

CATALOGUE

13

CANAL?LAST®

ADVANCED TECHNOLOGIES FOR TRUNKING SYSTEMS



## TRUNKING SPECIALISTS

### Who we are

**CANALPLAST** is, since more than 35 years, a specialized company in the production and development of trunking systems for electrical installation. Our effort, the technology of our production and the quality of our products bring our presence in the national markets and make us grow more and more towards the international ones, placing us among the leaders of the sector, with a network of agencies and own promoters that constantly cooperate with the clients and their design dept., and having as partners the distributors of electric material with which we collaborate for the "satisfaction of the end client".



### A strategic structure

**CANALPLAST's** facilities cover an area of more than 20.000 m<sup>2</sup>. Using constantly updated technologies,

**CANALPLAST** produces profiles made of high quality materials. These products follow a rigid quality control procedure, from production to packing and storing.

**CANALPLAST's** facilities house the Research and Development department, as well as administrative and production departments.

Approximately 1500 stock items are stored in our 7.500 m<sup>2</sup> warehouse. A Customer Care department is in charge of coordinating all orders, from placement to final shipment to the customer.



## WE SAFEGUARD YOUR ENERGY

**OLAN** produces and sells electrical installation equipment since 1979, with the objective to meet the installation demands, with a range of solutions, articulated in different series of products for different markets. In the course of the years the offer has been enriched with new products in order to offer the market a full and articulated range.

From its origin, the company has pursued the goal of quality; in recent years it has invested to expand its design and production facilities, with the aim of achieving better product quality and safety, in compliance with existing standards. The product range growth was performed not only by thinking of the internal market, but mainly of the overseas markets. Product reliability is the fruit of a long experience in the field of plastic molding, this made it possible to continuously improve the production standard.

In overseas markets the company is present through importers and agents; now it exports its products to over 50 countries distributed in four continents.

All activities are now incorporated within the structures and services provided by Canalplast, thus making the catalog is a truly unique and comprehensive proposal.

# SAFETY AND RESISTANCE

## Tested value

Production at Canalplast is constantly supervised and monitored by technical staff from the Quality Control Department, to guarantee full compliance and conformity to the specific legal requirements and to obtain a high quality product with continuous improvements. The company invests resources, incurring in major expenditures, for the researching and testing materials, for equipment, machinery and the development of new products.



Refrigerator to prepare samples for low temperature shock tests.



Apparatus for finger-removal and side-segment removal test.



Cabin for age acceleration test.



Apparatus for testing side walls and lids lowering.



Apparatus for testing heat resistance (850° C) GWT.



Apparatus for shock testing at room temperature.



Apparatus for shock testing at low temperature.



Apparatus for testing heat resistance.



Apparatus for insulation resistance above 100 MΩ.



Apparatus for flame propagation resistance test.

## Certified quality

For us, **quality is not a slogan**, but a term that implies strict adherence to creating a product of the highest quality. IMQ, CSA UL and GOST certifications are an evidence of **CANALPLAST's** quality mission. Since 1991, Canalplast has also received the CSQ, ISO 9001:2008 Certification.



## A service always on line

**CANALPLAST** gives prompt answers at any time regarding any information required. **Experts are available** to clarify all possible doubts, give clear-cut explanations and solve any service-related problem.

