# **IBOCO**\* Wire Duct – Slotted

#### Rigid PVC - Open Slot - Narrow Finger Wall T1E Series

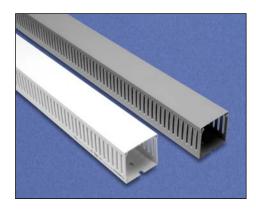
#### **Overview**

The T1E series of narrow-finger wire duct is made of rigid PVC that carries a UL 94V-0 flammability rating. Our wire duct comes in 6.56 ft [2m] or 3.28 ft [1m] lengths, complete with cover. Replacement duct covers can be purchased separately.

#### **Features**

- · Standard mounting holes
- · Narrow finger design for compact wiring configurations
- Rounded, burr-free edges will not cut installers' hands or wiring insulation
- · Non-slip cover included
- Flush cover design holds 10-12% more wires than traditional designs
- · Restricted slot design retains wires in slot for fast, easy wire installation or removal
- Temperature range -15 to 50°C [5 to 122°F]
- Available in 6.56 ft [2m] or 3.28 ft [1m] lengths

- Two predetermined break lines, one for breaking off and removing the sidewall finger segments only, and another for removing the sidewall finger and base segments
- Rivets R6 and R4 may be used to mount on panel
- Recess bosses in the base allow rapid mounting of wire retainers (CL series), inserts (ZP2) and separators (SEP series) inside the wire duct.
- · Duct base perforation according to DIN 43659 and DIN VDE 0660 TEIL 506



UL Recognized file # E123572







Gray Open Slot T1E Series						
Part Number	Qty	Length ft [m]	Price	Drawing Link		
T1E-1015G-1	1		\$22.50	PDF		
T1E-1022G-1	1		\$23.50	PDF		
T1E-1030G-1	1		\$28.50	PDF		
T1E-1515G-1	1		\$24.50	PDF		
T1E-1522G-1	1		\$25.50	PDF		
T1E-1530G-1	1		\$31.00	PDF		
T1E-1540G-1	1		\$36.50	PDF		
T1E-2215G-1	1		\$25.50	PDF		
T1E-2222G-1	1		\$27.00	PDF		
T1E-2230G-1	1	6.56 [2]	\$34.50	PDF		
T1E-2240G-1	1		\$38.00	PDF		
T1E-3015G-1	1		\$34.50	PDF		
T1E-3022G-1	1		\$35.50	PDF		
T1E-3030G-1	1		\$41.50	PDF		
T1E-3040G-1	1		\$47.00	PDF		
T1E-4015G-1	1		\$33.50	PDF		
T1E-4022G-1	1		\$39.50	PDF		
T1E-4030G-1	1		\$45.00	PDF		
T1E-4040G-1	1		\$54.00	PDF		

_			
Cover	inc	lud	led

Gray Open Slot T1E Series						
Part Number	Qty	Length ft [m]	Price	Drawing Link		
T1E-1022G1-1	1		\$13.50	PDF		
T1E-1030G1-1	1		\$16.50	PDF		
T1E-1522G1-1	1		\$14.50	PDF		
T1E-1530G1-1	1		\$17.50	PDF		
T1E-2222G1-1	1	3.28 [1]	\$15.50	PDF		
T1E-2230G1-1	1		\$19.50	PDF		
T1E-2240G1-1	1		\$21.50	PDF		
T1E-3030G1-1	1		\$22.50	PDF		
T1E-4040G1-1	1		\$29.50	PDF		

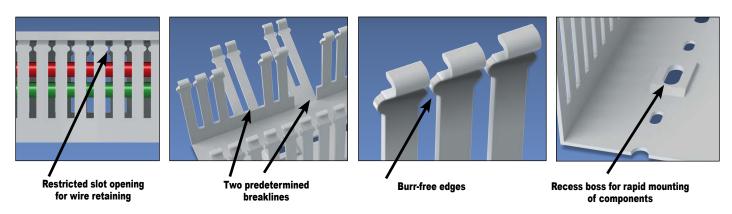
Cover included.

