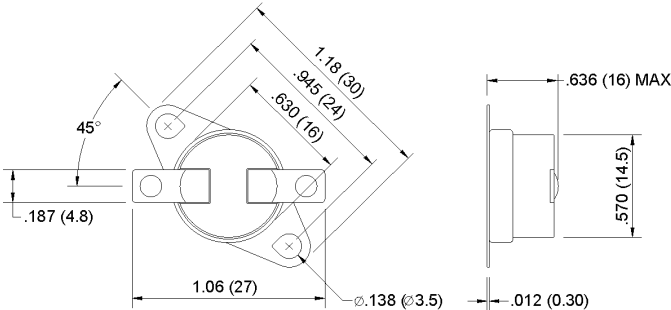


1/2" Disc Thermostats - Automatic Reset

CA/OA (602S) Series, Gold Contacts (602K)



SPECIFICATIONS

Electrical ratings - Type S	125VAC, 15 Amps, Resistive, 100,000 Cycles 250VAC, 10 Amps, Resistive, 100,000 Cycles
Inductive load ratings	120VAC, 5.8FLA, 34.8LRA, 6,000 Cycles 240VAC, 2.9FLA, 17.4LRA, 6,000 Cycles
Electrical ratings - Type K	30VDC, 1 Amp, Resistive, 100,000 Cycles 120VAC, 125VA (pilot duty), 1 Amp
Temperature range	50°F to 302°F (10°C to 150°C)
UL approved models	
Non-UL approved models	302°F to 320°F (575°C to 608°C)
Differential	15°F to 100°F (8°C to 56°C)
Environmental temperature	32°F to 350°F (0°C to 177°C)
Insulation resistance	100M Ω or more (with a 500VDC megger)
Circuit resistance	50m Ω or less (initial value)
Dielectric strength	1,500VAC/1 minute
Approvals	UL File No. E145478(S), XAPX2 CSA File No. LR63201 VDE File No. 69046 Demko File No. DK-451, CE RoHS Compliant

This line of highly reliable switches utilize a temperature sensitive disc, electrically isolated from the switch. Contacts will open or close on rise when surface or ambient temperature increase to the snap point of the calibrated bimetal disc. The entire switch is enclosed in a phenolic dust-free housing. The bimetal disc is retained by a metal heat-conducting end cap.

The CA and OA Series thermostats are used in a variety of applications. They are produced in an ISO 9000 certified factory to insure safe and reliable operation. All models are 100% factory inspected for temperature, continuity and function.

Value Added options available including over-mold and seal. For details regarding Value Added options, see pages 48.

Models available from stock - subject to availability • CA - Close On-Rise (normally open) • OA - Open On-Rise (normally closed)

Close/Open On-Rise	Model Number	Open °F	Close °F	Mounting	Terminals	Orientation from Mounting Holes
Close	CA-50	32 $\pm$ 10	50 $\pm$ 7	surface	solder tabs	45°
Close	CA-60	40 $\pm$ 9	60 $\pm$ 7	surface	solder tabs	45°
Close	CA-60-QCV	40 $\pm$ 10	60 $\pm$ 7	surface	.250 quick connects, vertical	90°
Close	CA-85	67 $\pm$ 9	85 $\pm$ 7	surface	solder tabs	45°
Close	CA-85-PCB	55 $\pm$ 10	85 $\pm$ 7	air	printed circuit board	•
Close	CA-85-QC	67 $\pm$ 10	85 $\pm$ 7	surface	.187 quick connects, horizontal	45°
Close	CA-100	70 $\pm$ 10	100 $\pm$ 7	surface	solder tabs	45°
Close	CA-104-ST-18	86 $\pm$ 10	104 $\pm$ 8	6-32 stud	.250 quick connects, vertical	•
Close	CA-107-QCV	90 $\pm$ 10	107 $\pm$ 7	surface	.187 quick connects, vertical	90°
Close	CA-110	80 $\pm$ 10	110 $\pm$ 7	surface	solder tabs	45°
Close	CA-110-PCB	80 $\pm$ 10	110 $\pm$ 7	air	printed circuit board	•
Close	CA-110-QC45	80 $\pm$ 10	110 $\pm$ 7	surface	.187 quick connects, horizontal	45°
Close	CA-115-QC	100 $\pm$ 10	115 $\pm$ 7	rotating bracket	.250 quick connects, horizontal	•
Close	CA-120	90 $\pm$ 10	120 $\pm$ 7	surface	solder tabs	45°
Close	CA-120-QC	90 $\pm$ 10	120 $\pm$ 7	surface	.250 quick connects, horizontal	90°
Close	CA-120-QCH	90 $\pm$ 10	120 $\pm$ 7	surface	.187 quick connects, horizontal	45°
Close	CA-120-QCV	90 $\pm$ 7	120 $\pm$ 10	surface	.250 quick connects, vertical	90°
Close	CA-130-QC	110 $\pm$ 10	130 $\pm$ 7	surface	.250 quick connects, vertical	45°
Close	CA-130-QCH	100 $\pm$ 10	130 $\pm$ 7	surface	solder tabs	90°
Close	CA-130-ST	112 $\pm$ 10	130 $\pm$ 7	8-32 stud	.250 quick connects, vertical	•
Close	CA-130-WOB	100 $\pm$ 10	130 $\pm$ 7	no bracket	solder tabs	45°
Close	CA-140	110 $\pm$ 10	140 $\pm$ 7	surface	solder tabs	45°
Close	CA-140-QC	110 $\pm$ 10	140 $\pm$ 7	surface	.250 quick connects, vertical	90°
Close	CA-140-QC18	122 $\pm$ 10	140 $\pm$ 7	rotating	.250 quick connects, vertical	•
Close	CA-150	120 $\pm$ 10	150 $\pm$ 7	surface	solder tabs	45°
Close	CA-160	130 $\pm$ 10	160 $\pm$ 7	surface	solder tabs	45°
Close	CA-160-QC	130 $\pm$ 10	160 $\pm$ 7	surface	.250 quick connects, horizontal	90°
Close	CA-160-QC15	145 $\pm$ 7	160 $\pm$ 10	surface	.250 quick connects, horizontal	90°
Close	CA-170	140 $\pm$ 10	170 $\pm$ 7	surface	solder tabs	45°