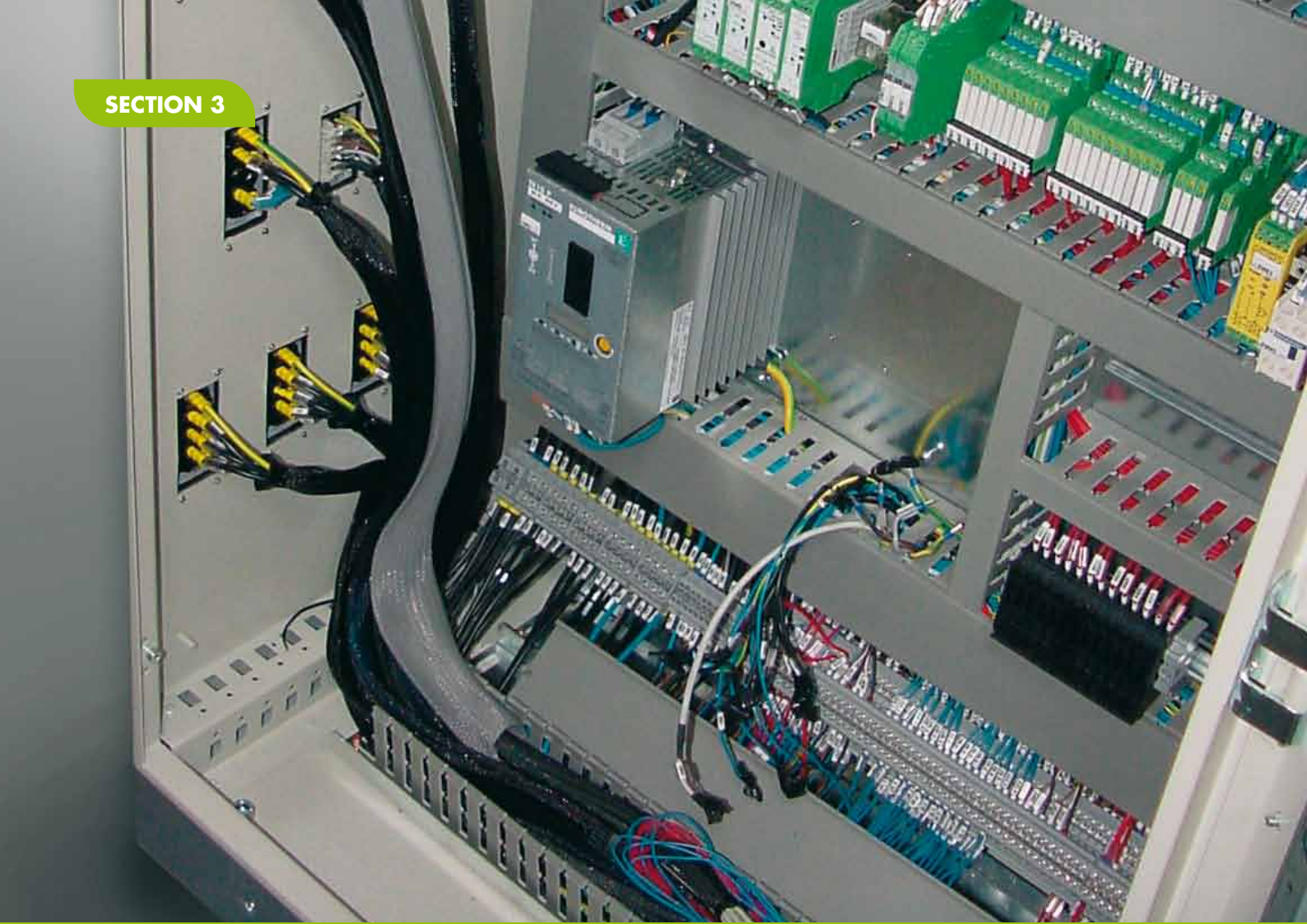
**+39 02.9906421**



**www.canalplast.com**  
**www.olansrl.com**

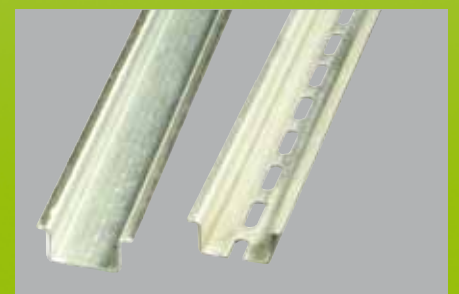


The websites contain **all the most important information, the events** at which Canalplast and Olan participate, new promotions and initiatives, besides as well as the product catalogue. A fast and ultra-convenient means of contacting **Canalplast** and **Olan** in real time.



# INDUSTRIAL SWITCHBOARDS

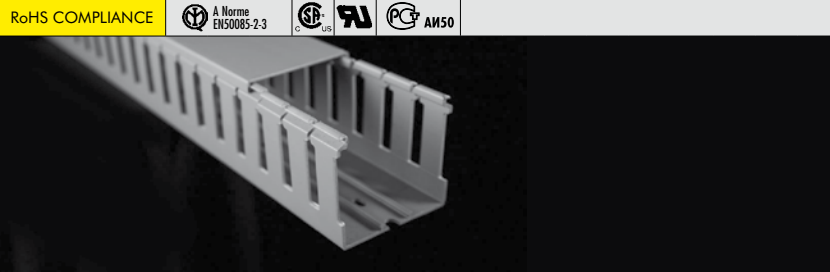
- ▶ WIRING DUCTS
- ▶ TRUNKINGS FOR LIFTS
- ▶ HALOGEN FREE WIRE DUCTS FOR SWITCHBOARDS
- ▶ ACCESSORIES
- ▶ DIN RAILS