White Open Slot T1E Series							
Part Number	Qty	Length ft [m]	Price	Drawing Link			
<u>T1E-1015W-1</u>	1		\$22.50	PDF			
T1E-1022W-1	1		\$23.50	PDF			
T1E-1030W-1	1		\$28.50	PDF			
T1E-1515W-1	1		\$24.50	PDF			
T1E-1522W-1	1		\$25.50	PDF			
T1E-1530W-1	1		\$31.00	PDF			
T1E-1540W-1	1	6.56 [2]	\$36.50	<u>PDF</u>			
T1E-2222W-1	1		\$27.00	PDF			
T1E-2230W-1	1		\$34.50	PDF			
T1E-2240W-1	1		\$38.00	PDF			
T1E-3022W-1	1		\$35.50	PDF			
T1E-3030W-1	1		\$41.50	PDF			
T1E-3040W-1	1		\$47.00	PDF			
T1E-4030W-1	1		\$45.00	PDF			
T1E-4040W-1	1		\$54.00	PDF			

Cover included.

# (B) IBOCO Wire Duct – Slotted

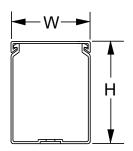
# Rigid PVC - Open Slot - Narrow Finger Wall T1E Series

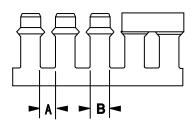


Rigid PVC - Open Slot - Narrow Finger Wall T1E Series Dimensions					
Part Number	Actual Size (WxH) inches [mm]	Dimension A inches [mm]	Dimension B inches [mm]		
T1E-1015*	1.00 x 1.57 [25 x 40]				
T1E-1022*	1.00 x 2.36 [25 x 60]				
T1E-1030*	1.00 x 3.15 [25 x 80]				
T1E-1515*	1.57 x 1.57 [40 x 40]				
T1E-1522*	1.57 x 2.36 [40 x 60]				
T1E-1530*	1.57 x 3.15 [40 x 80]	]			
T1E-1540*	1.57 x 3.94 [40 x 100]				
T1E-2215*	2.36 x 1.57 [60 x 40]				
T1E-2222*	2.36 x 2.36 [60 x 60]				
T1E-2230*	2.36 x 3.15 [60 x 80]	0.16 [4.06]	0.24 [6.10]		
T1E-2240*	2.36 x 3.94 [60 x 100]				
T1E-3015*	3.15 x 1.57 [80 x 40]				
T1E-3022*	3.15 x 2.36 [80 x 60]				
T1E-3030*	3.15 x 3.15 [80 x 80]				
T1E-3040*	3.15 x 3.94 [80 x 100]				
T1E-4015*	3.94 x 1.57 [100 x 40]				
T1E-4022*	3.94 x 2.36 [100 x 60]				
T1E-4030*	3.94 x 3.15 [100 x 80]				
T1E-4040*	3.94 x 3.94 [100 x 100]				

### \*Color: add suffix "G" for light Gray, add suffix "W" for White. (White only available in the 2m length.) See previous page for complete part numbers.

#### **Dimensions**





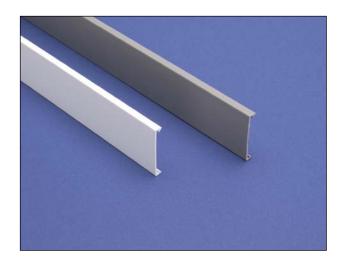
# **IBOCO** Wire Duct Wire Fill Capacity

