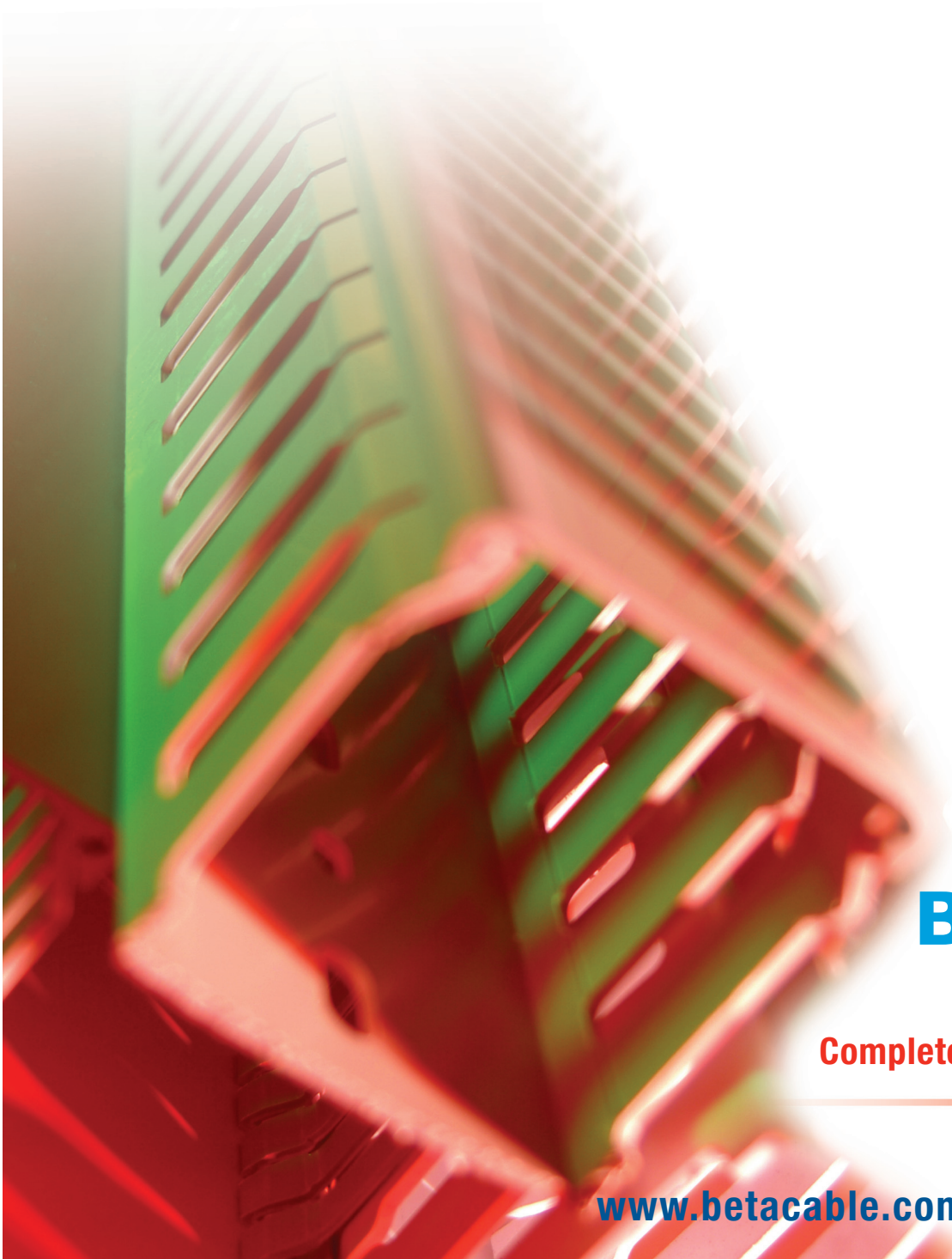
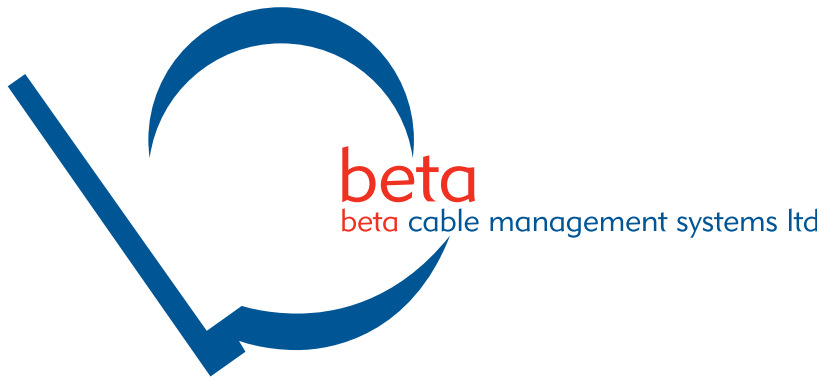




