosing operations of granular plastic raw material.

IRON & STEEL SECTOR

Continuous weighing and feeding applications from getting the ore to the metal lurgical process stage.

FOOD SECTOR

Weighing of all kinds of raw materials and dosing according to certain recipes at many steps of production including packaging.

#### CONSTRUCTION SECTOR

A series of weighing and dosing operations in processing the important raw material in this sector, namely the cement, and mixing it with other materials to make concrete (including Concrete Plants and Asphalt Plants).

CHEMISTRY SECTOR

The use of various solid flow rate and dosing elements in weighing and feeding raw materials.

GLASS SECTOR

In preparation of raw materials with high accuracy.

- FERTILIZER SECTOR
- A series of weighing and feeding operations in the production of fertilizers.
- ASPHALT SECTOR Weighing and dosing operations in the production of asphalt.
- CEBAMIC SECTOR
  - Various weighing and dosing operations in the preparation of ceramic raw material.
- PORCELAIN SECTOR

Various weighing and dosing operations in the preparation of porcelain raw material.





### AUTOMATIC CONTROL SYSTEM

-TURKEY



### **INDUSTRIAL COMPUTERS**

These microprocessor-based instruments have features such as mono film block front panel, programming from the keypad, and connection to a central computer or other industrial computers via RS485 or RS232 communication line



### PERSONAL COMPUTER (PC) USE

According to the system requirements, industrial computers can be connected to a personal computer. All system parameters can be arranged using PC and process variables can be monitored. Elimko made softwares are running without any problem on Win9x, Win2000 and WinXP based operating systems. On request, softwares are arranged to support multi language, local network and/or internet connection.



MIMIC DISPLAY

An important feature of the computer world for the visual presentation is the mimic diagram. On color display, all areas of the factory and the operation of the plant can be monitored simultaneously. The screen is a window for the operator opened to the desired section of the factory.



#### **GLASS SECTOR SOLUTIONS**

The automation systems of the Yenişehir, Eskişehir and Mersin Bottle Glass Factories Raw Material Preparation Plants of the Turkey Sisecam Factories group, which has a very significant place in the whole world glass packaging, household goods and flat glass market, has been carried out by Elimko completely including mechanical components. Raw material preparation plants prepare blends for three or more furnaces, each with a



capacity of 400-500 tons/day. Elimko, which has been installing reliable systems in the Turkish Sisecam group for years, has very important experiences especially in raw material preparation facilities. In addition, with these valuable experiences, "Raw Material Storage" and "Raw Material Preparation" facilities have been established in glass packaging factories of the Middle East, United Arab Emirates, Mexico and France in cooperation with many European companies for more than 20 years. In glass Factories producing luxury glass bottles with an average capacity of 350 tons/day, the "Raw Material and Broken Glass Loading" facilities have been successfully designed, produced, delivered and placed into operation. It has produced and delivered vibro feeder, bucket elevator, conveyor, premix preparation system, dense conveyor and transport units for loading facilities in desired capacities and volumes



#### CEMENT INDUSTRY CHROME REDUCTION SYSTEMS

Ferrous Sulfate (FeSO4) is added to the cement to reduce the Cr+6 formed in the cement. Elimko has developed the innovative E-DSDS-100 Ferrous Sulfate Dosing System for Cr+6 reduction. Ferrous Sulfate Dosing System consists of 3 main parts: Ferrous Sulfate Storage Bunker and Loading System, Discharged Quantity Weighing Dosing Unit, Pneumatic Conveying System. If desired, the optional Cement Flow Rate Measurement System is used.



### SYSTEM PANELS AND CONTROL ROOM

The most important indicator of a factory's control system is the automatic control room. Control panels, power panels, computer desks and peripheral units should be placed in the most compatible and ergonomic structure. Our company, which also pays attention to this issue, strives to organize control rooms through an appropriate layout plar in cooperation with the organizations where it has installed systems. Our automatic control and power panels that we use in the systems we have installed are manufactured by us. Extremely meticulous work is carried out by complying with the norms in DIN and IEC standards. Both electronic and pneumatic panels are assembled by Elimko's expert staff. We use first-class workmanship and materials in our panels use whose quality has been proven all over our country. The touch control screens on our panels provide progress and control with mimic display







at home and abroad. 1- Furnace charging systems (complete)

