

SUBMINIATURE DB Series

Features

- High-precision switch with high repeat accuracy
- Models available for operating temperatures up to 120°C
- Rated for currents up to 10 amp at 250VAC
- Range of auxiliary actuators available (can also be retrofitted); two mounting positions
- Variety of contact materials available to suit your application
- Mechanical life: up to 15×10^6 operations
- Wide variety of terminal types available
- Numerous approvals



Electrical Ratings

Switch Series	EN61058 Rating	UL1054 Rating	Electrical Life at Rated Load	
			According to EN (Min. Operations)	According to UL (Min. Operations)
DB1	6A, 250V~	5A, 125/250VAC	10,000	6,000
DB2	10(1.5)A, 250V~	10.1A, 125/250VAC; 1/4HP, 125VAC	10,000	6,000
DB3	0.1A, 250V~	0.1A, 125/250VAC	50,000	6,000
DB5*	1A, 250V~	1A, 125/250VAC	50,000	6,000
DB6*	6A, 250V~	5A, 125/250VAC	50,000	6,000
DB7*	10(1.5)A, 400V~	10.1A, 125/250VAC; 1/4HP, 125VAC	50,000	6,000

*85°C

Specifications

Electrical

Temperature Rating: -40°C to +85°C / +120°C

Flammability Rating: UL94V-O (PBT, PET)
UL94HB (POM)

Materials

Base: PET

Cover: PBT

Actuator: PBT, POM

Auxiliary Actuator: Stainless Steel or Plastic

Terminals: Silver-Plated Copper-Zinc

Contacts: Silver Alloy
Gold Crosspoint

PBT = Polybutyleneterephthalate • PET = Polyethyleneterephthalate • POM = Polyacetal



Dimensions inches (mm)



Terminal Options inches (mm)



Auxiliary Actuator inches (mm)



Contact Ratings at Direct Voltage

Switching Voltage	Switched Current Resistive Load		Inductive Load L/R=3ms	
	DB1	DB2	DB1	DB2
12V	6A	10A	6A	10A
24V	3A	5A	2A	4A
60V	1A	1A	0.5A	0.5A
110V	0.5A	0.5A	0.2A	0.2A
220V	0.25A	0.25A	0.1A	0.1A