### Wire Fill Capacity

T	1, T1E, T	SH Seri	es Wire F	ill Capaci	ty			
			Wire (	Gauge				
	12AWG	14	AWG	16AWG	18AWG	22AWG		
Nominal Duct Size	Insulation Thickness							
(inches)	1/32	1/32 3/64 1/32 1/32			1/32	1/64		
	OD-0.158	0D-0.165	OD-0.139	OD-0.125	OD-0.113	OD-0.065		
	R	ecommende	d Maximum Nu (based on 50%	mber of Wires 6 fill capacity)	per Wire Duct			
1/2 x 5/8	7	6	9	11	14	43		
1/2 x 1	12	11	16	20	24	74		
1 x 1	22	21	29	36	44	134		
1 x 1 1/2	31	28	39	48	59	180		
1 x 2 1/4	45	40	57	71	85	261		
1 x 3	59	53	75	92	113	341		
1 x 4	72	66	93	115	141	426		
1 1/2 x 1 1/2	51	46	65	81	99	299		
1 1/2 x 2 1/4	77	70	98	121	148	449		
1 1/2 x 3	102	92	130	160	196	593		
1 1/2 x 4	125	113	159	197	241	729		
2 1/4 x 1 1/2	78	70	99	123	150	453		
2 1/4 x 2 1/4	114	103	146	180	221	667		
2 1/4 x 3	156	141	199	246	302	912		
2 1/4 x 4	194	176	247	306	375	1132		
3 x 1 1/2	105	95	134	165	203	612		
3 x 2 1/4	159	144	203	251	307	928		
3 x 3	214	193	272	337	412	1246		
3 x 4	267	242	341	421	515	1558		
3 x 5	309	283	399	493	604	1826		
4 x 1 1/2	132	120	169	208	255	771		
4 x 2 1/4	201	182	256	316	387	1171		
4 x 3	270	244	344	425	520	1573		
4 x 4	336	305	429	531	650	1963		
4 x 5	415	381	536	663	812	2455		
6 x 4	512	464	653	807	988	2987		

www.automationdirect.com Wiring Solutions tWIR-8

## **IBOCO**° Wire Duct – Covers



#### **Duct Cover**

Our standard wire duct products are supplied complete with covers. These replacement covers are manufactured from the same rigid self-extinguishing PVC material.

UL Recognized file # E123572

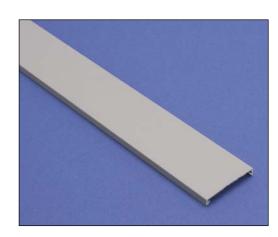


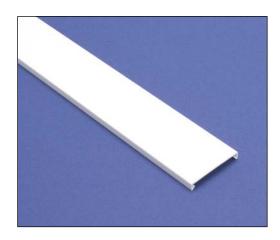




	Duct Cover Specifications						
Part Number	Price	Description	Color	Qty	Actual Total Length ft [m]		
COV-05G-1	\$5.25	Cover for 0.5" wide duct	Gray	1			
COV-10G-1	\$5.25	Cover for 1.0" wide duct	Gray	1			
COV-10W-1	\$5.25	Cover for 1.0" wide duct	White	1			
COV-15G-1	\$6.75	Cover for 1.5" wide duct	Gray	1			
COV-15W-1	\$6.75	Cover for 1.5" wide duct	White	1			
COV-22G-1	\$8.50	Cover for 2.25" wide duct	Gray	1			
COV-22W-1	\$8.50	Cover for 2.25" wide duct	White	1	6.56 [2]		
COV-30G-1	\$12.50	Cover for 3.0" wide duct	Gray	1			
COV-30W-1	\$12.50	Cover for 3.0" wide duct	White	1			
COV-40G-1	\$15.00	Cover for 4.0" wide duct	Gray	1			
COV-40W-1	\$15.00	Cover for 4.0" wide duct	White	1			
COV-60G-1	\$28.50	Cover for 6.0" wide duct	Gray	1			
COV-60W-1	\$28.50	Cover for 6.0" wide duct	White	1			



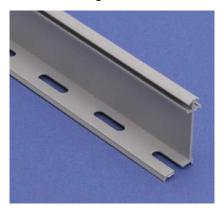




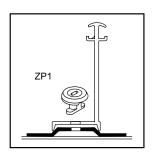
## (B) IBOCO Wire Duct – Accessories

### **Duct Separators**

Duct separators allow the physical separation of circuits within a single piece of duct. The various mounting arrangements allow alternate compartmentalization of duct and differing ratios of usable sections.



