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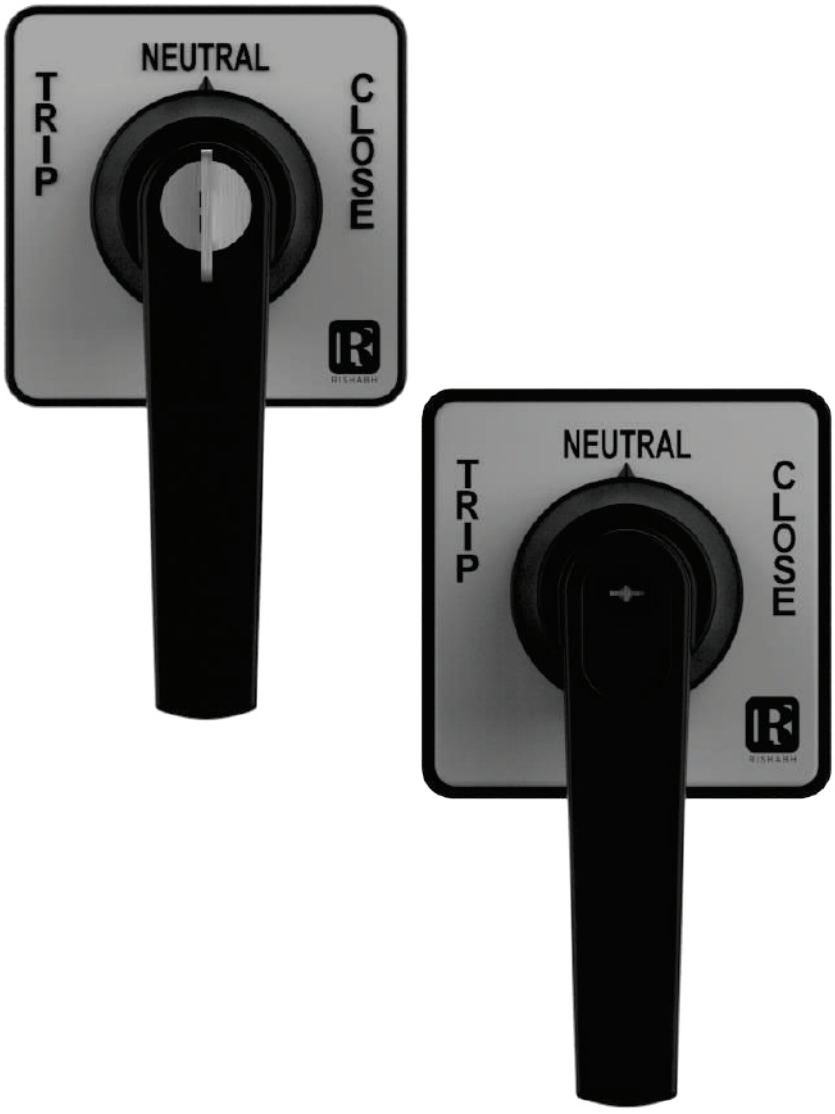
Data Sheet

Breaker Control Switch



Current Rating 16A, 25A, 32A

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Breaker Control Switches (TNC)

Introduction

Breaker Control Switch is designed on packet type construction. Each packet consists of two electrically independent double break contacts actuated by a Cam. It is developed to cover the wide range of application such as control of Circuit Breaker, Small Motors and wherever severe frequent operations are required.

Application

TNC switch is a three position switch , when it is in close position it put the circuit breaker in operation by energizing the closing coil and when it is in trip position it will trip the circuit by energising the trip coil in circuit breaker.

The switch return to neutral position after any operation (either close or trip) . It makes close & open commands momentarily.

A focused range of Rish Cam Spring Return Series switches cover most of applications with different contact designs,contact materials and terminal allow their use as control switches as well as in electronic circuitry and in aggressive environment according to IEC/EN 60947-1,3 &5

Product Features

- Compact Design
- 30°, 45°, 60° & 90° Throw
- Pistol Grip Handle
- Spring Loaded Mechanism
- Standard Mounting Plate
- Lost Motion (Bell Alarm) Contacts
- Standard Mounting Plate

Breaker Control Switch Types

SPRING RETURN SWITCH:

This type switch is supplied for a preferred 45° or 60°

SPRING RETURN AND LOST MOTION:

This type of switch is divided in two parts. The front portion of the switch containing contacts with spring return action and the rear portion accommodation with lost motion device. This switch is supplied with 45° or 60° operating angle.

