

PRESSURE SWITCHES TSA



- For switching in particular 3 phase electrical circuits AC-3 10 A/400 V) due to pressure changes in pressure vessels.
- It is used in connection with a pump or compressor for maintaining pressure in pressure vessels of domestic water reservoirs within required range.
- Simple regulation of the connecting and disconnecting pressure.
- High switching number.
- Any operating position.
- Can be regulated by non-aggressive operating medium such as water, oil or air. They are suitable for use in moist and wet areas (resistant to sprinkling water) and they are sufficiently protected from dust.

Pressure switch standard

Max. possible disconnecting pressure [MPa]	Connection-mounting	Type	Code for the product	Weight [kg]	Packaging [pc]
0,55	screw G 1/4"	TSA3505S/0,08 ÷ 0,15	09068	0,55	1
		TSA3505S/0,12 ÷ 0,23	08350	0,55	1
		TSA3505S/0,15 ÷ 0,30	08353	0,55	1
		TSA3505S/0,20 ÷ 0,35	08356	0,55	1
		TSA3505S/0,27 ÷ 0,44	08362	0,55	1
	sleeve nut G 1/4"	TSA3505S/0,33 ÷ 0,46	08366	0,55	1
		TSA3505M/0,08 ÷ 0,15	09069	0,55	1
		TSA3505M/0,12 ÷ 0,23	08351	0,55	1
		TSA3505M/0,15 ÷ 0,30	08354	0,55	1
		TSA3505M/0,20 ÷ 0,35	08357	0,55	1
1	screw G 1/4"	TSA3510S/0,40 ÷ 0,60	08363	0,55	1
		TSA3510S/0,44 ÷ 0,60	38451	0,55	1
		TSA3510S/0,44 ÷ 0,60	09070	0,55	1
		TSA3510S/0,50 ÷ 0,70	09071	0,55	1
		TSA3510S/0,58 ÷ 0,86	08380	0,55	1
	sleeve nut G 1/4"	TSA3510S/0,65 ÷ 0,90	09072	0,55	1
		TSA3510M/0,40 ÷ 0,60	09073	0,55	1
		TSA3510M/0,44 ÷ 0,60	09074	0,55	1
		TSA3510M/0,50 ÷ 0,70	09075	0,55	1
		TSA3510M/0,58 ÷ 0,86	08381	0,55	1

Parameters

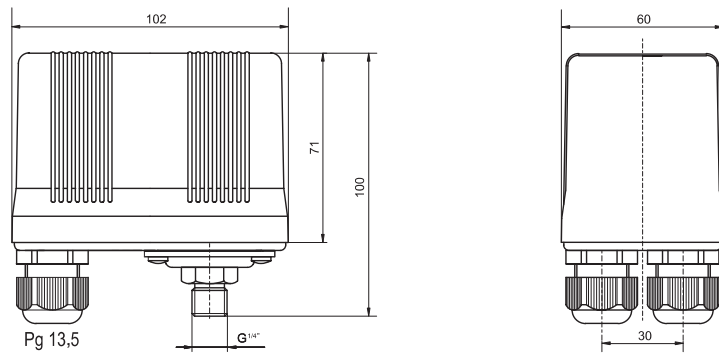
Type			TSA	
Standards			ČSN EN 60 947-4-1, ČSN EN 60 730-2-6	
Certification marks				
Main circuit (contact)	sort ¹⁾		03	
	rated insulation voltage	U _i	500 V a.c.	
	rated working voltage	U _e	400 V a.c.	
	min. operational voltage	U _{min}	48 V a.c.	
	AC-3	nominal current	I _n	10 A
		connecting output at 400 V a.c.		4 kW
		connection density		120 cycles/hour
		electrical maintenance		200,000 cycles
		mechanical service life		500,000 cycles
	connections	wire Cu		1 ÷ 2,5 mm ²
cable - diameter			6 ÷ 12 mm	
Pressure circuit	rated overpressure		1 MPa	
	operating medium	type	non-aggressive gases and liquids	
		temperature		0 ÷ 55 °C
	inlet to pressure medium = fastening	with screw (TSA3...S...)		G 1/4"
		sleeve nut (TSA3...M...)		G 1/4"
tolerance of preset pressures			±10 %	
Other data	protection		IP54	
	Ambient temperature		-10 ÷ 55 °C	
	Operating position		any position	

¹⁾ Each digit gradually the number of connecting and disconnecting contacts; if the opposite function is required we recommend using the pressure switch TSA for controlling the contactor coil circuit with the disconnecting contacts.

