

ELECTRO-PNEUMATIC INTERSYSTEM TRANSMITTER type A201

ELECTRO-PNEUMATIC INTERSYSTEM TRANSMITTER type A201 IS USED FOR CONVERSION THE STANDARD ANALOGUE ELECTRIC SIGNAL ON STANDARD PNEUMATIC SIGNAL AT RANGE 20...kPa OR 60...300kPa IN AUTOMATIC REGULATION SYSTEMS OR CONTROL INDUSTRY SYSTEMS. THIS TRANSMITTER POSSESSES COOPERATION THE ELECTRONIC AUTOMATION SYSTEMS WITH EXECUTIVE ELEMENTS. THE TRANSMITTER'S WORKING IS BASED ON COMPARISON MOMENT RULE OF FORCE MADE BY COIL WHICH WAS PUT IN CONSTANT MAGNETIC FIELD PROPORTIONAL FOR INPUT SIGNAL, WITH MOMENT OF FORCE MADE BY METALIC PRESSURE CAPSULE OF FEEDBACK, WHERE THE PNEUMATIC OUTPUT SIGNAL IS SUPPLIED. CHANGE OF DIRECT OF TRANSMITTER WORKING ("DIRECTLY" OR "INVERSELY" WORKING) MIGHT BE REALIZED BY CHANGE CURRENT FLOW DIRECTION BY COIL AND CORRECTION OF TRANSMITTER REGULATION.



- * pressure voltage 140±14 kPa
- * protection degree IP 54
- * spark-safety version acc. to ATEX directive

TECHNICAL DETAILS

- input standard signal	4...20 mA; 0...20 mA
- input inversion signal	20...4 mA; 20...0 mA
- output signal	20...100 kPa; 60...300 kPa
- pressure supply	140 ±14 kPa; 400 ±40 kPa
- input resistance	≤250Ω
- basis mistake	0,6%
- hysteresis	0,25%
- additional mistakes:	
from changes of pressure supply by 10%	max 0,5%
from change of ambient temperature	max 0,8% on each 10°C
from vibrations in range:	
10 ... 60 Hz, amplitude<0,35 mm	
60 ... 500 Hz, acceleration 5g	max 1%
from reaction the magnetic constant and commutative field	
at intensity 100 A/m, 50 Hz (acc. to PN-EN 6100-4-8:1998)	max 0,5 permissible basis mistake
from disturbances radiated magnetic field	
at radio frequency 10 V/m., at frequency in range	
80 MHz do 1 GHz (acc. to PN-EN 6100-4-3:2002)	max 0,5 permissible basis mistake
from series of quick transient states made by voltage	
at peak value 2 KV (acc. To PN-EN 6100-4-4:2002)	max 0,5 permissible basis mistake
from surge at voltage 0,5 KV (acc. to PN-EN 6100-4-5:1998)	max 0,5 permissible basis mistake
- working position	optionally, subject to 0 correction in choosed position
- own air consumption	max 0,35 kg/h at p ₂ = 140 kPa
- max rate	7,5 kg/h at p ₂ = 140 kPa
- spark-safety characteristic	Ⓔ II 2 G EExi _a IICT6/T5/T4
- certificate	KDB 04 ATEX 026X
- conditions of using in explosion-risk zone:	

1. Electro-pneumatic system transmitter type A201-A2XX-XX-XX, ... may cooperate only with spark-safety circuit at parameters:
U₁ = 28 V DC, I₁ = 100 mA, P₁ = 0,7 W
2. Transmitter connection with cooperating devices should be made by separate conductors pair or by cable, which **OLNY** spark-safety circuits will be connected. L and C parameters of external circuit should be the same like for device cooperates with transmitter.
3. Acceptable ambient temperature - depending on temperature class

Temperature class of gases and steam	T6	T5	T4
Acceptable ambient temperature(T _a)	-40°C ... +50°C	-40°C ... +65°C	-40°C ... +70°C

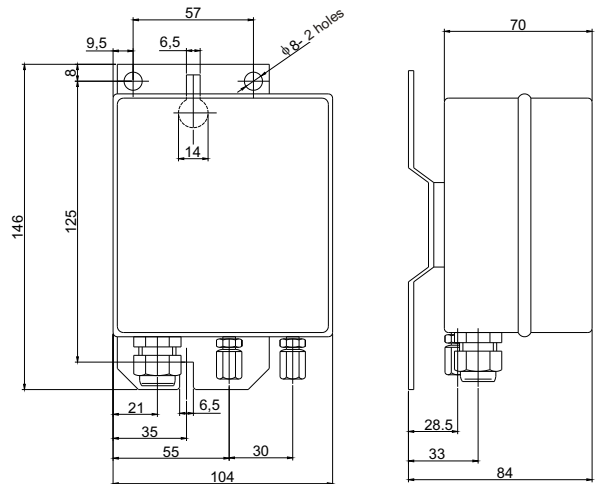
- housing protection degree	IP54 acc. to PN-EN 60529:2002
- mass	1,1 kg
- connectors:	
Electric	screw clamps for transmitter at diameter to 2,5 mm ²
Pneumatic	threaded holes St. B1/8" or connectors

WORKING CONDITIONS


Electro-pneumatic system transmitter type A201 is designed for working in industry condition in little roof places, booths in the field, not heated and closed rooms or in control room base in conditions:

- ambient temperature -40°C ... +70°C
- relative humidity 100%
- sinusoidal vibrations 10 ... 60 Hz, amplitude < 0,35 mm, 60 ... 500 Hz, acceleration 5g (class VH6 acc. to PN-EN 60654:1996)
- working position optionally, subject to 0 correction in chosed position
- working medium air without dust, oil and aggressive pollution, at relative humidity when dew temperature should be lesser than ambient temperature at the value not lesser than 10°C (10°K) (PN-EN 60654-2:1999)

DIMENSION DRAWINGS



ORDERING METHOD

A201-	Electro-pneumatic intersystem transmitter					
CODE 1	VERSION					
1	standard					
2	spark-safety with certificate ATEX  II 2 G EExi IIC T6/T5/T4					
CODE 2	INPUT SIGNAL					
0	4 ... 20 mA					
1	0 ... 20 mA					
5	20 ... 4 mA (inversion signal)					
6	20 ... 0 mA (inversion signal)					
CODE 3	PNEUMATIC CONECTORS					
1	connectors for copper or polyethylene pipes $\phi 6 \times 1$ mm					
OPTIONS:						
CODE 4	INPUT OF ELECTRIC CABLE					
-D1	standard cable key type M20x1,5 (metallic type covered zinc coating - for standard and spark-safety version)					
-D2	polyamide cable key type M20x1,5 (for standard version)					
-D3	polyamide cable key type M20x1,5 (for spark-safety version)					
CODE 5	OUTPUT SIGNAL					
-W1	range from 20...100 kPa					
-W2*	range from 60...300 kPa					
* it doesn't available in spark-safety Ex version						
A201-A	1	0	1	-	D1	EXAMPLE OF TRANSMITTER DENOTATION

REMARK: other versions of transmitter type A201 available aftr agreement with manufacturer

Example of ordering:

Electro-pneumatic intersystem transmitter type A201 in standard version with input signal 4...20 mA, with connector for pipe $\phi 6 \times 1$ mm with standard - metallic cable key and output signal from 20 ... 100 kPa has denotation:
Electro-pneumatic system transmitter type A201-101 -D1-W1

The right of introducing design changes in the product, without deteriorating of its operation parameters, is reserved.