



KOSMOS

DIGITAL PANEL METERS



**THE BROADEST OFFER OF
DIGITAL PANEL METERS
FOR THE INDUSTRIAL MARKET**

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Our range of digital instruments **KOSMOS** is designed for supervision and control of industrial processes. Our instruments are suitable for almost any kind of measurements.

- **Ammeters**
- **Chronometers**
- **Counters**
- **Torque**
- **Flow**
- **Mass Flow**
- **Displacement**
- **Force**
- **Frequencymeters**
- **Humidity**
- **Inclination**
- **Level**
- **Ohmmeter**
- **Industrial weighing**
- **Position**
- **Pressure**
- **Tachometer**
- **Temperature**
- **Totalizer**
- **Voltmeter**
- **etc...**



Thanks to their modular design, they can be equipped with optional plug-in output options, for different control purposes or/and communication with any global process in different protocols, such as:

- **Analog Outputs**
- **Relays/Optos Outputs**
- **BCD**
- **RS232 (ASCII / MODBUS RTU)**
- **RS485 (ASCII / MODBUS RTU)**
- **ETHERNET (MODBUS TCP)**



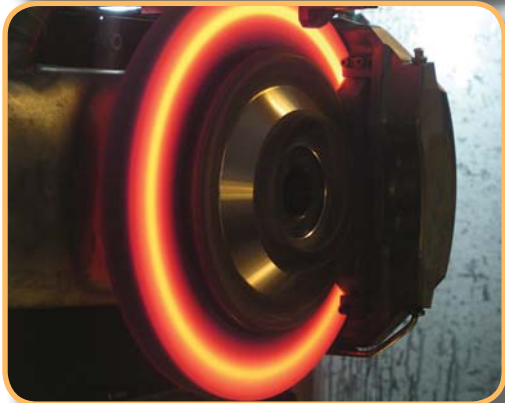
All our meters benefit with the 3 years DITEL Warranty





The numerous industrial applications covered by our digital instruments **KOSMOS** can be found in sectors such as:

- *Logistics*
- *Packing / Bottling*
- *Food / Agry-Food*
- *Automotive*
- *Energy*
- *Chemical*
- *Manufacturing*
- *Weighing*
- *Fluids management*
- *Ceramic furnaces*
- *Cold Storage*
- *Machine-tools*
- *Cranes*
- *etc...*



Do not hesitate to contact our technical support team, they will offer you the most adequate solution to your particular application.

Model	PICA40	PICA	PICA104	PICA101	PICA100	JUNIOR	JUNIOR20	MICRA	ALPHA	BETA	BETA-MP	GAMMA	KAPPA
Front view													
Format	48x24x40mm	48x24x70mm	48x24x100mm	48x24x100mm	48x24x100mm	96x48x60mm	96x48x60mm	96x48x60mm	96x48x120mm	96x48x120mm	96x48x120mm	96x48x120mm	96x48x120mm
Digits	-1999/9999	-1999/9999	-1999/9999	-1999/9999	-1999/9999	-9999/9999	-1999/9999	±199999 99999 (Micra-D)	±32000 99999 (Alpha-D)	±99999 99999999 (Beta-D)	±99999 999999	±9999	±9999 / int. 99999999
Resolution	±15 bits	±15 bits	±15 bits	±15 bits	±15 bits	±15 bits	±15 bits	±15 bits	24 bits ΔΣ	24 bits ΔΣ	24 bits ΔΣ	±15 bits	±15 bits
Readings	62/s	25/s	25/s	25/s	25/s	20/s	20/s	20/s	18/s	18/s	18/s	555/s	100/s

Load Cell	mV / V						JR-C	JR20-C		ALPHA-C				
Process	± 10 VDC													
	± 20 mA	PICA40-LP (*)	PICA-P	PICA104-P	PICA101-P	PICA100-P	JR-P	JR20-P	MICRA-M	ALPHA-P	BETA-M	BETA-MP	GAMMA-M	KAPPA-M
Temperature	Potentiometer													
	Pt100 (0,01 °C)													
	Pt1000													
	Pt100													
	Thermocouple J		PICA-T				JR-P	JR20-P	MICRA-M	ALPHA-T	BETA-M	BETA-MP		
	Thermocouple K													
	Thermocouple T													
	Thermocouple R													
	Thermocouple S													
	Thermocouple E													
Thermocouple N		PICA-T				JR-P	JR20-P							
Electrical Variables	Ohmmeter													
	Ammeter DC	PICA40-ADC	PICA-P	PICA-E	PICA104-P	PICA101-P	PICA100-P	JR-E	JR20-E					
	Voltmeter DC	PICA40-VDC (**)						JR-P	JR-E	JR20-P	JR20-E			
	Ammeter AC		PICA-E					JR-E	JR20-E					
	Voltmeter AC													
Frequencymeter		PICA-F	PICA104-F	PICA101-F	PICA100-F									
Pulse Input	Tachometer						JR-D	JR20-D	MICRA-D	ALPHA-D	BETA-D			
	Totalizer													
	Counter													
	Chronometer													

