



Features

- Military grade robustness VG 95 318
- High quality silver alloy or gold plated contacts
- Sealing technology meets IP68/IP6K8
- · 2- and 3-Position switch actions
- Variety of available switching patterns
- Locking options for individual needs

Applications

- Commercial vehicles
- Aviation ground support equipment
- · Military ground equipment and vehicles
- · Plant and Industrial engineering
- Medical equipment
- Construction machinery

KISSLING TOGGLE SWITCH

Series 09 - from TE Connectivity (TE)

Quality Switch

The KISSLING toggle switches from TE Connectivity's product family have been developed under strict guidelines to meet international standards.

This series of toggle switches is mainly used as robust, industrial and durable control switches in commercial vehicles. The housing of the Series 09 is made of duroplastic and the shift lever is made out of metal. These switches meet IP68/IP6K8 protection class standards. The toggle switch is equipped with a safe switching mechanism, which is provided by an additional internal contact protection.

All these switches are sealed themselves and we offer additional sealing rings for improved mounting solutions and optional bellows for the handles. Our broad selection of toggles includes many options for switching configuration, termination type, load carrying capabilities and locking combinations.

TE Connectivity provides switches both with and without switch guards to prevent accidental switching, as well as individual switches and complete switch assemblies with additional sealed housings for simplified vehicle assembly procedures.

Specification

Technical Data

Housing Material	Duroplast GF				
Construction iaw	VG 95 318 (but with metal toggle) and IEC 1 020				
Seal Connection	IP68 IEC 60529 / IP6K8 DIN 40050 part 9 / IP6K8 ISO 20653 IP00 IEC 60529 / IP00 DIN 40050 part 9 / IP00 ISO 20653				
Current carrying parts	CuZn-alloy				
Contact material	Silver-alloy or gold plated contacts				
Ambient temperature	-55°C to +85°C				
Electrical life (nominal load)	100.000 cycles				
Nominal voltage / Continuous current	28VDC, 20A ohmic load 28VDC, 15A L/R = 5msec inductive load 115VAC, 15A inductive load				
Min. switching capacity	12VDC, 20mA				

Technical drawings

Lever type: Standard Standard colour: black available in red or silver



Lever type: Lock



1 Pole



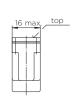


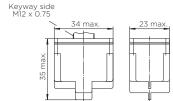


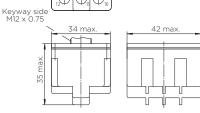


4 Pole

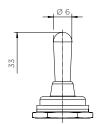
Keyway side M12 x 0.75 29 max 6







Type with bellows for use in severe conditions depending on specific environmental application: CR-Neoprene ...933 FVMQ-Fluorsilicone ...955



