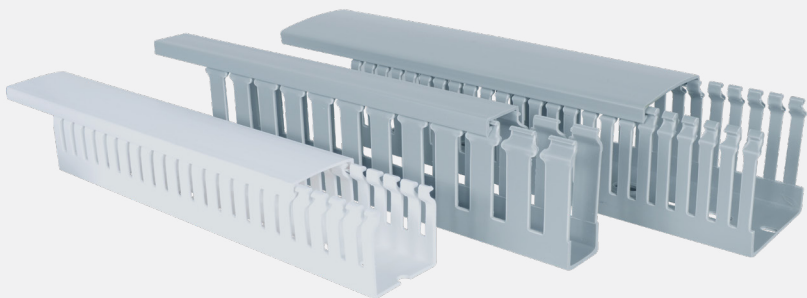


WIRING DUCT



c3controls Series WD Wiring Duct will optimize your wire/cable management and installation. The wide variety of types and options will increase your wiring productivity, reduce installation costs, and will give you the most attractive and organized control panels in the industry!



Section 28

Narrow Slot	4
Wide Slot	5
Replacement Components	8
Specifications	9
Dimensions	10
Wire Fill Capacity	11

PROVEN



Conformity to Standards:
UL 1565
CSA C22.2 No. 18.5-02
IEC 61084-2-1

Certifications:
UL File #: E330184 (Guide Z0DZ2, Z0DZ8)

CE Marked (per EU Low Voltage Directive 2006/95/EC and
RoHS Directive 2011/65/EU)

Visit c3controls.com to download product certifications.

WIRING DUCT

Every product in our portfolio is designed and manufactured to meet the needs of the machine builder, including our rugged line of Wiring Duct. Check out all the features of our Series WD below!

SLEEK AND DURABLE WIRE DUCT FOR SUPERIOR PERFORMANCE IN ANY ENVIRONMENT.

✓ Proven	Our Wire Duct and covers are UL Listed and CE marked, and RoHS compliant for global acceptance. 
✓ Environmentally Secure	Non-flammable (UL94 V-0), rigid PVC won't warp, peel, chip, crack, or become brittle, and resists oil, salt solutions, and fungus for superior performance in any environment.
✓ Simple Installation	Mounting hole patterns with elongated slots comply with DIN 43659 for global installation flexibility.
✓ Vibration Resistant	Restricted slot design ensures that wires are held in place, even when the cover is not installed, allowing for durable performance in high vibration applications.
✓ Mounting Inserts Accepted	Embossed mounting holes accept mounting inserts for installing smaller wiring duct inside larger wiring duct. Mounting inserts can be installed even after the wiring duct is secured to the panel, making it easy and saving you installation time.
✓ Sleek Design	Flush side-wall and duct provide increased wire capacity and a pleasing, finished look.
✓ Easy Identification	Complete catalog number and dimensions printed on the side of the duct for quick identification and utilization.
✓ Safe Handling	Smooth, rounded edges on duct fingers and covers prevent cutting and abrasions to hands and wires.
✓ 36-Month Warranty*	Every product is backed by our 36-Month Warranty—giving you confidence in the quality, reliability, and performance of components designed for the most demanding applications.
✓ Guaranteed Same-Day Shipping*	Product availability reduces inventory, and improves cash-flow—saving you money. With c3controls any order for standard catalog items received by 6:00pm ET is guaranteed to ship same-day.
✓ Advantage Pricing	Our approach to product development, manufacturing, and focus on servicing the OEM and Electrical Equipment Builder reduces cost. The result—the best value in the industry.

*See c3controls Terms & Conditions



Like us, c3controls has great people—their customer service representatives are personable and knowledgeable, and I've always remained friends with my sales representative over the years since we began working with c3controls.