POWER SUPPLY	115 / 230 VAC									ALPHA-_	BETA-_	BETA-MP	GAMMA-M	KAPPA-M
	10-30 VDC									ALPHA-_1			GAMMA-M1	
	24 / 48 VAC									ALPHA-_2	BETA-_2	BETA-MP2	GAMMA-M2	KAPPA-M2
	85-265VAC/100-300VDC		PICA-_	PICA104-_	PICA101-_	PICA100-_				MICRA-_				
	21-53VAC/10-70VDC		PICA-_6	PICA104-_6	PICA101-_6	PICA100-_6				MICRA-_6				
	10-30 VDC (Non isolated)	PICA40-ADC												
	11-265VDC/20-265VAC						JR-_	JR20-_						

(*) 4-20mA Loop Powered

(**) 3 Digits display powered by measured voltage (8,0 to 32,0 VDC)

OUTPUT OPTIONS	2 Relays SPDT 8A			INCLUDED (SPST 5A)						2RE				
	4 Relays SPST 5A									4RE				
	4 Optos NPN/PNP									4OPP				
	Analog. 0-10V / 4-20mA									ANA				
	Analog. 4-20mA								NMA					
	Analog. 0-10V								NMV					
	BCD Parallel									BCD (Not available on BETA-D)				
	RS232C									RS2				
	RS485									RS4				
	RS485 (PICA)				INCLUDED									
	Analog. 0/4-20mA (PICA)					INCLUDED								
ETHERNET								ETH						

TRICOLOUR MULTIFUNCTION MICRA

MICRA Series is our multifunctional line of meters beyond compare. Their tricolor LED display (**GREEN AMBER RED**) can be used to control the status of measurement (**GOOD AVERAGE BAD**) or to differentiate a kind of measurement from another. This serie can respond to a large variety of industrial applications, specially when adding output options: visualization, control, data retransmission, digital communication, etc...



MICRA-M

- Process (10V, 20mA)
- Potentiometer
- Temperature (Pt100, TC J,K,T)
- Load Cell (mV/V)

MICRA-D

- Frequencymeter
- Tachometer
- Totalizer
- Counter
- Chronometer

MICRA-E

- Ammeter AC (TRMS) / DC
- Voltmeter AC (TRMS) / DC

2RE : 2 Relays output
NMA : 4-20mA output
RS2 : RS232 Communication

4RE : 4 Relays output
NMV : 0-10V output
RS4 : RS485 Communication

4OP/OPP : 4 Optos PNP/NPN output
ETH : Ethernet Communication

UNIVERSAL POWER SUPPLY MULTI-INPUT JUNIOR

New **JUNIOR** Series to suit easily and economically simple display and control applications .

Easy implementation and universal power supply are the highlighted features of these top quality meters.

Display available with **14mm** (JR models) or **20 mm** high digits (JR20 models)



14mm



20mm

JR-P

- Process
- Temperature
- Ohmmeter
- Potentiometer

JR-D

- Frequencymeter
- Tachometer
- Totalizer
- Counter

JR-E

- Ammeter AC/DC
- Voltmeter AC/DC

JR-C

- Load Cell

2RE : 2 Relays output
ACK100 : Rail DIN Adapter

HIGH PERFORMANCE ALPHA-BETA-GAMMA-KAPPA

To suit the most demanding process applications, **DITEL** offers a complete range of high performance digital meters. These high quality meters provide accurate and fast response **solutions** required in supervision and control of industrial processes. Their high displaying capacity coupled with their high performance abilities allows this range of digital panel meters to be considered one of the most complete solution for the industry.



ALPHA

(18 readings/s | ± 32000 points)

- **ALPHA-C** mV/V
- **ALPHA-P** $\pm 10V$, $\pm 20mA$
- **ALPHA-T** Pt100 TC J,K,T,R,S,E
(18 readings/s | 99999 points)
- **ALPHA-D** Counter, Tachometer, Frequencycounter
Totalizer, Chronometer.

BETA

(18 readings/s | Double display | ± 99999999 points)

- **BETA-M** Multifunction Input
(18 readings/s | Double display | 999999999 points)
- **BETA-D** Counter, Tachometer, Frequencycounter, Totalizer

GAMMA

(555 readings/s | ± 9999 points)

- **GAMMA-M** mV/V, $\pm 10V$, $\pm 20mA$

KAPPA

(100 readings/s | Double display | ± 9999 points)

- **KAPPA-M** mV/V, $\pm 10V$, $\pm 20mA$

2RE : 2 Relay output

4RE : 4 Relay output

4OP/OPP : 4 Optos NPN/PNP output

ANA : 4-20mA / 0-10V output

RS2 : RS232 Communication **RS4** : RS485 Communication

LOW COST PICA

PICA Series provide you with easy to use low cost meters in format 48x24mm adequate for downsizing equipment and control panels.





SPECIALISTS IN VISUALIZATION

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