





tico 731 tico 732







	Electronic Counters	Electronic Counters
Key specs	 Small, compact in DIN size: 24 x 48 mm 5 different versions: Totalizing counter, Timer, Tachometer, 2-channel position indicator and Counter with differential mode 8-digit LCD- or 6-digit LED-display Different supply voltages available: independent of mains supply with lithium battery 12-24 VDC supply, 12-250 VAC/VDC Programmable count input for voltage signal or contact Frequency 7,5 kHz or 30 Hz RESET: reset input with contact KEYLOCK: locking of the reset key UL Certified 	 Multifunctional counter series, used as totalizing and preset counter, tachometer, time counter, shift or batch counter DIN size: 48 x 48 mm 6-digit, high contrast LED display or reflective LCD display Bi-directional multifunctional counter Various voltage supplies: 12-24 VDC; 115 VAC or 230 VAC 1 or 2 presets Input frequency up to 5 kHz Freely adjustable prescaling Programmable keyboard lock Easily programmable via front button keypad UL Certified
Fields of applica- tion	 Totalizing Produced quantity counting Production counting Length measuring (in combination with encoder) Small machinery Packaging machines Crimping machines Speed monitoring and position monitoring 	 Display and control unit in any automation and machinery application Packaging machines Wood processing machines Assembly and handling small machines Conveyor and transportation automation Small milling and grinding machines Laboratory equipment Speed monitoring and position monitoring
Verticals	> Factory automation> Process industry> Machine building	 > Factory automation > Machine building > Food and beverages

tico 772/773/774











		TALE		
	Electronic Counters		Electronic Counters	
Key specs	 Multifunctional, universally appl counter, time counter, tachomet counter DIN size: 48 x 48 mm Type 773: with USB interface, t 2 line; 6- and 6-digit display Four different backlight colour Easy to operate Input frequency up to 60 kHz Easy installation via plug-in te 3 presets UL Certified 	er, 2-shift counter and batch type 774: with RS232 interface rs with adjustable backlighting	 > Preset counter > DIN size: 48 x 48 mm > Most simple handling > Input counting frequency up to > Various VAC and VDC input volt > Different display types: reflect or red digits > 2-line; 5- and 6-digit display > 1 or 2 relays > Counting frequency up to 60 kl > Easy installation by pluggable > UL Certified 	tages ive LCD, transmissive LCD black Hz
Fields of applica- tion	 Display and control unit in any au Packaging Machines Ceramic production machiner Food and beverages industry r Wood processing machines Assembly and handling small r Conveyor and transportation a Small milling and grinding ma Laboratory equipment 	machinery machines automation	 Display unit in any automation Packaging Machines Conveyor and transportation a Small milling and grinding mach Laboratory equipment 	utomation
Verticals	 Factory automation Machine building	> Process industry> Food and beverages	Factory automationMachine building	> Process industry> Food and beverages





Process Indicators

- Process indicator for AC/DC Voltage, DC Process and as a general display
- > DIN size: 48 x 96 mm
- "Awesome" 18 mm high digit LED display with 2 colours programmable
- > 90-264 VAC, 20-50 VAC/VDC
- > Up to 2 relays
- > Optional Communication interface RS 485
- > With 4-20 mA analog output
- > UL Certified

Self-powered Counters

- > Simple, innovative and cost effective
- > ATEX certification for Gas
- > Fully customizable product according customer application
- > No power supply required
- > Extreme shock and vibration resistant
- > Most compact design of its class: 36.5 mm mounting depth and 28 mm diameter
- > Suitable for all fluid media types: water, gas, etc.
- Applicable as for preventive maintenance tool for counting cycles of an equipment or tools
- > Easy and fast field installation
- > Fraud protection
- Various communication protocols applicable: NAMUR, HART, MBUS, Wireless

- > Display unit for Process Automation
- > Control panels
- > Laboratory equipment
- > Pharmaceutical processing machines"

- > Electronic consumption data acquisition in custom gas meters for areas exposed to explosive hazards
- > Gas meters
- > Systems for preventive maintenance

- > Process Automation
- Food and beverages

- Factory automation
 - > 0&G

> Water and fluids metering

635 AC mini "iw"

> Chemical



634/635 DC mini "i"



Electromechanical Counters

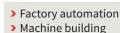
- > Small AC voltage counter (50 and 60Hz)
- > 6-digit
- > Without reset function
- > Small mounting dimensions
- > Low power consumption
- Easy to install
- > Protection class IP 66