BETADUCT
■■■■■■■■

Complete Wiring Duct Solutions

www.betacable.com



BETA is the name in cable management

The Beta brand portfolio was established in order to supply niche industrial markets with high performance product where high levels of safety and quality are demanded. The resulting product range meets all industry standards including UL, CSA and Lloyds accreditation. Beta products are widely used in the Rail, Automotive, Marine and Power Generation industries. The range also includes products with a Low Fire Hazard (LFH) rating. Rolls-Royce and London Underground LTD specify and use Betaduct in Noryl LFH material. Betaduct is used in the manufacture of electrical control panels for use in Naval Warships & Submarines and is the only product accepted by Rolls-Royce for these applications.

Product Features

The panel building market has very specific needs, Betaduct is a quality cable management system developed for use within cabinets and control panels. Select: Open, Narrow, Closed Slot or Solid Wall depending on the application. Available in a range of sizes and colours, manufactured in standard PVC or Noryl LFH.

In addition to the clear edge that Beta products have over their competition, the company is committed to an ongoing research and product development programme. Beta Cable Management Systems provide the most comprehensive range of cable management systems in the UK to both the OEM and retro fit market. Whether you need to route, protect, bundle or separate, Beta can provide the appropriate solution that conforms to the most exacting specification. All of the Beta product range is freely available through a network of well established distributors both in the UK and Worldwide.

Beta Cable Management Systems products can be found in submarines, ships, power generation equipment, industrial control panels, railway signaling and computerised vehicle control including Air Traffic Control systems and many other applications.

Beta cable products are fully RoHS compliant and are manufactured in Great Britain to the highest of standards. Betaduct is specified by all the major transport and defence agencies in the UK and is exported all over the World wherever exacting quality and high performance standards are called for.

The unique Low Fire Hazard rating that Betaduct Noryl boasts is unmatched by any other ducting manufacturer.



Type Approval Certificate Extension

This is to certify that Certificate No. 95/00075(2) for the underlined products is extended and renewed as shown.

This certificate is issued to:

PRODUCER Beta Cable Management Systems Ltd
Green Lane, Shepperton
Teddington, Gloucestershire, GL20 9BD
United Kingdom (UK)

PLACE OF PRODUCTION Roventon Plastics Ltd
Green Lane, Shepperton
Teddington, Gloucestershire, GL20 9BD
United Kingdom (UK)

DESCRIPTION Plain, closed slot and open/closure slot Betaduct products, available in various colours of PVC and NORYL.

TYPE Other cable management systems as notified in Publication Reference Roventon Marketing Department REF0012.

APPLICATION Marine, offshore and industrial applications.

DESIGN CODE Manufacturer's specification.

"This Certificate is not valid for assignment, the design, testing or marking purposes of which have been issued from the specimen issued. The manufacturer should notify Lloyd's Register (EMSA) of any modification or change to the equipment in order to obtain a valid certificate."

The attached Design Approval Document No. 95/00075(2) and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain in the previous Certificate No. 95/00075(2) to which this extension should be attached.

Certificate No. 95/00075(2)

Issue Date 21 January 2005

Expiry Date 20 May 2008

Sheet 1 of 1

Lloyd's Register (EMSA)

77 Fenchurch Street, London EC3M 4BS

"This register is a public register and the information contained therein is available to all. It is not to be used for any other purpose than the identification of the products and services registered. The register is not to be used for any other purpose than the identification of the products and services registered. The register is not to be used for any other purpose than the identification of the products and services registered."

THIS DOCUMENT IS SUBJECT TO THE PROVISIONS ON THIS REVIEW

Lid retention

Friction bead on wider trunking provides excellent lid retention to combat vibration.

Cable retention

Wiring duct design allows cables to be retained during installation, making routing and cable termination a simple process.

