INTEGRATED SYSTEMS

Dot peen marking heads
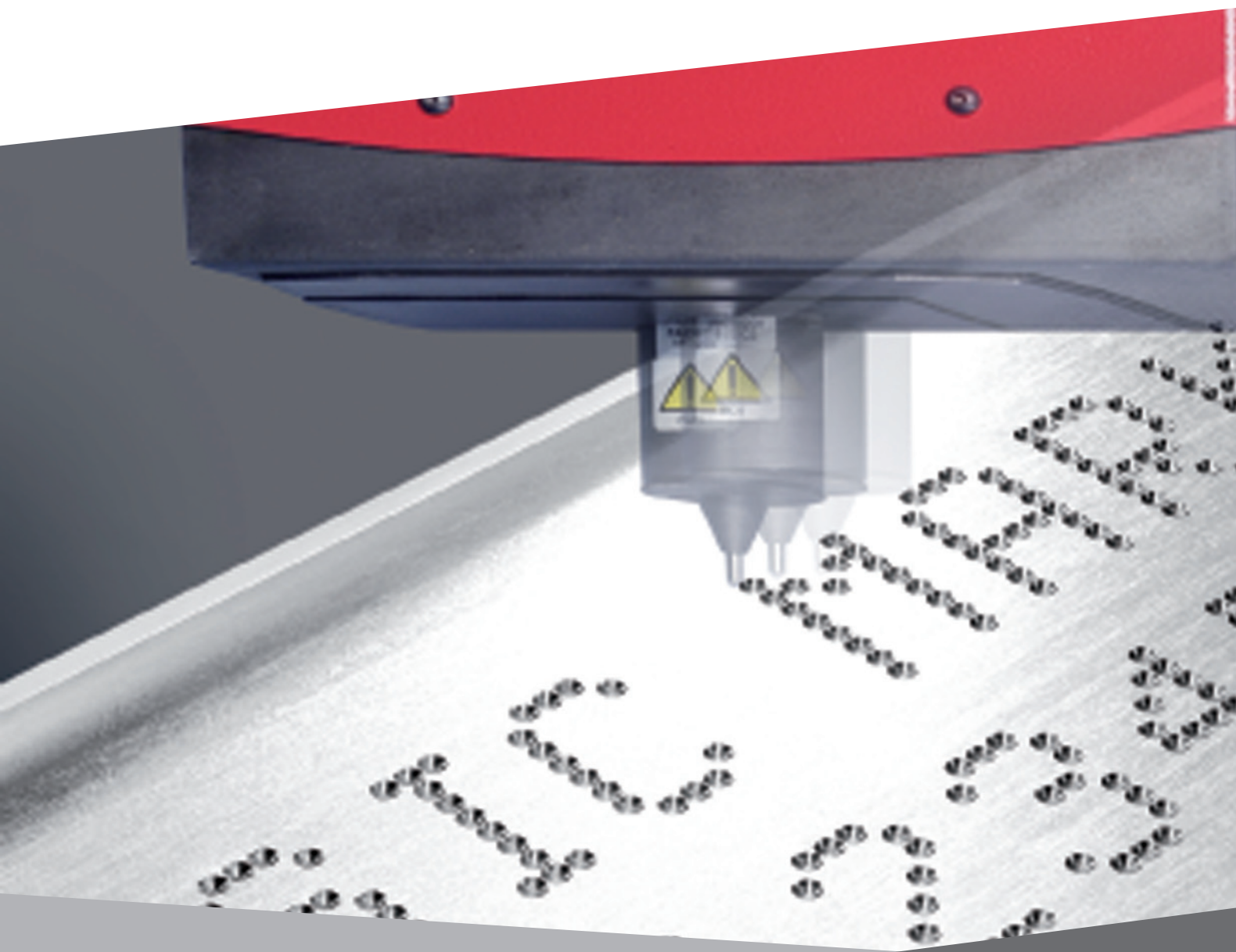
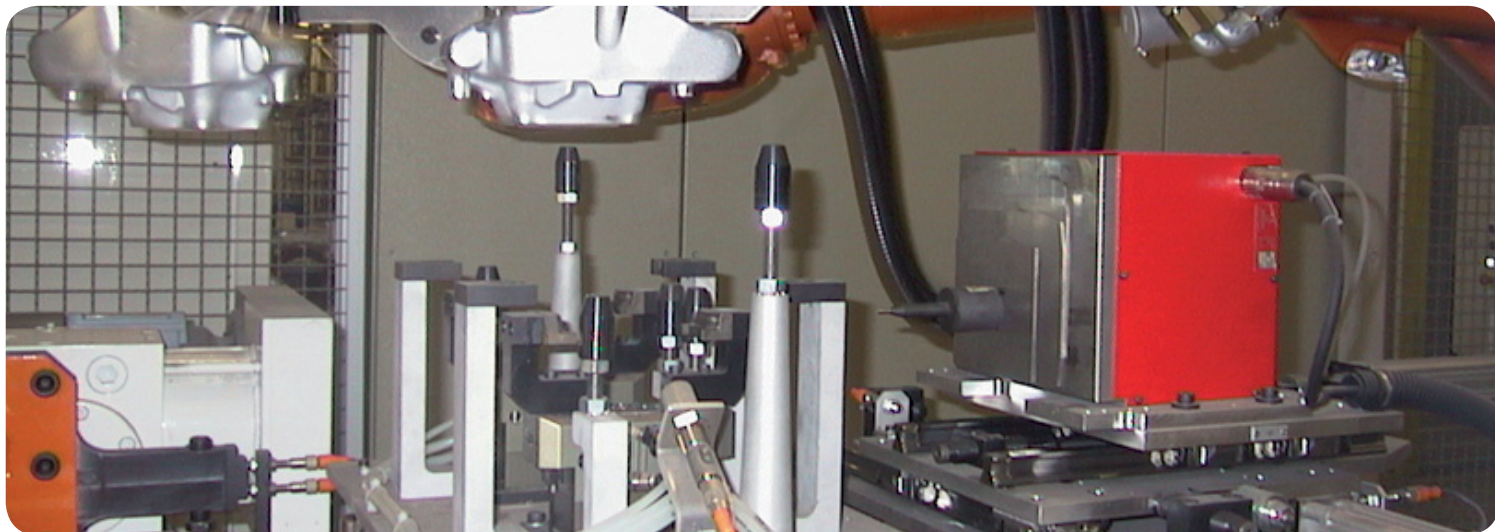## e10 RANGE