Actuator Specifications — High Ratio

Actuator Code	Switch Type	Maximum Operating Force (gms.)	Maximum Pre-Travel inches (mm)	Operating Point inches (mm)	Minimum Over-Travel inches (mm)	Max. Movement Differential inches (mm)	Max. Rest Position inches (mm)	Actuation Length inches (mm)
<i>Auxiliary actuator, front-mounted (FM)</i>								
 MB	DB5	12	0.354 (9.0)	0.472±0.098 (12.0±2.5)	0.138 (3.5)	0.047 (1.2)	0.709 (18.0)	0.276 (7.0)
	DB1/3	25	0.354 (9.0)	0.472±0.098 (12.0±2.5)	0.138 (3.5)	0.047 (1.2)	0.709 (18.0)	0.276 (7.0)
	DB6	25	0.354 (9.0)	0.472±0.098 (12.0±2.5)	0.138 (3.5)	0.071 (1.8)	0.709 (18.0)	0.276 (7.0)
	DB2	40	0.354 (9.0)	0.472±0.118 (12.0±3.0)	0.138 (3.5)	0.059 (1.5)	0.709 (18.0)	0.276 (7.0)
	DB7	45	0.354 (9.0)	0.472±0.118 (12.0±3.0)	0.138 (3.5)	0.071 (1.8)	0.709 (18.0)	0.276 (7.0)
 MC	DB5	10	0.394 (10.0)	0.492±0.118 (12.5±3.0)	0.157 (4.0)	0.055 (1.4)	0.787 (20.0)	0.370 (9.4)
	DB1/3	22	0.394 (10.0)	0.492±0.118 (12.5±3.0)	0.157 (4.0)	0.055 (1.4)	0.787 (20.0)	0.370 (9.4)
	DB6	22	0.394 (10.0)	0.492±0.118 (12.5±3.0)	0.157 (4.0)	0.083 (2.1)	0.787 (20.0)	0.370 (9.4)
	DB2	35	0.394 (10.0)	0.492±0.138 (12.5±3.5)	0.157 (4.0)	0.071 (1.8)	0.787 (20.0)	0.370 (9.4)
	DB7	40	0.394 (10.0)	0.492±0.138 (12.5±3.5)	0.157 (4.0)	0.083 (2.1)	0.787 (20.0)	0.370 (9.4)
 MD	DB5	4	1.063 (27.0)	0.709±0.315 (18.0±8.0)	0.394 (10.0)	0.236 (6.0)	1.575 (40.0)	1.713 (43.5)
	DB1/3	9	1.063 (27.0)	0.709±0.315 (18.0±8.0)	0.394 (10.0)	0.236 (6.0)	1.575 (40.0)	1.713 (43.5)
	DB6	9	1.063 (27.0)	0.709±0.315 (18.0±8.0)	0.394 (10.0)	0.354 (9.0)	1.575 (40.0)	1.713 (43.5)
	DB2/7	—	—	—	—	—	—	on request
 UB	DB5	14	0.354 (9.0)	0.677±0.098 (17.2±2.5)	0.138 (3.5)	0.047 (1.2)	0.866 (22.0)	0.185 (4.7)
	DB1/3	30	0.354 (9.0)	0.677±0.098 (17.2±2.5)	0.138 (3.5)	0.047 (1.2)	0.866 (22.0)	0.185 (4.7)
	DB6	30	0.354 (9.0)	0.677±0.098 (17.2±2.5)	0.138 (3.5)	0.071 (1.8)	0.866 (22.0)	0.185 (4.7)
	DB2	50	0.354 (9.0)	0.677±0.118 (17.2±3.0)	0.138 (3.5)	0.059 (1.5)	0.866 (22.0)	0.185 (4.7)
	DB7	56	0.354 (9.0)	0.677±0.118 (17.2±3.0)	0.138 (3.5)	0.071 (1.8)	0.866 (22.0)	0.185 (4.7)
 UC	DB5	12	0.394 (10.0)	0.697±0.118 (17.7±3.0)	0.157 (4.0)	0.055 (1.4)	0.945 (24.0)	0.280 (7.1)
	DB1/3	25	0.394 (10.0)	0.697±0.118 (17.7±3.0)	0.157 (4.0)	0.055 (1.4)	0.945 (24.0)	0.280 (7.1)
	DB6	25	0.394 (10.0)	0.697±0.118 (17.7±3.0)	0.157 (4.0)	0.083 (2.1)	0.945 (24.0)	0.280 (7.1)
	DB2	40	0.394 (10.0)	0.697±0.138 (17.7±3.5)	0.157 (4.0)	0.071 (1.8)	0.945 (24.0)	0.280 (7.1)
	DB7	45	0.394 (10.0)	0.697±0.138 (17.7±3.5)	0.157 (4.0)	0.083 (2.1)	0.945 (24.0)	0.280 (7.1)
 UD	DB5	4	1.063 (27.0)	0.913±0.315 (23.2±8.0)	0.394 (10.0)	0.236 (6.0)	1.732 (44.0)	1.622 (41.2)
	DB1/3	9	1.063 (27.0)	0.913±0.315 (23.2±8.0)	0.394 (10.0)	0.236 (6.0)	1.732 (44.0)	1.622 (41.2)
	DB6	9	1.063 (27.0)	0.913±0.315 (23.2±8.0)	0.394 (10.0)	0.354 (9.0)	1.732 (44.0)	1.622 (41.2)
	DB2/7	—	—	—	—	—	—	on request
 TB	DB5	14	0.354 (9.0)	0.669±0.098 (17.0±2.5)	0.138 (3.5)	0.047 (1.2)	0.866 (22.0)	0.185 (4.7)
	DB1/3	30	0.354 (9.0)	0.669±0.098 (17.0±2.5)	0.138 (3.5)	0.047 (1.2)	0.866 (22.0)	0.185 (4.7)