Dave Welch, President • **Welch Engineering**

Narrow Slot



Wide Slot



Wiring Duct Covers



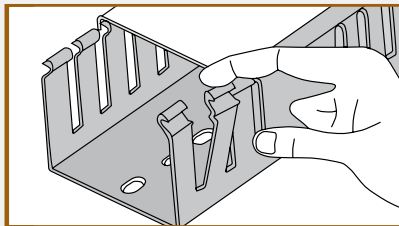
UNIQUE PRODUCT LINE FEATURES

OPTIONAL ADHESIVE BACKING



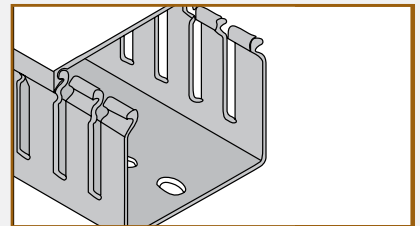
Put an end to all the eyeballing with c3controls' optional adhesive. It's an ideal convenience feature that allows you to *temporarily* stick your wiring duct where you want it on the panel before you *permanently* mount it. Just position, press, *then* drill and tap. Now that's convenient.

CONVENIENCE



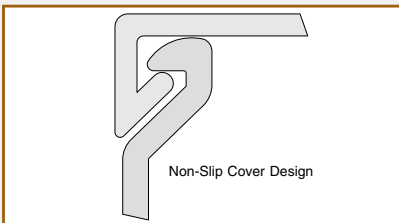
Snap-off, side wall fingers are scored to easily enlarge slots for any size wire or wire bundle. No tool is required to "snap off" fingers, and scoring ensures clean break-offs, eliminating sharp edges.

FAST WIRE ORGANIZATION



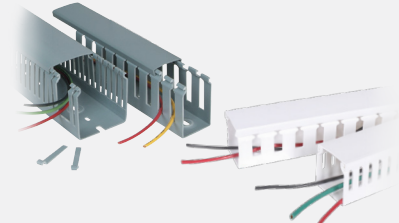
The V-shaped slot lead-in makes wire insertion fast and easy.

NON-SLIP COVER



Interlocking, non-slip cover with two contact points prevents the cover from sliding, even in high vibration applications—and ensures a rigid duct assembly.

CUSTOMIZATION



Two slot types are available to meet your capacity and flexibility needs: Narrow Slot for more precise wiring and Wide Slot for larger wires and bundles.

FIND IT FAST

Wiring Duct



c3controls.com

- Certifications
- Specifications
- Dimension Drawings
- Installation Instructions
- Easy to Buy

IT'S EASY TO BUILD YOUR OWN WIRING DUCT

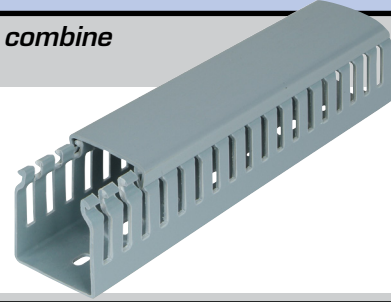
Simply pick the code number from each of the sections below and combine them to build your part number.

Narrow (Thin) Slot Wiring Duct

WD - B **N** -

I *II* *III* *IV* *V* *VI*

Example: To build one of our most popular Wiring Ducts, the part number would be **WD + B + III + N + V + VI** or **WD-B40X40N**



I. WIRING DUCT

CODE	DESCRIPTION
WD	Wiring Duct

II. WIRING DUCT TYPE

CODE	DESCRIPTION
B	Rigid, "U" Shaped Duct with Non-Slip Cover

III. DIMENSION

CODE	DIMENSIONS IN MM (WIDTH X HEIGHT), LENGTH: 2 METERS	DIMENSIONS IN INCHES (WIDTH X HEIGHT), LENGTH: 6'-6.75"	STANDARD PACKAGE QTY.*	LIST/PC.
25X30	25 x 30	0.98 x 1.18	36	\$ 26.00
25X40	25 x 40	0.98 x 1.57	36	\$ 32.00
25X60	25 x 60	0.98 x 2.36	18	\$ 35.00
25X80	25 x 80	0.98 x 3.15	18	\$ 43.00
25X100	25 x 100	0.98 x 3.94	18	\$ 50.00
40X40	40 x 40	1.57 x 1.57	18	\$ 36.00
40X60	40 x 60	1.57 x 2.36	18	\$ 39.00
40X80	40 x 80	1.57 x 3.15	18	\$ 47.00
40X100	40 x 100	1.57 x 3.94	12	\$ 54.00
60X60	60 x 60	2.36 x 2.36	12	\$ 48.00
60X80	60 x 80	2.36 x 3.15	12	\$ 59.00
60X100	60 x 100	2.36 x 3.94	8	\$ 67.00
80X80	80 x 80	3.15 x 3.15	12	\$ 61.00

*NOTE: Smaller package quantities are available. A \$10.00 handling fee applies for each part number. Consult factory for details.

