

sensors
rotary
linear

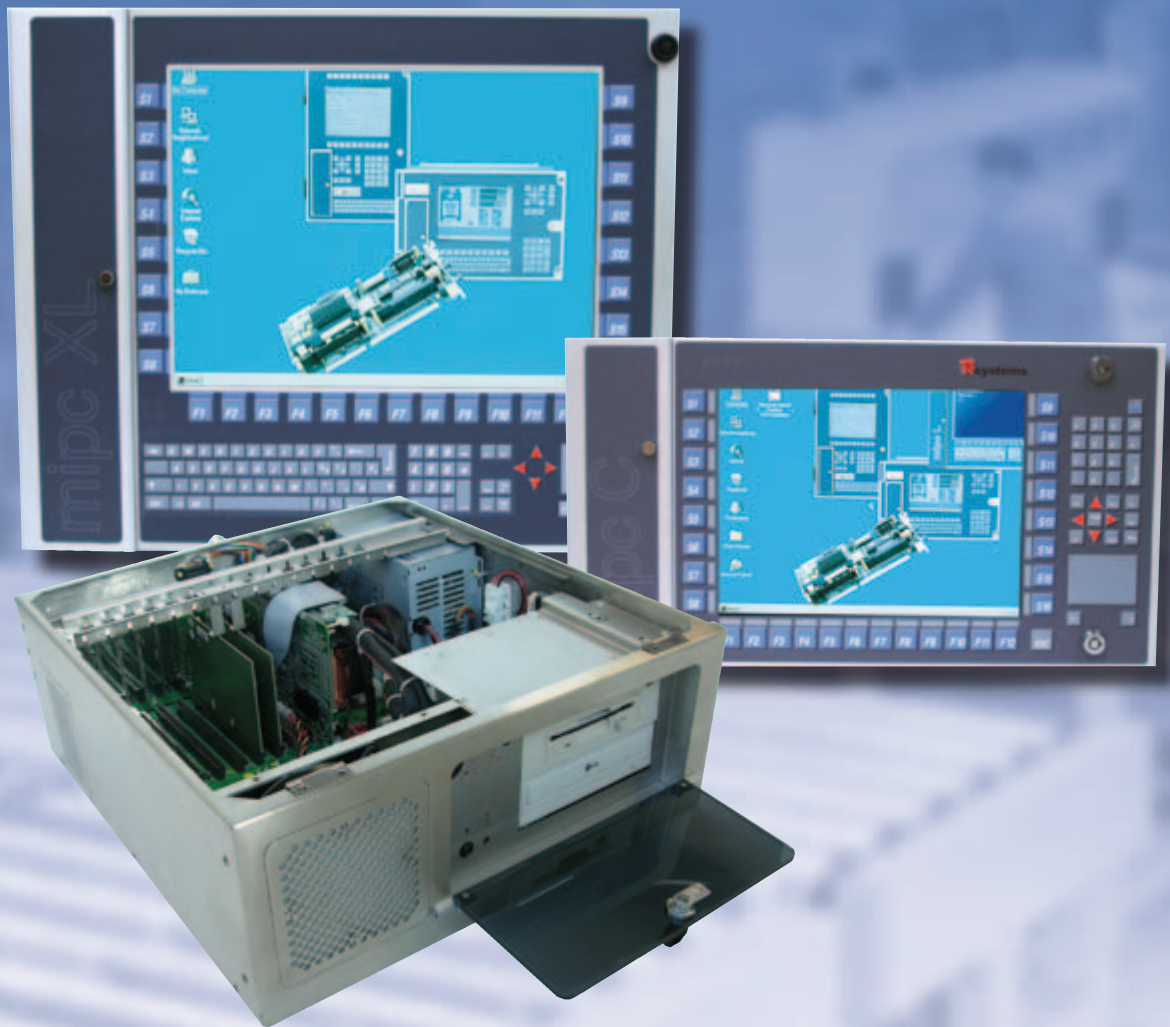
motion

systems

controls

Industrial PC

for use in rugged environment



www.TRsystems.de



TRsystems

Individual solutions based on standard platforms

TRsystems was founded in 1992 in Trossingen and is a part of the TRgroup operating worldwide. TRsystems develops and produces:

- Industrial PCs
- Fieldbus I/O
- Condition Monitoring
- PLC
- Cam controller
- Servo controller for hydraulic
- Axis controller
- Data logger
- Data communication gateways

TRsystems is your partner for individual system solutions based on standard platforms. From the idea conception and project planning to the implementation, training and maintenance, TRsystems has you covered.

