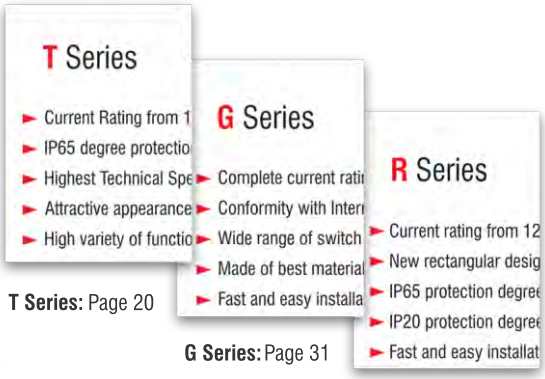
How to choose a proper cam switch model?

We recommend you to follow these simple steps to choose the best cam switch that suits your needs.

STEP 1:

Choose Series (T,G,R)

According to the General features sections (Pages 20,31 & 47),and also your general requirements and economical considerations choose your desired series.

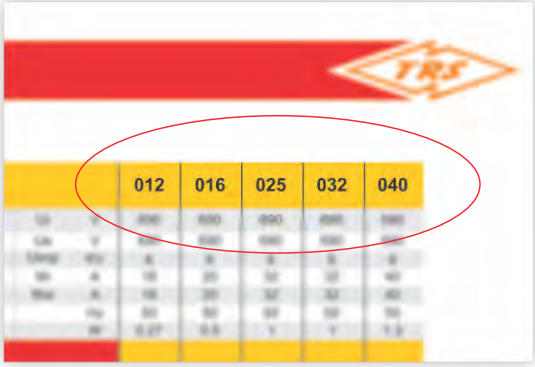


T Series: Page 20 **G Series:** Page 31 **R Series:** Page 47

STEP 2:

Choose the 3 Digit Amp Code

Keeping into account the load nature (resistive, inductive or mixed) and the load value and in accordance with the technical data tables (Pages 22,35 & 48) you can choose the 3 digit Amp code of the suitable switch, for instance 063 stands for 63 Amperes.

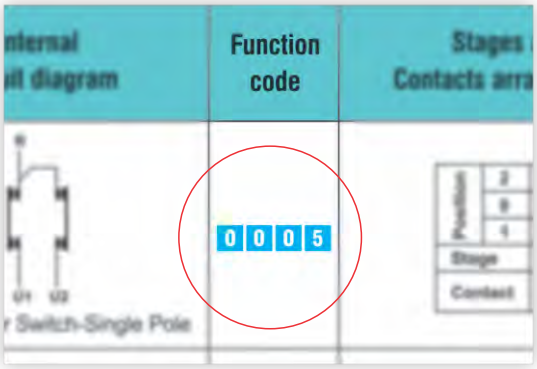


T Series: Page 22 **G Series:** Page 35 **R Series:** Page 50

STEP 3:

Choose the switch function code

Based on your requested function, number of poles and steps, external and internal connections of the cam switch, (according to pages 11 to 18) Choose the function code of your switch, which is a 4 character code. For instance 0010 stands for 3 pole Stardelta switch.

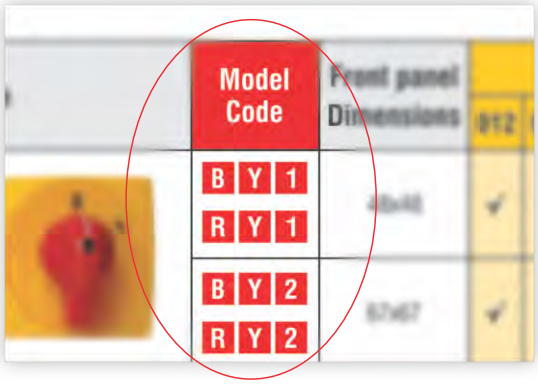


Page 11 to 18

STEP 4:

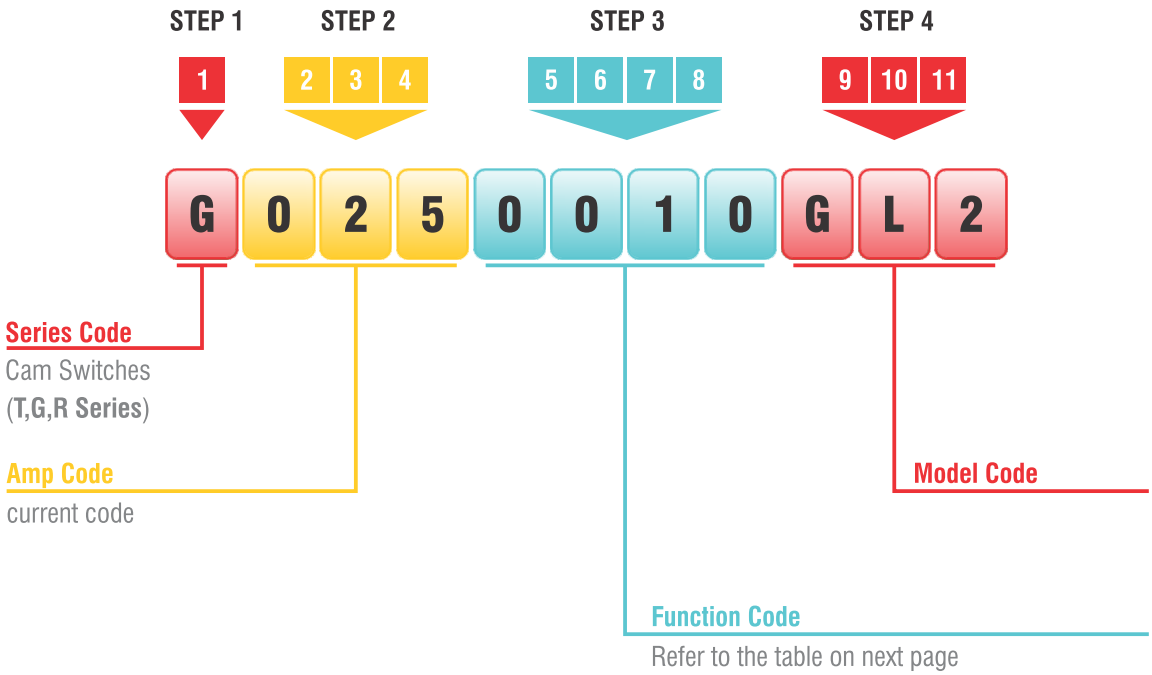
Choose the model code

Finally according to the mounting method of the switch (front mounting, surface mounting, interlocking with panel's door or enclosure), required degree of protection (IP), type and color of plate and knob, choose the appropriate version of the switch this is a 3 character code which is shown in Model selection tables and in the page of each model.



T Series: Page 23 **G Series:** Page 37 **R Series:** Page 51

Each Cam switch is defined using a unique 11 digit code:



Example:

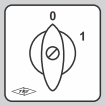
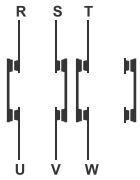
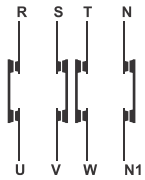
part number **G.025.0010.GL2** stands for G series Three poles 25A star-delta switch with black plate & knob in 75x75 mm size.

Note:

If your requested switch function is not present on the common functions table on pages 11 to 18 or you would like to fully configure your cam switch, you may order a custom made cam switch using our special ordering forms designed for this purpose on pages 60 & 61. TRS Co. is always ready to manufacture your special orders. TRS Co. factory has over 5000 custom made cam switch designed in its archives.

Cam Switch Functions Code Table

Rotary Cam Switches can be offered in a wide variety of functions. The most commonly used functions are introduced in the following table.
On each row one function is described, rotation angle, internal circuit diagram, function code, number of stages and contacts, terminal symbols are illustrated.
If your desired function is not present on this list, please refer to the customized switch ordering forms on pages (60 & 61).
Our tech dept. will always be ready to assist customers regarding their desired products.

Function code	Positions & Rotation Angles	Internal circuit diagram	Stages and Contacts arrangement	L1 L2 L3 — R S T
0 0 0 1	 60°	 ON/OFF Switch-Single Pole	Position: 1 X, 0; Stage: 1; Contact: 1-2, 3-4	
0 0 0 2	 60°	 ON/OFF Switch-2 Poles	Position: 1 X X, 0; Stage: 1; Contact: 1-2, 3-4	
0 0 0 3	 60°	 ON/OFF Switch-3 Poles	Position: 1 X X X, 0; Stage: 1 2; Contact: 1-2, 3-4, 5-6, 7-8	
0 0 0 4	 60°	 ON/OFF Switch-4 Poles	Position: 1 X X X X, 0; Stage: 1 2; Contact: 1-2, 3-4, 5-6, 7-8	