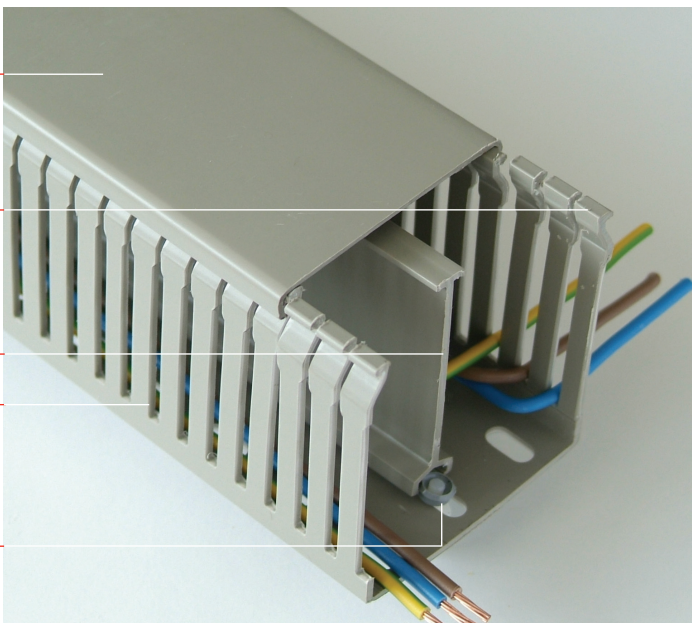
Divider

Break Out

Fingers can easily be removed without the use of cutting tools.

Easy Installation

Base slots are to DIN 43659 providing maximum flexibility for easy installation.



Size Range

- Wide range of sizes to cater for a broad spectrum of requirements.
- New Larger sizes with narrower profiles to reduce panel footprint.

Materials

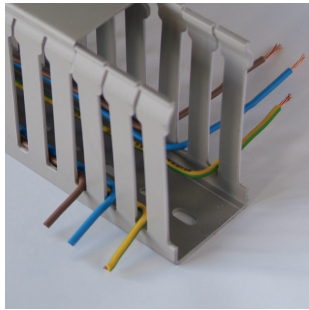
- The standard range is manufactured using self extinguishing PVC to RoHS Standards.
- Where human life is at risk, Noryl LFH Betaduct is available.
- Beta Cable is constantly reviewing material content to ensure optimum performance.

Colours

- Grey White and Black are standard.
- Blue is available for intrinsically safe wiring applications.
- Other colours are available subject to minimum quantities; please contact our sales office for a quotation.

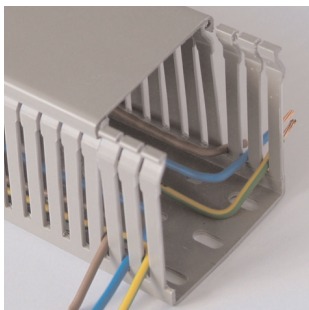
Accessories

- Riveters and rivets are designed for quick installation.
- Dividers allow channels to separate wiring within one trunking run.
- Installation washers provide location for dividers, secured by screws into wiring duct base.
- Side cutters allow a clean professional removal of Betaduct slotted sides.
- Additional lids available as required.



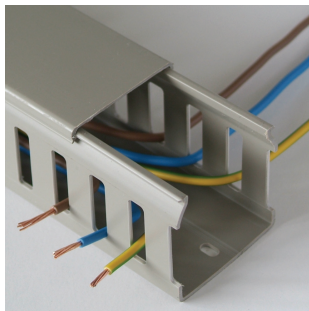
Open slot

- Wide fingers give additional cable support
- Terminated wires can be re-routed easily
- 20mm slot pitch
- 8mm slot width
- 23 sizes available in grey, white, black or blue
- UL, CSA and Lloyds Register approved.
- RoHS compliant



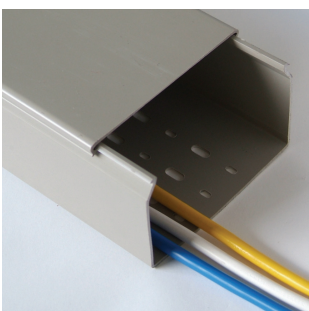
Narrow Slot

- Ideal for use with slimmer terminal blocks where more access is required
- Improves appearance of panels with cables out in best position
- 10mm slot pitch
- 4mm slot width
- 20 sizes available in grey, white or black
- UL, CSA and Lloyds Register approved
- RoHS compliant



Closed Slot

- Excellent cable retention
- Enhanced protection for installers
- 20mm slot pitch
- 8mm slot width
- 25 sizes available in grey, white or black.
- UL, CSA and Lloyds Register approved.
- RoHS compliant



Solid Wall

- Ideal where no break-outs are required or side wall access is infrequent
- Complete cable protection
- 25 sizes in either grey, white or black
- UL, CSA and Lloyds Register approved.
- RoHS compliant

Standard Wiring Duct

Betaduct PVC provides a lightweight self extinguishing wiring duct with excellent rigidity and performance characteristics.