At TRsystems we understand in order to meet our customers unique needs, custom solutions may be required. Therefore,

our team of professional experts will work with you to understand your technical requirements and evaluate both the technical and economical feasibility in order to deliver a custom solution for your application.

Your In Control:

Should your application require custom solutions, our team of experts will provide you with a complete project plan to keep you informed and up-to-date with the status of your project. In addition, should your application requirements change our team will be able to respond to your issues promptly.

We're Here to Help:

Committed to delivering superior customer service and support our team of engineers and factory-trained technicians will provide training and assistance to always ensure seamless integration.



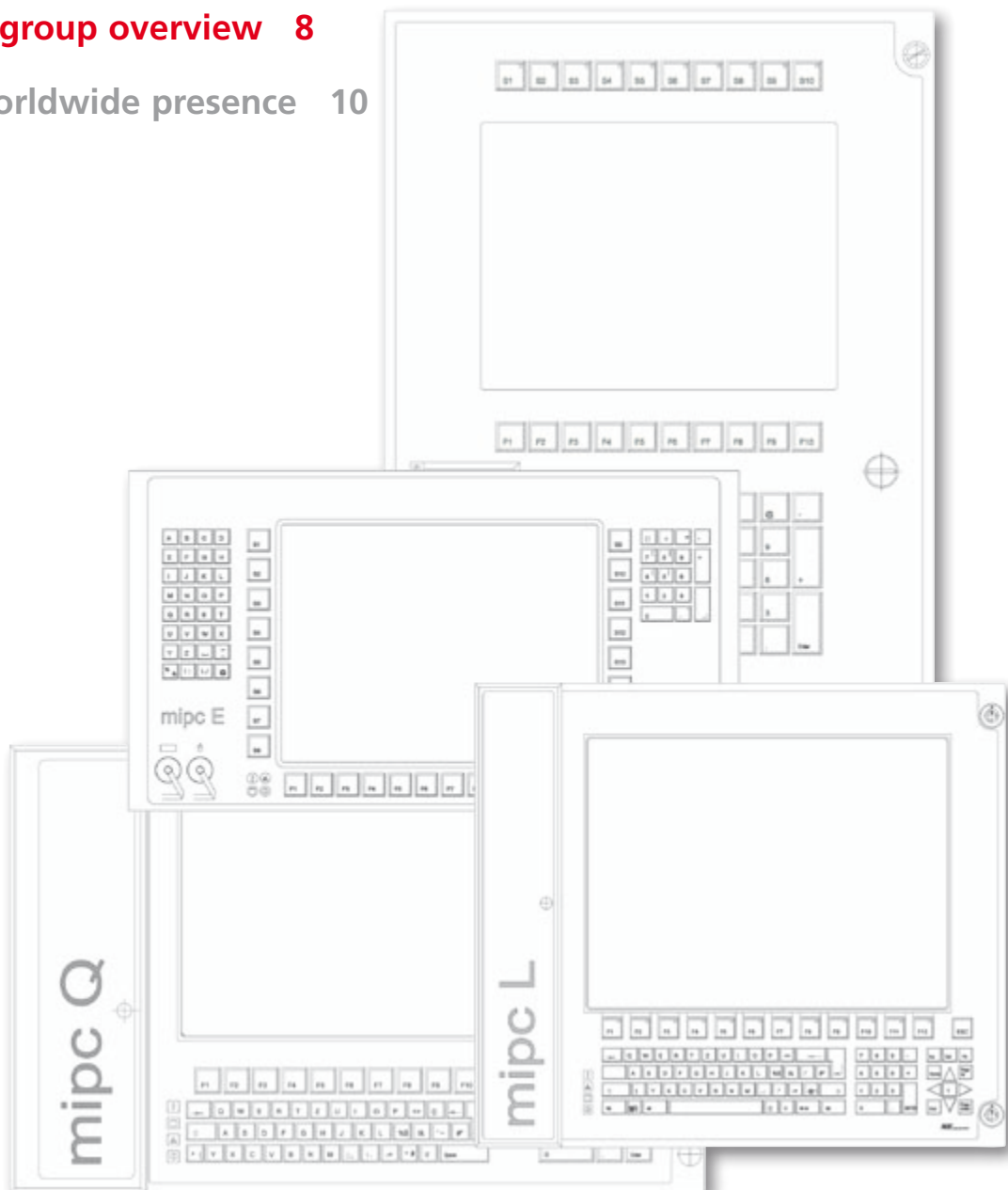
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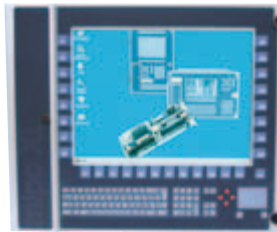