INDUSTRIAL SWITCHBOARDS

WIRING DUCTS

"E SERIES" WIRE DUCTS WITH 8mm SLOTS - FINGERS 12mm - LENGTH 2m.



| CODE | BOTTOM SECTION | B mm | H mm | PACK m | PACK m <sup>3</sup> | PACK Kg | PALLET m | TECHNICAL DATA |    |    |    |
|------|----------------|------|------|--------|---------------------|---------|----------|----------------|----|----|----|
|      |                |      |      |        |                     |         |          | FIG.           | C  | D  | P  |
| E16  | [Diagram]      | 25   | 30   | 80     | 0,057               | 16,0    | 1600     | 1              | 8  | 12 | 20 |
| E13  |                |      | 40   | 60     | 0,051               | 15,8    | 1500     | 1              | 8  | 12 | 20 |
| E7   |                |      | 60   | 40     | 0,051               | 15,0    | 1000     | 1              | 8  | 12 | 20 |
| E14  |                |      | 80   | 32     | 0,057               | 15,6    | 640      | 2              | 8  | 12 | 20 |
| E34  |                |      | 100  | 24     | 0,057               | 13,8    | 480      | 2              | 8  | 12 | 20 |
| E23  | [Diagram]      | 40   | 30   | 48     | 0,051               | 13,5    | 1200     | 1              | 8  | 12 | 20 |
| E8   |                |      | 40   | 40     | 0,057               | 14,2    | 800      | 1              | 8  | 12 | 20 |
| E5   |                |      | 60   | 36     | 0,069               | 17,8    | 720      | 1              | 8  | 12 | 20 |
| E15  |                |      | 80   | 24     | 0,057               | 14,7    | 480      | 2              | 8  | 12 | 20 |
| E35  |                |      | 100  | 16     | 0,051               | 14,1    | 400      | 2              | 8  | 12 | 20 |
| E24  | [Diagram]      | 60   | 30   | 32     | 0,051               | 14,4    | 800      | 1              | 8  | 12 | 20 |
| E4   |                |      | 40   | 24     | 0,051               | 11,4    | 600      | 1              | 8  | 12 | 20 |
| E9   |                |      | 60   | 24     | 0,069               | 15,5    | 480      | 1              | 8  | 12 | 20 |
| E11  |                |      | 80   | 24     | 0,081               | 18,5    | 360      | 2              | 8  | 12 | 20 |
| E18  |                |      | 100  | 16     | 0,074               | 16,9    | 320      | 2              | 8  | 12 | 20 |
| E26  | [Diagram]      | 80   | 40   | 24     | 0,069               | 14,3    | 480      | 1              | 8  | 12 | 20 |
| E6   |                |      | 60   | 24     | 0,092               | 19,2    | 288      | 1              | 8  | 12 | 20 |
| E12  |                |      | 80   | 24     | 0,110               | 21,7    | 288      | 2              | 8  | 12 | 20 |
| E36  |                |      | 100  | 16     | 0,093               | 19,8    | 192      | 2              | 8  | 12 | 20 |
| E27  |                |      | 40   | 16     | 0,057               | 12,3    | 320      | 1              | 8  | 12 | 20 |
| E17  | [Diagram]      | 100  | 60   | 20     | 0,092               | 18,7    | 240      | 1              | 8  | 12 | 20 |
| E19  |                |      | 80   | 16     | 0,092               | 18,1    | 192      | 1              | 8  | 12 | 20 |
| E37  | [Diagram]      | 100  | 100  | 16     | 0,114               | 21,5    | 192      | 2              | 8  | 12 | 20 |
| E43  | 150            |      | 8    | 0,085  | 14,6                | 120     | 3        | 20             | 30 | 50 |    |
| E28  | [Diagram]      | 120  | 40   | 20     | 0,081               | 18,2    | 300      | 1              | 8  | 12 | 20 |
| E10  |                |      | 60   | 16     | 0,085               | 17,5    | 240      | 1              | 8  | 12 | 20 |
| E32  |                |      | 80   | 16     | 0,106               | 20,5    | 192      | 2              | 8  | 12 | 20 |
| E38  |                |      | 100  | 8      | 0,071               | 12,6    | 120      | 2              | 8  | 12 | 20 |
| E30  |                |      | 60   | 12     | 0,081               | 17,3    | 180      | 1              | 8  | 12 | 20 |
| E33  | [Diagram]      | 150  | 80   | 12     | 0,106               | 18,9    | 144      | 2              | 8  | 12 | 20 |
| E39  |                |      | 100  | 8      | 0,081               | 15,1    | 120      | 2              | 8  | 12 | 20 |
| E31  | [Diagram]      | 200  | 60   | 8      | 0,071               | 14,6    | 120      | 1              | 8  | 12 | 20 |
| E48  |                |      | 80   | 8      | 0,092               | 16,6    | 96       | 2              | 8  | 12 | 20 |
| E40  |                |      | 100  | 8      | 0,114               | 18,2    | 96       | 2              | 8  | 12 | 20 |