Betaduct LFM Noryl “High performance in harsh environments”

Toxic fumes and smoke generated from plastics in fire situations are a real danger to life. The increased awareness of this threat has led to a corresponding demand for ‘Low Fire Hazard’ products. The Noryl Betaduct range is free from toxic halogens, has excellent low smoke characteristics and high operating temperatures. Noryl Betaduct is recommended for areas where human life or electronic components are at risk.

Betaduct Noryl is approved and specified by London Underground, Rolls Royce and most rail industry manufacturers.



Slotted & Solid Wall

- Choice of Open Slot, Closed Slot or Solid Wall
- 19mm slot pitch
- 8mm slot width
- Zero Halogen
- Low smoke
- Wide range of sizes
- Available in black
- UL, CSA and Lloyds Register approved.
- RoHS compliant

Open Slot

Supplied with lid

nominal size w x h (mm)	external dimensions		part no. selection				carton quantity	
	width (mm)	height (mm)	grey RAL 7030PVC	white PVC	black PVC	blue PVC	no. of lengths 2m each	total metres
19 x 50	25	53	10450018	23610110	09800000	-	12	24
25 x 37.5	29	41	10450022	23610400	09810000	-	12	24
25 x 50	29	54	10450023	23610500	09130000	09136000	12	24
25 x 75	29	79	10450024	23610600	09140000	09146000	8	16
25 x 100	30	105	10450025	23610700	09830000	09836000	8	16
37.5x37.5	41	41	10450032	23610900	09840000	-	12	24
37.5 x 50	41	54	10450033	23610900	09850000	09856000	8	16
37.5 x 75	39	79	10450034	23611100	09860000	09866000	8	16
37.5x100	43	105	10450035	23611200	09870000	09876000	8	16
50 x 25	54	28	10450051	23611300	09880000	-	12	24
50 x 37.5	54	41	10450052	23611400	09890000	-	8	16
50 x 50	54	54	10450053	23611500	09160000	09166000	8	16
50 x 75	55	79	10450054	23611600	09170000	09176000	8	16
50 x 100	56	105	10450055	23611700	09920000	-	4	8
75 x 37.5	80	41	10450072	23611800	09930000	-	8	16
75 x 50	78	54	10450073	23611900	09940000	-	8	16
75 x 75	80	80	10450074	23612000	09190000	09196000	8	16
75 x 100	80	105	10450075	23612100	09960000	09966000	4	8
100 x 50	107	54	10450103	23612400	09980000	-	4	8
100 x 75	107	80	10450104	23612500	09990000	09996000	4	8
100x100	107	104	10450105	23612600	10000000	10006000	4	8
100x125	107	130	10450106	23613000	10010000	-	4	8
125 x 75	131	78	10450124	23612900	09410000	-	4	8

*Other sizes may be available upon request, please contact the sale office for minimum quantities and lead times.

MATERIALS

Self extinguishing PVC

SERVICE TEMPERATURE

-15°C to + 60°C(+5°F to +140°F)

STANDARDS

Base slots to DIN 43659

STANDARD COLOURS

Grey RAL 7030, white black blue

FLAMIBILITY

UL94 V-0 rated material

APPROVALS

UL & Lloyds Register

RoHS COMPLIANT

These are non-stock items and may require minimum order quantities. Please contact our sales office for availability and price.