IV. SLOT TYPE

CODE	DESCRIPTION	DIMENSIONS
N	Narrow (Thin)	See Figure 1N on page 11

V. COLOR

CODE	COLOR
(Blank)	Grey
WH	White

VI. ADHESIVE BACK*

CODE	DESCRIPTION	LIST/PC.
(Blank)	No Adhesive Back	—
A	Adhesive Back for 25mm Wide	\$ 3.80
A	Adhesive Back for 40mm & 60mm Wide	\$ 7.40
A	Adhesive Back for 80mm Wide	\$ 11.00

*NOTE: Surface MUST be clean and dry—free of dirt, grease, oil, water, etc.—before applying Adhesive Backed Wiring Duct.

**DISCOUNT
SCHEDULE** **G**

SOME OF OUR POPULAR CONFIGURATIONS:

WIRING DUCT—NARROW (THIN) SLOT

CATALOG NUMBER	DESCRIPTION	LIST/PC.
WD-B25X60N	Wiring Duct & Cover, W: 25mm (0.98") x H: 60mm (2.36"), Narrow (Thin) Slot, Grey	\$ 35.00
WD-B40X60N	Wiring Duct & Cover, W: 40mm (1.57") x H: 60mm (2.36"), Narrow (Thin) Slot, Grey	\$ 39.00
WD-B40X80N	Wiring Duct & Cover, W: 40mm (1.57") x H: 80mm (3.15"), Narrow (Thin) Slot, Grey	\$ 47.00
WD-B60X80N	Wiring Duct & Cover, W: 60mm (2.36") x H: 80mm (3.15"), Narrow (Thin) Slot, Grey	\$ 59.00
WD-B25X60NWH	Wiring Duct & Cover, W: 25mm (0.98") x H: 60mm (2.36"), Narrow (Thin) Slot, White	\$ 35.00
WD-B40X60NWH	Wiring Duct & Cover, W: 40mm (1.57") x H: 60mm (2.36"), Narrow (Thin) Slot, White	\$ 39.00
WD-B40X80NWH	Wiring Duct & Cover, W: 40mm (1.57") x H: 80mm (3.15"), Narrow (Thin) Slot, White	\$ 47.00
WD-B25X60N-A	Wiring Duct & Cover, W: 25mm (0.98") x H: 60mm (2.36"), Narrow (Thin) Slot, Grey w/Adhesive Backing	\$ 38.80
WD-B60X80N-A	Wiring Duct & Cover, W: 60mm (2.36") x H: 80mm (3.15"), Narrow (Thin) Slot, Grey w/Adhesive Backing	\$ 66.40

IT'S EASY TO BUILD YOUR OWN WIRING DUCT

Simply pick the code number from each of the sections below and combine them to build your part number.

Wide (Standard) Slot Wiring Duct

WD - B **W** -

I II III IV V VI

Example: To build one of our most popular Wiring Ducts, the part number would be **WD + B + III + W + V + VI** or **WD-B40X40W**