Electromechanical Counters

- > Incremental totalizing counters
- > 6- or 7-digit
- > Various DC versions
- > Without reset function
- > Type 634: high magnetic resistance
- > Type 635: high shock stability
- > Low power consumption
- > Standard electrical connections
- > Suitable for PCB mounting
- > Machine-solderable and washable (type .1 and .3)
- > Protection class IP65, IP66
- > Models with extended temperature range available

- > Various machines
- > Electrical machine installations

- > Small machines
- > Gaming
- > Petrol stations



- > Factory automation
- Machine building
- > Elevator







	Electromechanical Counters	Electromechanical Time Counters
Key specs	 Totalizing counters 6- or 7-digit Various AC, DC and AC/DC versions Without reset function Low power consumption DIN-rail attachment Wide voltage range Screw-type terminals 	 Time counters Standard cutout size 37x24mm 7-digit 5 - 30 VDC Without reset function Best-in-class mounting depth of 44mm Fully sealed - IP 67 Wide temperature range Low power consumption Standard electrical connection - 6,3mm [1/4""] male blade
Fields of application	 Switches or any counts measuring in switch cabinet installations Electrical machine installations Elevators 	Agricultural vehicles and machinesDiesel generatorsCompressorsOHV's
Verticals	> Factory automation> Machine building	 > Factory automation > Machine building > Medical > OHV > Agriculture

633 DC mini "h"

633 AC mini "h"





	Electromechanical Time Counters	Electromechanical Time Counters
Key specs	 > Time counters > 6- or 7-digit > High shock resistance > Without reset function > Small dimensions > Low power consumption > Standard electrical connections > Suitable for PCB mounting > Type 0633.0 machine-solderable and washable > Protection class IP 66 	 Time counters 6-digit 24, 115, 230 VAC 50, 60 Hz Without reset function Small dimensions Low power consumption Quiet operation Protection class IP 66
Fields of applica- tion	 Machine / Working hours measuring Dialisys machines Small OHV's Agriculture vehicles 	 Machine / Working hours measuring Electrical machinery
Verticals	 > Factory automation > Machine building > Medical > OHV > Agriculture	> Factory automation> Machine building





Electromechanical Time Counters	Electromechanical Time Counters
 Time counters 7-digit Various DC versions Without reset function Low power consumption DIN-rail attachment Low power consumption Screw terminal connection Suitable for switch cabinet installation Snap-on attachment for 35 mm (0.20 in) DIN-rail 	 Time counters 7-digit Without reset function DIN dimensions: 24 x 48 mm; 48 x 48 mm and 72 x 72 mm via adapter frames Easy-to-read display Screw-type terminal connections UL Certified
 Machine / Working hours measuring in switch cabinet installations Electrical machine installations Elevators 	CompressorsElectrical machinesCrimping MachinesInjection Moulding Machines

Factory automationMachine building

> Elevator

891 "Surface"

> Factory automation

> Machine building

853





Electromechanical Time Counters	Electromechanical Counters
 Surface mounting or DIN-rail attachment See 891 type 	 > Totalizing counter > Surface mounting > Various VAC and VDC versions > 6-digit > Button reset, key reset > Simple installation
 Machine / Working hours measuring in switch cabinet installations Electrical machine installations Elevators 	 > Production lines > Automation applications where built-in version is not suitable > Packaging machines > Crimping machines
> Factory automation> Elevator> Machine building	> Factory automation> Machine building> Process industry







	Electromechanical Counters	Electromechanical Counters
Key specs	 4-, 6- or 8-digit display Various VAC and VDC versions With manual/electrical reset or without reset Plugs into modular system 400 Can be combined with other counters in the Modular System 400 Convenient for service Easy maintenance through plug-in system UL Certified 	 Totalizing counters Small mounting dimensions 4-, 5-, 6- or 7-digit display Various VAC and VDC versions AMP connector connection Button reset or without reset Simple installation UL Certified
Fields of application	> Production lines> Packaging machines> Crimping machines	> Production lines> Packaging machines> Crimping machines> Coffee machines
Verticals	> Factory automation> Machine building> Process automation	> Factory automation> Machine building> Process industry



864-868



478

	Electromechanical Time Counters	Electromechanical Time Counters
Key specs	 4-,6- or 8-digit display For front panel mounting VAC and VDC versions With manual/electrical reset or without reset Simple installation Convenient for service Various front panel sizes UL Certified 	 Time counters 6-digit, button reset 7-digit without reset Various AC and DC versions Manual reset, key reset or without reset Simple installation Can be combined in the modular system 400 Easy maintenance
Fields of applica- tion	 > Production lines > Packaging machines > Crimping machines 	 Electrical cabinets Electrical machines Crimping Machines
Verticals	> Factory automation> Machine building> Process automation	> Factory automation> Machine building

