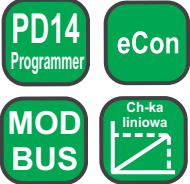


P20H PROGRAMMABLE TRANSDUCER OF DC CURRENT OR VOLTAGE

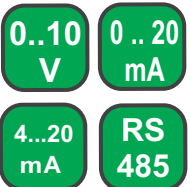
FEATURES:



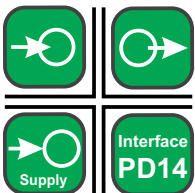
INPUTS:



OUTPUTS:

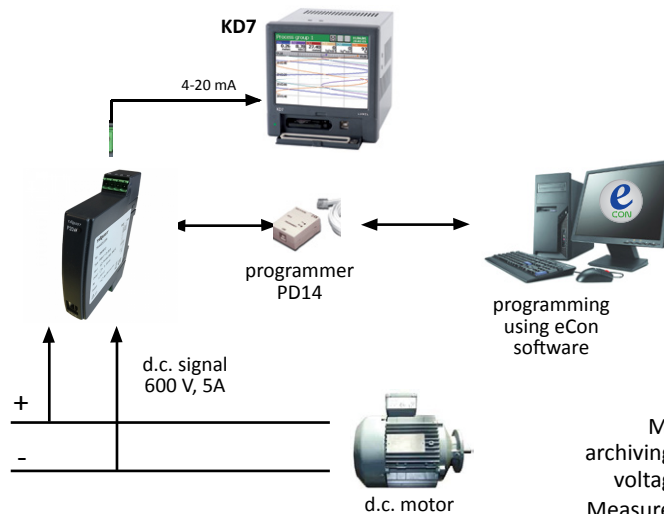


GALVANIC ISOLATION:



- Continuous conversion of high current or high voltage signals.
- Standard d.c. current or d.c. voltage output signal.
- Small dimensions.
- 0.2 accuracy class.
- Fully programmable parameters:
 - measurement averaging time,
 - conversion characteristic,
 - preservation of the output signal at overflows,
 - RS-485 transmission parameters.

EXAMPLE OF APPLICATION



Measurement and archiving of d.c. motor current/voltage work parameters. Measured data are transmitted to the recorder/data logger.

INPUTS

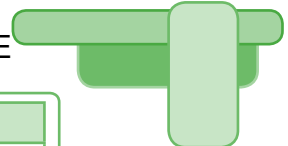
Measuring ranges	Parameters	Overloads	Error
-1...100...110 V d.c.	input resistance > 2 MΩ	Short duration overload (1s): 2 Un (< 1000V), 10 In Sustained overload: 150% Un (only for Un = 400 V and ±400 V), 120% Un (for other Un), 120% In	Basic error (at manufacturer's settings): ± (0.2% of range) Additional error from ambient temperature changes: ± (50% of the basic error/10K)
-2...250...325 V d.c.			
-5...400...600 V d.c.			
-120...-100...100...120 V d.c.			
-300...-250...250...300 V d.c.			
-600...-400...400...600 V d.c.			
-1.2...-1...1...1.2 A d.c.	input resistance 10 mΩ ±10%		
-6...-5...5...6 A d.c.	input resistance 2 mΩ ±10%		

OUTPUTS

Output kind	Properties	Remarks
0...20...22 mA	$R_{load} \leq 500 \Omega$	Resolution: 0.01% of the range
4...20...22 mA		
0...10...11 V		

DIGITAL INTERFACE

Interface type	Transmission protocol	Modes	Baud rates
RS-485	MODBUS RTU	8N2, 8E1, 8O1, 8N1	4.8, 9.6, 19.2 kbit/s



EXTERNAL FEATURES		
Weight	< 0.125 kg	
Dimensions	22.5 x 120 x 100 mm	
Protection grade (acc. to EN 60529)	ensured by the housing: IP 40	from the terminal side: IP 20
Fixing	on a 35 mm rail	acc. to EN 60715
RATED OPERATING CONDITIONS		
Supply	85..253 V a.c. 40..400 Hz; 90..300 V d.c. 20..40 V a.c. 40..400 Hz; 20..60 V d.c.	power consumption: < 3 VA
Temperature	ambient: -20...23...60°C	storage: -25...85°C
Relative humidity	< 95%	inadmissible vapour condensation
Operating position	any	
Preheating time	15 min	
Averaging time of the measurement	≥ 0.1 s	1 second set by default
SAFETY AND COMPATIBILITY REQUIREMENTS		
Electromagnetic compatibility	Noise immunity	acc. to EN 61000-6-2
	Noise emissions	acc. to EN 61000-6-4
Galvanic isolation	between supply and measuring input 3.2 kV d.c. between supply and output 2 kV d.c. measuring input and output 3.2 kV d.c.	acc. to EN 61010-1
Pollution grade	2	
Installation category	III (for the 400 V option - category II)	
Maximal phase-to-earth operating voltage	for the supply circuit: 300 V	
	for the measuring input: 600 V cat. II (300 V - cat. III)	
	for the programming input: 50 V	
Altitude above sea level	< 2000 m	
CONNECTION DIAGRAMS		
<p>Fig. 1. Electrical connections of P20H transducer inputs. a) current, b) voltage</p>		
<p>Fig. 2. Electrical connections of the P20H transducer supply and output. a) with analog output, b) with RS-485 interface.</p>		
ORDERING		
ORDERING CODES:		
	P20H -	X X X XX X X
Input signal:		
+/- 100 V	1	
+/- 250 V	2	
+/- 400 V	3	
+/- 1 A	4	
+/- 5 A	5	
0..100 V	6	
0...250 V	7	
0...400 V	8	
Output:		
0...20 mA	1	
4...20 mA	2	
0...10 V	3	
RS-485	4	
Supply:		
85..253 V a.c. 40..400 Hz; 90..300 V d.c.	1	
20..40 V a.c. 40..400 Hz; 20..60 V d.c.	2	
Version:		
standard		00
non-standard settings		NS
custom-made*		XX
Language:		
Polish		P
English		E
other*		X
Acceptance tests:		
without extra quality inspection requirements		0
with an extra quality inspection certificate		1
acc. to customer's request		X
* - after agreeing with the manufacturer		
Order example:		
The code P20H - 6 1 1 00 E 0 means:		
P20H - transducer of d.c. current or d.c. voltage signals		
6 - input signal: 0...100 V d.c.		
1 - output signal: 0...20 mA		
1 - supply voltage: 85..253 V a.c. 40..400 Hz; 90..300 V d.c.		
00 - standard version		
E - English language		
0 - without extra quality inspection requirements		

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