BIMETAL CUTOUTS

R

R53
R54
R55

CANTHERM

Supplying high-quality bimetal and thermal sensor products.

Technical data

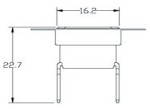
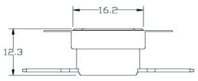
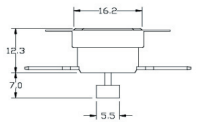
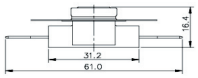
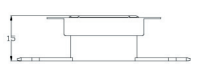
ratings \ control type		R53			R54		R55
		CS-7S	CS-17	B-2	CH-15	CH-152-35	CR71
function		automatic		SOD	automatic	SOD	manual
version		normally closed / normally open		nc	nc / no	nc	nc
VDE	rated current at 250 Vac (cos ϕ 0,95)	10A	25A	25A/15A	15 (10)	10	10(8)
	switching cycles	100,000	100,000	1	100,000	1	–
	temperature range TA (steps in 5ºC)	-20...200ºC		60...150ºC	-20...200ºC	0...220ºC	-20...200ºC
UL	rated current at 125/250	* 15A/10A	25A/25A	25A	15/10	17A	15(10)
	switching cycles	100,000	100,000	1	100,000	1	–
	temperature range TA (steps in 5ºC)	-20...200ºC	150ºC	0...200ºC	0...250ºC	0...260ºC	50...200ºC
tolerance		> +/- 3ºC (+/- 5ºC Typical)					
contact resistance / Insulation res. / dielectric res.		< 50 mΩ / >100 mΩ at 500V / 1500V for 1 minute					
hysteresis / reset temp. (Rt)		20K ±5K		(Rt) -35ºC	20K ±5K	(Rt) -35ºC	–
deg. of protection provided by enclosures (EN 60529)		IP00					
approvals	VDE / ENEC	Cert# 40010923 EN 60730-1 / -2-9 / 1-A15 / 1-A16					
	UL / CUL	UL 873 File E50367					
	CSA	C22.2 No.24 File LR85323					

*** Additional ratings for CS-7 only:**

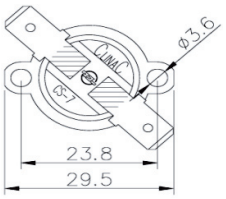
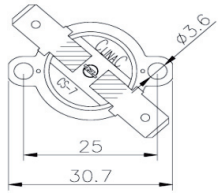
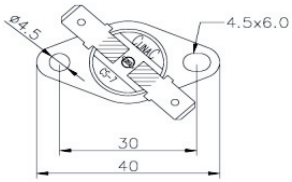
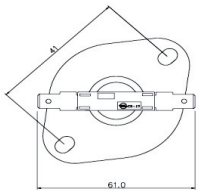
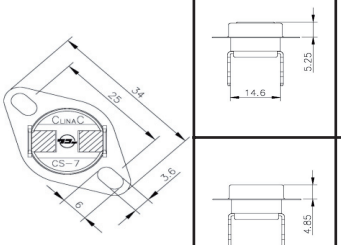
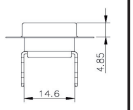
12VDC 15A / 20,000 switching cyles (Not UL, CSA, VDE)
24VDC 10A / 20,000 switching cyles (Not UL, CSA, VDE)
9.5VDC 0.38A / 100,000 switching cyles (UL Approved, Pilot Duty Only)
12VDC 0.075A / 100,000 switching cyles (UL Approved, Pilot Duty Only)

For use as a guideline only.

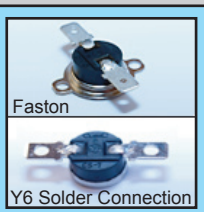
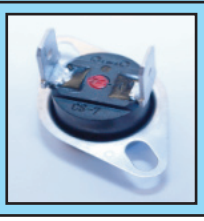
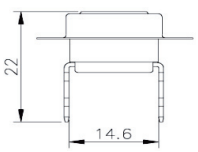
Standard types

