



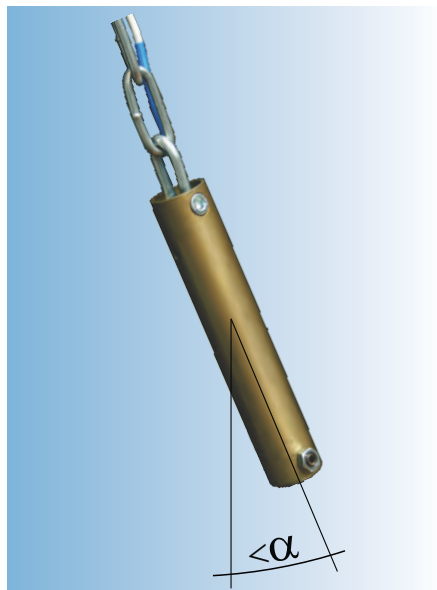
The sensors of loading chutes clogging (gumming) checking, inductive –ДЗИ-...

ДЗИ-... - series sensors are designed for conveyor loading chutes clogging checking when transporting coal, ore, crushed stone and other solid loose materials. The sensors are made according to GOST (State standard) 24754-81, conform to the electrical equipment mine regular MN-2 and must be used on the conveyors that operate in enterprises of various industries including drift mining than are not dangerous with respect to gas, vapour and dust explosion.

The product is based on invention «Method for determining the angle of inclination and a device for its implementation» (patent №2455616 of 10.07.2012). The device allows to minimize the mechanical components thereby improving the product reliability and durability. Built-in hydro stabilizer damps a vibration, provides a delay of a switching – 0.5 sec, considerably reduces false activations.

The series sensors **ДЗИ-...** are installed vertically into conveyor loading chutes (bunker, silo and other tanks). The emergence of a checking material in the actuation area leads to the inclination of sensor, and its deviation from the vertical axis over a predetermined angle (20°) brings the changes of the state of output contacts.

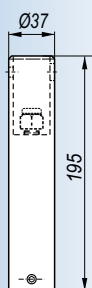
The sensor construction allows to set various types of extensions to it (see add. equipment), that makes it versatile in detecting loose materials of various fractions, liquids and considerably extends range of use.



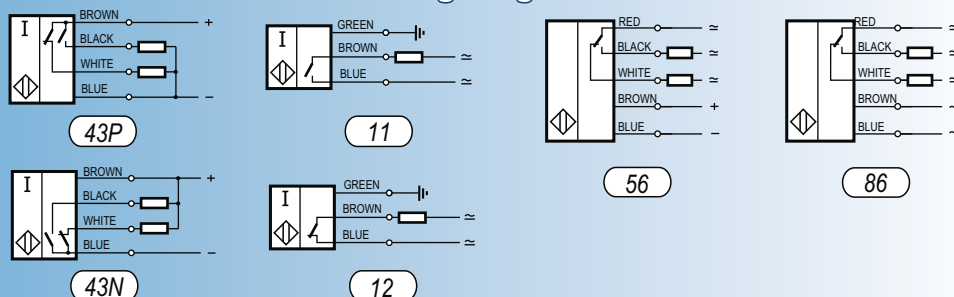
SPECIFICATIONS:

Denomination - series sensors ДЗИ-...				
4-wire DC voltage sensors	3-wire AC/DC voltage sensors	5-wire DC voltage sensors with relay output	5-wire AC voltage sensors with relay output	
... 43P	... 11	... 56	... 86	
... 43N	... 12			
20				
Supply voltage,	10...30 DC	20...250AC / 20...320DC	24 DC	220 AC
Switching voltage load by relay contacts, V	-	-	240 AC / 60 DC	240 AC / 60 DC
Max. switching current, I _{max} mA	250	500	500	500
Residual current, I mA	-	≤1,7	-	-
Surge current when t=20 m/sec	-	3 A, f=1 Гц	-	-
Voltage drop when I _{max} , V	≤2,5	≤5	-	-
Operating temperature range, °C	t= -15°...+105°C		t= -15°...+85°C	
• high- temperature - BT				
• typical execution			t= -25°...+75°C	
• low-temperature - HT			t= -45°...+65°C	
• low-temperature - 2HT	t= -65°...+50°C		-	
Protection degree	IP68			
Cable connection, L=2m	4x0,25 mm ²	3x0,34 mm ²	5x0,25 mm ²	5x0,25 mm ²
when ordering other lengths, indicate the number of meters in the end of the denomination (see example of notation)				
Case material	Steel 45, corrosion resistant coating – galvanizing with chromate treatment			
Dimensions, mm	Ø37 x 195			
Weight, kg	1,1			

Sensor dimensions



Wiring diagrams:





CONVEYOR AUTOMATION

ДЗИ-... series sensors are available in several versions that differ from each other in connection diagrams, supply voltage, operating temperature ranges and cable length.

