

LR Type Approval Certificate Extension

This is to certify that Certificate No. 95/00137(E1) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	Tyco Electronics
PLACE OF PRODUCTION	Raychem Products 300 Constitution Drive Menlo Park CA 94025 United States of America
DESCRIPTION	Raychem flame-retardant heat-shrinkable cable entry seals for thin wall enclosures.
TYPES	CES
APPLICATION	Marine, offshore and industrial applications.
SPECIFIED STANDARDS	ASTM D635 IEC60529 MIL-I-81765/1A
SPECIFICATIONS	Temperature rating: Operating temperature range: -55°C to +90°C Minimum recovery temperature: +120°C Voltage rating: 1000V IP68 to IEC60529 Pressure tested at 1.7bar (25psi) for 30minutes. See also sheets 2 and 3

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Type CES flame-retardant heat-shrinkable cable entry seals for thin wall enclosures.

Part number reference:

Example	CES	-2	-D1
Description	Product family	Size	Code for number of legs

Product dimensions:

Standard CES							
Type	Number of legs	Nose, expanded as supplied I.D. (min)(inch)	Nose, recovered after heating I.D. (max)(inch)	Max I.D. of part (inch)	Nut O.D. (max)(inch)	Overall length (nom)(inch)	Drill size (inch)
CES-1	1	0.50	0.17	0.75	1.41	2.75	1.00
CES-2	1	0.75	0.25	0.75	1.41	2.75	1.00
CES-3	1	1.12	0.50	1.10	1.90	3.75	1.38
CES-4	1	1.60	0.75	1.58	2.72	4.50	2.00
CES-5	1	2.75	1.43	2.90	4.07	7.00	3.50

Multi-legged standard CES							
Type	Number of legs	Nose, expanded as supplied I.D. (min)(inch)	Nose, recovered after heating I.D. (max)(inch)	Max I.D. of part (inch)	Nut O.D. (max)(inch)	Overall recommended length (nom)(inch)	Drill size (inch)
CES-2-D1A	2	0.6	0.11	0.75	1.41	2.75	1.00
CES-2-T1	3	0.4	0.11	0.75	1.41	2.75	1.00
CES-2-T1B	3	0.6	0.17	0.75	1.41	3.50	1.00
CES-2-F1A	4	0.4	0.11	0.75	1.41	2.75	1.00
CES-2-F1	4	0.6	0.17	0.75	1.41	3.50	1.00
CES-3-D1	2	0.6	0.17	1.10	1.90	3.50	1.38
CES-3-T1	3	0.6	0.17	1.10	1.90	3.50	1.38
CES-3-F1	4	0.6	0.17	1.10	1.90	3.50	1.38
CES-4-D3	2	0.9	0.30	1.60	2.72	4.00	2.00
CES-4-T1	3	0.9	0.30	1.60	2.72	4.00	2.00
CES-4-F1	4	0.9	0.30	1.60	2.72	4.00	2.00
CES-5-T4	3	1.25	0.50	2.90	4.07	5.00	2.50
CES-5-F4	4	1.25	0.50	2.90	4.07	5.00	2.50

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Lloyd's Register North America, Inc.
 1401 Enclave Parkway, Suite 200, Houston, Texas, 77077, USA

THE TERMS AND CONDITIONS OVERLEAF APPLY

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify LR of any modification or changes to the equipment in order to obtain a valid certificate."

The attached Design Appraisal Document No. 95/60137(E2) and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 95/00137(E1) to which this extension should be attached

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