

HIF30 DIGITAL PANEL METER

Fonctions :

- 3-couleurs d'affichage
- Programme LPConfig
- MOD BUS
- RS 485
- 21 points
- RTC
- IP65
- Protection par mot de pass

Entrées :

- Hz
- ↺
- ⏏
- ↔

Sorties :

- 0..20 mA
- 0..10 V
- U
- ⏏
- 2x
- 2x

GALVANIC ISOLATION:

- ↔
- ↔
- Sup.
- RS 485



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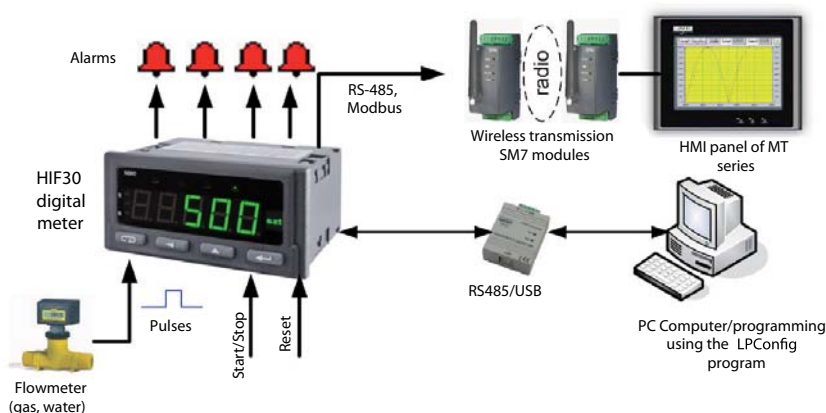
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- Measurement: number of pulses, frequency, rotational speed, period, worktime counter.
- Two counter impuls, co-operation with encoders.
- Counter of actual and total values.
- 3-color display (14 mm high), programmable in 3 ranges of the measured value.
- Meter programming from keyboard or through the RS-485 interface by means of the free LPConfig program.
- 4 alarm outputs with signalling on LED diodes, working in 6 different modes.
- Conversion of any measured value into an analog signal 0/4...20 mA or 0...10 V.
- Storage of minimal and maximal values for all measured quantities.
- Supply of object transducers (option).
- 21-point individual characteristic for the measured value.

EXAMPLE OF APPLICATION



Measurement and visualization of the water/gas flow. The measured value is transmitted to the operating panel via radio modules

INPUTS

Input signal:	Input kind	Indication range	Maximal frequency of input signal	Class	Remarks
Voltage 5...36 V d.c.	Number of pulses	-19 999...99 999	100 kHz	-	Duration of control signals must be higher than 10 ms.
	Frequency < 10 kHz	0.05...99 999 Hz		0.01	
	Frequency > 10 kHz	1...99 999 Hz (measuring range up to 1 MHz)	1 MHz	0.01	
	Rotational speed	0.05...99 999 [rpm]	100 kHz	0.01	
	Period t < 10s	0.0001...11 [s]		0.01	
-	Period t < 10s	0.0001...3600 [s]		0.01	
	Worktime counter	0...99 999 [h]		0.5 sek./24 h	
	Current time	00.00...23.59		0.5 sek./24 h	
	Encoder	-19 999...99 999			

OUTPUTS

Output kind	Properties	Remarks
Relay output	<ul style="list-style-type: none"> • 2 x relays, voltageless NOC contacts load-carrying capacity 250 V a.c./ 0.5 A a.c. • 2 x relays, voltageless switched contacts load-carrying capacity 250 V a.c./ 0.5 A a.c. 	
Analog output	<ul style="list-style-type: none"> • current programmable 0/4...20mA, load resistance ≤ 500 Ω • voltage programmable 0...10 V load resistance ≥ 500 Ω 	Error of analogue output: 0.2% of the set range Additional error from temperature changes: 50% of the class/10K
OC output	• typu OC, passive npn, 30 V d.c./30 mA	
Auxiliary supply	• 24 V d.c./ 30mA	

DIGITAL INTERFACE

Interface type	transmission protocol	modes	baud rates
RS-485	MODBUS RTU	8N2, 8E1, 8O1, 8N1	4.8, 9.6, 19.2, 38.4 kbit/s

EXTERNAL FEATURES

Readout field	5 digit LED display - indication range -19999..99999 digit height: 14 mm	three-color display (color changes depending on displayed value): red, green, orange
Weight	< 0.2 kg	
Dimensions	96 X 48 X 93 mm	Panel cut-out: 92 ^{+0,6} X 45 ^{+0,6} mm
Protection level (acc. to EN 60529)	from frontal side: IP65	from rear side: IP 10