**I. WIRING DUCT**

CODE	DESCRIPTION
WD	Wiring Duct

II. WIRING DUCT TYPE

CODE	DESCRIPTION
B	Rigid, "U" Shaped Duct with Non-Slip Cover

III. DIMENSION

CODE	DIMENSIONS IN MM (WIDTH X HEIGHT), LENGTH: 2 METERS	DIMENSIONS IN INCHES (WIDTH X HEIGHT), LENGTH: 6'-6.75"	STANDARD PACKAGE QTY.*	LIST/PC.
25X30	25 x 30	0.98 x 1.18	36	\$ 26.00
25X40	25 x 40	0.98 x 1.57	36	\$ 32.00
25X60	25 x 60	0.98 x 2.36	18	\$ 35.00
25X80	25 x 80	0.98 x 3.15	18	\$ 43.00
25X100	25 x 100	0.98 x 3.94	18	\$ 50.00
40X40	40 x 40	1.57 x 1.57	18	\$ 36.00
40X60	40 x 60	1.57 x 2.36	18	\$ 39.00
40X80	40 x 80	1.57 x 3.15	18	\$ 47.00
40X100	40 x 100	1.57 x 3.94	12	\$ 54.00
60X60	60 x 60	2.36 x 2.36	12	\$ 48.00
60X80	60 x 80	2.36 x 3.15	12	\$ 59.00
60X100	60 x 100	2.36 x 3.94	8	\$ 67.00
80X80	80 x 80	3.15 x 3.15	12	\$ 61.00

*NOTE: Smaller package quantities are available. A \$10.00 handling fee applies for each part number. Consult factory for details.

IV. SLOT TYPE

CODE	DESCRIPTION	DIMENSIONS
W	Wide (Standard)	See Figure 1W on page 11

V. COLOR

CODE	COLOR
(Blank)	Grey
WH	White

VI. ADHESIVE BACK*

CODE	DESCRIPTION	LIST/PC.
(Blank)	No Adhesive Back	—
A	Adhesive Back for 25mm Wide	\$ 3.80
A	Adhesive Back for 40mm & 60mm Wide	\$ 7.40
A	Adhesive Back for 80mm Wide	\$ 11.00

*NOTE: Surface MUST be clean and dry—free of dirt, grease, oil, water, etc.—before applying Adhesive Backed Wiring Duct.

DISCOUNT
SCHEDULE **G**

SOME OF OUR POPULAR CONFIGURATIONS:

WIRING DUCT—WIDE (STANDARD) SLOT		
CATALOG NUMBER	DESCRIPTION	LIST/PC.
WD-B25X60W	Wiring Duct & Cover, W: 25mm (0.98") x H: 60mm (2.36"), Wide (Standard) Slot, Grey	\$ 35.00
WD-B40X60W	Wiring Duct & Cover, W: 40mm (1.57") x H: 60mm (2.36"), Wide (Standard) Slot, Grey	\$ 39.00
WD-B40X80W	Wiring Duct & Cover, W: 40mm (1.57") x H: 80mm (3.15"), Wide (Standard) Slot, Grey	\$ 47.00
WD-B60X80W	Wiring Duct & Cover, W: 60mm (2.36") x H: 80mm (3.15"), Wide (Standard) Slot, Grey	\$ 59.00
WD-B25X60WWH	Wiring Duct & Cover, W: 25mm (0.98") x H: 60mm (2.36"), Wide (Standard) Slot, White	\$ 35.00
WD-B40X60WWH	Wiring Duct & Cover, W: 40mm (1.57") x H: 60mm (2.36"), Wide (Standard) Slot, White	\$ 39.00
WD-B40X80WWH	Wiring Duct & Cover, W: 40mm (1.57") x H: 80mm (3.15"), Wide (Standard) Slot, White	\$ 47.00
WD-B25X60W-A	Wiring Duct & Cover, W: 25mm (0.98") x H: 60mm (2.36"), Wide (Standard) Slot, Grey w/Adhesive Backing	\$ 38.80
WD-B60X80W-A	Wiring Duct & Cover, W: 60mm (2.36") x H: 80mm (3.15"), Wide (Standard) Slot, Grey w/Adhesive Backing	\$ 66.40

WIRING DUCT

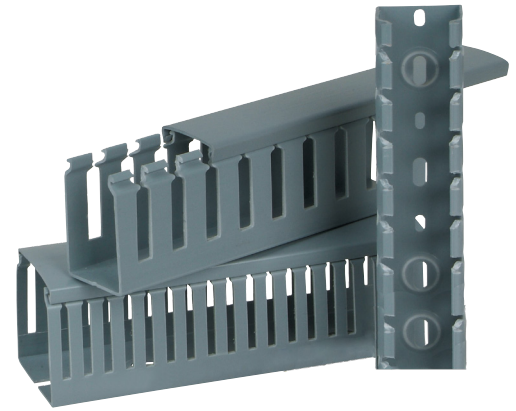
c3controls Series WD Wiring Duct includes a wide variety of types and options to simplify and optimize your wire/cable management and installation. By using all of the features of the Series WD Wiring Duct, you'll increase your wiring productivity, reduce installation costs, and end up with the most organized and attractive control panels the industry has to offer.