WIRE DUCTS WITH BOTTOM RAILS - SUPPLIED UPON REQUEST AND FOR QUANTITIES TO BE AGREED

|        |           |     |    |    |       |      |     |   |   |    |    |
|--------|-----------|-----|----|----|-------|------|-----|---|---|----|----|
| E5 CG  | [Diagram] | 40  | 60 | 36 | 0,069 | 17,8 | 720 | 1 | 8 | 12 | 20 |
| E15 CG |           |     | 80 | 24 | 0,057 | 14,7 | 480 | 2 | 8 | 12 | 20 |
| E4 CG  | [Diagram] | 60  | 40 | 24 | 0,051 | 11,4 | 600 | 1 | 8 | 12 | 20 |
| E9 CG  |           |     | 60 | 24 | 0,069 | 15,5 | 480 | 1 | 8 | 12 | 20 |
| E11 CG | [Diagram] | 80  | 80 | 24 | 0,081 | 18,5 | 360 | 2 | 8 | 12 | 20 |
| E26 CG |           |     | 40 | 24 | 0,069 | 14,3 | 480 | 1 | 8 | 12 | 20 |
| E6 CG  | [Diagram] | 80  | 60 | 24 | 0,092 | 19,2 | 288 | 1 | 8 | 12 | 20 |
| E12 CG |           |     | 80 | 24 | 0,11  | 21,7 | 288 | 2 | 8 | 12 | 20 |
| E17 CG | [Diagram] | 100 | 60 | 20 | 0,092 | 18,7 | 240 | 1 | 8 | 12 | 20 |
| E19 CG |           |     | 80 | 16 | 0,092 | 18,1 | 192 | 1 | 8 | 12 | 20 |

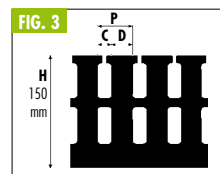
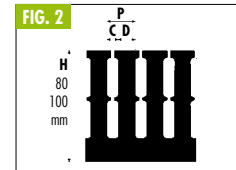
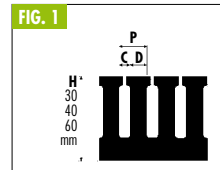
Colour: Grey RAL 7030

COVERS

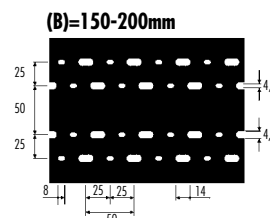
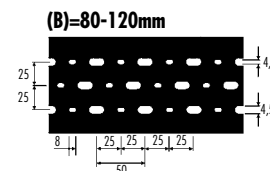
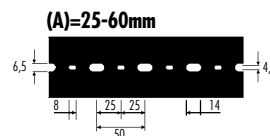


| CODE    | B mm |
|---------|------|
| GCOP25  | 25   |
| GCOP40  | 40   |
| GCOP60  | 60   |
| GCOP80  | 80   |
| GCOP100 | 100  |
| GCOP120 | 120  |
| GCOP150 | 150  |
| GCOP200 | 200  |

TECHNICAL DATA



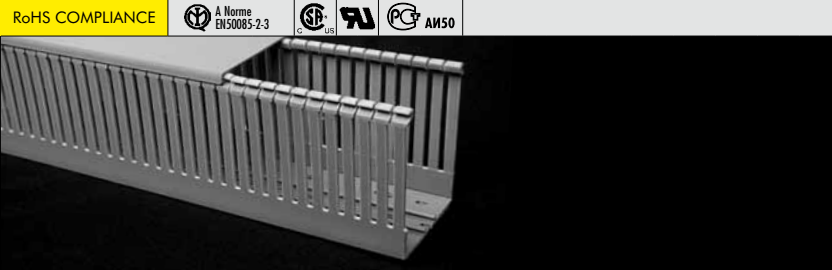
SIZES AND LAYOUT OF HOLES ON THE BOTTOM



INDUSTRIAL SWITCHBOARDS

WIRING DUCTS

"E/4 SERIES" WIRE DUCTS WITH 4mm SLOTS - FINGER 6mm - LENGTH 2m.