RATED OPERATING CONDITIONS

Supply voltage	85...253 V a.c. (40...400 Hz) or d.c., 20...40 V a.c. (40...400 Hz) or d.c.	power input < 6 VA
Temperature	ambient: -25...23...55°C	storage: -30...70°C
Relative humidity	25...95%	condensation inadmissible
Working position	any	
External magnetic field	0...400 A/m	

SAFETY AND COMPATIBILITY REQUIREMENTS

Electromagnetic compatibility	Noise immunity	acc. to EN 61000-6-2
	Noise emission	acc. to EN 61000-6-4
Insulation between circuits	basic	acc. to EN 61010-1
Pollution degree	2	
Installation category	III	
Maximal phase-to-earth working voltage	for the supply circuit: 300 V for remaining circuits: 50 V	
Altitude above sea level	< 2000 m	

CONNECTION DIAGRAMS

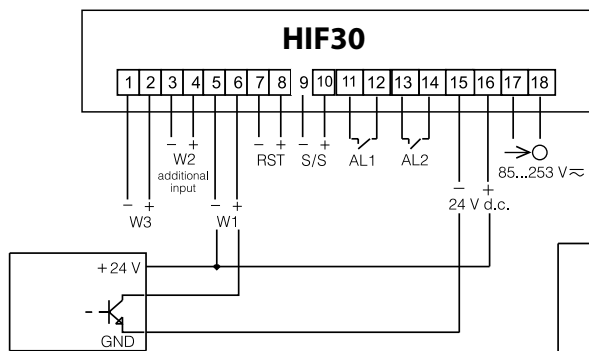


Fig. 1 Connection of the transducer with the OC output of NPN type.

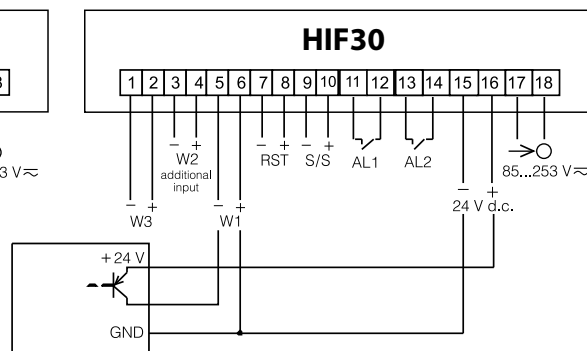


Fig. 2 Connection of the transducer with the OC output of PNP type.

ORDERING

TABLE 1. ORDERING CODES:

	HIF30 -	X	X	XX	XX	X
Supply voltage:						
85...253 V a.c./d.c.		1				
20...40 V a.c./d.c.		2				
Additional outputs:						
lack			0			
pulse output, RS-485, analog outputs			1			
pulse output, RS-485, analog outputs			2			
switched-over relay outputs				2		
Unit:						
unit code acc. to the table 2				XX		
Kind of execution:						
standard						00
custom-made*						XX
Acceptance tests:						
without extra requirements						8
with an extra quality inspection certificate						7
acc. to customer's agreements*						X

Order example:

The code **HIF30 - 1 0 01 00 8** means
HIF30 - programmable HIF30 digital panel meter
1 - supply: 85...253 V a.c./d.c.
0 - lack of additional outputs
01 - unit "V" acc. to tabel 2
00 - standard execution
8 - without extra requirements

TABLE 2. CODES OF HIGHLIGHTED UNIT:

Code	Unit	Code	Unit	Code	Unit
00	lack of unit	20	kVAh	40	pcs
01	V	21	MVAh	41	imp
02	A	22	Hz	42	rps
03	mV	23	kHz	43	m/s
04	kV	24	Ω	44	l/s
05	mA	25	kΩ	45	turns/min
06	kA	26	C	46	rpm
07	W	27	F	47	mm/min
08	kW	28	K	48	m/min
09	MW	29	%	49	l/min
10	var	30	%RH	50	m ³ /min
11	kvar	31	pH	51	pcs/h
12	Mvar	32	kg	52	m/h
13	VA	33	bar	53	km/h
14	kVA	34	m	54	m ³ /h
15	MVA	35	l	55	kg/h
16	kWh	36	s	56	l/h
17	MWh	37	h	XX	on order*
18	kvarh	38	m ³		
19	Mvarh	39	turns		

* - the code will be established by the manufacturer

SEE ALSO:

PROGRAMMABLE
TRANSDUCEUR



HCU12

TRANSDUCEUR
SUPPLIÉ FROM A
CURRENT LOOP



HC15

DIGITAL
PANEL METER



HI20

MICROPROCESSOR
CONTROLLER



HR20



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