

# ROTARY CAM SWITCHES GA20 SERIES



 **Lovato**  
**KONČAR**

Grebenasta sklopka serije GA pripada novoj seriji grebenastih sklopki sa zaštitom od slučajnog dodira (DIN/EN61140).

Ovaj tip sklopke ima 4 kontakta po sklopnom elementu. Može imati najviše 12 upravljačkih položaja i 12 sklopnih elemenata (48 kontakata), a može se izvesti s kutem zakreta od 30°, 45°, 60° i 90°. Svoju primjenu najčešće nalazi u ormarima u kojima je ograničen prostor iza montažne ploče, a shema sklapanja zahtijeva velik broj kontakata.

Konstruirana je prema najsuvremenijim principima i dostignućima na području sklopnih aparata uz uporabu najkvalitetnijih izolacijskih i kontaktnih materijala. Odlikuje se visokim sklopnim moćima, te velikom električnom i mehaničkom trajnošću.

Kada se traži prednji sklop veći od standardnog, sklopka ima oznaku H (GA20H).

Ako se sklopka koristi za napone niže od 24 V i male struje reda mA, može se izraditi s pozlaćenim kontaktima. Tada sklopka ima oznaku G (GA20G).

*Rotary cam switch series GA is the new series of rotary cam switches protected from inadvertent touch (DIN/EN61140).*

*Per each switching element this switch has 4 contacts. Switch can have max. 12 control positions and 12 switching elements (48 contacts) with turning angle of 30°, 45°, 60° or 90°. This cam switch is used in applications where available depths behind the mounting plates are limited and the switching programs require a large number of contacts.*

*It is designed on modern principles taking into consideration the latest achievements in the field of switching devices and using the best insulation and contact materials. Its advantages are: high making and breaking capacities, electrical and mechanical endurance.*

*At the switch where is front part bigger than standard size required, the switch is marked with H (GA20H).*

*When the switch is used at lower voltages than 24 V and currents of mA, the contacts can be gold-plated. The switch is marked with G (GA20G).*

## TEHNIČKE KARAKTERISTIKE *TECHNICAL DATA*

**GA20  
GA20H**

Nazivni izolacijski napon <i>Rated insulation voltage</i>	U <sub>i</sub>	IEC/VDE/BS UL/CSA	V	690 600	
Nazivni udarni podnosivi napon <i>Rated impulse withstand voltage</i>	U <sub>imp</sub>	IEC-60947 (III/3)	kV	6	
Nazivna termička struja <i>Rated thermal current</i>	I <sub>th</sub>	IEC/VDE/BS UL/CSA	A	20 15	
Glavna sklopka <i>Main switch</i>	1)	Najveća vrijednost nazivnog pogonskog napona <i>Max. value of rated operational voltage</i>	V	480	
		Nazivni udarni podnosivi napon <i>Rated impulse withstand voltage</i>	kV	4	
Max. veličina osigurača za zaštitu od kratkog spoja <i>Max. fuse size for short circuit protection</i>	I <sub>n</sub> (gG/gL)	10 kA 25 kA	A	20 20	
Nazivna kratkotrajno podnosiva struja <i>Rated short-time withstand current</i>	I <sub>cw</sub>	1 sec	A	220	
Nazivna pogonska struja <i>Rated operational current</i>	I <sub>e</sub>	AC1/AC21A IEC/VDE/BS	A	20	
		220 - 240 V	kW	3	
	AC3	3 faze 3 phase	380 - 440 V 500 - 690 V	kW kW	5,5 5,5
		120 V	kW	0,6	
		230 V	kW	2,2	
		400 V	kW	3	
Motorska sklopka za kategoriju upotrebe <i>Motor switch in utilization category</i>	AC23A	1 faza, 2 pola 1 phase, 2 pole	120 V 230 V 400 V	kW kW kW	3,7 7,5 7,5
		3 faze 3 phase	220 - 240 V 380 - 440 V 500 - 690 V	kW kW kW	3,7 7,5 7,5
		1 faza, 2 pola 1 phase, 2 pole	120 V 230 V 400 V	kW kW kW	0,75 2,2 3,7
Motorska sklopka <i>Motor switch</i>	DOL	UL/CSA 3 faze 3 phase	110 V 240 V 480 V 600 V	HP HP HP HP	1,5 2,0 5,0 5,0
Mehanička trajnost <i>Mechanical durability</i>		Broj uklopa Switching cycles		1 x 10 <sup>6</sup>	
Priključni vijak <i>Terminal screw</i>			M	3	
Moment pritezanja priključnog vijka <i>Terminal screw</i>	(IEC)		Nm	0,5	
Gubici <i>Power dissipation</i>			W	1	
Presjek vodiča <i>Conductor size</i>	max. r/f		2 x $\frac{\text{mm}^2}{\text{AWG}}$	2,5/25 12/14	
	min. r/f		2 x $\frac{\text{mm}^2}{\text{AWG}}$	0,5/0,5 20/20	
	r = kruti, višezilni / <i>rigid</i> f = finožičani / <i>flexibl</i>				

