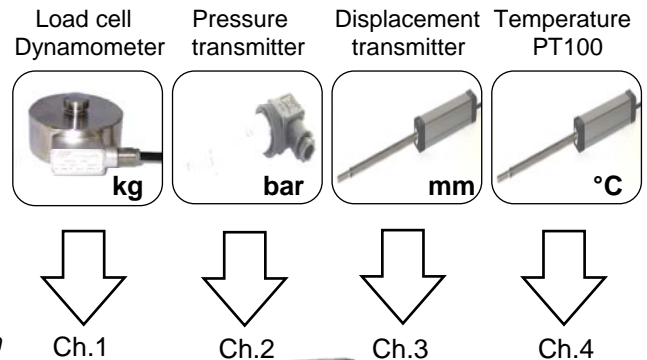


NORDIC TRANSDUCER

Data Sheet: MP4.504.R1

MP4 Evolution

Digital indicator for panel mount



MP4 multi purpose Digital Instrument for Load Cells and other industrial Transducers

Built-in digital indicator MP4 has been designed to be used in those industrial fields of activity dealing with the most modern static and dynamic automation, where it is necessary to acquire signals from many, even heterogeneous, transducers at the same time.

The possibility of managing **4 analogue independent signals** coming from load cells, pressure transducers, position transducers and potentiometers makes the instrument extremely flexible and complete. Input section enables to perform measurements with a stable long-term accuracy of 0.01% of full scale, with a resolution of ± 50.000 divisions.

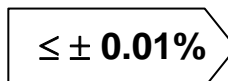
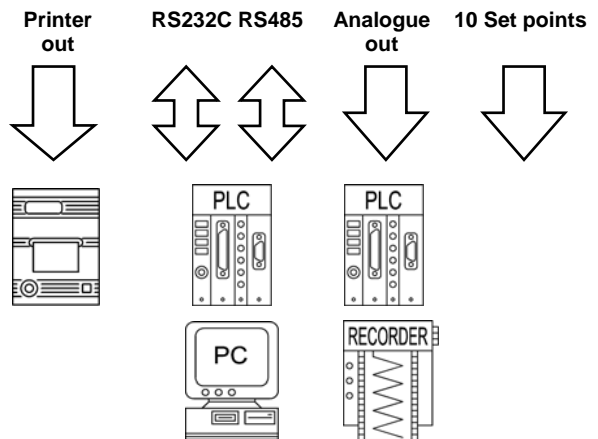
A/D section works with a resolution of ± 100.000 internal divisions. In each channel it is possible to perform: digital calibration of zero and full scale (no trimmer), set points pairing and a choice of resolution and units of measurement. The activation of analogue output is addressed to one of the four channels and is programmable either in tension or in current.

User interface is managed by a graphic retro-illuminated display (128x32 dots), which enables to program all functions, among which :

- **ZOOM** function, that displays a chosen channel in an enlarged format, whereas other channels keep on being managed normally.
- Programming and pairing **SET POINTS** to the channels
- **F1** function, which can store positive or negative **PEAKS**.
- Digital **FILTER**, which enables to damp vibrations in the system, especially in dynamic applications.
- **RESOLUTION**, which allows to increase the measurement through certain steps of 1,2,5 divisions.
- **DATA LOGGER** function, which permits to store up to 50 measurement data for each channel with programmable intervals from 1 to 9999 seconds.

Indicator is provided with opto-isolated digital inputs for remote controlling of **ZERO**, **PRINT** (on request) and **HOLD** functions. Providing the instrument with opto-isolated serial interfaces is possible on request: standard RS232 or RS485 multipoint make the indicator extremely flexible to be interfaced with more advanced systems such as PC, PLC etc.

A 24 columns external printer manager enables to print data stored by Data Logger or a report about measurements, a customized heading (customer's name) and relative date and time.