e10-i53
e10-i83
e10-i83v
e10-i141

SIC MARKING

DOT PEEN TECHNOLOGY: FAST, EFFICIENT MARKING ON ANY MATERIAL!

Dot peen marking works by electromechanically striking a carbide or diamond stylus assembly against the surface of a part to be marked.

The result is a succession of dots to create digits, text, logos, and 2D data matrix codes.Each such dot is the result of a pulsed current that runs through a solenoid, punches a magnet toward the surface, and subsequently returns the stylus to its starting position, awaiting the next pulse. Because each pulse occurs in only a fraction of a second, an entire 2D data matrix code, for example, can be completed in seconds (depending on the size). Frequency can be adjusted by controlling the speed of the X and Y axes movements.

What makes SIC Marking's dot peen technology so unique is the constant measurement of the electrical current between each pulse. This allows for constant, precise control of the impact consistency.
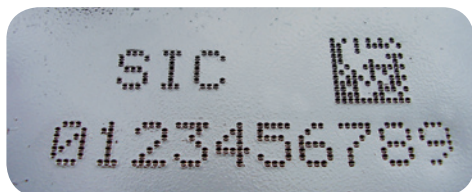
INTEGRATED SYSTEMS

Our integrated marking systems are designed for seamless integration into automated production lines, and are engineered for intense industrial use. Their fast and easy integration and high performance record have earned a reputation as a reliable, precise industrial marking solution. They meet the needs of custom requirements, and incorporate fixed-mounted camera systems for automated reading.