Narrow Slot

Supplied with lid

nominal size	external dimensions		part no. selection			carton quantity	
w x h (mm)	width (mm)	height (mm)	grey RAL 7030PVC	white PVC	black PVC	no. of lengths 2m each	total metres
19 x 50	25	53	10470018	23630110	10490018	12	24
25 x 37.5	29	41	10470022	23630400	10490022	12	24
25 x 50	29	54	10470023	23630500	10490023	12	24
25 x 75	29	79	10470024	23630600	10490024	8	16
25 x 100	30	105	10470025	23630700	10490025	8	16
37.5 x 37.5	41	41	10470032	23630900	10490032	12	24
37.5 x 50	41	54	10470033	23630900	10490033	8	16
37.5 x 75	41	79	10470034	23631100	10490034	8	16
37.5 x 100	43	105	10470035	23631200	10490035	8	16
50 x 37.5	56	41	10470052	23631300	10490052	8	16
50 x 50	54	54	10470053	23631400	10490053	8	16
50 x 75	55	79	10470054	23631600	10490054	8	16
50 x 100	56	105	10470055	23631700	10490055	4	8
75 x 50	78	54	10470073	23631900	10490073	8	16
75 x 75	80	80	10470074	23632000	10490074	8	16
100 x 50	107	54	10470103	23632400	10490103	4	8
100 x 75	107	80	10470104	23632500	10490104	4	8
100 x 100	107	104	10470105	23632600	10490105	4	8

*Other sizes may be available upon request, please contact the sale office for minimum quantities and lead times.

MATERIALS

Self extinguishing PVC

SERVICE TEMPERATURE

-15°C to + 60°C(+5°F to +140°F)

STANDARDS

Base slots to DIN 43659

STANDARD COLOURS

Grey RAL 7030, white & black

FLAMIBILITY

UL94 V-0 rated material

APPROVALS

UL & Lloyds Register

RoHS COMPLIANT

These are non-stock items and may require minimum order quantities. Please contact our sales office for availability and price.

Closed Slot

Supplied with lid

nominal size	external dimensions		part no. selection			carton quantity	
w x h (mm)	width (mm)	height (mm)	grey RAL 7030PVC	white PVC	black PVC	no. of lengths 2m each	total metres
15 x 15	17	17	10460011	23600100	09000000	24	48
19 x 50	25	53	10460018	23600110	09500000	12	24
25 x 20	29	23	10460021	23600200	09010000	12	24
25 x 37.5	29	41	10460022	23600400	09510000	12	24
25 x 50	29	54	10460023	23600500	09030000	12	24
25 x 75	29	79	10460024	23600600	09040000	8	16
25 x 100	30	105	10460025	23600700	09530000	8	16
37.5 x 37.5	41	41	10460032	-	09540000	12	24
37.5 x 50	41	54	10460033	23601000	09550000	8	16
37.5 x 75	41	79	10460034	23601100	09560000	8	16
50 x 25	54	28	10460051	23601300	09380000	12	24
50 x 37.5	54	41	10460052	23601400	09590000	8	16
50 x 50	54	54	10460053	23601500	09060000	8	16
50 x 75	55	79	10460054	23601600	09070000	8	16
50 x 100	56	105	10460055	23601700	09620000	4	8
75 x 37.5	80	41	10460072	23601800	09630000	8	16
75 x 50	78	54	10460073	23601900	09640000	8	16
75 x 75	80	80	10460074	23602000	09090000	8	16
75 x 100	80	105	10460075	23602100	09660000	4	8
100 x 50	107	54	10460103	23602400	09680000	4	8
100 x 75	107	80	10460104	23602500	09690000	4	8
100 x 100	107	104	10460105	23602600	09700000	4	8
100 x 125	107	130	10460106	-	09710000	4	8
125 x 75	131	78	10460124	23602900	09400000	4	8

*Other sizes may be available upon request, please contact the sale office for minimum quantities and lead times.

MATERIALS

Self extinguishing PVC

SERVICE TEMPERATURE

-15°C to + 60°C(+5°F to +140°F)

STANDARDS

Base slots to DIN 43659

STANDARD COLOURS

Grey RAL 7030, white & black

FLAMIBILITY

UL94 V-O rated material

APPROVALS

UL & Lloyds Register

RoHS COMPLIANT

These are non-stock items and may require minimum order quantities. Please contact our sales office for availability and price.

