



Connecting Technologies

POSITION SENSOR DP-01

Technical Passport

STRM.453847.001-02 PS



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1 Basic information and technical specifications

Position sensor DP-01 (hereinafter — sensor) is designed to measure the angular position of working mechanisms. Operating conditions and basic specifications of the sensor given in Tables 1 and 2, respectively.

Table 1: Operating conditions

Parameter	Value
Operating temperature, °C	−50... + 65
Maximum humidity at 20 °C, %	80
Atmospheric pressure, kPa	84... 106.7

The sensor retains its performance when exposed to the following mechanical overloads:

- Sine vibration at frequencies of 50... 250 Hz and amplitudes up to 5g;
- Impact loads with an acceleration of 10g, up to 10,000 impacts.

Table 2: Specifications

Parameter	Value
Supply voltage range, V	5... 12
Consumption current, mA	20
Full mechanical shaft angle, deg	75 ± 3
Operating angular range, deg	75 ± 3
Maximum nonlinearity of characteristics (in the operating angular range), %	1.5
Error at control points (at $V_{sup} = 5.00 \pm 0.05$ V), mV	±40
Number of channels	2
Weight, kg	2

- Aluminum — 136 g;
- Copper — 30 g;
- Bronze — 35 g.

Dependence of the output voltage on the position of the sensor lever (at $V_{\text{source}} = 5V$) is shown in Table 3 and Figure 1.

Table 3: Specifications

Angle α , deg	Channel A, (V_A), V	Channel B, (V_B), V
0	2.30	2.30
75	0.65	3.95

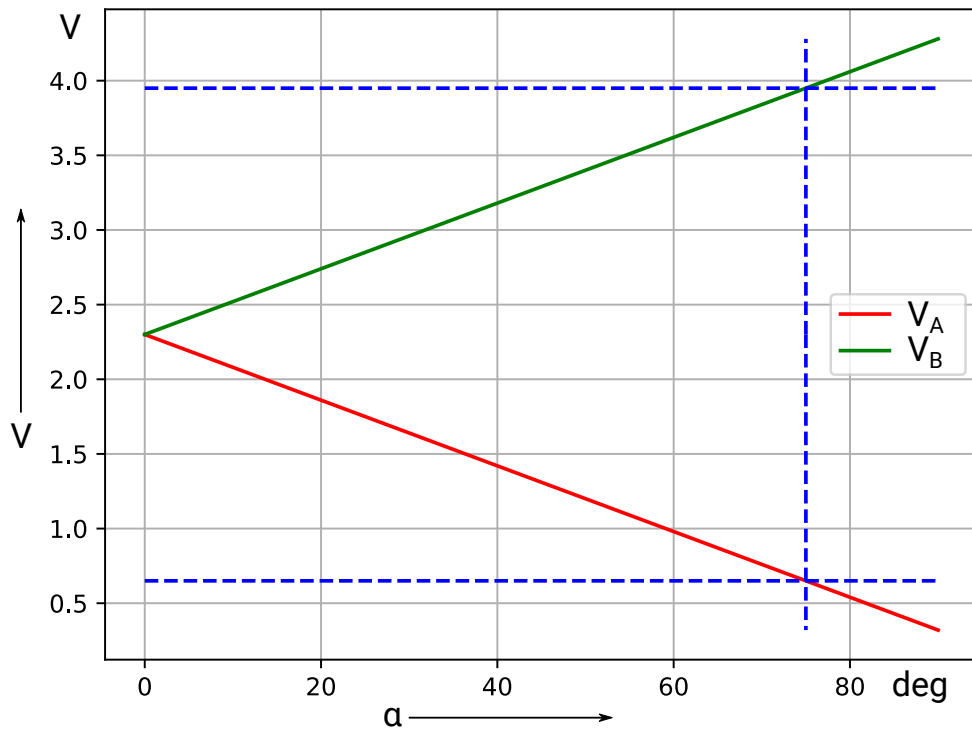


Figure 1:

Connect the sensor according to Table 4.

Table 4: Circuit connector

Contact	Circuit	Function
1	$+V_{\text{sup}}$	Supply voltage
2	Common	Common
3	Analog output	Position control output, channel A
4	Analog output	Position control output, channel B

2 Storage

Storage conditions for the sensor in accordance with GOST B9.003-80 in the manufacturer's packaging. Storing the sensor in the same room with acids, reagents, and other chemically active substances that can affect it is not permissible.

3 Warranty

The warranty period for the operation of the sensor is 2 years from the date of commissioning, subject to the conditions of transportation, storage, installation, and operation.

Guaranteed shelf life — 1 year from the date of manufacture.

During the warranty period, the manufacturer undertakes to eliminate defects free of charge or replace a failed frequency sensor, if the damage is not related to violation of the rules of transportation, storage, installation, and operation.

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4 Package contents

The delivery set of the sensor is in accordance with Table 5.

Table 5: Circuit connector

Label	Name	Quantity
STRM.453847.001-02	Position sensor DP-01	1
STRM.453847.001-02 PS	Technical Passport	1
—	Package	1

5 Certificate of acceptance and packaging

Rotational speed sensor DP-01 STRM.453847.001-02 №_____ manufactured, accepted and packaged in accordance with the current technical documentation.

QUALITY CONTROL DEPARTMENT

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