These contacts are also known as Lost Motion Contacts. They help identify the last operation (Trip/Close) performed by the operator through the TNC switch.

Breaker Control Switches (TNC)

Technical Specifications

Description		Unit	S16	S25	S32
Rated Operational Voltage	Ue	V AC	690	690	690
		V DC	250	250	250
Resistance to Surge Voltage	Uimp	kV	6	6	6
Rated Uninterrupted Current	Ith	A	20	32	40
Rated Operational Current Pilot Duty Ac15 Ie					
220-240V AC		A	5	8	14
380-440V AC		A	4	5	6
Short circuit protection HRC fuse size		A	16	25	32
Rated short circuit		kA	5	10	10
Terminal cross section					
Rigid wire	min	mm^2	1.5	1.5	2.5
	max		4	4	6
Flexible wire	min	mm^2	1	1	1.5
	max		2.5	2.5	4
Terminal Screw			M3	M4	M4
Terminal Tightening Torque			0.8 Nm	1.2 Nm	1.2 Nm

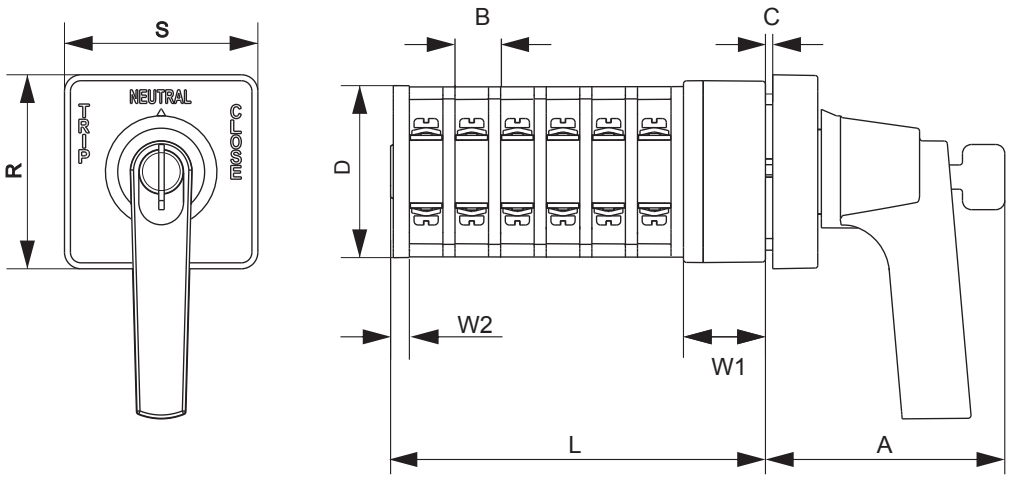
General
Endurance :
Mechanical
100,000 operations at 300 cycles/hour