<sup>1)</sup> vrijedi za mreže sa uzemljenim zvjezdištem, prenaponska kategorija III, stupanj zagađenja 3  
<sup>1)</sup> valid for neutral earthed systems, overvoltage category III, pollution degree 3.

## POTVRDA *APPROVAL*

USA



Kontaktni sustav *Contact system*



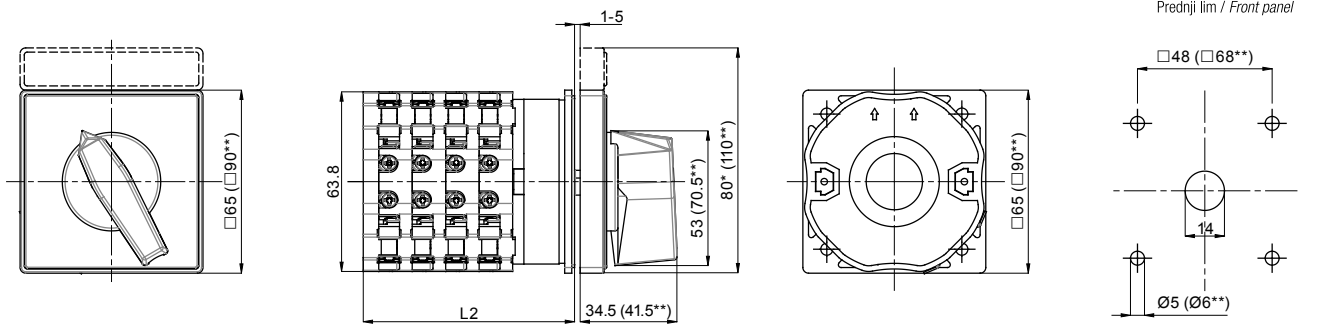
U - Ugradna sklopka *Front mounting*



O - Sklopka za odvojenu ugradnju *Rear mounting*

## MJERNE SKICE *DIMENSIONAL DRAWINGS* (mm)

### U - Ugradna sklopka *Front mounting*

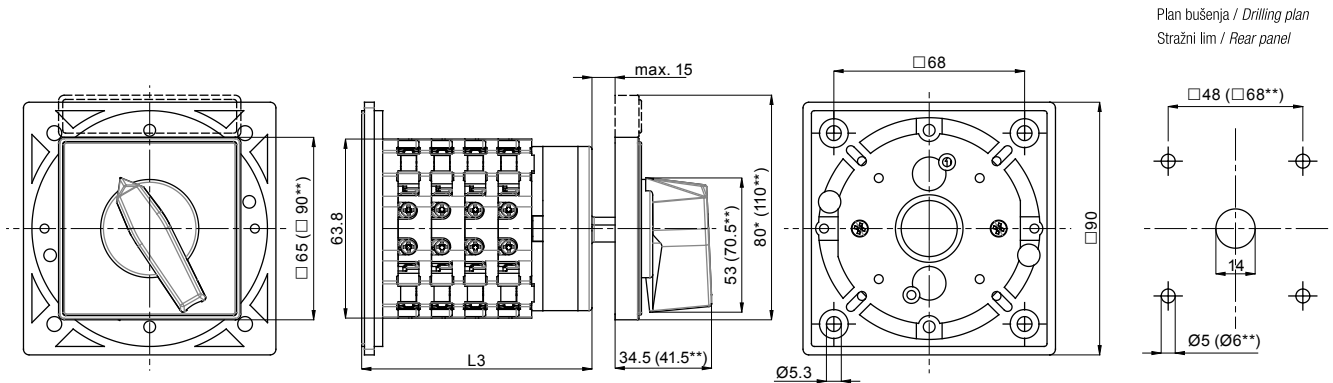


\*Prednja ploča s natpisom  
\*Front plate with title

\*\* Veći prednji sklop (H)  
\*\* Bigger front part (H)

