

# **PRIBOR ZA TRANSFORMATORE**

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## ***ACCESSORIES FOR TRANSFORMERS***



## PLINSKI ( BUCHHOLZ ) RELEJI GAS ( BUCHHOLZ ) RELAYS

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Plinski ( Buchholz ) releji tipa **2RB** služe za signalizaciju i davanje komande za isklapanje transformatora u slučaju razvijanja plinova, gubitka ulja ili naglog porasta pritiska ulja uslijed kvara u transformatoru.

Relaj može nesmetano raditi pri temperaturi ulja od  $-25\text{ }^{\circ}\text{C}$  do  $+110\text{ }^{\circ}\text{C}$  i viskozitetu od  $6,2\text{ mm}^2/\text{s}$  do  $1100\text{ mm}^2/\text{s}$ .

Relaj se može pouzdano koristiti i u područjima ugroženim od potresa ( ispitano sa  $2g$ ;  $5 - 60\text{ Hz}$  ).

Kućište plinskog releja **2RB** izrađeno je od silumina ( tlačni lijev ). Na obje strane kućišta nalaze se stakleni prozorčići sa baždarenom skalom u  $\text{cm}^3$  za provjeru kontaktnog sistema i očitavanje volumena sakupljenog plina. U kućištu releja smješten je mehanizam s kontaktnim sistemom koji čine dva plovka sa permanentnim magnetima za aktiviranje kontakata. Kontakti gornjeg i donjeg plovka isporučuju se kao uklopni ( isklopni na zahtjev ). Gornji plovak aktivira kontaktni sistem kod istisnute količine ulja od  $150$  do  $300\text{ cm}^3$ , a donji kod strujanja ulja brzinom  $65$  do  $150\text{ cm/s}$  ( ove veličine mogu se podešavati ).

Karakteristike " reed " kontakta :

- nazivna termička struja  $I_{th}$  :  $2\text{ A}$
- nazivni pogonski napon  $U_e$  :  $230\text{ Va.c./d.c. (min. } 12\text{ V)}$
- nazivna pogonska struja  $I_e$  :  $2\text{ A - AC15 / DC13}$   
(min.  $10\text{ mA}$ )
- ispitni napon :  $2000\text{ V; } 50\text{ Hz; } 1\text{ min.}$
- tip kontakta :  $2 \times \text{NO}$  ( uklopni )

Relaj **2RB** je skladu sa normama DIN VDE 0660, DIN 42566 i N.H1.050.

*Gas ( Buchholz ) relays type **2RB** are made for signalling and giving commands for disconnection of transformers in case of development of gases, oil loss or sudden increase in oil pressure due to defects of transformers.*

*The relay can operate undisturbed at the temperature of oil from  $-25\text{ }^{\circ}\text{C}$  up to  $+110\text{ }^{\circ}\text{C}$  and oil viscosity from  $6,2\text{ mm}^2/\text{s}$  to  $1100\text{ mm}^2/\text{s}$ .*

*The relay is also applicable in areas endangered by earthquake ( tested with  $2g$ ;  $5 - 60\text{ Hz}$  ).*

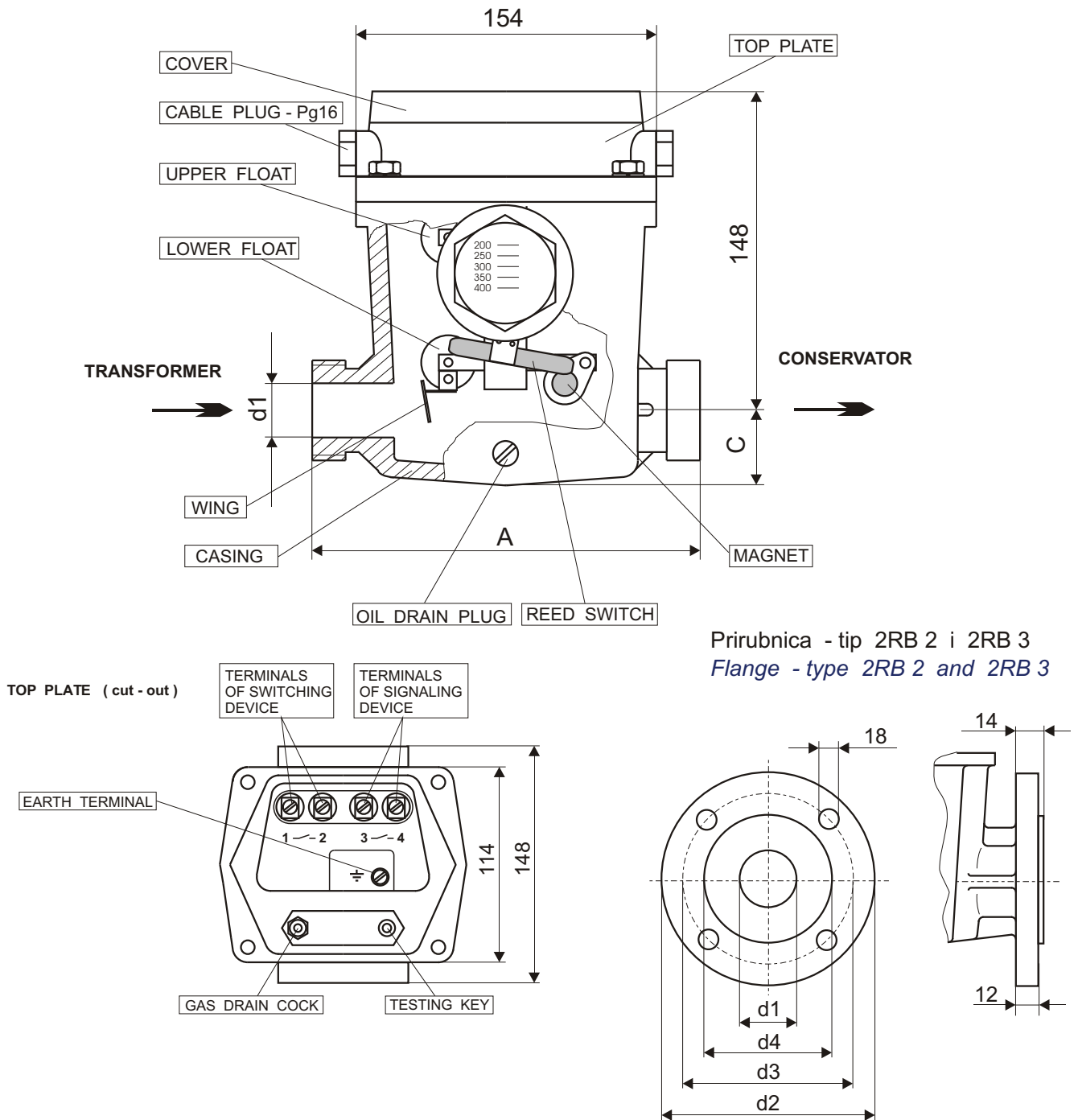
*The casing of gas relay **2RB** is made of silumin ( pressure - cast ). On both sides of the casing there are glass windows with scale in  $\text{cm}^3$  for inspection of switching system and reading of collected gas volume. Inside the casing there is a contact mechanism with two floats with permanent magnets for contacts activation. Upper float activates the contact system when  $150$  to  $300\text{ cm}^3$  of oil is forced out and the lower float when oil flows at the speed from  $65$  to  $150\text{ cm/s}$  ( these values can be adjusted ).*