HIGHLIGHTS ....

■ Robust and Reliable

- Fully enclosed system
- Protective bellows
- Designed for intense use in industrial environments

■ Simple and user-friendly

- Fast and easy integration
- Compact (i52)
- Removable robotic cable
- Simple programming

■ Wide range of options

■ High performance

- **100% electromagnetic technology (no air supply required)**
- Precise and accurate guides
- Long stylus for part distance-to-tolerance variations
- High speed
- Powerful integrated software
- Wide marking window
  (150 x 100 mm / 5.9 x 3.9 in for i141)
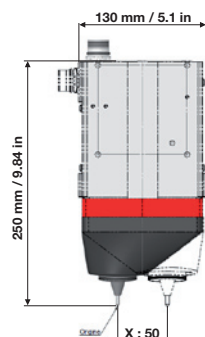
■ Low cost of ownership

- No consumables
- Reduced maintenance

SUITABLE WITH QUALITY STANDARDS

- ■ DT05-89
- ■ XP Pr EN9132
- ■ AQG SPEC 2000
- ■ ISO/IEC 16022
- ■ UID
- ■ DATAMATRIX ECC 200
- ...

i53

130 mm / 5.1 in
70 mm / 2.7 in
250 mm / 9.84 in
Origine — X : 50
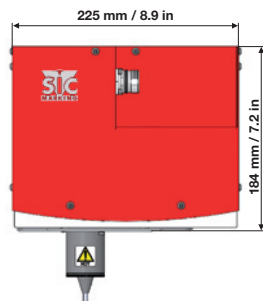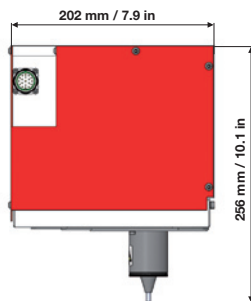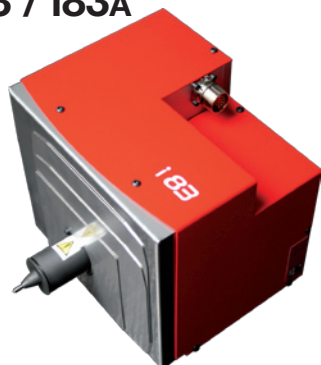Origine — Y : 20

- **ULTRA COMPACT**
- Straightforward integration: 4 mounting faces
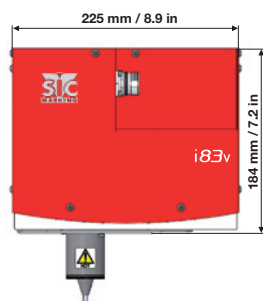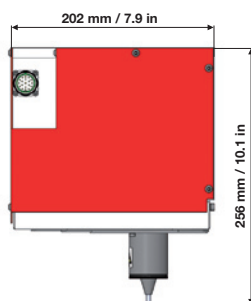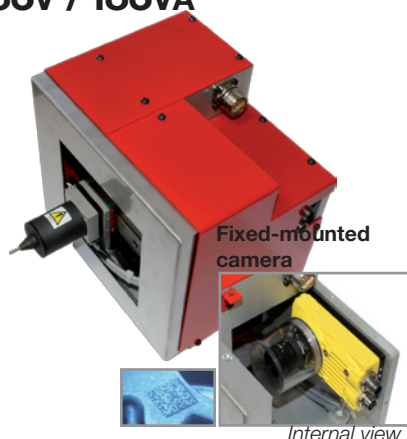- Fast and consistent marking
- Marking window 50x20 mm / 2x0.8 in

