

Electronics

RayBlock 85

Raychem

Heat-shrinkable water-blocking system

The RayBlock 85 water-blocking system is designed to provide consistent sealing for cable bundles and the back of connectors. The wires in the bundle are placed within the channels of a specially formulated hot-melt adhesive profile, and then covered by dual-wall, heat-shrinkable tubing with a flame-retardant, radiation-crosslinked outer wall and hot-melt adhesive inner wall.

When the tubing is heated, the adhesive melts and the tubing shrinks, forcing the molten adhesive to fill all the voids within the wire bundle and tubing. The result is a solid plug of adhesive molded around each wire in the bundle, creating a moisture-resistant seal.

The installed product is round and concentric, allowing easy positioning

of other harness components, such as feedthroughs and grommets. The overall diameter of the installed RayBlock system is only marginally greater than the cable bundle itself. The installation is simple and can be done off-line, or on the harness board as required.

Temperature rating

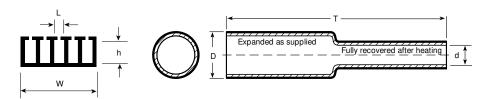
Minimum shrink temperature:	125°C
Continuous operating temperature:	-40°C to 85°C

Specifications*

Туре	Raychem
RayBlock 85	RW-2101 and RayBlock 85 SCDs

^{*}When ordering, always specify latest issue.

Dimensions (millimeters/inches)



	Profile			Tubing		
No. of	h	L	W	D	d	Т
channels	(nom.)	(nom.)	(nom.)	(min.)	(max.)	(nom.)
2	6.5 <i>0.256</i>	2.75 0.108	8.50 <i>0.335</i>	12.0 <i>0.472</i>	3.0 0.118	40 1.57
3	6.5 <i>0.256</i>	2.75 0.108	12.25 <i>0.482</i>	24.0 <i>0.945</i>	6.0 <i>0.236</i>	47 1.85
4	6.5 <i>0.256</i>	2.75 0.108	16.0 <i>0.630</i>	16.0 <i>0.630</i>	4.0 0.158	40 1.57
5	6.5 <i>0.256</i>	2.75 0.108	19.75 <i>0.778</i>	24.0 <i>0.945</i>	6.0 <i>0.236</i>	45 <i>1.77</i>
7	6.5 <i>0.256</i>	2.75 0.108	27.25 1.07	24.0 <i>0.945</i>	6.0 <i>0.236</i>	65 <i>2.56</i>
10	6.5 <i>0.256</i>	2.75 0.108	38.50 <i>1.52</i>	32.0 <i>1.26</i>	8.0 <i>0.315</i>	55 <i>2.17</i>
	channels 2 3 4 5 7	No. of channels (nom.) 2 6.5 0.256 3 6.5 0.256 4 6.5 0.256 5 6.5 0.256 7 6.5 0.256	No. of channels h (nom.) L (nom.) 2 6.5 0.256 2.75 0.108 3 6.5 0.256 2.75 0.108 4 6.5 0.256 2.75 0.108 5 6.5 0.256 2.75 0.108 7 6.5 0.256 2.75 0.108	No. of channels h (nom.) L (nom.) W (nom.) 2 6.5 0.256 2.75 0.108 8.50 0.335 3 6.5 0.256 2.75 0.108 12.25 0.482 4 6.5 0.256 2.75 0.108 16.0 0.630 5 6.5 0.256 2.75 0.108 19.75 0.778 7 6.5 0.256 2.75 0.108 27.25 1.07	No. of channels h L W D (min.) 2 6.5 0.256 2.75 0.108 8.50 0.335 12.0 0.472 3 6.5 0.256 2.75 0.108 12.25 0.482 24.0 0.945 4 6.5 0.256 2.75 0.108 16.0 0.630 16.0 0.630 5 6.5 0.256 2.75 0.108 19.75 0.778 24.0 0.945 7 6.5 0.256 2.75 0.108 27.25 1.07 24.0 0.945	No. of channels h L W D d (max) 2 6.5 0.256 2.75 0.108 8.50 0.335 12.0 0.472 3.0 0.118 3 6.5 0.256 2.75 0.108 12.25 0.482 24.0 0.945 6.0 0.236 4 6.5 0.256 2.75 0.108 16.0 0.630 16.0 0.630 4.0 0.158 5 6.5 0.256 2.75 0.108 19.75 0.778 24.0 0.945 6.0 0.236 7 6.5 0.256 2.75 0.108 27.25 1.07 24.0 0.945 6.0 0.236

Ordering information

Color	Black
Size selection	See selection guide on reverse.
Standard packaging	1000 pcs. of profile and 1000 pcs. of tubing per kit

RayBlock 85 selection guide							
		Wire outside diameter	Approximate				
	No. of	Up to 2.8 mm 2.8 mm to 3.5 mm		installation time*			
Ordering description	channels	(up to 0.110 in.)	(0.110 in. to 0.138 in.)	(seconds)			
RayBlock 85 Kit 0102-A0	2	2 to 4 wires	2 wires only	45			
RayBlock 85 Kit 0203-A0	3	3 to 6 wires	3 wires only	60			
RayBlock 85 Kit 0504-A0	4	4 to 8 wires	4 wires only	60			
RayBlock 85 Kit 0405-A0	5	5 to 10 wires	5 wires only	60			
RayBlock 85 Kit 0107-A0	7	7 to 14 wires	7 wires only	90			
RayBlock 85 Kit 0510-A0	10	10 to 20 wires	10 wires only	90			

Note: This selection guide is for guidance only; individual bundles may well differ in requirements. Special designs may be possible on request, to accommodate large wires. *Installation time depends on the size of the bundle and the type of equipment used. The times listed are only for guidance.

Installation

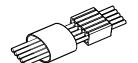
Tools

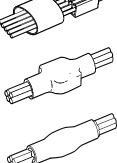
Tyco Electronics manufactures a variety of heating tools for installing the RayBlock 85 system. These include hot air blowers, infrared heaters, and special automatic heating devices.

Installation steps

Correct installation of the Rayblock 85 system occurs in three separate stages:

- 1. Without twisting or deforming them, the installer carefully places the wires in the channels. The heat-shrink sleeve is then positioned centrally over the wire-filled profile.
- 2. The tubing is heated and it shrinks to form an "envelope" for the adhesive.
- 3. Recovery of the center section forces the molten adhesive around and between the wires to form the seal.







RayBlock and Raychem are trademarks of Tyco Electronics Corporation.

Users should independently evaluate the suitability of the product for their application.

Tyco Electronics Corporation

300 Constitution Drive Menlo Park. CA 94025-1164

Tel: (800) 926-2425 (US & Canada) Tel:+1 (650) 361-3860 (All other countries)

Faraday Road Dorcan, Swindon, SN3 5HH United Kingdom Tel: +44 1793 528171

3816 Noborito, Tama-ku Kawasaki, Kanagawa 214-8533 Japan

Tel: +81 44 900 5102

Asia Pacific Headquarters 26 Ang Mo Kio, Industrial Park 2 Singapore 569507 Tel: +65 4866 151

All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their application. Tyco Electronics Corporation makes no warranties as to the accuracy or completeness of the information, and disclaims any liability regarding its use. Tyco Electronics Corporation's only obligations are those in the Standard Terms and Conditions of Sale for these products and in no case will Tyco Electronics Corporation be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use, or misuse of the product. Tyco Electronics Corporation's Specifications are subject to change without notice. In addition, Tyco Electronics Corporation reserves the right to make changes in materials or processing without notification to the Buyer which do not affect compliance with any applicable specification.