*Characteristics of the " reed " contact :*

- rated thermal current  $I_{th}$  :  $2\text{ A}$
- rated operational voltage  $U_e$  :  $230\text{ Va.c./d.c. (min. } 12\text{ V)}$
- rated operational current  $I_e$  :  $2\text{ A - AC15 / DC13}$   
(min.  $10\text{ mA}$ )
- testing voltage :  $2000\text{ V; } 50\text{ Hz; } 1\text{ min.}$
- contact type :  $2 \times \text{NO}$  ( make )

*Relay **2RB** is in accordance with the standards DIN VDE 0660, DIN 42566 and N.H1.050.*

## Mjerne skice / Dimension drawings



## Dimenzije u mm / Dimensions in mm

Tip Type	A	C	Priključak / Connection				Transformator ( kVA ) Transformer ( kVA )	Masa ( kg ) Weight ( kg )	
			navoj thread	prirubnica / flange					
				d1	d2	d3			d4
<b>2RB 1</b>	185	32	G1 1/2"	25	-	-	-	5000	2,9
<b>2RB 2</b>	195	47	-	50	165	125	102	5000 - 10000	4,3
<b>2RB 3</b>	195	62	-	80	200	160	138	> 10000	5,3

## SUŠIONICI ZRAKA DEHUMIDIFIERS

Tip / Type	Br. dijela / Art. No.	Masa (kg) / Weight (kg)	Mjerna skica / Dimension drawing
SZ 0,5 - 3/4	656917	0,65	
SZ 0,5	656921	0,54	

Sušionici zraka su naprave koje služe za sušenje vlažnog zraka, a primjenjuju se kod transformatora i drugih uređaja gdje je potrebno spriječiti prisustvo vlažnog zraka.

Sušionik je napunjen sa specijalnom higroskopskom soli (Silica - gel) koja prilikom strujanja vlažnog zraka kroz sušionik na sebe veže vlagu i mijenja boju (od plave u ružičastu). Kad sol potpuno promijeni boju potrebno ju je promijeniti ili osušiti.

Na dnu sušionika nalazi se posuda sa transformatorskim uljem koje sprečava ulazak vlažnog zraka u transformator dok nije u pogonu.

Sušionik zraka može se koristiti za unutarnju i vanjsku montažu i montažu u tropskim uvjetima.

Plastični dijelovi izrađeni su od UV stabiliziranog termoplasta (PC), a metalni dijelovi od aluminijske legure sa zaštitnim slojem.

Sušionik se koristi za transformatore (ili druge aparate) sa max. 1000 kg ulja.

Masa Silica - gela iznosi 0,30 kg.

*Dehumidifiers are devices made for air dehydration and are intended for use with transformers and other devices where the presence of humid air should be prevented.*

*Dehumidifier is filled with special hygro - salt (Silica - gel) which during the air circulation through dehumidifier takes moisture onto itself and changes colour (blue to pink). When Silica - gel completely changes its colour it should be dried up or changed.*

*On the bottom dehumidifier is a transformer oil holder which prevents moist air to enter into the transformer while it is not working.*

*Dehumidifier can be used for internal and external mounting and mounting in tropical conditions.*

*Plastic parts are made of UV stabilised thermoplastic (PC), and metal parts are made of aluminium alloy with protective coating.*

*Dehumidifier is intended for use with transformers (or other devices) with max. 1000 kg of oil.*

*The weight of Silica - gel is 0,30 kg.*

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