Raychem Heat-shrinkable Halogen-free Cable Breakouts for Power Cables

Raychem
from TE Connectivity

Raychem Heat-shrinkable Halogen-free Cable Breakouts for Power Cables

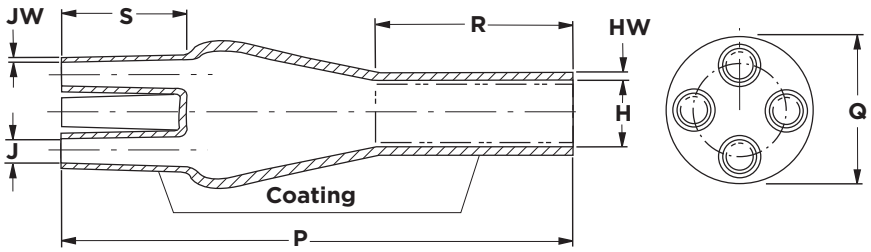
Raychem low voltage breakouts are an easily installed, light weight insulation for sealing the crutches of plastic, paper and rubber insulated cables up to 1 kV. Raychem cable breakouts offer savings in weight, space and time over conventional methods and make overhead installation and cable transport easier. Requiring no special tools or skills, installation is completed within minutes by simply heating the breakout. The diameter then reduces to tightly grip the outer jacket and the cores.

At the same time, the precoated sealant melts and reliably seals the cable crutch against moisture and the environment. The heat-shrinkable feature also means smaller inventories, as each breakout size will shrink to fit several different sizes and types of cables. Made from semi-rigid cross-linked halogen free polyolefin, these medium wall break-outs also offer resistance to abrasion, weathering, and atmospheric pollution.

As one of the world's leading manufacturers of heat-shrinkable materials, we offer a wide range of tubings and moulded parts for any application where a sealed, protective, insulating or fluid resistant cover is required over uniform or irregularly shaped objects. Our products are available in a wide variety of materials to meet the demands of the modern electrical power industry.

Cable Breakout Properties		Based on Test Method	Material Requirements
Tensile Strength		ISO 37	10.5 MPa min.
Ultimate Elongation		ISO 37	300% min.
Secant Modulus	23°C ±2°C	ISO 527/1-3	130 MPa max.
Density		ISO 1183 Method A	1.0 - 1.3 g/cm^3
Hardness		ISO 868	40 - 60 Shore D
Accelerated Ageing	7 days at 150°C ±2°C	ISO 188	
	Tensile Strength	ISO 37	8.5 MPa min.
	Ultimate Elongation	ISO 37	100% min.
Low Temperature Flexibility	4 hours at –40°C ±3°C	ASTM D2671 Procedure C	No cracking
Dielectric Strength		IEC 60243	100 kV/cm min.
Volume Resistivity		IEC 60093	1x10^{12} Ω cm min.
Dielectric Constant		IEC 250	8.0 max.
Water Absorption	24 hours at 23°C ±2°C	ISO 62 Method 1	0.5% max.
Resistance to Liquids Transformer Oil to VDE 0370	7 days at 23°C ±2°C	ISO 1817	
	Tensile Strength	ISO 37	8.5 MPa min.
	Ultimate Elongation	ISO 37	240% min.
Weathering	The material from which cable breakouts are made contains carbon black to protect it from ultra-violet radiation.		

Ordering Information



Standard Products/Dimensions

Part Number	Number of Cores	H a min	H b max	J a min	J b max	P b +/-10%	R b +/-10%	S b +/-10%	Q b +/-10%	HW b +/-20%	JW b +/-20%
302K333/S	2	28	9.2	15	4.1	90	-	25	15	3.2	1.6
302K224/S	2	48	32	22	7	172	-	70	34	2.0	2.0
302K466/S	2	86	42	40	17	200	-	75	45	2.5	2.5
402W533/S	3	38	13	16	4.2	103	45	28	22	2.7	1.5
402W516/S	3	63	22	26	9	180	85	40	35	3.5	1.5
402W520/S	3	70	25	27	9.5	159	107	52	32	4.0	2.0
402W525/S	3	85	33	32	12	180	130	50	38	3.0	2.5
402W530/S	3	90	43	38	16.2	180	130	50	46	2.7	2.7
402W526/S	3	95	28	44	13	205	90	45	42	3.5	2.5
402W248/S	3	115	45	52	22	240	100	60	64	4.0	2.5
402W545/S	3	124	60	51	24	239	188	51	65	3.0	3.2
402W439/S	3	170	60	60	30	252	90	66	85	4.2	2.6
502S013/S	4	23	9.5	7	2	60	-	17	13	2.0	1.2
502K033/S	4	45	16.5	14	3.4	98	71	25	-	2.5	1.9
502K046/S	4	45	19	20	7	165	75	40	45	3.5	2.0
502K016/S	4	75	25	25	9	217	100	44	50	3.5	2.0
502K020/S	4	80	25	27	9	217	100	44	50	3.5	2.0
502K026/S	4	100	31	40	13.5	223	103	51	50.4	3.5	2.5
502R810/S	3 + 1*	170	60	50*	23*	255	90	65	109	4.0	3.5
*One of 4 outlets dim = 43/19											
603W035/S	4 + 1*	68	26	30*	7*	182	75	40	45	3.2	2.5
603W040/S	4 + 1**	85	26	33**	7**	182	75	40	45	3.2	2.5
*One of 5 outlets dim = 20/6	** One of 5 outlets dim = 27/6										
903K015/S	7 + 1*	50	25	23*	6.5*	163.5	97.5	33	53.5	3.5	2.2
*One of 8 outlets dim = 6/2.8											

Notes

1. Dimensions in millimeters
   a = as supplied
   b = after free recovery
2. Drawing depicts typical part.
3. The recommended application range is from 20% above the recovered diameter to 20% below the expanded diameter.

About TE Connectivity

TE Connectivity is a global, $14 billion company that designs and manufactures approximately 500,000 products that connect and protect the flow of power and data inside the products that touch every aspect of our lives. Our nearly 100,000 employees partner with customers in virtually every industry – from consumer electronics, energy and healthcare, to automotive, aerospace and communication networks – enabling smarter, faster, better technologies to connect products to possibilities.

More information on TE Connectivity can be found at: www.te.com

TE Energy – innovative and economical solutions for the electrical power industry: cable accessories, connectors & fittings, insulators & insulation, surge arresters, switching equipment, lighting controls, power measurement and control.

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