| CODE | BOTTOM SECTION | B mm | H mm | PACK m | PACK m³ | PACK Kg | PALLET m | TECHNICAL DATA |   |   |    |
|------|----------------|------|------|--------|---------|---------|----------|----------------|---|---|----|
|      |                |      |      |        |         |         |          | FIG.           | C | D | P  |
| E20  | U              | 15   | 17   | 120    | 0,036   | 11,3    | 3600     | 1              | 4 | 6 | 10 |
| E22  |                |      | 30   | 96     | 0,042   | 14,1    | --       | 1              | 4 | 6 | 10 |
| E25  |                |      | 40   | 72     | 0,042   | 14,8    | 2160     | 1              | 4 | 6 | 10 |
| E164 | U              | 25   | 30   | 80     | 0,057   | 16      | 1600     | 1              | 4 | 6 | 10 |
| E134 |                |      | 40   | 60     | 0,051   | 15,8    | 1500     | 1              | 4 | 6 | 10 |
| E74  |                |      | 60   | 40     | 0,051   | 15      | 1000     | 1              | 4 | 6 | 10 |
| E144 | U              | 40   | 80   | 32     | 0,057   | 15,6    | 640      | 2              | 4 | 6 | 10 |
| E344 |                |      | 100  | 24     | 0,057   | 13,8    | 480      | 1              | 4 | 6 | 10 |
| E84  |                |      | 40   | 40     | 0,057   | 14,2    | 800      | 1              | 4 | 6 | 10 |
| E54  | U              | 60   | 60   | 36     | 0,069   | 17,8    | 720      | 1              | 4 | 6 | 10 |
| E154 |                |      | 80   | 24     | 0,057   | 14,7    | 480      | 2              | 4 | 6 | 10 |
| E354 |                |      | 100  | 16     | 0,051   | 14,1    | 400      | 1              | 4 | 6 | 10 |
| E44  | U              | 80   | 40   | 24     | 0,051   | 11,4    | 600      | 1              | 4 | 6 | 10 |
| E94  |                |      | 60   | 24     | 0,069   | 15,5    | 480      | 1              | 4 | 6 | 10 |
| E114 |                |      | 80   | 24     | 0,081   | 18,5    | 360      | 2              | 4 | 6 | 10 |
| E184 | U              | 100  | 100  | 16     | 0,074   | 16,9    | 320      | 1              | 4 | 6 | 10 |
| E264 |                |      | 40   | 24     | 0,069   | 14,3    | 480      | 1              | 4 | 6 | 10 |
| E64  |                |      | 60   | 24     | 0,092   | 19,2    | 288      | 1              | 4 | 6 | 10 |
| E124 | U              | 120  | 80   | 24     | 0,11    | 21,7    | 288      | 2              | 4 | 6 | 10 |
| E364 |                |      | 100  | 16     | 0,093   | 19,8    | 192      | 1              | 4 | 6 | 10 |
| E174 |                |      | 60   | 20     | 0,092   | 18,7    | 240      | 1              | 4 | 6 | 10 |
| E194 | U              | 80   | 80   | 16     | 0,092   | 18,1    | 192      | 2              | 4 | 6 | 10 |
| E374 |                |      | 100  | 16     | 0,114   | 21,5    | 192      | 1              | 4 | 6 | 10 |
| E104 | U              | 60   | 60   | 16     | 0,085   | 17,5    | 240      | 1              | 4 | 6 | 10 |
| E324 |                |      | 80   | 16     | 0,106   | 20,5    | 192      | 2              | 4 | 6 | 10 |