Wiring duct and covers are constructed of rigid, non-flammable (UL94 V-0), polyvinylchloride (PVC) and are RoHS compliant. They're also UL approved and CE marked for global compliance.

Just take a look at the Series WD Wiring Duct to see what it has to offer, and how you might realize the benefits of it in combination with our other outstanding wiring products like Series WTB2 IEC Terminal Blocks, featured in Section 22.

Product features include:

- cURus, CE Marked, and RoHS compliant.
- Wiring duct (and covers) are available in both grey and white to compliment your control panel design and match your company "look and feel."

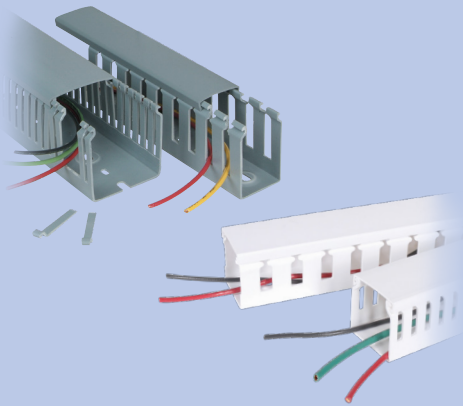


OPTIONAL ADHESIVE BACKING. CONVENIENT. ACCURATE. FAST.

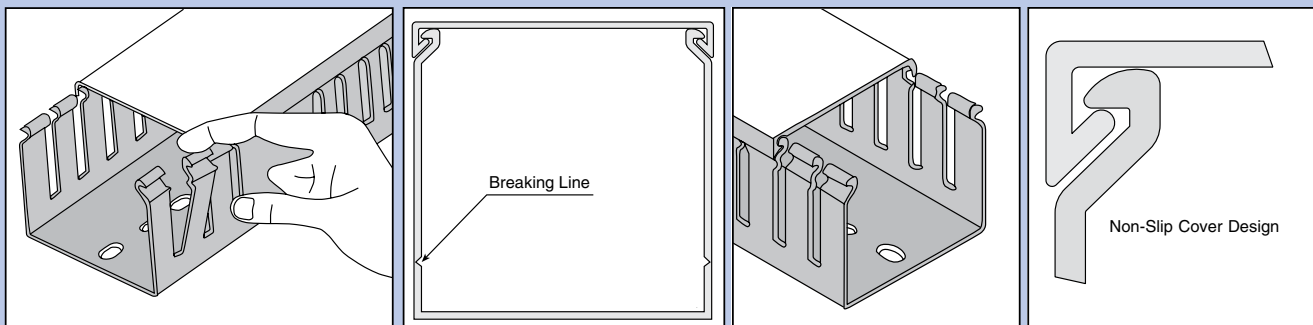
We've all been there: you measure once, twice, then tap holes to mount a wire duct in your panel and discover you didn't position the holes accurately. Whether they're off by a mile or just a hair, it's a pain.

Put an end to all the eyeballing with c3controls' optional adhesive. It's an ideal convenience feature that allows you to *temporarily* stick your wiring duct where you want it on the panel before you *permanently* mount it. Just position, press, *then* drill and tap. Now that's convenient.