Electrical
10,000 operations at 120 cycles/hour

25℃ to 55℃, frequency upto 5 kHz

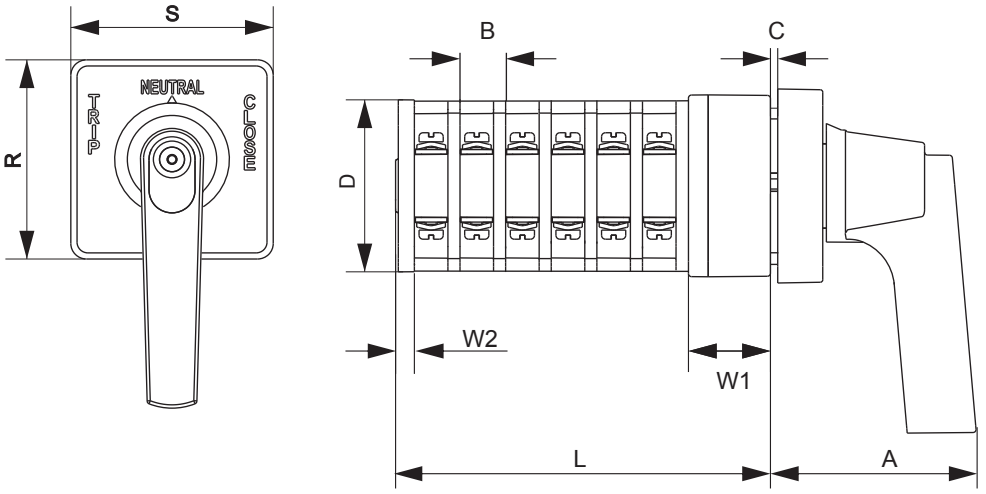
DC Breaking Capacity									
Voltage	No of Contacts in series	S25/SG 25				S32/SG32			
		Resistive Amps	Inductive L/R Amps			Resistive Amps	Inductive L/R Amps		
			10 msec	20 msec	40 msec		10 msec	20 msec	40 msec
50V	1	20	20	15	6	25	25	18	8
	2	-	-	20	14	-	-	25	18
	3	-	-	-	20	-	-	-	25
125V	1	3	2.5	1.5	1.0	5	3	2	1.2
	2	20	15	10	5	25	18	12	6
	3	-	20	20	10	-	25	25	12
250V	1	1.0	0.5	0.3	0.2	1.2	0.6	0.4	0.3
	2	5	2	1.0	0.5	6	2.5	1.2	0.6
	3	20	10	4	1	25	12	5	1.2

Dimensional Drawings



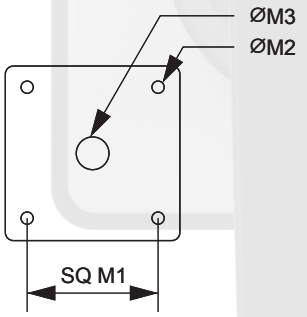
WITH LOCK								
Current Rating	A	B	$C_{(Max.)}$	D	W1	W2	R	S
16A	77.8	9.5	3	43	19	5	63.5	63.5
25A	77.8	15.15	3	56.7	27.15	6.7	63.5	63.5
32A	77.8	15.15	3	56.7	27.15	6.7	63.5	63.5

Length (L) = No of Packets x B+W1+W2



WITHOUT LOCK								
Current Rating	A	B	$C_{(Max.)}$	D	W1	W2	R	S
16A	61.8	9.5	3	56.7	43	5	65	65
25A	61.8	15.15	3	56.7	27.15	6.7	65	65
32A	61.8	15.15	3	56.7	27.15	6.7	65	65

Length (L) = No of Packets x B+W1+W2

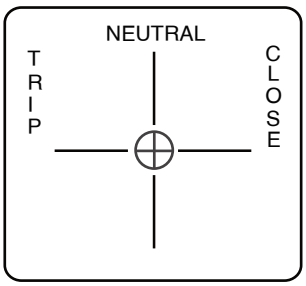


Drilling Plane

Ordering Information :

TSRX-	X	X	XX	X	X	X	X	XX	X	XX
BCS TSR4-										
Ampere Code										
16A	B									
25A	D									
32A	E									
Mechanism										
Spring Return		S								
Spring Return with LMD		L								
Type										
1NO-1NC			01							
2NO-2NC			02							
3NO-3NC			03							
4NO-4NC			04							
5NO-5NC			05							
6NO-6NC			06							
7NO-7NC			07							
8NO-8NC			08							
9NO-9NC			09							
LMD : Lost Motion Device										
No LMD				0						
1NO-1NC with LMD				1						
2NO-2NC with LMD				2						
3NO-3NC with LMD				3						
4NO-4NC with LMD				4						
Angle										
30D					3					
45D					4					
60D					6					
90D					9					
Lock Type										
With Lock						T				
Without Lock						M				
Knob shape										
Pistol Shape							P			
Front plate colour										
Black & Grey								BG		
RED & Yellow								RY		
Black & Black								BB		
Blank									0	
Customer Specification										00