i83 / i83A

202 mm / 7.9 in
225 mm / 8.9 in
256 mm / 10.1 in
184 mm / 7.2 in

- **HIGH SPEED AND PRECISION**
- Accurate drive mechanism
- Integrated robotic connector for superior protection
- Meets/exceeds aerospace standards
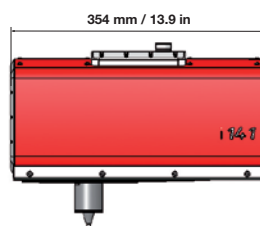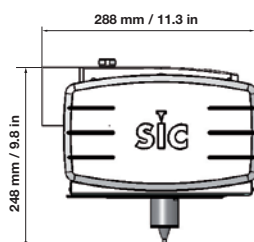- Marking window 80x70 mm / 3.1x2.7 in

i83v / i83VA

Fixed-mounted camera

Internal view

202 mm / 7.9 in
225 mm / 8.9 in
256 mm / 10.1 in
184 mm / 7.2 in
i83v

- **IDEAL FOR DATAMATRIX**
- Accurate drive mechanism
- Reading after marking without movement
- Meets/exceeds aerospace standards
- Marking window 80x70 mm / 3.1x2.7 in

i141 / i141A

288 mm / 11.3 in
354 mm / 13.9 in
248 mm / 9.8 in

- **LARGE MARKING WINDOW**
- Accurate drive mechanism
- Marking window 150x100 mm / 5.9 x 3.9 in

MECHANICAL TECHNICAL FEATURES

	i53	i83	i83v	i141
Marking Window	50 x 20 mm / 2 x 0.8 in	80 x 70 mm / 3.1 x 2.7 in	80 x 70 mm / 3.1 x 2.7 in	150 x 100 mm / 5.9 x 3.9 in
Weight	2,6 Kg / 5.73 lbs	7.8 Kg / 17.2 lbs	7.9 Kg / 17.4 lbs	12 Kg / 26.5 lbs
Robotic Cable	5 m / 16.4 ft (10 m / 32.8 ft and 15 m / 49.2 ft in option)			
Carbide Stylus 60 mm / 2.4 in	(optional up to 150 mm / 5.9 in - limited to 80 mm / 3.1 in for i52)			
Protection Bellows	Leather	Stainless steel	–	Stainless steel
Part Detection (in options)	–	Autosensing system (i83A)	Autosensing system (i83VA)	Autosensing system (i141A)

e10

e10 R

Ideal for the integrated range

Standard Characteristics

- Color Screen
- USB Port - Easy transfer of marking files
- Connectivity - Current standards communication
- Fully Programmable
- Sand-Alone Operation (no PC required)
- Innovative Microprocessor: quick start and smooth browsing
- Marking History and Self-Diagnosis Functions (maintenance help, configuration and statistics)
- Wide Range of Marking Capabilities (data matrix, angular, circular, alphanumeric, logos, etc.)
- Industrial Membrane Keyboard
- Fully Enclosed Controller IP40 (no openings, no fans)
- 100% compatible with previous machine range

e10 R Features

- Reduced size facilitates fast and easy integration.
- 2 possible configurations: connectors can point upwards or downwards
- Adapted for vertical mounting in electrical cabinet
- Kit for mounting on DIN rails (optional)

■ **Color Screen**

■ **Front Panel USB connection:** import/Export marking files - external keyboard plug

■ **Full Connectivity:** compatible with different communication protocols

ELECTRONIC TECHNICAL FEATURES

	e10	e10 R
Dimensions (d x l x h)	322 x 380 x 112 mm / 12.7 x 15 x 4.4 in	112 x 380 x 222 mm / 4.4 x 15 x 8.7 in or 140 x 380 x 222 mm / 5.5 x 15 x 8.7 in with Rail DIN Kit (option)
Weight	5 kg / 11 lbs	
LCD Screen Resolution	480 x 272 pixels	
Keyboard	Qwerty-integrated, membrane overlay	
Power	300 Watt	
Power Supply	Single phase, 85 to 260 VAC, 50 to 60 Hz	
Number of Controlled Axes	2 (3rd and 4th axis optional)	
OperatingTemperaure	From 5 to 40°C / 40 to 105°F	