WIRE DUCTS WITH BOTTOM RAILS - SUPPLIED UPON REQUEST AND FOR QUANTITIES TO BE AGREED

|         |   |     |    |    |       |      |     |   |   |   |    |
|---------|---|-----|----|----|-------|------|-----|---|---|---|----|
| E54 CG  | U | 40  | 60 | 36 | 0,069 | 17,8 | 720 | 1 | 4 | 6 | 10 |
| E154 CG |   |     | 80 | 24 | 0,057 | 14,7 | 480 | 2 | 4 | 6 | 10 |
| E44 CG  | U | 60  | 40 | 24 | 0,051 | 11,4 | 600 | 1 | 4 | 6 | 10 |
| E94 CG  |   |     | 60 | 24 | 0,069 | 15,5 | 480 | 1 | 4 | 6 | 10 |
| E114 CG | U | 80  | 80 | 24 | 0,081 | 18,5 | 360 | 2 | 4 | 6 | 10 |
| E264 CG |   |     | 40 | 24 | 0,069 | 14,3 | 480 | 1 | 4 | 6 | 10 |
| E64 CG  | U | 100 | 60 | 24 | 0,092 | 19,2 | 288 | 1 | 4 | 6 | 10 |
| E124 CG |   |     | 80 | 24 | 0,11  | 21,7 | 288 | 2 | 4 | 6 | 10 |
| E174 CG | U | 60  | 60 | 20 | 0,092 | 18,7 | 240 | 1 | 4 | 6 | 10 |
| E194 CG |   |     | 80 | 16 | 0,092 | 18,1 | 192 | 2 | 4 | 6 | 10 |

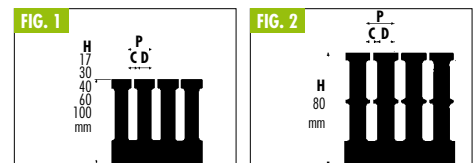
Colour: Grey RAL 7030

COVERS

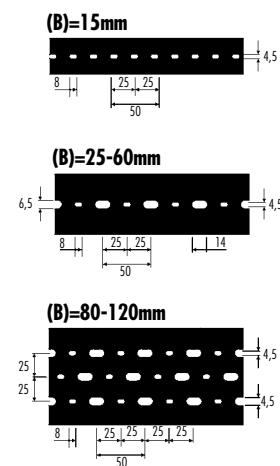


| CODE    | B mm |
|---------|------|
| GCOP15  | 15   |
| GCOP25  | 25   |
| GCOP40  | 40   |
| GCOP60  | 60   |
| GCOP80  | 80   |
| GCOP100 | 100  |
| GCOP120 | 120  |
| GCOP150 | 150  |
| GCOP200 | 200  |

TECHNICAL DATA



SIZES AND LAYOUT OF HOLES ON THE BOTTOM



INDUSTRIAL SWITCHBOARDS

WIRING DUCTS

“ED SERIES” WIRE DUCTS WITH 5 mm SLOTS - FINGERS 7,5 mm - LENGTH 2m.



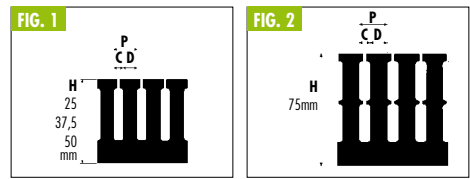
| CODE    | BOTTOM SECTION | B mm | H mm | PACK m | PACK m³ | PACK Kg | PALLET m | TECHNICAL DATA |   |     |      |
|---------|----------------|------|------|--------|---------|---------|----------|----------------|---|-----|------|
|         |                |      |      |        |         |         |          | FIG.           | C | D   | P    |
| ED2525  | [Diagram]      | 25   | 25   | 84     | 0,051   | 16,5    | 2100     | 1              | 5 | 7,5 | 12,5 |
| ED2537  |                |      | 37,5 | 64     | 0,057   | 15,1    | 1280     | 1              | 5 | 7,5 | 12,5 |
| ED2550  |                |      | 50   | 52     | 0,057   | 15,3    | 1040     | 1              | 5 | 7,5 | 12,5 |
| ED2575  |                |      | 75   | 32     | 0,051   | 13,1    | 800      | 2              | 5 | 7,5 | 12,5 |
| ED3737  | [Diagram]      | 37,5 | 37,5 | 48     | 0,057   | 14,4    | 960      | 1              | 5 | 7,5 | 12,5 |
| ED3750  |                |      | 50   | 32     | 0,051   | 11,2    | 800      | 1              | 5 | 7,5 | 12,5 |
| ED3775  | [Diagram]      | 50   | 75   | 32     | 0,069   | 15      | 640      | 2              | 5 | 7,5 | 12,5 |
| ED5050  |                |      | 50   | 24     | 0,051   | 10,8    | 600      | 1              | 5 | 7,5 | 12,5 |
| ED5075  | [Diagram]      | 75   | 75   | 24     | 0,069   | 13,4    | 480      | 2              | 5 | 7,5 | 12,5 |
| ED7550  |                |      | 50   | 24     | 0,069   | 13,7    | 480      | 1              | 5 | 7,5 | 12,5 |
| ED7575  | [Diagram]      | 100  | 75   | 16     | 0,069   | 11,8    | 320      | 2              | 5 | 7,5 | 12,5 |
| ED10050 |                |      | 50   | 16     | 0,064   | 12,2    | 288      | 1              | 5 | 7,5 | 12,5 |
| ED10075 | [Diagram]      | 125  | 75   | 16     | 0,085   | 14,1    | 240      | 2              | 5 | 7,5 | 12,5 |
| ED12575 |                |      | 75   | 12     | 0,085   | 13,6    | 180      | 2              | 5 | 7,5 | 12,5 |