1/2" Disc Thermostats - Automatic Reset

CA/OA (602S) Series, Gold Contacts (602K)

Models available from stock - subject to availability • CA - Close On-Rise (normally open) • OA - Open On-Rise (normally closed)

Close/Open On-Rise	Model Number	Open °F	Close °F	Mounting	Terminals	Orientation from Mounting Holes
Close	CA-170-QC	140 ± 10	170 ± 7	surface	.250 quick connects, vertical	90°
Close	CA-170-WOB	140 ± 10	170 ± 7	no bracket	solder tabs	●
Close	CA-175-QC	145 ± 10	175 ± 7	surface	.250 quick connects, horizontal	90°
Close	CA-180	150 ± 10	180 ± 7	surface	solder tabs	45°
Close	CA-180-QCV	150 ± 10	180 ± 7	rotating	.250 quick connects, vertical	●
Close	CA-185-ST	145 ± 10	185 ± 7	6-32 stud	.250 quick connects	●
Close	CA-190	169 ± 10	190 ± 7	surface	solder tabs	45°
Close	CA-190-QC	172 ± 10	190 ± 7	surface	.250 quick connects, vertical	90°
Close	CA-200	170 ± 10	200 ± 7	surface	solder tabs	45°
Close	CA-205	175 ± 10	205 ± 7	surface	solder tabs	45°
Close	CA-205-ST	175 ± 10	205 ± 7	6-32 stud	.250 quick connects @ 30°	●
Close	CA-210-QC	180 ± 10	210 ± 7	surface	.187 quick connects, vertical	90°
Close	CA-225	195 ± 10	225 ± 7	surface	solder tabs	45°
Close	CA-230-QC	203 ± 7	230 ± 10	rotating bracket	.187 quick connects, horizontal	●
Close	CA-230-STG	185 ± 10	230 ± 7	6-32 stud	.187 quick connects, vertical	●
Close	CA-240	210 ± 10	240 ± 7	surface	solder tabs	45°
Close	CA-270	240 ± 10	270 ± 7	surface	solder tabs	45°
Close	CA-270-QCV	240 ± 7	270 ± 10	surface	.187 quick connects, vertical	45°
Close	CA-300	270 ± 10	300 ± 7	surface	solder tabs	45°
Open	OA-50	50 ± 5	32 ± 10	surface	solder tabs	45°
Open	OA-60	60 ± 5	40 ± 7	surface	solder tabs	45°
Open	OA-60-PCB	60 ± 5	40 ± 7	air	printed circuit board	●
Open	OA-60-PCR	60 ± 5	40 ± 10	rotating	.250 quick connects, vertical	●
Open	OA-60-QCV	60 ± 5	40 ± 10	surface	.250 quick connects, vertical	90°
Open	OA-60-WOB	60 ± 5	40 ± 9	no bracket	solder tabs	●
Open	OA-70	70 ± 5	50 ± 10	surface	solder tabs	45°
Open	OA-80	80 ± 5	50 ± 9	surface	solder tabs	45°
Open	OA-80-PCB	80 ± 5	50 ± 10	air	printed circuit board	●
Open	OA-80-QCV	80 ± 5	50 ± 9	surface	.250 quick connects, vertical	90°
Open	OA-85	85 ± 5	67 ± 9	surface	solder tabs	45°