Note: Current rating options like10A, 16A, 20A, 40A and 63A available on request

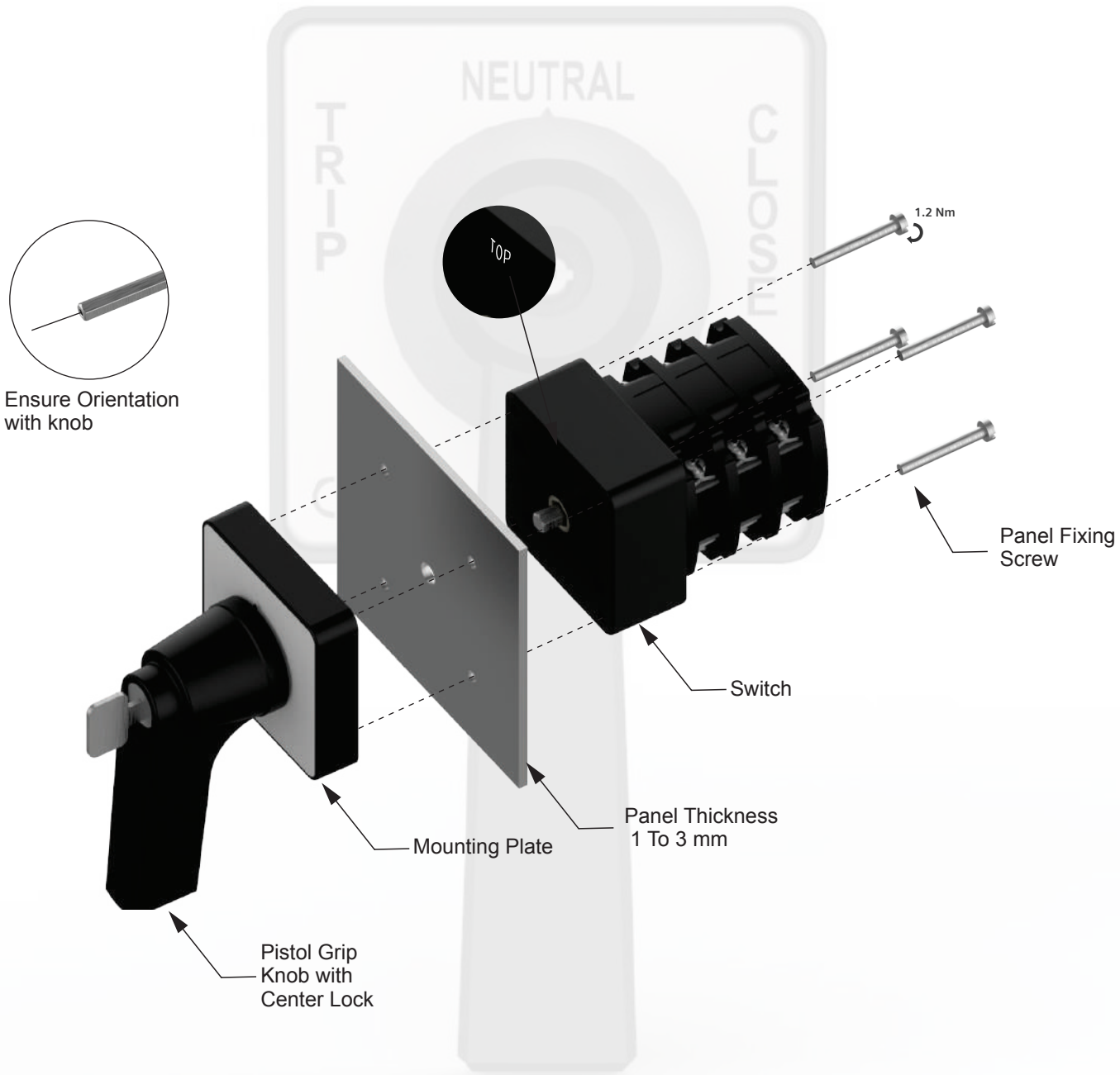


Example :