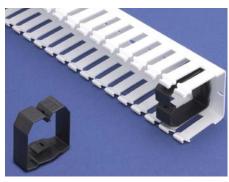
Duct Separators						
Part Number	Price	Description	Color	Qty	Length ft [m]	Drawing Link
SEP-15E-1	\$8.50	Separator for 1.5" high duct	Gray	1		PDF
SEP-22E-1	\$11.50	Separator for 2.25" high duct	Gray	1	6.56 [2]	PDF
SEP-30E-1	\$12.50	Separator for 3.0" high duct	Gray	1		PDF



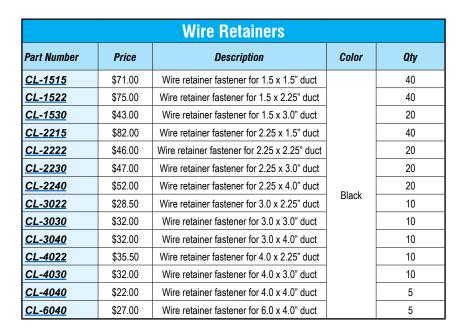
SEP-E Mounting Detail Order <u>ZP1</u> mount separately

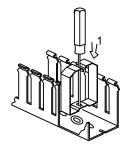
#### Wire Retainers

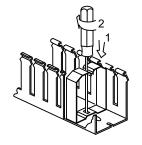
For holding wires during wiring operations, these retainers are essential. They allow easy access to the interior of the wire duct during maintenance or alterations, while assuring that wiring bundles will not fall out when the duct cover is removed. Installed with a simple rotating movement, they anchor firmly in the recess boss in the duct base.

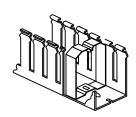


-W-	$W = 1^{1}/_{2}" - 2^{1}/_{4}"$
W—W—	W = 3" - 4"
	W = 6"





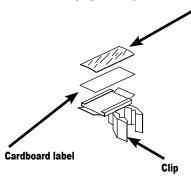




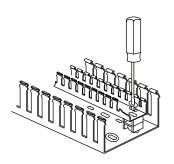
### **IBOCO** Wire Duct – Accessories

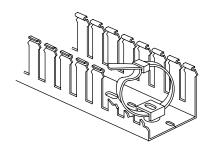
Duct Marking Tags					
Part Number	Price	Description	Qty		
<u>DM1</u>	\$32.00	Single-width white cardboard identification label for wire duct. Supplied with black plastic mounting clip and transparent plastic cover slide	50		

Note: DM1 marking tags can only be used with T1 series wire duct.



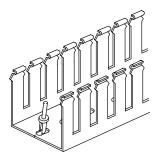
Mounting Devices					
Part Number	Price	Description	Qty		
ZP1	\$17.00	Round, white polyamide 'button' used to mount components and separators inside duct.	100		
ZP2	\$20.50	Square white polyamide cable tie mount used to tighten a wire bundle inside duct.	50		





Wire Duct Rivets and Rivet Tools						
Part Number	Price	Description	Qty			
<u>R4*</u>	\$19.50	Blue polyamide rivet used to install all types of wire duct with standard 4.5 mm [0.17 in] mounting holes.	250			
<u>B4</u>	\$51.00	Red polyamide rivet tool used to install R4 rivets.	1			
<u>R6*</u>	\$22.50	Natural polyamide rivet used to install all types of wire duct with standard 6.5 mm [0.26 in] mounting holes.	250			
<u>B6</u>	\$51.00	Yellow polyamide rivet tool used to install R6 rivets.	1			

<sup>\*</sup> R4 drill hole size - 5/32" (4mm), R6 drill hole size - 7/32" [5.5 mm] When using with Flexible wire duct, only the R4 rivet will currently work.