Open	OA-95-QC	95 ± 5	77 ± 9	surface	.250 quick connects, horizontal	90°
Open	OA-100	100 ± 5	70 ± 10	surface	solder tabs	45°
Open	OA-100-QC	100 ± 5	85 ± 10	surface	.250 quick connects, horizontal	90°
Open	OA-110	110 ± 5	80 ± 10	surface	solder tabs	45°
Open	OA-110-QC	110 ± 5	80 ± 10	rotating bracket	.250 quick connects, horizontal	●
Open	OA-120	120 ± 5	90 ± 10	surface	solder tabs	45°
Open	OA-120-15-45	120 ± 5	105 ± 10	surface	solder tabs	45°
Open	OA-120-QC	120 ± 5	90 ± 10	surface	.250 quick connects, vertical	90°
Open	OA-120-QCH	120 ± 5	90 ± 10	surface	.250 quick connects, horizontal	45°
Open	OA-130	130 ± 5	100 ± 10	surface	solder tabs	45°
Open	OA-130-ST	130 ± 5	100 ± 10	10-32 stud	.250 quick connects, horizontal	●
Open	OA-140	140 ± 5	110 ± 10	surface	solder tabs	45°
Open	OA-140-QCV	140 ± 5	110 ± 10	surface	.250 quick connects, vertical	90°
Open	OA-150	150 ± 5	120 ± 10	surface	solder tabs	45°
Open	OA-150-PCB	150 ± 5	120 ± 10	air	printed circuit board	90°
Open	OA-150-QCC	150 ± 5	120 ± 10	surface	.250 quick connects, vertical	●
Open	OA-158-ST	158 ± 5	118 ± 10	6-32 stud	.250 quick connects	●
Open	OA-160	160 ± 5	130 ± 10	surface	solder tabs	45°
Open	OA-160-QC20	160 ± 5	140 ± 10	surface	.250 quick connects, horizontal	90°
Open	OA-160-QCH	160 ± 5	130 ± 10	surface	.187 quick connects, horizontal	45°
Open	OA-160-QCV20	160 ± 5	140 ± 10	surface	.250 quick connects, vertical	90°
Open	OA-165-145	165 ± 5	145 ± 9	surface	.250 quick connects, vertical	90°
Open	OA-170	170 ± 5	140 ± 10	surface	solder tabs	45°
Open	OA-170-PCB	170 ± 5	140 ± 10	air	printed circuit board	●
Open	OA-170-WOB	170 ± 5	140 ± 10	no bracket	.187 quick connects, horizontal	●
Open	OA-175	175 ± 5	157 ± 10	surface	solder tabs	45°
Open	OA-175-QC	175 ± 5	145 ± 10	surface	.250 quick connects, vertical	45°
Open	OA-175-QCH	175 ± 5	157 ± 10	surface	.250 quick connects, horizontal	45°
Open	OA-175-S2	175 ± 6	145 ± 10	10-32 stud	.250 quick connects, horizontal	●
Open	OA-180	180 ± 5	150 ± 10	surface	solder tabs	45°

1/2" Disc Thermostats - Automatic Reset

CA/OA (602S) Series, Gold Contacts (602K)

Models available from stock - subject to availability • CA - Close On-Rise (normally open) • OA - Open On-Rise (normally closed)