Cam Switch Functions Code Table

Function code	Positions & Rotation Angles	Internal circuit diagram	Stages and Contacts arrangement	L1 L2 L3 — R S T
0005	60°	Change-Over Switch-Single Pole	Position 2: X; 0: ; 1: X Stage 1 Contact 1-2, 3-4	
0006	60°	Change-Over Switch-2 Poles	Position 2: X X; 0: ; 1: X X Stage 1 2 Contact 1-2, 3-4, 5-6, 7-8	
0007	60°	Change-Over Switch-3 Poles	Position 2: X X X; 0: ; 1: X X X Stage 1 2 3 Contact 1-2, 3-4, 5-6, 7-8, 9-10, 11-12	
0008	60°	Reversing Switch-3 Poles	Position 2: X X X; 0: ; 1: X X X Stage 1 2 3 Contact 1-2, 3-4, 5-6, 7-8, 9-10, 11-12	U V W — M
0009	60°	Pole Changing Switch (Dahlander)	Position 2: X X X X X X; 0: ; 1: X X X X Stage 1 2 3 4 Contact 1-2, 3-4, 5-6, 7-8, 9-10, 11-12, 13-14, 15-16	1 W 2 V 3 U; 1U 2U 2W 1W 2V 1V
0010	60°	⅄-△ Starter	Position △: X X X X X; ⅄: X X X X X; 0: ; 1: ; 2: ; Stage 1 2 3 4 Contact 1-2, 3-4, 5-6, 7-8, 9-10, 11-12, 13-14, 15-16	Y W Z U X V; W2 U1 W1 U2 V2 V1
0011	45°	Pole Change and Reversing Switch-3 Poles	Position 2: X X X X X X X X; 0: ; 1: X X X X X X; 0: ; 1: X X X X X X; 0: ; 2: X X X X X X X X Stage 1 2 3 4 5 6 Contact 1-2, 3-4, 5-6, 7-8, 9-10, 11-12, 13-14, 15-16, 17-18, 19-20, 21-22, 23-24	1 W 2 V 3 U; 1U 2U 2W 1W 2V 1V

Cam Switch Functions Code Table

Function code	Positions & Rotation Angles	Internal circuit diagram	Stages and Contacts arrangement	
0012	45°	Reversing Switch with ⅄-△ Starter		
0013	45°	Pole Changing with ⅄-△ Starter	Rotation 45°	
0014	60°	Ammeter Switch for direct measurement (Without CT)		
0015	45°	Voltmeter Switch with 3 (Ph-N)+off position		
0016	45°	Voltmeter Switch with 3 (Ph-Ph)+off position		
0017	45°	Voltmeter Switch with 3 (Ph-Ph)+off position for 2 systems		
0018	45°	Voltmeter Switch with 3 (Ph-N) and 3 (Ph-Ph) +off position		

Cam Switch Functions Code Table

Function code	Positions & Rotation Angles	Internal circuit diagram	Stages and Contacts arrangement	
0019	45°	Voltmeter Switch with 3 (Ph-Ph) and 1 (Ph-N) +off position		
0020	90°	Single Pole Ammeter Switch-1CT		
0021	90°	Single Pole Ammeter Switch-2CT		
0022	90°	Single Pole Ammeter Switch-3CT		
0023	90°	Single Pole Ammeter Switch-4CT		
0029	45°	Change-Over Switch contactor with self return A to M		
0030	45°	Reversing Change-Over Switch contactor with self return A to M		