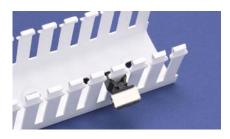




### **Identification Tags**

Allowing easy identification of control gear and switchgear, these tags are mounted by snapping the clip onto the sidewall finger segments of the duct. No gluing - no drilling! After installation, they need not be removed during maintenance or any work which involves the removal of the covers.

Note: Take care that clip is installed above the wires coming out to the sidewall slots.



#### **Mounting Inserts**

We carry mounts in two styles: ZP1 for mounting components and SEP-E separators inside duct, or for mounting small sizes of duct inside larger sizes (for separation of circuits with different functions); and ZP2, which is used with a cable tie to secure a wire bundle inside the duct.



#### **Rivets and Rivet Tools**

Wire duct rivets install quickly and easily with the companion rivet tool, offering good temperature resistance and excellent mechanical properties. They can be used to install all types of wire duct with standard mounting holes.





## **IBOCO** Wire Duct – Material **Specifications**

Material Specifications								
Materials	Test Standard	Unit of Measure	Rigid PVC	Polypropylene	PVC Molded Components	Polyamide 6	Polyethylene	Flame Retardant Polyethylene
Technical Characteristics								
Chemical/Physical Properties								
Specific Gravity	ASTM D792	g/cm³	1.55	1.01	1.32	1.14	0.92	0.97
H <sub>2</sub> O 73.4°F Absorption	ISO 62	%	< 0.1	0.02	< 0.1	2.5	< 0.1	< 0.1
Formaldehyde	-	ppm	absent	absent	absent	absent	absent	absent
Cadmium	-	ppm	absent	absent	absent	absent	absent	absent
Mechanical Properties								
Tensile Stress at Break	ASTM D638	MPa	39	28	30	45	17	15
Traction Strength	ASTM D638	MPa	44	27	27	55	9.5	9
Elongation at Break	ASTM D638	%	130	200	97	250	400	600
Modulus of Elasticity at Traction	ASTM D638	MPa	4400	n/a	-	950	-	240
Modulus of Elasticity at Flexion	ASTM D790	MPa	3200	2100	_	1100	210	130
Thermal Properties								
Temperature VICAT	ASTM D1525	°C	84	95	70	198	89	-
HDT	ASTM D648	°C	72	60	60	185	_	-
Coefficient of Expansion	ASTM D696	K-1	6x10⁻⁵	10-5	8x10 <sup>-5</sup>	8-10x10 <sup>-5</sup>	22x10⁻⁵	10 <sup>-5</sup>
Specific Heat	ASTM C351	kJ/kgK	0.94	n/a	1.24	1.7	_	-
Thermal Conductivity	ASTM C177	W/mK	0.14	0.21	0.14	0.29	0.32	0.32
Electrical Properties								
Dielectric Constant	ASTM D150	-	3.2 - 4.0	2.5	3.2	5.0	2.4	2.3
Dielectric Strength	IEC 243	kV/mm	70	25	60	35	90	90
Surface Resistance	IEC 93	Ω	10 <sup>13</sup>	10 <sup>13</sup>	10 <sup>13</sup>	5x10 <sup>11</sup>	10 <sup>13</sup>	10 <sup>13</sup>
Self-Extinguishing								
Self-Extinguishing UL 94 1.6 mm	UL 94	-	V-0	V-0	V-0	V-2	НВ	V-2
Self-Extinguishing UL 94 3.2 mm	UL 94	_	V-0	V-0	V-0	V-2	НВ	V-2
Hot Wire Test (2 mm)	IEC 695-2-1	°C	960	960	960	650	650	850
Oxygen Number	ASTM D2863	%	43	30	34	25	_	25

www.automationdirect.com