Mounting Detail: with Locking Ring



Mounting Detail: without Locking Ring

Connection

Screws M 3,5 x 6 - ISO 1580



FASTON DIN 46 244 - A 6,3 - 0,8 Soldering terminal to AWG 14



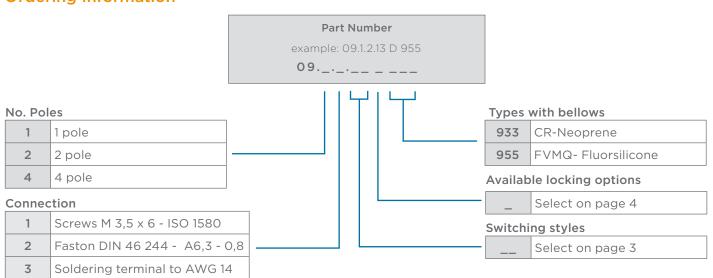


Switching Styles

Switch-	1-pole			2-pole			4-pole		
ing	Toggle position in			Toggle position in			Toggle position in		
Styles	keyway side	center	opposite keyway side	keyway side	center	opposite keyway side	keyway side	center	opposite keyway side
10	0	-	2-3	0 0	-	2-3 5-6	0 0 0 0	-	2-3 5-6 8-9 11-12
11	0 *	-	2-3	0 * 0	-	2-3 5-6	O O O * O	-	2-3 5-6 8-9 11-12
12	1-2 *	-	0	1-2 * 4-5	-	0 0	1-2 _* 4-5 7-8 10-11	-	0 0 0
13	1-2	-	2-3	1-2 4-5	-	2-3 5-6	1-2 4-5 7-8 10-11	-	2-3 5-6 8-9 11-12
14	1-2 *	-	2-3	1-2 * 4-5	-	2-3 5-6	1-2 _* 4-5 7-8 * 10-11	-	2-3 5-6 8-9 11-12
15	1-2	0	2-3	1-2 4-5	0 0	2-3 5-6	1-2 4-5 7-8 10-11	0 0 0	2-3 5-6 8-9 11-12
16	1-2 *	0	2-3	1-2 * 4-5	0 0	2-3 5-6	1-2 _* 4-5 7-8 * 10-11	0 0 0	2-3 5-6 8-9 11-12
17	1-2 *	0	2-3 *	1-2 * 4-5	0 0	2-3 * 5-6	1-2 _* 4-5 7-8 * 10-11	0 0 0	2-3 5-6 8-9 11-12
18	1-2	1-2	2-3	1-2 4-5	1-2 4-5	2-3 5-6	1-2 4-5 7-8 10-11	1-2 4-5 7-8 10-11	2-3 5-6 8-9 11-12
19	1-2	1-2	2-3 *	1-2 4-5	1-2 4-5	2-3 * 5-6	1-2 4-5 7-8 10-11	1-2 4-5 7-8 10-11	2-3 5-6 8-9 11-12
20				1-2 4-5	1-2 5-6	2-3 5-6	1-2 4-5 7-8 10-11	2-3 4-5 0 0	2-3 5-6 8-9 11-12
21				1-2 4-5	1-2 5-6	2-3 5-6			
22				1-2 * 4-5	1-2 5-6	2-3 * 5-6	1-2 _* 4-5 7-8 10-11	2-3 4-5 0 0	2-3 _* 5-6 8-9 11-12
23	1-2	2-3	2-3	1-2 4-5	2-3 4-5	2-3 5-6	1-2 4-5 7-8 10-11	2-3 4-5 7-8 11-12	2-3 5-6 8-9 11-12
24				1-2 4-5	1-2 5-6	2-3 * 5-6			
25				1-2 * 4-5	1-2 5-6	2-3 5-6	1-2 4-5 7-8 10-11	2-3 4-5 7-8 11-12	2-3 5-6 8-9 11-12
26							1-2 4-5 7-8 10-11	2-3 4-5 7-8 11-12	2-3 5-6 8-9 11-12
27							1-2 4-5 7-8 10-11	2-3 4-5 7-8 11-12	2-3 5-6 8-9 11-12

Bridge / * These positions are only momentary. All others are maintained.

Ordering Information



Locking options

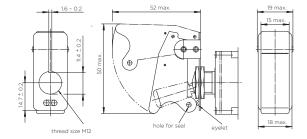
Available locking combinations			recommended for			
		keyway side center		opposite keyway side	switching style	
А		locked	locked	locked	15, 18, 20, 21, 23, 26	
В		locked	locked	locked out	15, 18, 19, 20, 21, 23, 24, 26	
D	-	locked	locked out	locked	10, 13	
Е		locked out	locked	locked out	15 - 27	
F	-	locked out	locked out	locked	10, 11, 12, 13, 14	
G	-	locked	locked out	locked out	10, 13	
K		locked out	locked	locked	15, 16, 18, 20, 21, 23, 25, 26	
L		locked out	locked to keyway side	locked out	15 - 27	
М	-	locked out	locked to opposite keyway side	locked	15, 16, 18, 20, 21, 23, 25, 26	
N	-	locked out	locked to opposite keyway side	locked out	15 - 27	
Р		locked	locked to keyway side	locked out	15, 18, 19, 20, 21, 23, 24, 26	
Т	-	locked	locked from middle to keyway side	locked from opposite keyway side to middle	15, 18, 20, 23, 26	

^{→ =} keyway side

Accessories

Switch Guard:

Prevent accidental switching of toggle

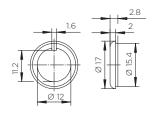


Receptacle:

For quick connection, increases safety and prevents from contact the fasteners (IP20) Inverse-polarity protection.

Available for switches with connection 2

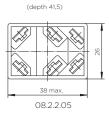
Seal ring: 08.0.0.50 For sealing of mounting hole



35 08.1.2.05

1- POLE

(depth 41,5)



2- POLE

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