UNIQUE PRODUCT FEATURES

1. V-shaped slot lead-in makes wire insertion fast and easy.
2. Snap-off, side wall fingers are scored to easily enlarge slots for any size wire or wire bundle. Scoring ensures clean break-offs, eliminating sharp edges that can damage wire insulation and abrasions to hands. No tool is required to “snap-off” fingers.
3. Two slot types are available to meet your capacity and flexibility needs, and accept almost any size wire or wire bundle:
 - Narrow Slot** – smaller fingers for more precise wiring
 - Wide Slot** – larger slots for bigger wires and bundles
4. Interlocking, non-slip cover with two contact points prevents the cover from sliding, even in high vibration applications – and ensures a rigid duct assembly.
5. Smooth, rounded edges on duct fingers and covers prevent cutting and abrasions to hands and wires.
6. Flush side-wall and duct provide increased wire capacity and a pleasing, finished look.
7. Restricted slot design ensures that wires are held in place, even when the cover is not installed.
8. Embossed mounting holes accept mounting inserts for installing smaller wiring duct inside larger wiring duct. Mounting inserts can be installed even after the wiring duct is secured to the panel.
9. Mounting hole patterns with elongated slots comply with DIN 43659 for global installation flexibility.
10. Non-flammable (UL94 V-0), rigid PVC won't warp, peel, chip, crack, or become brittle, and resists oil, salt solutions, and fungus for superior performance in even the most demanding industrial environments.
11. Wide variety of sizes to meet your wiring capacity needs:
 - Widths from 25mm (0.98”) to 80mm (3.15”)
 - Heights from 30mm (1.18”) to 100mm (3.94”)
 - Up to 21 width/height combinations in each slot type



IT'S EASY TO BUILD YOUR OWN WIRING DUCT COVER

Simply pick the code number from each of the sections below and combine them to build your part number.

Wiring Duct Covers

WD - B C
 I II III IV V

Example: To build one of our most popular Wiring Duct Covers, the part number would be **WD + B + C + IV + V** or **WD-BC40WH**

NOTE: Wiring Duct Covers are provided and included as standard in the Wiring Duct catalog numbers (and list price) configured on pages 4 & 5. Separate covers should be purchased for replacement only.



I. WIRING DUCT

CODE	DESCRIPTION
WD	Wiring Duct

II. WIRING DUCT TYPE

CODE	DESCRIPTION
B	Rigid, "U" Shaped Duct with Non-Slip Cover

III. COVER

CODE	DESCRIPTION
C	Non-Slip Cover for Rigid, "U" Shaped Duct

IV. DIMENSION

CODE	DIMENSIONS IN MM (WIDTH) LENGTH: 2 METERS	DIMENSIONS IN INCHES (WIDTH) LENGTH: 6'-6.75"	FOR USE WITH DUCT DIMENSION CODES	LIST
25	25	0.98	25X30	\$12.00
			25X40	
			25X60	
			25X80	
			25X100	
40	40	1.57	40X40	\$15.20
			40X60	
			40X80	
			40X100	
60	60	2.36	60X40	\$16.20
			60X60	
			60X80	
			60X100	
80	80	3.15	80X80	\$23.75

V. COLOR

CODE	COLOR
(Blank)	Grey
WH	White

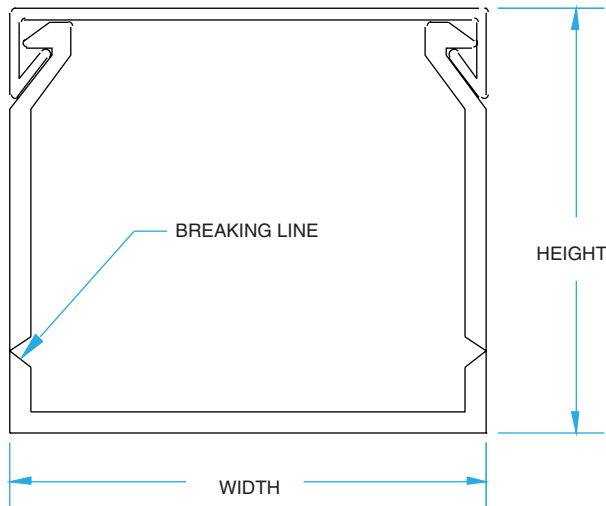


SPECIFICATIONS:

WIRING DUCT SPECIFICATIONS

GENERAL			
	UNITS		
MATERIALS		Rigid, Self-Extinguishing PVC	
RoHS COMPLIANCE		For RoHS Compliance documentation by product, refer to c3controls.com	
CONTINUOUS USE TEMPERATURE	°F / °C	+5 to +140 / -15 to +60	
FLAMMABILITY		UL94 V-0	
STANDARD WIRING DUCT AND COVER LENGTH		2 meters (6'-6.75")	
STANDARD UNIT		Wiring Duct complete with Cover	
MATERIAL PROPERTY			
	UNITS	STANDARD	VALUE
Tensile Strength at Break	kg/cm ²	ASTM D838	>390
Tensile Modulus	kg/cm ²	ASTM D638	13,500
Flexural Strength	kg/cm ²	ASTM D790	550
Compressive Strength	kg/cm ²	ASTM D695	1190
Izod Impact Strength	kg-cm/cm	ASTM D256	7.0
Hardness - Shore D	—	ASTM D2240	75-80
HDT at 4.6 kg/cm ²	°C	ASTM D648	85
Vicat Softening Point at 5 kg Load	°C	ASTM D1525	85
Co-efficient of Linear Thermal Expansion	°C	ASTM D696	4.6 x 10 ⁻⁵
Flammability	—	UL94	V-0
Glow Wire Test (2mm)	°C	IEC 695-2-1	960
Limiting Oxygen Index	%	ASTM D2863	48.0
Specific Gravity	—	ASTM D792	1.48
Water Absorption	%	ASTM D570	0.05
Power Factor	—	ASTM D150	0.018
Dielectric Constant	—	ASTM D150	2.5
Dielectric Strength	kV/mm	ASTM D149	13
Surface Resistivity	Ohm	ASTM D257	1.29 x 10 ¹⁵
Volume Resistivity	Ohm-cm	ASTM D257	3.21 x 10 ¹⁶
Lead Content	ppm	Directive 2002/95/EC (IEC 61321)	<500
Cadmium Content	ppm		<50

WIRING DUCT AND COVER



WIRING DUCT AND COVER DIMENSIONS

DIMENSION CODE	WIDTH (MM)	HEIGHT (MM)	WIDTH (INCHES)	HEIGHT (INCHES)
25X30	25	30	0.98	1.18
25X40	25	40	0.98	1.57
25X60	25	60	0.98	2.36
25X80	25	80	0.98	3.15
25X100	25	100	0.98	3.94
40X40	40	40	1.57	1.57
40X60	40	60	1.57	2.36
40X80	40	80	1.57	3.15
40X100	40	100	1.57	3.94
60X60	60	60	2.36	2.36
60X80	60	80	2.36	3.15
60X100	60	100	2.36	3.94
80X80	80	80	3.15	3.15

SLOTS

FIGURE 1N
NARROW (THIN)
SLOT

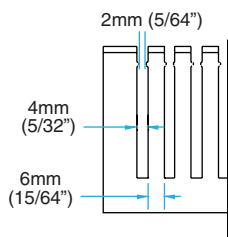
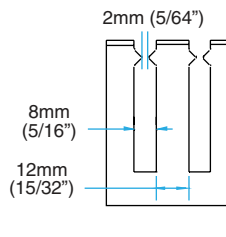
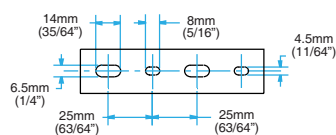


FIGURE 1W
WIDE (STANDARD)
SLOT

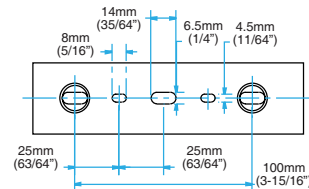


MOUNTING PATTERNS

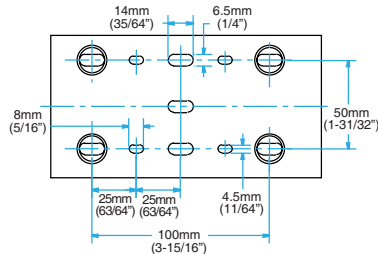
DUCT WIDTH: 25mm



DUCT WIDTH: 40mm and 60mm



DUCT WIDTH: 80mm



Formula for calculating Fill Capacity: $\text{Number of wires} = \frac{\text{Duct } W \times H}{1.75 \times (\text{Wire O.D.})^2} \div 2$

Note: Wire fill is based on 50% fill of duct area.