Cam Switch Functions Code Table

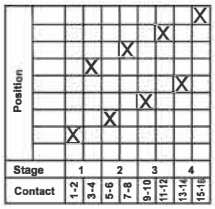
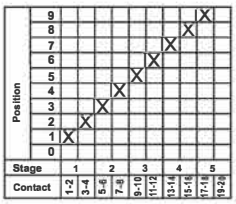
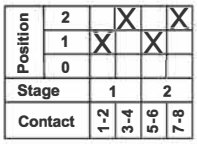
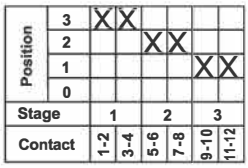
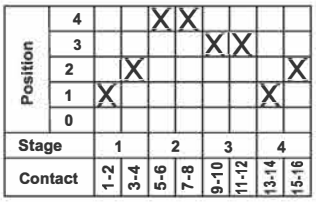
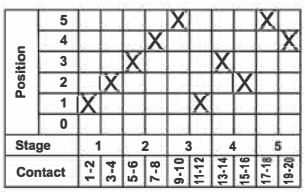
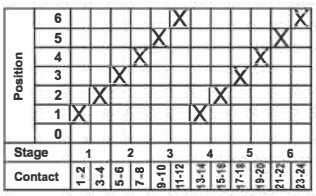
Function code	Positions & Rotation Angles	Internal circuit diagram	Stages and Contacts arrangement	L1 L2 L3 — R S T
0031	45°	Starter for Single phase motor with Auxiliary phase	Position: ST, 1, 0 Stage: 1, 2 Contact: 1-2, 3-4, 5-6, 7-8	MAIN, START U V A
0032	45°	Reversing Starter for Single phase motor with Auxiliary phase	Position: ST, 2, 0, 1, ST Stage: 1, 2, 3 Contact: 1-2, 3-4, 5-6, 7-8, 9-10, 11-12	MAIN, START U V Y Z
0033	45°	Pole changing switch for Single phase motor with Auxiliary phase,to start on the first speed	Position: 2, 0, 1, ST Stage: 1, 2, 3 Contact: 1-2, 3-4, 5-6, 7-8, 9-10, 11-12	START, MAIN A A U C V
0034	45°	Reversing Switch for single phase motor	Position: 2, 0, 1 Stage: 1, 2, 3 Contact: 1-2, 3-4, 5-6, 7-8, 9-10, 11-12	U V Y Z
0035	45°	Three pole Switch with self return	Position: 1, 0 Stage: 1, 2 Contact: 1-2, 3-4, 5-6, 7-8	
0036	45°	Reversing Switch for with self return	Position: 2, 0, 1 Stage: 1, 2, 3 Contact: 1-2, 3-4, 5-6, 7-8, 9-10, 11-12	U V W M
0039	60°	Change-Over Switch - 4 Poles	Position: 2, 0, 1 Stage: 1, 2, 3, 4 Contact: 1-2, 3-4, 5-6, 7-8, 9-10, 11-12, 13-14, 15-16	

Cam Switch Functions Code Table

Function code	Positions & Rotation Angles	Internal circuit diagram	Stages and Contacts arrangement	
0060	90°	Ammeter Voltmeter		
MZ12*	45°	1 Pole-2 Ways Selector Switch With "0" position		
MZ13	45°	1 Pole-3 Ways Selector Switch With "0" position		
MZ14	45°	1 Pole-4 Ways Selector Switch With "0" position		
MZ15	45°	1 Pole-5 Ways Selector Switch With "0" position		
MZ16	45°	1 Pole-6 Ways Selector Switch With "0" position		
MZ17	45°	1 Pole-7 Ways Selector Switch With "0" position		

*. Function codes beginning with "MZ" start at "0" position. If you change "MZ" to "MN" The positions will start from "1"

Cam Switch Functions Code Table

Function code	Positions & Rotation Angles	Internal circuit diagram	Stages and Contacts arrangement	L1 L2 L3 — R S T
MZ18	30°	1 2 3 4 5 6 7 8 L1/R 1 Pole-8 Ways Selector Switch With "0" position		
MZ19	30°	1 2 3 4 5 6 7 8 9 L1/R 1 Pole-9 Ways Selector Switch With "0" position		
MZ22	45°	1 2 1 2 L1/R L2/S 2 Pole-2 Ways Selector Switch With "0" position		
MZ23	45°	1 2 3 1 2 3 L1/R L2/S 2 Pole-3 Ways Selector Switch With "0" position		
MZ24	45°	1 2 3 4 1 2 3 4 L1/R L2/S 2 Pole-4 Ways Selector Switch With "0" position		
MZ25	45°	1 2 3 4 5 1 2 3 4 5 L1/R L2/S 2 Pole-5 Ways Selector Switch With "0" position		
MZ26	45°	1 2 3 4 5 6 1 2 3 4 5 6 L1/R L2/S 2 Pole-6 Ways Selector Switch With "0" position		

Cam Switch Functions Code Table

Function code	Positions & Rotation Angles	Internal circuit diagram	Stages and Contacts arrangement	L1 L2 L3 — R S T
MZ27	45°	2 Pole-7 Ways Selector Switch With "0" position		
MZ32	45°	3 Pole-2 Ways Selector Switch With "0" position		
MZ33	45°	3 Pole-3 Ways Selector Switch With "0" position		
MZ34	45°	3 Pole-4 Ways Selector Switch With "0" position		
MZ35	45°	3 Pole-5 Ways Selector Switch With "0" position		
MZ42	45°	4 Pole-2 Ways Selector Switch With "0" position		
MZ43	45°	4 Pole-3 Ways Selector Switch With "0" position		
MZ44	45°	4 Pole-4 Ways Selector Switch With "0" position		