SOFTWARE

Memory	7110 Kb	
Text	Incrementation, date codes	
Logos	Download from PC/USB key	
Data Matrix	Up to 348 characters, 48 x 48 dots	
Fonts	4x6, Arial, Comic, Comic_B, Courier, OCR, OCR_BOLD, OCRA	
Style	Angular, radial, inverse, mirror	
Character Size	From 0.1 mm to 99 mm (restricted by marking window size)	
Impact Force	9 adjustable levels	
Depth	Up to 0.5 mm (depending on material marked)	
Resolution Between Dots	0.05 mm / 0.002 in	
Work Shift Management	10 shifts/24h	
Password	3 security levels	
Historical Function	Exportable Excel file	
Maintenance Assistance	Self-diagnosis	
Software	17 languages	

COMMUNICATION

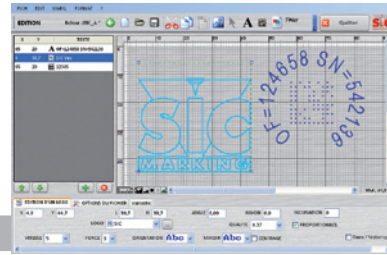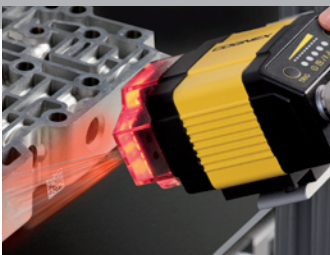|		
Ports	RS232, RS422, USB (RS485 Profibus and TCP/IP Ethernet in option)	
Inputs/Outputs	8/8	
External Keyboard Input	USB	
External Output	5V – 0.5A and 48V – 3A	
Soft on PC	Marking files creation, controller/PC or USB key transfer, historical function	

MACHINES
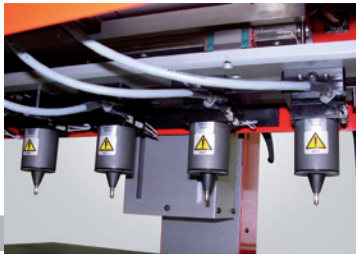
Multi stylus system
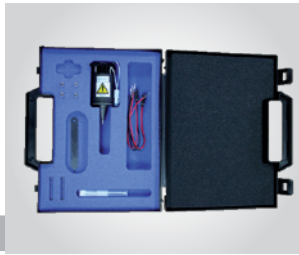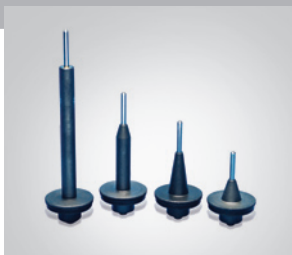

Maintenance kit
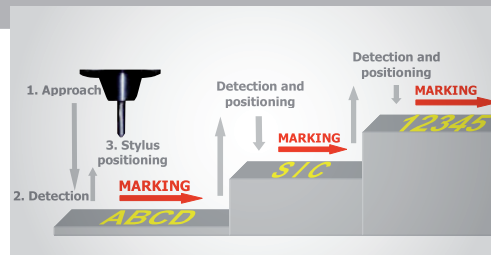

PC base software

Z axis stroke 50 to 250 mm / 2 to 9.8 in
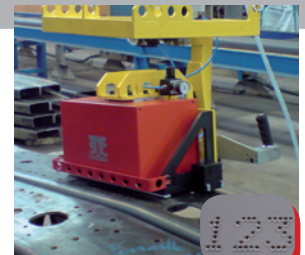