MIPC -

Modular Industrial PC

Perfect for a rugged environment!

Double housing, storage and generously spaced dimensions for slots makes the **MIPC series** the base of controller intelligence of your plant or machine. Further, it is **vibration and shock** resistant because the spring bedded chassis on the inside is mechanically separated from the mounting frame. Due to a front lid of the MIPC - XL, L, C, Q und H there is an easy access to interfaces and drives.



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	MIPC-XL	MIPC-L
Hardware		
Display Resolution	15" 1024x786	15" 1024x786
CPU Processor ¹⁾	Intel® Celeron® M 600 MHz up to Intel® Pentium® M 2,0 GHz	Intel® Celeron® M 600 MHz up to Intel® Pentium® M 2,0 GHz
RAM	up to 1 GB	up to 1 GB
Interfaces	PC Standard; USB; LAN; Fieldbus Master ²⁾	PC Standard; USB; LAN; Fieldbus Master ²⁾
Max. slots ISA/PISA/PCI ³⁾	14 slots	14 slots
Power supply Basics	120 / 240 VAC; 24 VDC; 150 VA	120 / 240 VAC; 24 VDC; 150 VA
Possible drives	Disk drive, CD/DVD-ROM, CD/DVD-RW, Hard drive, CF-Card	Disk drive, CD/DVD-ROM, CD/DVD-RW, Hard drive, CF-Card
Keyboard/Function keys	QWERTZ / F1-F12, S1-S16	QWERTZ / F1-F10, S1-S10
Pointing device	Finger mouse, Touch Screen	-
Software		
Pre-installed operating systems ⁴⁾	possible	possible
Environmental Conditions		
EMC		EN 50081-2; EN 55011; EN 50082-2
Shock resistance		Shock (IEC 68-2-27): 20G 6ms;
Operating temperature	0 ... +50°C	0 ... +50°C
Mechanics		
External dimensions in mm / Weight	b:482,6 x h:399; 21 kg	b:457,5 x h:399,25; 20 kg
Framing in mm	b:464 x h:380	b:438 x h:380

1) For different requirements contact our distribution office.

2) On request.

3) The slots can be combined in different ways.

4) Windows; Linux; DOS - on request.