**IRON AND STEEL SECTOR SOLUTIONS** 

Complete automation systems of Karabük Iron

by Elimko. Important references include two oxygen converter automation systems in the

and Steel Factory Converters have been realized

factories, automatic dosing of flux and additives to two converters, each with a capacity of 80 tons in the steel plant according to the analysis results, combustion system of two mixers, related

- 2- Arc furnace or charging systems with oxygen converter (complete)
- 3- Dust collection systems
- 4- Complete automation
- 5- Preheating furnace automation and charging planning systems
- 6- Lime, Dolomite furnaces
- 7- Limestone grinding systems
- 8- Carbon transport and injection systems

### **IRON AND STEEL SECTOR SOLUTIONS** - INTERNATIONAL

Qatar Iron and Steel plant is a distinguished production facility in the Middle East with an annual iron and steel production capacity of over one million tons. In the process of increasing the capacity of this factory, Elimko systems were installed in various units and some units were modernized. One of these systems is the Slag Crushing-Separation plant with a capacity of 400 tons/hour and it has been installed and put into operation completely by Elimko including the mechanical units. Another unit is the Elimko Limestone Grinding Plant. By grinding limestone into micron powder, yield and quality are increased. In the limestone grinding plant with a production capacity of 3-5 tons, 0-6 cm long product is processed and 0-150 micron ground product is obtained. It has a storage capacity of 160 m<sup>3</sup> of processed and ground products. With Elimko's special design and equipment, the Limestone Grinding Plant was commissioned in the Middle East. In addition, the Gas Analysis Unit of the integrated steel plant, which has the latest technology operating in the industrial sector of the United Arab Emirates, was also installed and commissioned by Elimko.

### **CERAMIC AND PORCELAIN SECTOR** SOLUTIONS

The Raw Material Preparation Facility with a capacity of 250 tons/day of the Eczacıbaşı Vitra factory located in Bozüyük has been modernized by Elimko. The facility can be controlled and monitored from a single center. All controls are made with PLC's, communication is carried out with the operator's computer. In addition, within the scope of the Sludge Revision in Eczacıbaşı Vitra's Bozüyük factory, the production, assembly and commissioning of the conveyor, cradle transport conveyor, panel, assembly and commissioning were carried out by Elimko

We supply automatic control system services on "turn-key basis"

from design to project, from installation to commissioning





**ABB** Instrumentation

### MICROPROCESSOR-BASED CONTROLLERS

In dimensions of 96x96 mm, 48x96 mm, 96x48 mm, 48x48 mm Models of CM50, CM30, CM, 15, CM10. Microprocessor-based, programmable, state-of-the-art control devices with many alternatives.

MICROPROCESSOR BASED RECORDERS

In 144x144 mm dimensions, 1, 2, ...12 channels; in

MICROPROCESSOR BASED CIRCULAR

up to 2 channels control action with alarms.

386X382 mm. microprocessor-based programmable

recorders. Dimensions, 1, 2, .... 4 channels recording,

RECORDERS

326.8x147 mm dimensions, 3, 6, ... 24 channels strip

type, microprocessor-based programmable recorders...



BEAMEX



## REPRESENTATIVES

**CALIBRATION INSTRUMENTS** 

High accuracy calibration and test-intended temperature, electrical signal and resistance thermometer simulators; portable automatic pressure pumps; portable multipurpose calibration devices; calibration furnace... MC2, MC4, MC6 models resistance for intended use; RTS24 resistance boxes for resistance thermometer calibrations

### **CALIBRATION SOFTWARE**

Professional software packets used with Beamex Calibration devices, in which entire calibration data is stored, evaluated, certificate documents are printed. Feature of integrating to various computer systems. CMX single user, CMX Professional (multi-user), CMX high capacity types exist.

### CALIBRATION BENCH

Calibration benches designed professionally, ergonomically and safely contain all calibration equipment in calibration rooms. It has been demanded by especially big establishments in recent years.

ABB Instrumentation

ABB Instrumentation



**ABB** Instrumentation

### **VIDEOGRAPHIC RECORDER (PAPERLESS** RECORDER)

for various processes with many alternatives,

high accuracy, latest products of microprocessor

In 144x144 mm, dimensions, bright and clear display, secure data recording, robust and convenient archive storage, 6 or 12 universal inputs, I/O modules, math and communications.