446-447 886-887





Electromechanical Preset Counters	Electromechanical Preset Counters
 Subtracting preset counters 3- or 5-digit Various VAC and VDC versions Button, electrical or key reset Plugs into modular system 400 Preset constantly visible Simple installation Easy maintenance 	 Adding preset counters 3- or 5-digit Various VAC and VDC versions Button, electrical or key reset Preset constantly visible Front panel mounting Simple installation via screw attachment Easy maintenance
> Production lines> Packaging machines> Crimping machines"	> Production lines> Packaging machines> Crimping machines
> Factory automation> Machine building> Process industry"	> Factory automation> Machine building> Process industry

486-487 651 Pulse Scaler





Electromechanical Preset Counters	Electronic Pulse Scalers
 Adding preset counters 3- or 5-digit Various VAC and VDC versions Button, electrical or key reset Plugs into modular system 400 Preset constantly visible Simple installation Easy maintenance 	 > Programmable pulse scaling factor up to 2047:1 > NAMUR generator input > DIN-rail attachment > PNP transistor output > Can be used as pulse shaper > Max. pulse frequency 5 kHz
> Production lines> Packaging machines> Crimping machines	> Electronic and electromechanical applications where pulses need to be rescaled
> Factory automation> Machine building> Process industry"	> Factory automation> Machine building







	Mechanical Counters (With Magnetic Actuation)	Mechanical Counters
Key specs	 Contactless counting 6- or 7-digit Actuation by a magnet or Iron Small dimensions Easy installation Protection class IP 65 Without reset function Maintenance-free operation Applicable as for preventive maintenance tool for counting cycles of an equipment or tools 	 Small mechanical revolution and stroke counters 4- or 5-digit Revolution counter with transmissions: 1:1, 1:10 Actuation left or right and both directions available Surface or flush mounting Available with or without case Without reset function
Fields of applica- tion	 Crimping machines Stamping tools Counting of moving pistons at end positions Various application where counting is needed via contactless actuation and without electric power 	 Small handling machines Production assembly hand operated presses Circuit breakers Coffee-machines Various measuring and counting devices
Verticals	> Factory automation> Machine building	> Factory automation> HV circuit breakers> Machine building

125 225





	Mechanical Counters	Mechanical Counters
Key specs	 Revolution and stroke counters 4- or 5-digit Miniature size Transmission ratio 1:1 or 1:10 Actuation left or right and both directions available Surface mounting With button reset Protection class IP 50 Size: 53 x 45 x 35 mm 	 Revolution, length and stroke counters Approved for length counting by the PTB (German Federal Institute für Physics andTechnology) 6-digit display (m/dm or m/cm) Large digits, 6.5 mm high With button reset Counter with suspension device Adjustable counterweight Size: 132 x 69,2 x 74,2 mm
Fields of applica- tion	 > Small handling machines > Production assembly hand operated presses > Various measuring and counting devices > Piece and/or stroke counting for punches or presses > Length measuring of cables, foils, fabrics, metals, bands, ropes, paper, etc. 	 Various length measuring and counting devices Length measuring of cables, foils, fabrics, metals, bands, ropes, paper, etc. Production assembly hand operated presses Piece and/or stroke counting with quantity setting for punches or presses
Verticals	> Factory automation> Machine building	> Factory automation> Machine building





Mechanical Counters	Mechanical Counters
 Revolution counter, transmission ratio 1:10 6-digit Robust and durable design Length counter, transmission ratio 1:2, stroke counter, transmission ratio 1:1 Actuation on both sides, right or left and both directions Surface mounting With button reset Size: 80 x 45 x 43,5 mm 	 Type 205: Length measuring counters Type 110/111: Revolution counters Type 312: Stroke counters 7-digit display Large 8 mm digits Actuation on both sides and both directions With key reset Size: 132 x 69,2 x 74,2 mm
 Small handling machines Production assembly hand operated presses Various measuring and counting devices Piece and/or stroke counting for punches or presses Length measuring of cables, foils, fabrics, metals, bands, ropes, paper, etc. 	 Various length measuring and counting devices Length measuring of cables, foils, fabrics, metals, bands, ropes, paper, etc. Production assembly hand operated presses Piece and/or stroke counting with quantity setting for punches or presses
> Factory automation	> Factory automation