			
MIPC-E	MIPC-C	MIPC-Q	MIPC-H
12" 800x600	12" 800x600	10" 800x600 / 640x480	10" 800x600 / 640x480
Intel® Celeron® M 600 MHz up to Intel® Pentium® M 2,0 GHz	Intel® Celeron® M 600 MHz up to Intel® Pentium® M 2,0 GHz	Intel® Celeron® M 600 MHz up to Intel® Pentium® M 2,0 GHz	Intel® Celeron® M 600 MHz up to Intel® Pentium® M 2,0 GHz
up to 1 GB	up to 1 GB	up to 1 GB	up to 1 GB
PC Standard; USB; LAN; Fieldbus Master ²⁾	PC Standard; USB; LAN; Fieldbus Master ²⁾	PC Standard; USB; LAN; Fieldbus Master ²⁾	PC Standard; USB; LAN; Fieldbus Master ²⁾
10 slots	10 slots	6 slots	10 slots
120 / 240 VAC; 24 VDC; 200 VA	120 / 240 VAC; 150 VA	120 / 240 VAC; 24 VDC; 200 VA	120 / 240 VAC; 24 VDC; 150 VA
Disk drive, CD/DVD-ROM, CD/DVD-RW, Hard drive, CF-Card	Disk drive, CD/DVD-ROM, CD/DVD-RW, Hard drive, CF-Card	Disk drive, Hard drive	Disk drive, Hard drive
ABCD / F1-F12, S1-S16	Telefon-Keyboard/ F1-F12, S1-S16	QWERTZ / F1-F10	QWERTZ / F1-F10, S1-S10
Finger mouse	Finger mouse, Touch Screen	Finger mouse	-
possible	possible	possible	possible
EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5			
Vibration sine-shaped (IEC 68-2-6) 50-2000Hz 5G			
0 ... +50°C	0 ... +50°C	0 ... +50°C	0 - +50°C
b:487 x h:266; 13 kg	b:482,6 x h:266; 16 kg	b:483 x h:310,3; 16 kg	b:334 x h:504; 16 kg
b:447 x h:244	b:443 x h:262	b:450 x h:277	b:315,5 x h:475

MCC -

Modular Computer Chassis

The modular computer chassis offers the perfect solution if the PC and the control panel need to be spatially separated. There is a choice between a mother board or a slot CPU with passive backplane. In addition, any current processor¹⁾ is available with space offered for common drives. The MCC series can also be used as a server. A RAID system can be integrated for data security. There are 3 different types of housing for the MCC:

1. MCC Rack 19" for a standard slide-in unit 19".
2. MCC Rack INOX 19" with stainless steel housing. Stainless steel is resistant to aggressive environmental conditions.
3. MCC Wall is flexible with regards to mounting and is not dependant on a 19" slide-in unit.



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MCC RACK 19

Hardware

CPU Processor¹⁾

Intel® Celeron® M 600 MHz up to
Intel® Pentium® M 2,0 GHz,
Intel® Core™ 2 Duo 2,4 GHz

RAM

up to 2 GB

Interfaces - Back

COM, LPT, PS/2 (Keyboard/Mouse), 10/100 Base T, VGA,
Fieldbus Master²⁾

- Front

PS/2 (Keyboard/Mouse), 2x USB

Max. slots
ISA/PISA/PCI³⁾

14 slots

Power supply
Basics

90 - 240 VAC, optional 24 VDC
120 VA

UPS

Battery pack

Possible drives

Disk drive, CD/DVD-ROM, CD/DVD-RW, Hard drive, CF-Card,
RAID1-System

Software

Pre-installed operating systems⁴⁾

possible

Environmental Conditions

EM

N 50081-2; EN 55011; EN 50082-2;

Operating temperature

0 ... +50°C

Mechanics

External dimensions in mm / Weight⁵⁾

19" Rack, 4HE; 19 kg

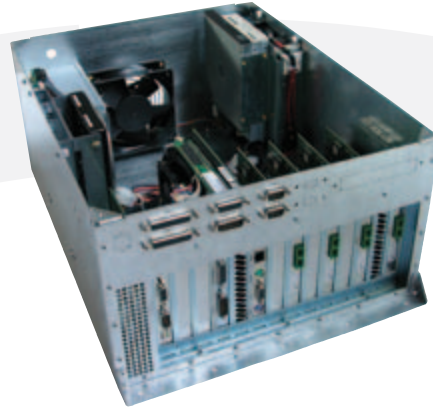
1) For different requirements contact our distribution office.

2) On request.

3) The slots can be combined in different ways. Due to the CPU, the number of the slots is reduced by 2 and can be further reduced by connectors that are installed on slot sheets.

4) Windows; Linux; DOS - on request.

5) Weight data is based on the standard configuration. Battery packs and other cards may increase the weight.