	DB6	30	0.354 (9.0)	0.669±0.098 (17.0±2.5)	0.138 (3.5)	0.071 (1.8)	0.866 (22.0)	0.185 (4.7)
	DB2	50	0.354 (9.0)	0.669±0.118 (17.0±3.0)	0.138 (3.5)	0.059 (1.5)	0.866 (22.0)	0.185 (4.7)
	DB7	56	0.354 (9.0)	0.669±0.118 (17.0±3.0)	0.138 (3.5)	0.071 (1.8)	0.866 (22.0)	0.185 (4.7)
 TC	DB5	12	0.394 (10.0)	0.689±0.118 (17.5±3.0)	0.157 (4.0)	0.055 (1.4)	0.945 (24.0)	0.280 (7.1)
	DB1/3	25	0.394 (10.0)	0.689±0.118 (17.5±3.0)	0.157 (4.0)	0.055 (1.4)	0.945 (24.0)	0.280 (7.1)
	DB6	25	0.394 (10.0)	0.689±0.118 (17.5±3.0)	0.157 (4.0)	0.083 (2.1)	0.945 (24.0)	0.280 (7.1)
	DB2	40	0.394 (10.0)	0.689±0.138 (17.5±3.5)	0.157 (4.0)	0.071 (1.8)	0.945 (24.0)	0.280 (7.1)
	DB7	45	0.394 (10.0)	0.689±0.138 (17.5±3.5)	0.157 (4.0)	0.083 (2.1)	0.945 (24.0)	0.280 (7.1)
 TD	DB5	4	1.063 (27.0)	0.906±0.315 (23.0±8.0)	0.394 (10.0)	0.236 (6.0)	1.732 (44.0)	1.622 (41.2)
	DB1/3	9	1.063 (27.0)	0.906±0.315 (23.0±8.0)	0.394 (10.0)	0.236 (6.0)	1.732 (44.0)	1.622 (41.2)
	DB6	9	1.063 (27.0)	0.906±0.315 (23.0±8.0)	0.394 (10.0)	0.354 (9.0)	1.732 (44.0)	1.622 (41.2)
	DB2/7	—	—	—	—	—	—	on request
 GB*	DB5	10	0.394 (10.0)	0.508±0.102 (12.9±2.6)	0.118 (3.0)	0.055 (1.4)	0.787 (20.0)	0.370 (9.4)
	DB1/3	21	0.394 (10.0)	0.508±0.102 (12.9±2.6)	0.118 (3.0)	0.055 (1.4)	0.787 (20.0)	0.370 (9.4)
	DB6	21	0.394 (10.0)	0.508±0.102 (12.9±2.6)	0.118 (3.0)	0.083 (2.1)	0.787 (20.0)	0.370 (9.4)
	DB2	36	0.394 (10.0)	0.508±0.102 (12.9±2.6)	0.118 (3.0)	0.055 (1.4)	0.787 (20.0)	0.370 (9.4)
	DB7	42	0.394 (10.0)	0.508±0.102 (12.9±2.6)	0.118 (3.0)	0.083 (2.1)	0.787 (20.0)	0.370 (9.4)
 GC*	DB5	7	0.512 (13.0)	0.571±0.142 (14.5±3.6)	0.157 (4.0)	0.071 (1.8)	0.945 (24.0)	0.638 (16.2)
	DB1/3	16	0.512 (13.0)	0.571±0.142 (14.5±3.6)	0.157 (4.0)	0.071 (1.8)	0.945 (24.0)	0.638 (16.2)
	DB6	16	0.512 (13.0)	0.571±0.142 (14.5±3.6)	0.157 (4.0)	0.083 (2.1)	0.945 (24.0)	0.638 (16.2)
	DB2	26	0.512 (13.0)	0.571±0.142 (14.5±3.6)	0.157 (4.0)	0.071 (1.8)	0.945 (24.0)	0.638 (16.2)
	DB7	30	0.512 (13.0)	0.571±0.142 (14.5±3.6)	0.157 (4.0)	0.094 (2.4)	0.945 (24.0)	0.638 (16.2)
 HB*	DB5	11	0.354 (9.0)	0.531±0.098 (13.5±2.5)	0.098 (2.5)	0.055 (1.4)	0.787 (20.0)	0.311 (7.9)
	DB1/3	23	0.354 (9.0)	0.531±0.098 (13.5±2.5)	0.098 (2.5)	0.055 (1.4)	0.787 (20.0)	0.311 (7.9)
	DB6	23	0.354 (9.0)	0.531±0.098 (13.5±2.5)	0.098 (2.5)	0.083 (2.1)	0.787 (20.0)	0.311 (7.9)
	DB2	29	0.354 (9.0)	0.531±0.098 (13.5±2.5)	0.098 (2.5)	0.055 (1.4)	0.787 (20.0)	0.311 (7.9)
	DB7	45	0.354 (9.0)	0.531±0.098 (13.5±2.5)	0.098 (2.5)	0.083 (2.1)	0.787 (20.0)	0.311 (7.9)
 OB*	DB5	11	0.354 (9.0)	0.693±0.098 (17.6±2.5)	0.079 (2.0)	0.055 (1.4)	0.906 (23.0)	0.287 (7.3)
	DB1/3	23	0.354 (9.0)	0.693±0.098 (17.6±2.5)	0.079 (2.0)	0.055 (1.4)	0.906 (23.0)	0.287 (7.3)
	DB6	23	0.354 (9.0)	0.693±0.098 (17.6±2.5)	0.079 (2.0)	0.083 (2.1)	0.906 (23.0)	0.287 (7.3)
	DB2	39	0.354 (9.0)	0.693±0.098 (17.6±2.5)	0.079 (2.0)	0.055 (1.4)	0.906 (23.0)	0.287 (7.3)
	DB7	45	0.354 (9.0)	0.693±0.098 (17.6±2.5)	0.079 (2.0)	0.083 (2.1)	0.906 (23.0)	0.287 (7.3)