250 ENM UN/Tampons

> Machine building



> Machine building



Mechanical Preset Counters	Automatic Numbering Machines
 > Preset revolution, length and stroke counters > 5-digit > Large 6,5 mm (0.3 in)-high digits > Robust and durable design > Transmission ratios 1:1, 2:1, 1:5 > Large and easy operated preset buttons > Button reset, secured against accidental operation > Actuation on both sides > Surface mounting > Size: 132 x 69,2 x 74,2 mm 	 Universal self-inking numbering machines Automatic version: numbers change automatically in 8 different settings: repeat, consecutive, 2-, 3-, 4-, 5-, 6- and 12-times repeat Manual version: number change is done by operator manually by a lever Different fonts and digit sizes available Available in plastic or full metal versions Inking tampons with durable and high quality ink
 Various length measuring and counting devices Length measuring of cables, foils, fabrics, metals, bands, ropes, paper, etc. Production assembly hand operated presses Piece and/or stroke counting with quantity setting for punches or presses 	 Document numbering in offices or production facilites Identifying processed documents - orders, job tickets, WIP cards, despatch sets, shipping documents, etc.
> Factory automation> Machine building	 Various office work areas Customs Document processing Archives



495 Pneu 499 Pneu Timer and Reset Module







Pneumatic Counters **Pneumatic Timers** > Pneumatic totalizing counters > Preset timers in various time ranges Key specs > 6 or 8-digit display > Convenient setting of preset value by rotary knob > Versions for flush and surface mounting > Preset and remaining time values continuously visible > Manual, pneumatic or without reset > Precise time preset 0.2 s to 300 s > Hose coupler M5 or rapid-fit connector > DIN dimensions and optional for DIN-rail mounting > Simple installation > Maintenance-free operation > Maintenance-free operation > Hose coupler M5 or rapid-fit connector > ATEX certified versions available for Gas, Dust and Mining > Pressure-independent > No continuous air supply required > ATEX certified versions available for Gas, Dust and Mining Quantity counting Fields of > Pneumatic applications with fully automatic time control applica-> Order and daily production value recording > Automatic door control units for passengers vehicles tion > Packaging unit control > Time control with manual intervention > Dosing and filling (resins, liquids, powders, etc.) > Industrial transportation systems (eg. for fine powders also > Production assembly hand operated presses with combustion risk) > Oil and gas areas > Dosing and filling (resins, liquids, powders, etc.) Verticals > Factory automation > 0&G > Factory automation > 0&G > Food & Beverages industry > Chemical > Food & Beverages industry > Chemical > Railway

497 Preset Counter 497 Preset Timer



> Chemical"





	Pneumatic Preset Counters	Pneumatic Preset Time Counters
Key specs	 > Preset totalizing counters > 3- or 5-digit > Adding or subtracting versions > Convenient button setting > Preset constantly visible (in adding mode) > 2 - 8 bar > Hose coupler M5 or rapid-fit connector > Front panel installation > Button and pneumatic reset, automatic reset > Integrated pneumatic reset > ATEX certified versions available for Gas, Dust and Mining 	 Preset time counters 3 or 5-digit display Seconds and Minutes versions Preset values continuously visible Hose coupler M5 or rapid-fit connector Integrated pneumatic reset Optional automatic reset Convenient button setting Maintenance-free operation ATEX certified versions available for Gas, Dust and Mining
Fields applic tion	- Treatmand takey distributed do na drojecemie	 > Pneumatic applications with fully automatic time control > Clock generator > Time control with manual intervention > Compressors > Paint spaying machines > Industrial transportation systems (eg. for fine powders also with combustion risk) > Oil and gas areas > Dosing and filling (resins, liquids, powders, etc.)
Vertica	> Factory automation > Railway > Food & Beverages industr > O&G	> Factory automation> Food & Beverages industry> Chemical

Accessories

490 Pneumatic Proximity Switch



Pneumatic Proximity Switches



- > Touchless switching
- > Small dimensions
- > Switching between magnet field and Fe
- > No continuous air supply required
- > ATEX certified versions available for Gas, Dust and Mining

- > Pneuamtic automation devices
- > Detection of position of pistons at end positions
- > Material transportation and packaging lines
- > Purely pneumatic cylinder limit switches
- > Factory automation
- > 0&G
- > Food & Beverages industry
- > Chemical

Accessories









General

- > Various sizes to fit different types of counters
- > Robust measuring wheels with various materials and sizes
- > Covers lockable with key or knob
- > Different materials and sizes of levers to fit all types of stroke counters and application
- > Stroke levers: For mechanical stroke lever counter applications
- > Measuring wheels: Conversion of lengths to rotations
- > Covers: For mounting of counters and improving IP





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