MCC RACK INOX 19

MCC Wall

Intel® Celeron® M 600 MHz up to Intel® Pentium® M 2,0 GHz

Intel® Celeron® M 600 MHz up to Intel® Pentium® M 2,0 GHz,
Intel® Core™ 2 Duo 2,4 GHz

up to 2 GB

up to 2GB

COM, LPT, PS/2 (Keyboard/Mouse), 10/100 Base T, VGA, USB, Fieldbus Master²⁾

COM, LPT, PS/2 (Keyboard/Mouse), 10/100 Base T, VGA, USB, Fieldbus Master²⁾

14 slots

14 slots

90 - 240 VAC, optional 24 VDC
120 VA

90 - 240 VAC, optional 24 VDC
120 VA

Battery pack

Battery pack

Disk drive, CD/DVD-ROM, CD/DVD-RW, Hard drive, CF-Card, RAID1-System

Disk drive, CD/DVD-ROM, CD/DVD-RW, Hard drive, CF-Card

possible

possible

EN 61000-4-2; EN 61000-4-3; EN 16000-4-4; EN 61000-4-5

0 ... +50°C

0 ... +50°C

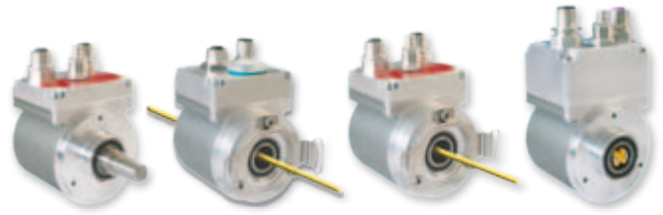
19"; 4HE; 20 kg

b:419 x h:354 x t:244; 10 kg

TR-Electronic – Your Partner in Automation

Programmable rotary encoder

The standard of automation technology, available with all current fieldbus systems: PROFIBUS, Interbus, CANopen, DeviceNet and Industrial Ethernet. Including TR-Electronic's variety of mechanics, interfaces and functions.



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SIL3/PLe

PROFIsafe

Incremental rotary encoder

From 24 mm external diameter up to 55 mm hollow shaft – we always have a solution!



Motor feedback systems

Feedback encoder for modern positioning drives. Optional integrated or directly mounted on the drive shaft via hollow shaft.