Close/Open On-Rise	Model Number	Open °F	Close °F	Mounting	Terminals	Orientation from Mounting Holes
Open	OA-180-QC	180 ± 5	150 ± 10	surface	.187 quick connects, horizontal	45°
Open	OA-180-QCV	180 ± 5	150 ± 10	surface	.250 quick connects, vertical	45°
Open	OA-180-QCVR	180 ± 5	150 ± 10	rotating bracket	.250 quick connects, vertical	●
Open	OA-185-QC18	185 ± 10	167 ± 10	rotating bracket	.250 quick connects, vertical	●
Open	OA-185-QCP	185 ± 5	154 ± 10	surface	.250 quick connects, vertical	90°
Open	OA-185-ST10	185 ± 5	131 ± 10	10-32 stud	.250 quick connects, horizontal	●
Open	OA-190	190 ± 5	160 ± 10	surface	solder	45°
Open	OA-190-QC	190 ± 7	172 ± 10	surface	.250 quick connects, vertical	45°
Open	OA-194-QC	194 ± 5	164 ± 10	surface	.187 quick connects, vertical	45°
Open	OA-194-QC18	194 ± 5	176 ± 10	surface	.250 quick connects, horizontal	90°
Open	OA-194-QCC	194 ± 5	153 ± 10	surface	.250 quick connects, vertical	90°
Open	OA-200	200 ± 5	170 ± 10	surface	solder	45°
Open	OA-200-QC	200 ± 5	181 ± 10	surface	.250 quick connects, vertical	90°
Open	OA-200-QCV	200 ± 5	170 ± 10	surface	.250 quick connects, vertical	45°
Open	OA-200-QCV-90	200 ± 5	170 ± 10	surface	.250 quick connects, vertical	90°
Open	OA-200-ST	200 ± 5	170 ± 8	10-32 stud	.250 quick connects	●
Open	OA-203-QCP	203 ± 5	163 ± 10	surface	.250 quick connects, vertical	90°
Open	OA-203-QCV	203 ± 5	167 ± 10	surface	.250 quick connects, vertical	90°
Open	OA-203-ST	203 ± 5	163 ± 10	10-32 stud	.250 quick connects	●
Open	OA-210	210 ± 5	180 ± 10	surface	solder	45°
Open	OA-210-QC	210 ± 5	180 ± 10	surface	.187 quick connects, horizontal	45°
Open	OA-210-QCR	210 ± 5	195 ± 10	rotating bracket	.250 quick connects, horizontal	●
Open	OA-210-QCV	210 ± 5	180 ± 10	surface	.250 quick connects, vertical	45°
Open	OA-212-QCP	212 ± 5	167 ± 10	surface	.250 quick connects, vertical	90°
Open	OA-220	220 ± 5	190 ± 10	surface	solder	45°
Open	OA-220-PCB	220 ± 5	190 ± 10	air	printed circuit board	●
Open	OA-220-QC	220 ± 5	190 ± 10	surface	.250 quick connects, horizontal	45°
Open	OA-225-205	225 ± 5	205 ± 10	surface	.250 quick connects, vertical	90°
Open	OA-230	230 ± 5	200 ± 10	surface	solder	45°
Open	OA-230-QCV	230 ± 7	200 ± 10	surface	.250 quick connects, vertical	90°
Open	OA-239-ST	239 ± 7	189 ± 10	6-32 stud	.250 quick connects	●
Open	OA-240-QCV	240 ± 7	200 ± 10	surface	.250 quick connects, vertical	90°
Open	OA-250	250 ± 7	220 ± 10	surface	solder	45°
Open	OA-250-PCB	250 ± 5	220 ± 10	air	printed circuit board	●
Open	OA-250-QC	250 ± 5	220 ± 10	surface	.187 quick connects, horizontal	45°
Open	OA-250-QCA	250 ± 7	220 ± 10	surface	.250 quick connects, horizontal	45°
Open	OA-265-QCA	265 ± 7	235 ± 10	air	.250 quick connects, vertical	90°
Open	OA-270-90	270 ± 7	240 ± 10	surface	solder	90°
Open	OA-275-QCH	275 ± 7	245 ± 10	surface	.250 quick connects, horizontal	45°
Open	OA-280	280 ± 7	250 ± 10	surface	solder	45°
Open	OA-280-QC	280 ± 7	250 ± 10	surface	.250 quick connects, vertical	45°
Open	OA-300	300 ± 7	270 ± 10	surface	solder	45°
Open	OA-300-QC	300 ± 7	220 ± 14	rotating bracket	.250 quick connects, vertical	●
Open	OA-300-QCVR	300 ± 7	270 ± 10	rotating bracket	.250 quick connects, vertical	●

Special Order Map

For CA/OA , OM, CR/OR, and CRA/OR Series

Build Your Own Part

Model	Contacts	Function	Terminal Type	Bracket Type	Terminal Orientation	Set Point	°F/°C	Differential
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Model

602S	CA/OA Series - 1/2" Automatic Reset	refer to pages 5-7
603U-H	OM Series - 1/2" Manual Reset	refer to page 8
622A	CR/OR Series - Standard Case - 1/2" Automatic Reset	refer to page 11
622P	CR/OR - 4-Post Case - 1/2" Automatic Reset	refer to page 11
625A	CRA/OR - High Temperature - 1/2" Automatic Reset	refer to page 12

Contacts

S	Silver contacts
K	Gold contacts

Function

X	Open on-rise (normally closed)
Y	Close on-rise (normally open)

Terminal Type

Models CA/OA (602S) and OM (603U-H)	refer to page 10
Models CR/OR (622A and 622P) and CRA/OR (625A)	refer to page 14

Bracket Type

Models CA/OA (602S) and OM (603U-H)	refer to page 9
Models CR/OR (622A and 622P) and CRA/OR (625A)	refer to page 13

Terminal Orientation

0°
45°
90°

Example Part Number

602	S	X	BV	AS	90	145	°F	30
Model	Contacts	Function	Terminal Type	Bracket Type	Terminal Orientation	Set Point	°F/°C	Differential