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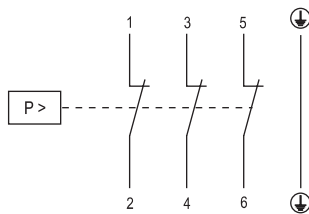
Dimension

TSA

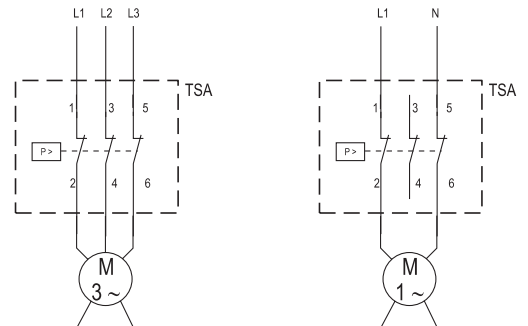


Scheme

TSA3S...



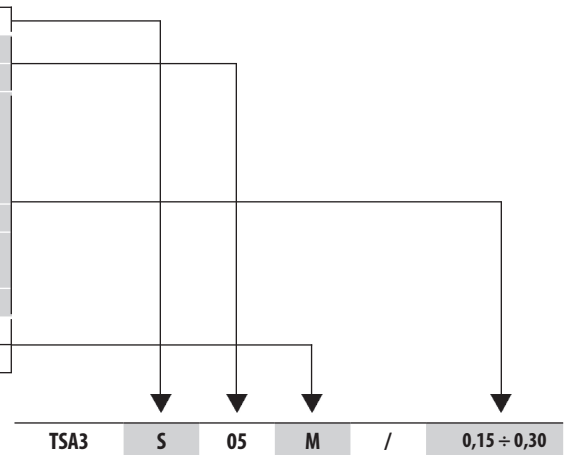
Connection of 1 and 3-phase motors



TSA3 pressure switch indication method

Accessories	no accessories; standard	S	
Pressure	design with max. possible disconnecting pressure	0,55 MPa	
		1 MPa	
	pressure setting for design 05 [MPa]	standard	0,15 ÷ 0,30
			0,20 ÷ 0,35
			0,27 ÷ 0,44
pressure setting for design 10 [MPa]	selection from pressure diagram	0,33 ÷ 0,46	
		... ÷ ...	
	standard	0,40 ÷ 0,60	
		0,65 ÷ 0,90	
	selection from pressure diagram	... ÷ ...	
Connection	screw G 1/4"	S	
-mounting	sleeve nut G 1/4"	M	

Product indication for order



Pressure units and conversions

1 Pa	= 10 ⁻⁶ MPa	= 10 ⁻⁵ bar	= 9,87 x 10 ⁻⁶ atm	= 7,5 x 10 ⁻³ Torr
1 MPa	= 10 ⁶ Pa	= 10 bar	= 9,87 atm	= 7,5 x 10 ³ Torr
1 bar	= 10 ⁵ Pa	= 0,1 MPa	= 0,987 atm	= 750 Torr
1 atm	= 101,3 x 10 ³ Pa	= 0,1013 MPa	= 1,013 bar	= 760 Torr
1 Torr	= 133,3 Pa	= 0,1333 x 10 ⁻³ MPa	= 1,333 x 10 ⁻³ bar	= 1,316 x 10 ⁻³ atm

Due to continual technical development the manufacturer reserves the right to change parameters without prior notification.

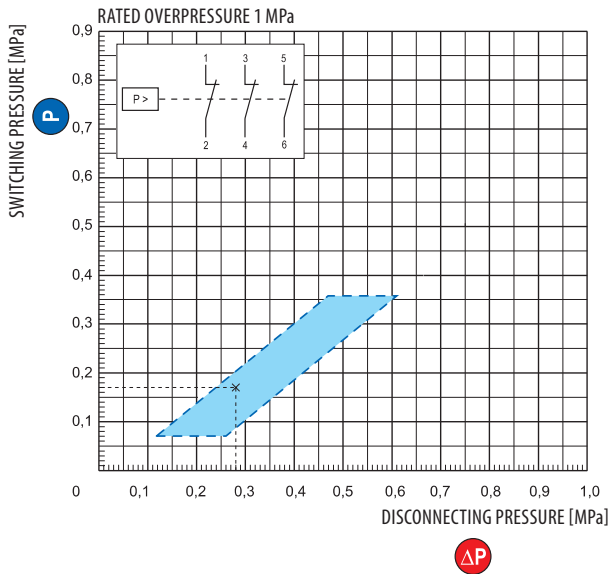
ZPA EKOREG, Děčínská 55, 400 03 Ústí nad Labem, tel.: 475 246 335,336, fax: 475 531 073, e-mail: prodej@zpaul.cz, http://www.zpaul.cz