Colour: Grey RAL 7030

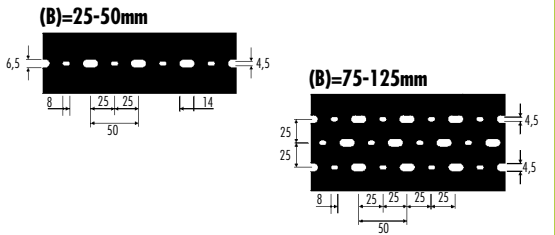
COVERS

| CODE    | B mm |
|---------|------|
| GCOP25  | 25   |
| GCOP37  | 37,5 |
| GCOP50  | 50   |
| GCOP75  | 75   |
| GCOP100 | 100  |
| GCOP125 | 125  |

TECHNICAL DATA



SIZES AND LAYOUT OF HOLES ON THE BOTTOM



“EDGE” CORNER WIRE DUCT FOR ELECTRICAL PANELS

WITH 4 mm SLOTS - FINGER 6 mm.



| CODE     | B mm | H mm | PACK m | PACK m³ | PACK Kg |
|----------|------|------|--------|---------|---------|
| ED110K40 | 90   | 90   | 8      | 0,036   | 12,5    |
| ED110K60 | 110  | 110  | 8      | 0,036   | 13,1    |

Colour: Grey RAL 7030

ASSEMBLY AND INSTALLATION INSTRUCTIONS

Advantages of the system.

The Edge wire duct is designed to exploit the corners of the enclosure where the space is normally not utilized. This system allows wires and cables to be routed professionally to the lateral panels.

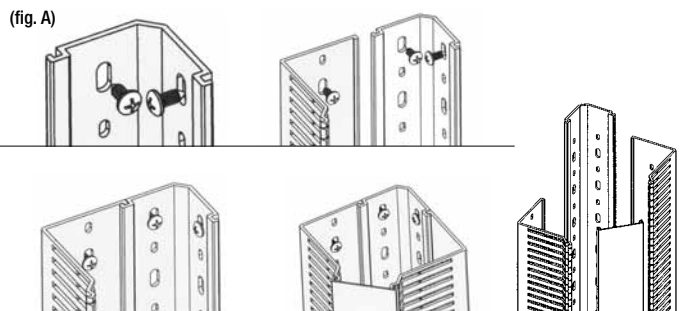
Features of the EDGE ducts.

Available with cover opening of 40 and 60 mm (90x90-110x110) and useful sections of 9000 and 11050 mm<sup>2</sup>. Just changing the “L” shaped bottom piece and keeping the same side wall, you will get a big saving on the ducts and stocking costs, beside getting an increase in wire fill capacity inside the electrical panel.

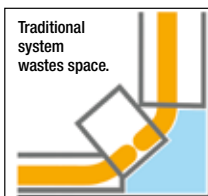
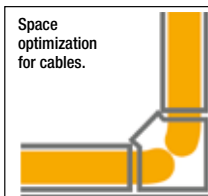
Installation.

Connecting the two slotted walls, 4 mm slots, you have the possibility to use the bottom and side panels for the fixing of instruments and terminals. You can avoid strange applications that, to get the same result, need the fixing of the traditional duct on corner clamps, a solution that restricts the space available for cables.