type	nc	no	code	photo	drawing dimensions (mm)	technical description	approvals
R53 CS-7S, CS-17, B2	2	1	Term = Z1 Ring = D			Terminals 6.3 x 0.8, 4.8 x 0.5mm Sn or Ni plate, Housing: Thermoset, Cap: SS or Al, Loose Bracket, Terminals Vertical (Z type)	UL, CSA, VDE
			Term = Y1 Ring = D			Terminals 6.3 x 0.8, 4.8 x 0.5mm Sn or Ni plate, Housing: Thermoset, Cap: SS or Al, Loose Bracket, Terminals Horizontal (Y type)	
R55 CR-71	2	–	Ring = D			Terminals 6.3 x 0.8, 4.8 x 0.5mm Sn or Ni plate, Housing: Thermoset, Cap: SS or Al, Loose Bracket, Terminals Horizontal (Y type)	UL, CUL, VDE
R53 CS-17	2	1	Ring = L			Terminals 6.3 x 0.8, 4.8 x 0.5 mm Sn or Ni plate, Housing: Thermoset, Cap: SS, Welded Bracket, Terminals Horizontal (Y type)	
R54 CH-15, CH-152-35	2	1	Ring = None Term = Y7			Terminals 6.3 x 0.8, Steel Ni plate, Housing: Ceramic Thermoset, Cap: Aluminum, Loose Bracket, Terminals Horizontal (Y type)	

Mounting rings

type	code	photo	drawing dimensions (mm)	technical description	approvals
CS-7S, CS-17, B2, CR-71	Standard D			23.8mm mounting ring, loose or fixed at 45°, 90°, or 135°.	UL, CSA, VDE
	M			25mm mounting ring, loose or fixed at 45°, 90°, or 135°.	
	E			30mm mounting ring, loose.	
CS-7S, B2, CR-71, CS-17	L			41mm mounting bracket fixed at 45°, 90° or 135°.	UL, CUL
CS-7S, B2, CR-71	Thru-Hole Mnt. = F			Flange Cap mounting, Stainless Steel fixed at 45°, 90° or 135°	UL, CSA, VDE
	Exposed Bimetal Thru Hole = FX			Flange Cap mounting, w/exposed bimetal, Stainless Steel fixed at 45°, 90° or 135°	

Terminals

code	used in type	photo	drawing dimensions (mm)	technical description	approvals
Y1 [STD] Brass Faston Tin Plate .250 Y2 Brass Faston Tin Plate.187 Y3 Brass Faston Nickel Plate .250 Y4 Brass Faston Nickel Plate .187 Y5 Steel Faston Nickel Plate .250 Y6 Steel Nickel Solder Connection Y7 Brass Nickel Solder Connection	CS-7,CR-71, B2 CS-7,CR-71, B2 CS-7,CR-71, B2 CS-7,CR-71, B2 CS-7,CR-71, B2, CH-15 CS-7,CR-71, B2, CH-15 CS-7,CR-71, B2			Horizontal Fastons 6.3mm x 0.8mm 4.8mm x 0.8mm	UL, CSA, VDE
Z1 [STD] Brass Faston Tin Plate .250 Z2 Brass Faston Tin Plate.187 Z3 Brass Faston Nickel Plate .250 Z4 Brass Faston Nickel Plate .187 Z5 Steel Faston Nickel Plate .250	CS-7,CR-71, B2 CS-7,CR-71, B2 CS-7,CR-71, B2 CS-7,CR-71, B2 CH-15			Vertical Fastons 6.3mm x 0.8mm 4.8mm x 0.8mm	

caps

Cap in standard execution, material aluminium (code D)

Cap for fixed mounting stainless steel (code F)

Exposed bimetal cap (code FX)

- Deviations from standard controls (caps, terminals, fixings) on request.
- Especially for electronic applications with voltage 6…120 Vac / 6…30 Vdc and current 10…100 mA, gold crossbar contacts are available.
- Single operation devices (SOD) are available up to 150ºC or with reset temperature -35ºC (type B-2).

Ordering and marking example

Ordering example

CS7 100 2 5 Y __ __

- Mounting Bracket D is Std.
- Optional Terminals Y1 & Z1 are standard
- Terminals Y= .25" QC Horz. Z=.25" QC Vert.
- Tolerance 5= +/- 5ºC
- Contact Configuration 1=NO 2=NC
- Response Temperature in ºC
- Model

Marking example

CS-7S R100U norm. closed response temperature
CS710025Y manufacture code
2250 date of manufacture

cantherm
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