### LEVEL-DENSITY-HUMIDITY MEASUREMENT WITH RADIOMETRIC PRINCIPLE

Measurements with radiometric principle; density, level, humidity, mass flow on conveyor bands; potassium, sulphur, lead analyzers...

### CONCENTRATION, BRIX, HUMIDITY MEASUREMENT BASED ON MICROWAVE

Concentration, brix, humidty measurements based on microwave principle and applications intended for

Electronic-electromechanical type level, flow switches

### **ABB** Instrumentation



MASS FLOW METERS

technology...

With its highly accurate mass measurement capability, and consequent time and cost minimization and also with its independence of conductivity, temperature, pressure, and density, it is the preferred mass flowmeter...

**ABB** Instrumentation



### PRESSURE TRANSMITTERS

At various pressure ranges, absolute, gage and differential type pressure transmitters, smart models, special types for level measurement, 4-20 mA two-wire connection...



LEVEL, FLOW SWITCHES

and ultrasonic type level sensors.

**TEMPERATURE, PRESSURE SWITCHES** Electronic-electromechanical type temperature, pressure and differential pressure switches.

Ph/redox meters, conductivity disolved oxygen, water analyzers silica monitor, turbidity analyzer and sensors. VISHAY LOAD CELLS Stainless steel load cells at various capacities and high accuracy weighing equipment.





### PRECISION ALLOYS

- Precision alloys
- Thermocouple wires Current measurement wires
- Heat generation wires

ISABELLENHÜTTE



ABB Instrumentation

### ZIRCONIA OXYGEN ANALYZER

ANALYTIC EQUIPMENTS

Zirconia O<sup>2</sup> analyzer, general purpose and high temperature O<sup>2</sup> probe safe and hazardous area probe and analyzers and other gas analyzer





BEAMEX



## PRINCIPLE

especially food and sugar sectors.



# SOR





















### RELIABLE NAME IN AUTOMATIC CONTROL SYSTEMS AND TURN-KEY CONTRACTS

Elimko is operating in the area of AUTOMATIC CONTROL since 1976. Early after its establishment, Elimko started to serve the Turkish industry through the production of indicators, recorders, controllers and sensors for process control systems.

In the following years, Elimko established complete automatic control systems and placed its signature to many "**firsts**" in Turkey. It is a leader company especially in Computer Controlled Raw Material Preparation Plants with numerous references. With the experience gained, Elimko has built Automatic Control Systems outside Turkey with lots of Contractor Companies.

Today, majority of the reliable machine manufacturers selling their products outside Turkey alsol prefer Elimko instruments and sensors, which have **ISO 9001 QUALITY CERTIFICATE** and **CE MARK**.

Starting in 1985, Elimko has undertaken the representations of foreign companies which are leaders in their fields. These representations include **AFTER SALES TECHNICAL SUPPORT**.

Thus, Elimko has become the **RELIABLE NAME IN AUTOMATIC CONTROL WORLD**. With the manufacturing of Solid Flow Rate Measurement and Dosing Elements, Weighing Units, Level Sensors and similar instruments, it is now filling in the important gaps in the Turkish industry in a **DILIGENT**, **SERIOUS** and **CONSISTENT** manner.

### MEETS YOUR REQUIREMENTS IN AUTOMATIC CONTROL

## Elimko

- With its 30.000 m<sup>2</sup> NEW FACILITY located in Ankara Chamber of Commerce (ASO) 2<sup>nd</sup> Organized Industrial Zone, Temelli/Ankara,
- Around 160 staff, 27 process engineers,
- Experienced design, research and development group,
- DILIGENT AND SERIOUS manufacturing group,
- · Outstanding plants built by the system group using state-of-the-art technology,
- Slogan of NOT HAVING ANY CUSTOMER PROBLEMS after sales,
  - Around 40 agents for serving customers all over Turkey,
  - Sales & Marketing Group's approach to make the MOST SUITABLE, MOST ECONOMIC, MOST ACCURATE selection using engineering experience in a warm commercial relation,
  - Wide use of computers in purchase order-shipment-stocking-accounting-personnel and similar areas to achieve speed and accuracy in a modern working environment
  - Training group's efforts to provide courses on BASICS OF AUTOMATIC CONTROL and other topics to train technical personnel.

### MAKES ELİMKO A LEADER ORGANIZATION



Agent Label

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