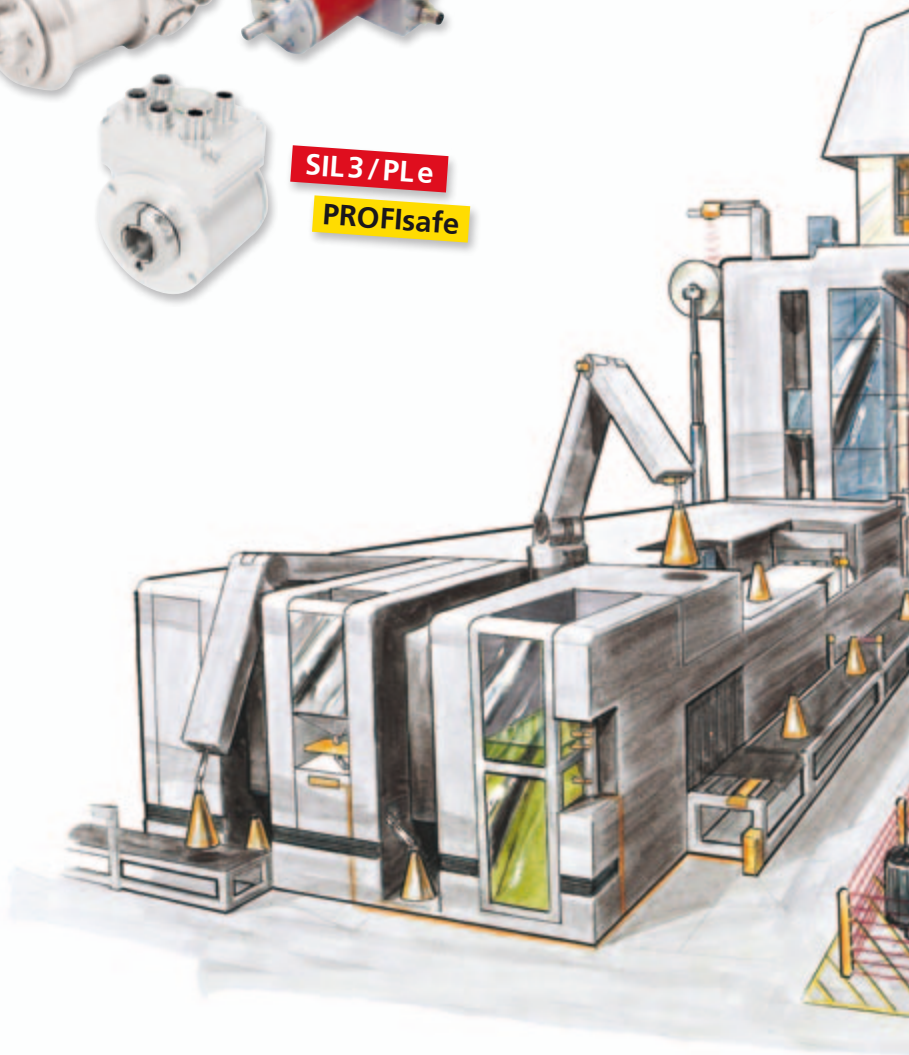
Linear absolute displacement sensors

The compact class for linear absolute measurement. Directly bus-ready, suitable for harsh environmental conditions and for installation in hydraulic cylinders.



Absolute high resolution linear measurement systems

Linear measurement with absolute sub-micron resolution without referencing.



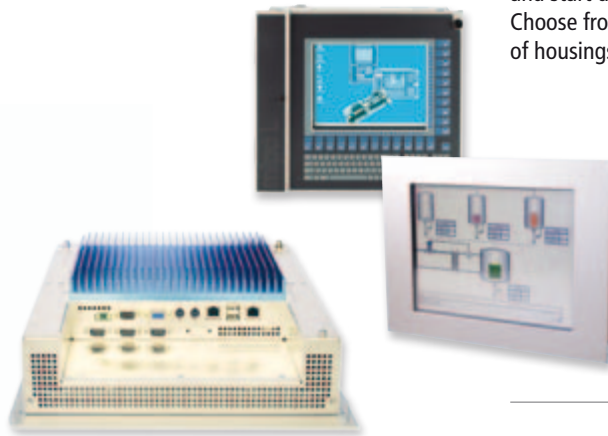
Intelligent positioning drive

Absolute positioning directly via fieldbus. Integrated motor, power electronics, closed loop controller, absolute encoder, PLC functions and fieldbus interface.



Heavy-duty industrial PC

Double shock proof mounted housing isolates the electronics from vibration, while front access (MIPC) simplifies configuration and start up. Choose from our wide selection of housings.



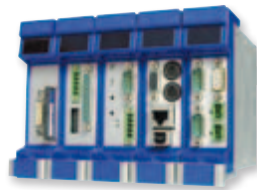
SPC – the PLC for PC

Turns every PC into an efficient PLC under S5/S7 or IEC 1131 protocols. Combines the comfort of PC control with the safety of a separate processor for PLC tasks.



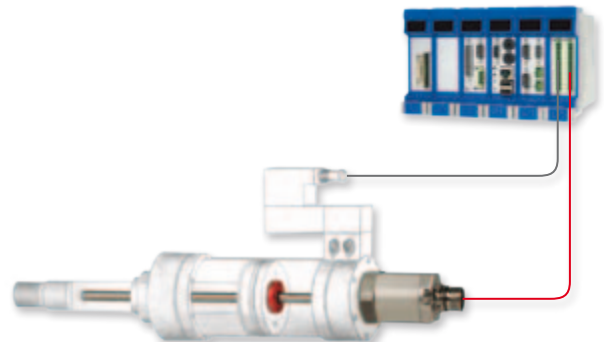
@ctivelO – more than fieldbus modules

Modular, rugged fieldbus node system I/O-node, small-scale PLC, decentralized axis controller, high performance cam controller, DIN-rail mounted industrial PC, servo controller for the hydraulic ... with commercial fieldbus systems, such as Profibus-DP, CANopen, DeviceNet, LightBus ... and ETH-ERNET as option!



Laser distance measuring systems

Absolute and wear-free measurement of distances up to 200 m via SSI, fieldbus and Ethernet.



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