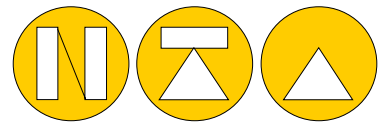


Accuracy



Standard resolution





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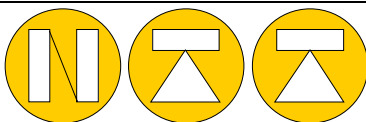
Technical Data MP4

ACCURACY	≤ ± 0.01 %
LINEARITY ERROR	≤ ± 0.01 %
INDEPENDENT INPUT CHANNELS	4
PROGRAMMABLE INPUTS	2 mV/V, 0-10V, 4-20mA, Disabled
CONNECTABLE LOAD CELLS	4 (350Ω) or 8 (700Ω)
LOAD CELLS EXCITATION	5Vdc
CONNECTION SYSTEM	4 or 6 (on request ch 1 only) wires
TRANSDUCERS SUPPLY	15 Vdc (max. 1.8VA)
NON-AMPLIFIED INPUT IMPEDANCE	≥ 100MΩ
AMPLIFIED INPUT IMPEDANCE	≥ 100KΩ
STANDARD RESOLUTION	± 50.000 div.
INTERNAL RESOLUTION	± 100.000 div.
CONVERSION SPEED per channel	Max 4x15.5Hz / 62Hz total
NOMINAL WORKING TEMPERATURE RANGE	0 / +50°C
MAX WORKING TEMPERATURE RANGE	-10 / +50°C
STORAGE TEMPERATURE RANGE	-20 / +70°C
TEMPERATURE EFFECT (10°C):	
a) on zero	≤ ± 0.005%
b) on full scale	≤ ± 0.003%
PROGRAMMABLE SET POINTS	2
PROGRAMMABLE HYSTERESIS	2
ZERO FUNCTION	100%
PROGRAMMABLE DIGITAL FILTER	0, 1, 2, 3, 4, 5
PROGRAMMABLE FULL SCALE	Max. ±50.000 div
PROGRAMMABLE DECIMAL POINT	Independent on each channel
PROGRAMMABLE RESOLUTION	1, 2, 5, 10, 20, 50, 100
PEAK FUNCTION	Pos. (+) and Neg. (-)
ZOOM FUNCTION (single channel)	Yes
DATA LOGGER FUNCTION	Yes (from 0 to 9999 sec.)
REMOTE COMMANDS (OPTOINSULATED)	Zero, Print, Hold
RELAY OUTPUT (set points)	2
ELECTRICAL FEATURES	Max. 115 Vac, 1A, Loading resistance
GRAPHIC RETROILLUMINATED LCD	128 x 32 dots
POWER SUPPLY	230 Vac ±10% 50÷60Hz
MAX. ABSORPTION	10VA
PROTECTION CLASS (EN 60529)	IP40 (front panel)
TYPE OF CASE FOR PANEL	DIN43700
DIMENSIONS (HxLxW)	96 x 96 x 165 mm
HOLE GAUGE (HxL)	88 x 90 mm
WEIGHT	~ 0.8kg

Options

PROGRAMMABLE SET POINT	8
RELAY OUTPUT	8
ELECTRICAL FEATURES	Max. 115 Vac, 1A, Loading resistance
ANALOGUE OUTPUT (OPTOINSULATED)	±5V, ±10V, 0-20mA, 4-20mA
INTERNAL RESOLUTION	15 bit (30.000 div)
PROGRAMMABLE ZERO	± 100%
PROGRAMMABLE FULL SCALE	± 100%
SERIAL OUTPUT (OPTOINSULATED)	RS232C, RS485
PROGRAMMABLE BAUD RATE	19200, 9600, 4800
PRINTER OUTPUT	24 columns
CUSTOM PRINTING	Company and address
POWER SUPPLY	115 Vac ±10% 50÷60Hz 24 Vdc ±10%

Code:	EMP4	Set Points	Power supply	Analogue/serial output
		8 = 8 Set Points	A230 = 230Vac	UA = Analogue out
			A115 = 115Vac	US = Serial and Printer out
			D24 = 24Vdc	UAS = Analogue and Serial out



NORDIC TRANSDUCER



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EN ISO 9001 (1994)
IQ-1100-01

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In order to improve the technical performances of the product, the company reserves the right to make modifications without notice.

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