WIRE FILL CAPACITY FOR ELECTRICAL CONDUCTORS

							ELECTRICAL CONDUCTORS											
NOMINAL DUCT SIZE			NOMINAL DUCT SIZE			22 AWG	18 AWG			16 AWG		14 AWG			12 AWG		10 AWG	8 AWG
DIMENSION CODE	WIDTH (MM)	HEIGHT (MM)	AREA (MM ²)	WIDTH (IN.)	HEIGHT (IN.)	AREA (IN ²)	0.065	0.113	0.084	0.125	0.096	0.165	0.139	0.105	0.158	0.122	0.153	0.216
							MTW	MTW	THHN	MTW	THHN	MTW	MTW	THHN	MTW	THHN	THHN	THHN
25X30	25	30	750	0.98	1.18	1.16	78	26	47	21	36	12	17	30	13	22	14	7
25X40	25	40	1,000	0.98	1.57	1.54	104	34	62	28	48	16	23	40	18	30	19	9
25X60	25	60	1,500	0.98	2.36	2.31	156	52	94	42	72	24	34	60	26	44	28	14
25X80	25	80	2,000	0.98	3.15	3.09	209	69	125	57	96	32	46	80	35	59	38	19
25X100	25	100	2,500	0.98	3.94	3.86	261	86	156	71	120	41	57	100	44	74	47	24
40X40	40	40	1,600	1.57	1.57	2.46	166	55	100	45	76	26	36	64	28	47	30	15
40X60	40	60	2,400	1.57	2.36	3.71	251	83	150	68	115	39	55	96	42	71	45	23
40X80	40	80	3,200	1.57	3.15	4.95	335	111	200	91	153	52	73	128	57	95	60	30
40X100	40	100	4,000	1.57	3.94	6.19	419	139	251	113	192	65	92	160	71	119	76	38
60X60	60	60	3,600	2.36	2.36	5.57	377	125	226	102	173	58	82	144	64	107	68	34
60X80	60	80	4,800	2.36	3.15	7.43	502	166	301	136	230	78	110	193	85	143	91	46
60X100	60	100	6,000	2.36	3.94	9.30	629	208	377	170	288	98	138	241	106	179	114	57
80X80	80	80	6,400	3.15	3.15	9.92	671	222	402	181	308	104	147	257	114	190	121	61

WIRE FILL CAPACITY FOR DATA CABLE

							DATA CABLE		
NOMINAL DUCT SIZE			NOMINAL DUCT SIZE				24 AWG		
DIMENSION CODE	WIDTH (MM)	HEIGHT (MM)	AREA (MM ²)	WIDTH (IN.)	HEIGHT (IN.)	AREA (IN ²)	0.217	0.25	0.422
							UPM/CM CAT5E	CAT6	UTP/CM
25X30	25	30	750	0.98	1.18	1.16	7	5	2
25X40	25	40	1,000	0.98	1.57	1.54	9	7	2
25X60	25	60	1,500	0.98	2.36	2.31	14	11	4
25X80	25	80	2,000	0.98	3.15	3.09	19	14	5
25X100	25	100	2,500	0.98	3.94	3.86	23	18	6
40X40	40	40	1,600	1.57	1.57	2.46	15	11	4
40X60	40	60	2,400	1.57	2.36	3.71	23	17	6
40X80	40	80	3,200	1.57	3.15	4.95	30	23	8
40X100	40	100	4,000	1.57	3.94	6.19	38	28	10
60X60	60	60	3,600	2.36	2.36	5.57	34	25	9
60X80	60	80	4,800	2.36	3.15	7.43	45	34	12
60X100	60	100	6,000	2.36	3.94	9.30	56	43	15
80X80	80	80	6,400	3.15	3.15	9.92	60	45	16