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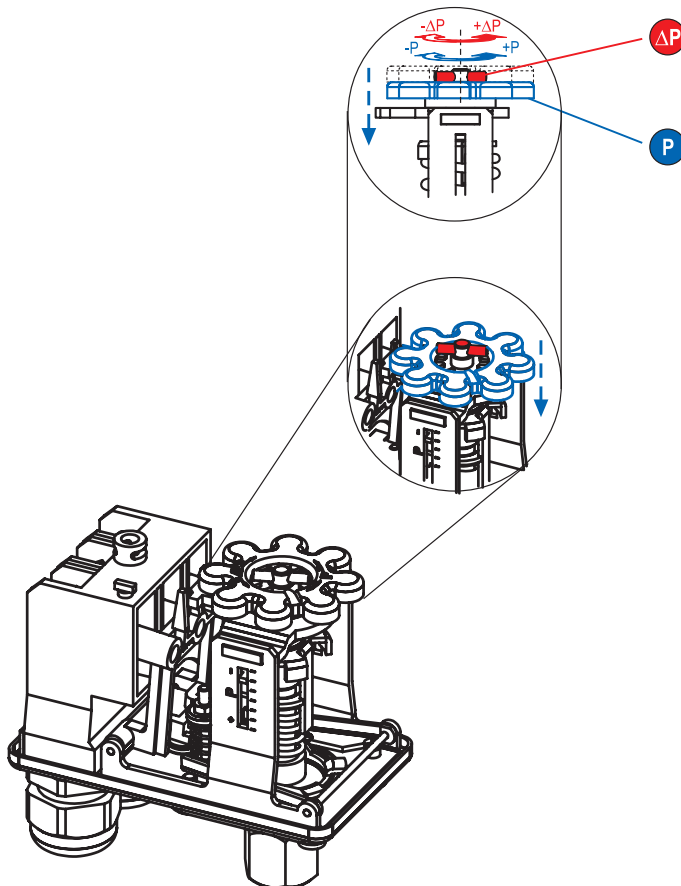
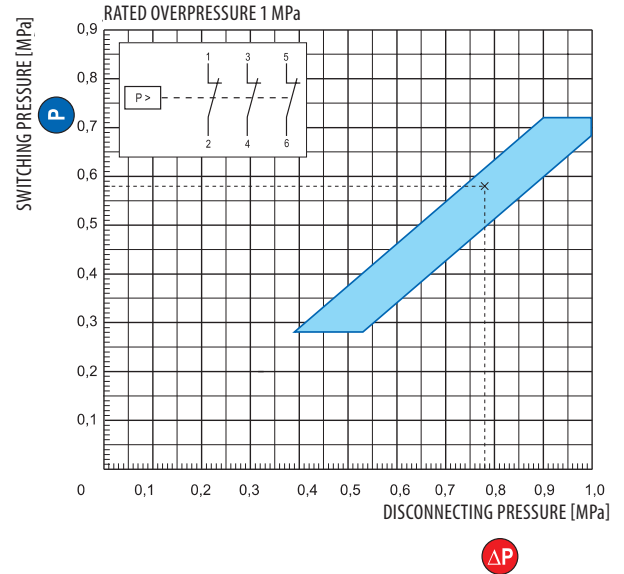
Adjusting the pressure

- The pressure diagrams define adjustability of pressure switches.
- If the perpendicular intersected point of required switching pressure and disconnecting pressure lies in the blue area, the required pressure can be set.

Pressure diagram for TSA3...05...



Pressure diagram for TSA3...10...



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Warranty

24 months warranty is provided from the delivery date unless specified otherwise in the purchase contract.

Catalogue sheet **KLA 36/33/10-11**

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