Solid Wall

Supplied with lid

nominal size	external dimensions		part no. selection			carton quantity	
w x h (mm)	width (mm)	height (mm)	grey RAL 7030PVC	white PVC	black PVC	no. of lengths 2m each	total metres
15 x 15	17	17	10480011	23620100	09200000	24	48
25 x 20	29	23	10480021	23620200	09210000	12	24
25 x 37.5	29	41	10480022	23620400	10110000	12	24
25 x 50	29	54	10480023	23620500	-	12	24
25 x 75	29	79	10480024	23620600	-	8	16
37.5 x 37.5	41	41	10480032	23620900	10140000	12	24
37.5 x 50	41	54	10480033	23621000	10150000	8	16
37.5 x 75	41	79	10480034	23621100	10160000	8	16
37.5 x 100	43	105	10480035	23621200	10170000	8	16
50 x 25	54	28	10480051	23621300	10180000	12	24
50 x 37.5	54	41	10480052	23621400	10190000	8	16
50 x 50	54	54	10480053	23621500	09260000	8	16
50 x 75	55	79	10480054	23621600	09270000	8	16
50 x 100	56	105	10480055	23621700	10220000	4	8
75 x 37.5	80	41	10480072	23621800	10230000	8	16
75 x 50	78	54	10480073	23621900	10240000	8	16
75 x 75	80	80	10480074	23622000	09290000	8	16
75 x 100	80	105	10480075	23622100	10260000	4	8
100 x 50	107	54	10480103	23622400	10280000	4	8
100 x 75	107	80	10480104	23622500	10290000	4	8
100 x 100	107	104	10480105	23622600	10300000	4	8
100 x 125	107	130	10480106	23623000	10310000	4	8
125 x 75	131	78	10480124	23622900	09420000	4	8

*Other sizes may be available upon request, please contact the sale office for minimum quantities and lead times.

MATERIALS

Self extinguishing PVC

SERVICE TEMPERATURE

-15°C to + 60°C(+5°F to +140°F)

STANDARDS

Base slots to DIN 43659

STANDARD COLOURS

Grey RAL 7030, white & black

FLAMIBILITY

UL94 V-0 rated material

APPROVALS

UL & Lloyds Register

RoHS COMPLIANT

These are non-stock items and may require minimum order quantities. Please contact our sales office for availability and price.



Noryl Betaduct

Supplied with lid

nominal size w x h (mm)	external dimensions		part no. selection			carton quantity	
	width (mm)	height (mm)	black OPEN SLOT	black CLOSED SLOT	black SOLID WALL	no. of lengths 2m each	total metres
25 x 37.7	29	38	23461000	23451000	-	12	24
25 x 50	29	54	23462000	23452000	23472000	12	24
25 x 75	29	79	23463000	23453000	-	8	16
50 x 50	54	54	23464000	23454000	-	8	16
50 x 75	55	79	23465000	23455000	-	8	16
75 x 75	80	80	23466000	23456000	23476000	8	16

*Other sizes may be available upon request, please contact the sale office for minimum quantities and lead times.

MATERIALS

Self extinguishing Noryl Xtra, zero halogen, low smoke

SERVICE TEMPERATURE

-30°C to + 120°C (-22°F to +248°F)

STANDARDS

Base slots to DIN 43659

STANDARD COLOURS

Black

FLAMIBILITY

UL94 V-0 rated material

APPROVALS

UL & Lloyds Register

RoHS COMPLIANT



Accessories

Lids

duct width (mm)	part no. selection					carton quantity	
	grey RAL 7030 PVC	white PVC	black PVC	blue PVC	black Noryl	no. of lengths 2m each	total metres
15	10450001	23650001	09310000	-	-	12	24
19	10450019	23650019	09310019	-	-	12	24
25	10450002	23650003	09330000	09336000	23481000	12	24
37.5	10450003	23650004	09320000	10456003	-	12	24
50	10450004	23650005	09430000	09340000	23482000	12	24
75	10540005	23650006	09350000	09356000	23483000	12	24
100	10450006	23650007	09360000	10456006	-	6	12
125	10450007	23650008	09370000	-	-	6	12

DIVIDERS- for mounting on insulating washers

duct height (mm)	part no. selection				carton quantity		SIDE CUTTERS	
	grey RAL 7030 PVC	white PVC	black PVC	blue PVC	no. of lengths 2m each	total metres		
50	10450009	23620010	10390000	10396	4	8	part no. 18570000	carton quantity 1
75	10450010	23620011	10400000	10406	4	8		

RIVETS

duct size	part no.	carton quantity	RIVETER		INSULATING WASHERS	
15mmx15mm	10490000	100	part no.	carton quantity	part no.	carton quantity
All other sizes	10500000	100	18580000	1	10440000	50

Bata Cable Management Systems LTD,
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