



The sensor of loading chutes clogging (gumming) checking, ultrasonic – Д3У-...

Д3У-... series sensors are designed for conveyor loading chutes clogging checking when transporting coal, ore and other solid materials. The sensors can be used on other equipments and manufacturing to control level and availability of the loose materials (screenings, sand, cement, lime, building mixes, etc.) inside bunkers and silos.



The sensor Д3У is installed above the container with controlled material in such a way that its sides do not come into the sensitivity area of the sensor. The sensor emits ultrasonic impulses and detects the signal reflected from an object. The transit time of a signal corresponds to the distance to the object.

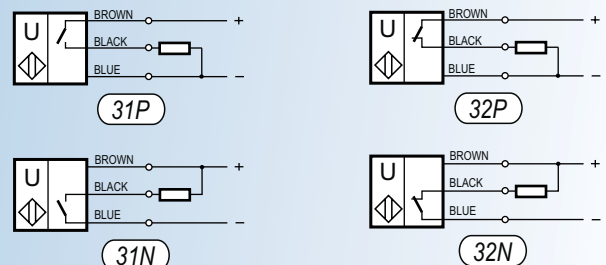
The emergence of checking material in the actuation area causes a change of the switching state of the sensor.

It is recommended to apply the Module Д3У together with the sensor Д3У to provide a delay of a switching with the purpose of exclusion of false signals when emerging of mining rock in the actuation area.

Specifications:

	Denomination - Series sensors Д3У-...	
	3-wire DC voltage sensors	
	Д3У-31P Д3У-31N	Д3У-32P Д3У-32N
Switching distance, mm	500 - 2000	
Sound frequency, kHz	40	
Wave length, mm	8,5	
Type of sensor contact	n/o	n/c
Supply voltage, V	24 - 30 DC	
Max. switching current, I _{max} mA	300	
Consumption current, I mA	≤40	
Voltage drop when I _{max} , V	≤1,5	
Switching frequency maximum, F _{max}	1 Hz	
Acoustic (operation) cone	60°	
Operating temperature range, °C	0...+70°C	
Temperature drift	0,2% x °C	
Protection degree	IP65	
Connection, L=2m	cable 3x0,34	
When ordering other lengths, specify the number of meters in the end of the denomination (see example of notation)		
Dimensions, mm	40x40x63	

Wiring diagramms:





CONVEYOR AUTOMATION

Д3У-... series sensors are available in several versions that differ from each other in connection diagrams.

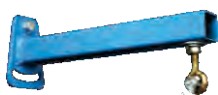
*Example of sensor notation in the documentation and orders: **Д3У-32Р-3***

The type of sensor contacts: _____
 31P, 31N – 3- wire sensors with normally open contact (NO) with the PNP or NPN type of transistor switch, respectively;
 32P, 32N – 3- wire sensors with normally closed contact (NC) with the PNP or NPN type of transistor switch, respectively;
 Cable length: _____
 3- cable length in meters, without marking cable length – 2m

Optional equipment for Д3У-... series sensors

It is recommended to use the following types of brackets for the Д3У-... series sensors mounting and adjustment in installation site:

Bracket № 3



Length-254 mm,
Weight 0,5 kg

Bracket №4



Length-504 mm,
Weight 0,9 kg



SET OF SUPPLY :

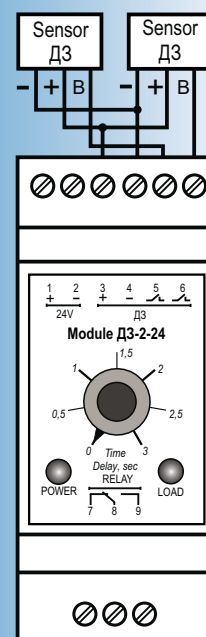
Bracket – 1 pc., Eyebolt M8 – 1 pc., Washer M8 – 1 pc., Hex. Nut M8 – 1 pc., Spring Washer – M8 – 1 pc., Right-angled Hex. Nut M8 – 1 pc.

Д3-2-24 module is designed to convert electronic output of one ore two sensors of Д3Е, Д3И, Д3У series with discrete transistor output into a relay output for switching load. The module provides a delay of a switching over the range from 0 to 3 sec, that allows, if necessary, to exclude any false activations of the clogging checking sensors.

The module can be used for conversion of the electronic output of other 3-wire DC sensors from the set «Control» into a relay output .



Connection diagrams:



SPECIFICATIONS:

Supply voltage, V
Number of discrete outputs
Number of relay outputs
Type of relay contacts
Range of a switching delay, sec
Switching voltage, not more than, V
Switching current, not more than, A
Protection degree
Dimensions, mm

Module Д3-2-24

24DC
2
1
switching
0 - 3
240 AC / 60 DC
1
Ip20
35x62x87

«Pilot Production «Technologies of Control» Co. Ltd

630117, Novosibirsk, Arbusova street, 2a
 Phone: (383) 332-49-32, 299-32-02, 335-64-09
 sale@op-teko.ru www.op-teko.ru