Broj elemenata		L2		Number of elements							
1	2	3	4	5	6	7	8	9	10	11	12
39,5	51,5	63,5	75,5	87,5	99,5	111,5	123,5	135,5	147,5	159,5	171,5

### O - Sklopka u odvojenu ugradnju *Rear mounting*

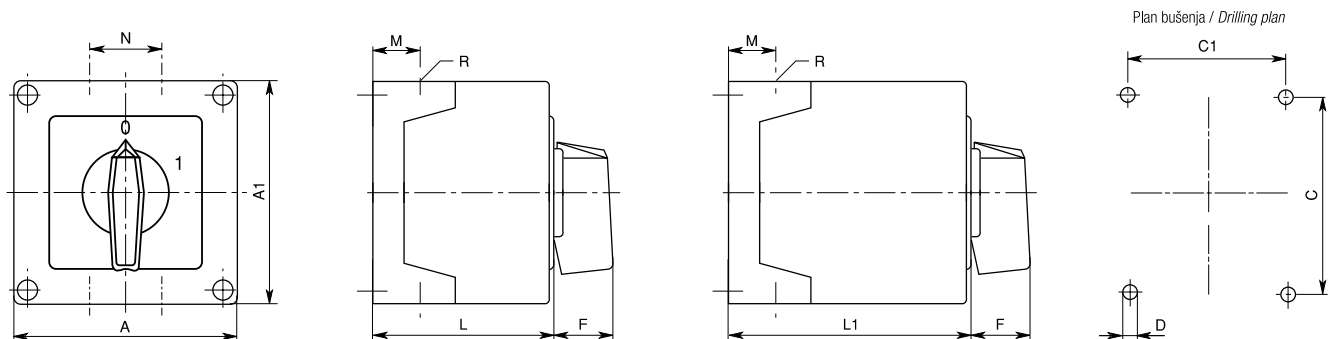


\*Prednja ploča s natpisom  
\*Front plate with title

\*\* Veći prednji sklop (H)  
\*\* Bigger front part (H)

Broj elemenata		L3		Number of elements							
1	2	3	4	5	6	7	8	9	10	11	12
46,5	58,5	70,5	82,5	94,5	106,5	118,5	130,5	142,5	154,5	166,5	178,5

### P - Sklopka u plastičnom kućištu *Switch in plastic enclosure*



Veličina kućišta Enclosure size	Broj elemenata Number of elements		A	A1	C	C1	D	F	M	N	L	L1	Zaštita Protection	Uvodnice Conduit entries	
	L	L1												R(Pg)	R(M...x1,5)
110x110	1-3	4-6	110	110	98,4	83	4,5	32	21	39,5	85,5	119,5	IP65	4xPg21	ii / or 4xM25
125x175	1-3	4-6	125	175	146	112	5,5	32	21	68	84,3	118,3	IP65	4xPg21+2xPg11	iii / or 4xM25+2xM16

# ■ ROTARY CAM SWITCHES GA20 SERIES



[www.LovatoKoncar.hr](http://www.LovatoKoncar.hr)

**LOVATO KONČAR d.o.o.**  
Borongajska cesta 81 b  
10002 ZAGREB  
HRVATSKA  
Tel +385 (0)1 2369 243, 2369 203  
[prodaja@LovatoKoncar.hr](mailto:prodaja@LovatoKoncar.hr)  
[www.LovatoKoncar.hr](http://www.LovatoKoncar.hr)



Follow us

The products described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in the leaflet are to be considered as purely illustrative, and consequently have no contractual relevance. Remember also that the products themselves must be used by qualified personnel, in compliance with current plant engineering and installation standards, in order to avoid injury to persons or damage to property.