Example of sensors notation in the documentation and orders:

ДЗИ - 56 - НТ - 3

The number and type sensor contacts:

- 11, 12 – 2-wire sensors with normally open (NO) and normally closed (NC) contacts, respectively;
- 43P, 43N – 4-wire sensors with switching contact (NO/NC) with the PNP or NPN type of transistor switch;
- 56, 86 – 5-wire sensors with relay output on DC and AC voltage.

Temperature range of usage:

- НТ – -45°...+65°C; 2НТ – -60°...+50°C;
- ВТ – -15°...+105°C, (-15°...+85°C – for 5-wire sensors); without marking -25°...+75°C

Cable length:

3- cable length in meters, without marking cable length – 2m




Optional equipment for the ДЗИ-...series sensors

EXTENSIONS

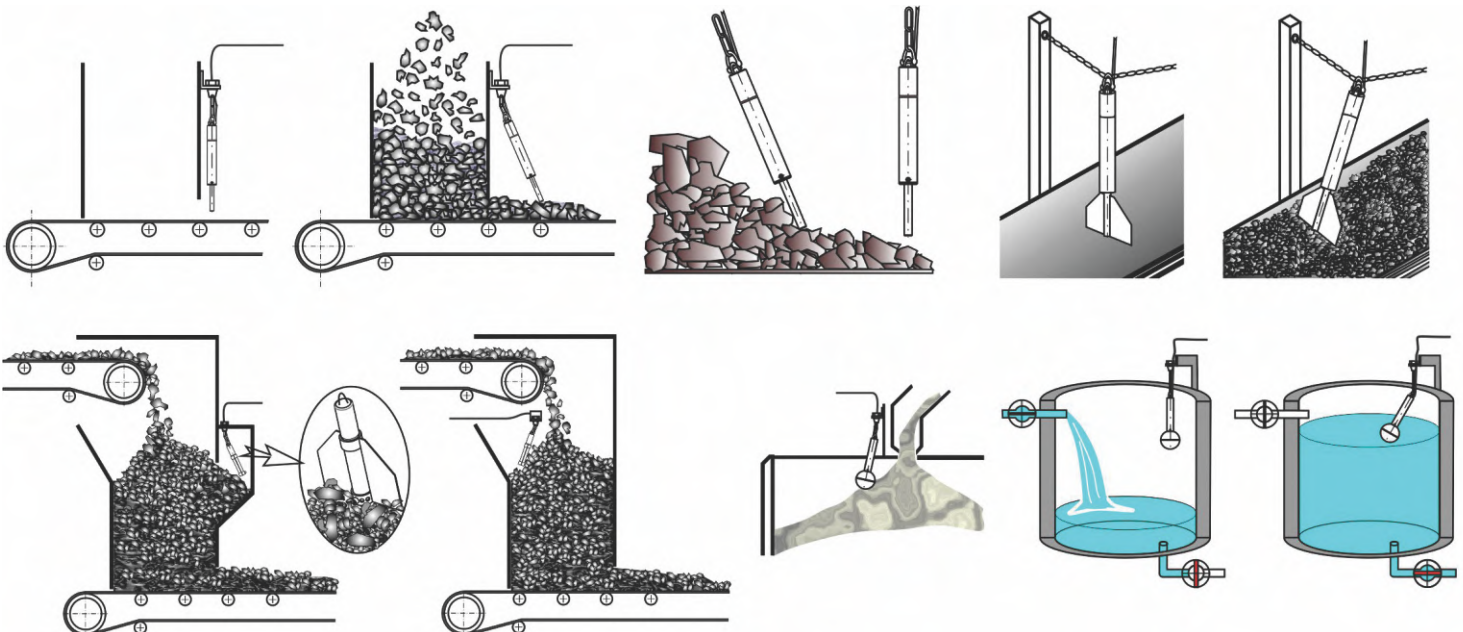
Type	Size	№ for order
Rod	Ø16x120	№11
Rod	Ø16x240	№12
Paddle small flat	16x100x120 16x100x240	№21 №22
Paddle large flat	16x200x120 16x200x240	№31 №32
Paddle small cruciform	100x100x120 100x100x240	№41 №42

Type	Size	№ for order
Paddle large cruciform	200x200x120 200x200x240	№51 №52
Nozzle flat	44x160x200	№61
Nozzle cruciform	160x200x200	№62
Float	Ø120	№71
Float	Ø200	№72

BRACKETS

Bracket №3		Length-254 mm, weight 0,5 kg
Bracket №4		Length-504 mm, weight 0,9 kg
Bracket №5		Ø42 mm, Length-170 mm, weight 0,45 kg

Options of ДЗИ-...series sensors use



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