Barcode and Data Matrix reader

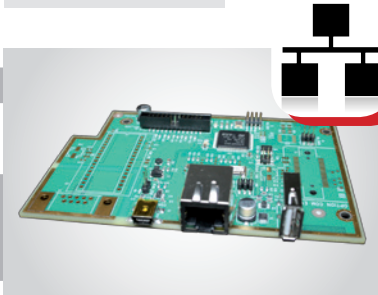**Stylus and guides**

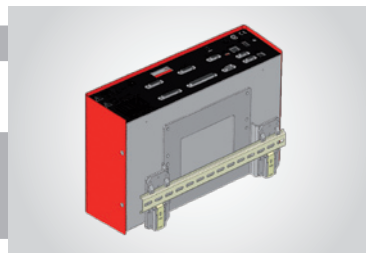**Autosensing: Integrated probe for consistent distance between stylus / part.**
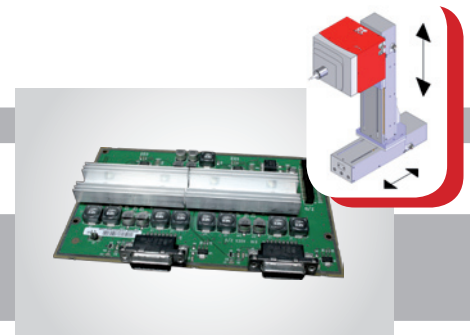

i113D for deep marking
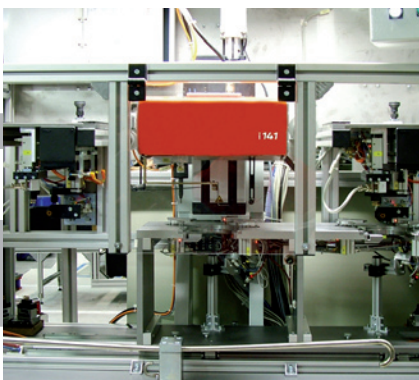
CONTROLLERS

Ethernet card

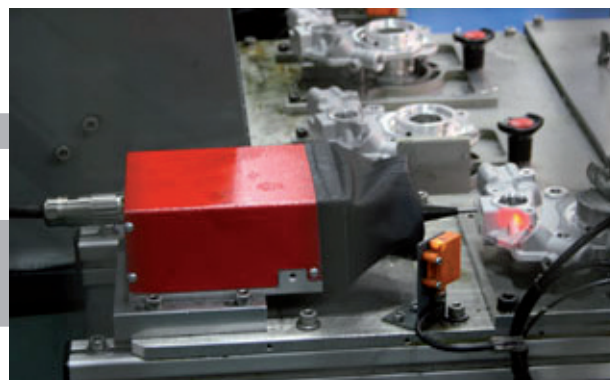**Kit for mounting on DIN Rail**

Card for controlling 3rd and 4th axis

APPLICATIONS

i141 mounted on column

Carter line marking with i53

i83 mounted on Z axis

Mark today
Identify tomorrow

SIC MARKING, THE MARKING SOLUTIONS LEADER

SIC Marking is an international company dedicated to the development of permanent marking solutions & automated identification for complete traceability of industrial components.

SIC Marking has developed a full range of exclusive marking machines - dot-peen, scribing & laser technologies - and services.

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info@sic-marking.com
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- LASER

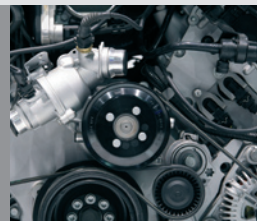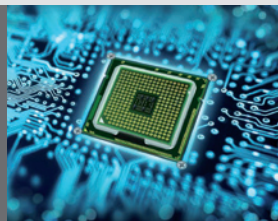**INDUSTRIAL VISION**

- INDUSTRIAL VISION

TURNKEY SOLUTIONS

- TURNKEY SOLUTIONS

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