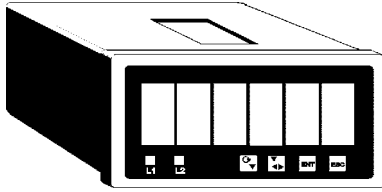


# Digital integration process meter



- voltage & current input*
- integration+sumarization*

## INPUT SIGNALS

- 0/4 - 20 mA DC
- 0 - 10 V DC
- user defined
  - range 0 - 22 mA DC
  - range 0 - 11 VDC

## FUNCTIONS

- SELECTION OF INPUT SIGNAL by user
- DISPLAYING of measured physical value
- SCALE SETTING in full range by user
- INTEGRATION + SUMARIZATION input signal
- SELECTION OF FUNCTION OF RELAY OUTPUTS by user
  - direct function - relay closes when limit is reached
  - inverse function - relay opens when limit is reached
- VALUE HYSTERESIS of limits adjustable by user
- TIME HYSTERESIS of limits adjustable by user
- SELECTION OF ANALOGUE OUTPUT by user

## DESCRIPTION

Digital integration process meter **DMP 04** :

- DISPLAYING of measured physical value
- integration + sumarization
  - user adjustable sumarization constant **SK**
  - display overflows are saved in EEPROM
  - input shows in l/s, m<sup>3</sup>/h, t/h
- 2 limits output
  - limits are adjustable in full range of display
  - limit adjustable hysteresis: value & time
  - selection of invert or direct function of each limit
  - each limit may be assigned to physical value or sumarized value (independent)

There are four buttons situated on the front panel of digital

process monitor which are determined to **SETUP all functions.**

All **settings** are saved in **EEPROM** memory

Digital process monitor is built into instrumental box, which is intended to panel mounting into switch board. Terminal strip is located on rear wall of the unit.

There is a red display with standard luminous intensity in the standard model. Optionally the device can be supplied with the red display with increased luminous intensity, with green display.

Notice:

- power supply is galvanically isolated from:
  - input signal
  - output signal
  - excitation supply ( e.g. sensor )
- device can be connected to AC or DC power supply without any consideration when DC is used, the polarity is unimportant.
- safety requirements for electrical equipment
  - due EN 61010-1 + A2
  - safety class II

## OPTIONS

- ANALOGUE OUTPUT isolated
- 2 LIMIT OUTPUTS
- excitation supply
  - 24 VDC , 30 mA

## TECHNICAL DATA

DISPLEJ: red	-/+ 29 999 :physical value
14.2 mm LED	999999 : sumarized value
POWER SUPPLY	24 VAC or 24 VDC : -15% / +20%
POWER	2.5 W : basic indikator
CONSUPTION	+ 0.7 W : 2 limits
integrated fuse	+ 0.7 W : analogue output
T 500 mA	+1.0 W : excitation supply
INPUT	current input: 50 Ohm
RESISTANTE	voltage input: 270 KOhm
DIGITAL	analogue input: 15 bits
RESOLUTION	analogue output: 12 bits
READ RATE	10 conv. /second : internal meas 4x display refresh per second
ACCURATE	0.05 % of full scale +/- 2 digits
TEMP.COEFFIC.	0.01% of full scale / °C
SCALE SETTING	free adjustable from -29999 to +29999 dig.
LOAD ANALOG	0 - 10 VDC: min. 1000 ohm
OUTPUT	0/4 - 20 mA: max. 600 ohm
ELECTRICAL	510 V eff / 1 min : input / output, E.S.,
STRENGHT	power / input,output, E.S.
ANALOG OUTPUT	max.: 22 mA or 11 VDC
OUTPUT contacts	two or four SPDT contacts; 230VAC ,5A
LIMITS L1 - L 4	free adjustable in full range of display
HYSTERESIS	value: free adjustable in full range of display
of LIMITS	time : free adjustable 0 - 299.9 s ( step 0.1s)
FUNCTION of contacts	direct or inverse: user selection
PANEL CUTOUT	91 H x 44 W mm
DIMENSIONS	96 H x 48 W x 85 D mm (without terminals)
ENCLOSURE	IP 40
CONNECTION	term.strip: max cross-section of wires 2.5
WEIGHT	270 g : max.equipment (4 limits, E.S.,AO)
STABILISATOIN	5 minutes
OPERATING TEMP.	0 - + 50 °C
above sea level	max. 2000 m
OPERATION MODE	continous
EMC due	due EN 61000-4-2,3,4,5,6,8
standart	due EN 55081-1
VF array	max. error 0.1 % (for unsrefed wires)

**ORDER CODE**

**DMP 04- . . . . .**  
 a b c d

<b>a</b>	<b>POWER SUPPLY</b>	1 ..... 24 VAC +/-20% or 24VDC
<b>b</b>	<b>limit outputs</b>	0 ..... without limit outputs
		1 ..... 2x limit output: 2x relay (2P)
<b>c</b>	<b>analogue output</b>	0 ..... without analogue output
		1 ..... analogue output -isolated
<b>d</b>	<b>exc. supply</b>	0 ..... without excitation supply
		1 ..... exc. supply 24VDC, 30 mA

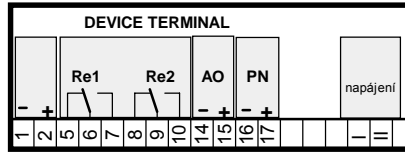
**INPUT TYPE SELECTION**

- JUMPER : " J "**  
 by jumper " J " we switch current or voltage input  
 we must change adress A\_01 in device too (see manual)
- J: ON ..... current input
- J: OFF ..... voltage input

**EXAMPLE ORDER CODE**

**DMP 04 - 1100**  
 - relay output

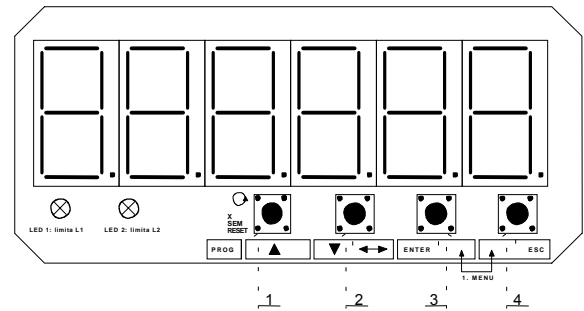
**WIRING DIAGRAM**



**LEGENDA**

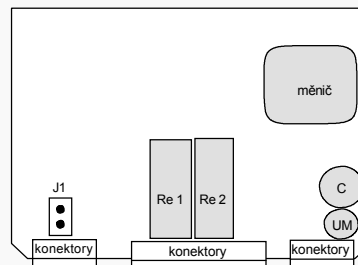
- strips 1 , 2 ..... analogue output (AI)
- strips 5 - 10 ..... relay outputs
  - 5, 6, 7 ..... relay Re1 (limit L1)
  - 8,9,10 ..... relay Re2 (limit L2)
- strips 14 , 15 ..... analogue output (AO)
- strips 16 , 17 ..... excitation supply (PN)
- strips I, II, ..... power supply

**FRONT PANEL VIEW**



**OUTPUT TYPE SELECTION :**

**BOARD : top view**



- LEGEND**
- J1 ...output type selectionu
  - ON : current output
  - OFF : voltage output

**NOTE:**

- In case of changing output type, on adress A\_24 (see manual)  
 we must switch jumper "J1" on the Board too.