*For 85°C only

Ordering Information

DB		B		B1		AA	
Series/Prefix		Code	Contact Configuration	Code	Terminal Type	Code	Actuator Type*
1		+120°C Operating Temp		inches (mm)			
Code	UL Rating 1054	A	SPST NO	B1	0.110 x 0.020 (2.8 x 0.5) QC, Straight	AA	Spherical-head w/o Auxiliary Actuator
2	10.1A, 125/250VAC 1/4HP, 125VAC	B	SPST NC	C1	0.051 x 0.020 (1.3 x 0.5) PCB, Straight	BA	Radius w/o Auxiliary Actuator
3	0.1A, 125/250VAC	C	SPDT	D1	0.024 x 0.020 (0.6 x 0.5) PCB, Straight		
5*	1A, 125/250VAC	+85°C Operating Temp*		D2	0.024 x 0.020 (0.6 x 0.5) PCB, RH Side with Location Pins		
6*	5A, 125/250VAC	E	SPST NO	D3	0.024 x 0.020 (0.6 x 0.5) PCB, LH Side with Location Pins		
7*	10.1A, 125/250VAC 1/4 HP, 125VAC	F	SPST NC	D4	0.024 x 0.020 (0.6 x 0.5) PCB, RH Side		
		G	SPDT	D5	0.024 x 0.020 (0.6 x 0.5) PCB, LH Side		

*85°C only

*85°C versions use plastic levers

*For further actuators see Actuation Specifications table.

Specifications subject to change without notice.