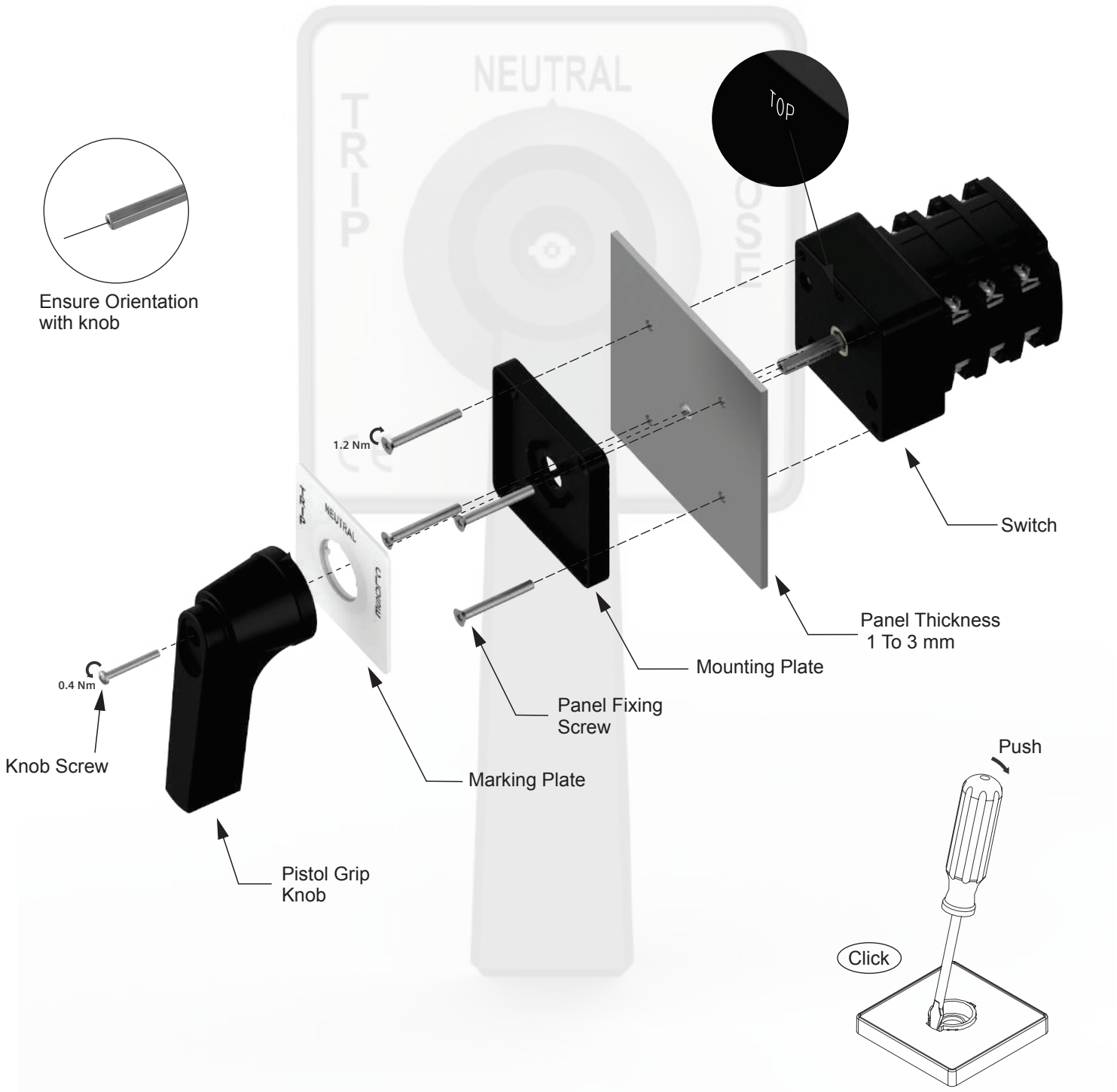
TSR4 - DS0103MPBG000 - 25 A Spring Return 1NO-1NC No LMD 30D Without Lock Pistol Shape Black & Grey

TSR4 - ES0103TPBG000 - 32 A Spring Return 1NO-1NC No LMD 30D With Lock Pistol Shape Black & Grey

Installation Procedure for Barrel Lock (Center Key Lock)



Installation Procedure for Standard Switch



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