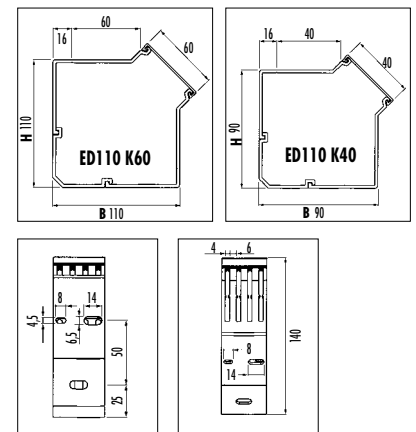
Fix the corner profile between the panels, with 2-4 rivets (RIV1) or screw per meter (see fig. A). Set the slotted walls under the profile and in the suitable groove. Fix the panel with 2-4 rivets (RIV1) per meter. Fix the cover by pressing. To hold back the wires, use the cross arm TR4-TR6 not supplied.



THE “SERIES EDGE” is a CANALPLAST WORLDWIDE PATENT



TECHNICAL DATA



## INDUSTRIAL SWITCHBOARDS

TRUNKINGS FOR LIFTS

## LIFT TRUNKINGS - COLOUR: DARK GREY. LENGTH 2m



EN-50085-2-1



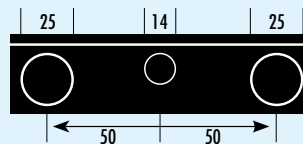
| CODE   | BOTTOM SECTION | B mm | H mm | PACK m | PACK m <sup>3</sup> | PACK Kg | S. G. mm <sup>2</sup> |
|--------|----------------|------|------|--------|---------------------|---------|-----------------------|
| AS G8  |                | 40   | 40   | 40     | 0,057               | 16      | 1310                  |
| AS G4  |                | 60   | 40   | 24     | 0,051               | 13      | 1960                  |
| AS G9  |                |      | 60   | 24     | 0,069               | 18      | 3080                  |
| AS G26 |                | 80   | 40   | 24     | 0,069               | 15,8    | 2665                  |
| AS G6  |                |      | 60   | 24     | 0,092               | 22      | 4175                  |
| AS G17 |                | 100  | 60   | 20     | 0,092               | 21      | 5295                  |
| AS G19 |                |      | 80   | 16     | 0,092               | 21,2    | 7215                  |
| AS G10 |                | 120  | 60   | 16     | 0,085               | 19,3    | 6390                  |
| AS G32 |                |      | 80   | 16     | 0,106               | 23,1    | 8710                  |
| AS G33 |                | 150  | 80   | 12     | 0,106               | 21,2    | 10770                 |

## SPECIAL LIFT TRUNKINGS WITH PRE-PUNCHED HOLES

COLOUR: DARK GREY. LENGTH 2m



EN-50085-2-1

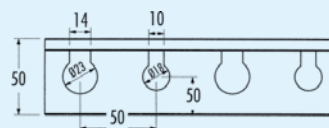


| CODE    | BOTTOM SECTION | B mm | H mm | PACK m | PACK m <sup>3</sup> | PACK Kg | S. G. mm <sup>2</sup> |
|---------|----------------|------|------|--------|---------------------|---------|-----------------------|
| AS G8P  |                | 40   | 40   | 40     | 0,057               | 16      | 1310                  |
| AS G4P  |                | 60   | 40   | 24     | 0,051               | 12,9    | 1960                  |
| AS G26P |                | 80   | 40   | 24     | 0,069               | 15,4    | 2665                  |

## SPECIAL LIFT TRUNKINGS WITH PRE-PUNCHED SLOTS

COLOUR: GREY. LENGTH 2m

EN-50085-2-1



| CODE  | BOTTOM SECTION | B mm | H mm | PACK m | PACK m <sup>3</sup> | PACK Kg | S. G. mm <sup>2</sup> |
|-------|----------------|------|------|--------|---------------------|---------|-----------------------|
| G055P |                | 50   | 50   | 24     | 0,051               | 12,7    | 2126                  |
| G075P |                | 75   | 50   | 24     | 0,069               | 16,3    | 3115                  |
| G105P |                | 100  | 50   | 16     | 0,064               | 14,6    | 4270                  |



# INDUSTRIAL SWITCHBOARDS

HALOGEN FREE WIRE DUCTS FOR SWITCHBOARDS

## "EHF SERIES" HALOGEN FREE WIRE DUCTS

WITH 5mm SLOTS - FINGER 7,5 mm - COLOUR: LIGHT GREY - LENGTH 2m.

|                 |  |              |              |
|-----------------|--|--------------|--------------|
| RoHS COMPLIANCE |  | EN-50267-2-1 | EN-50085-2-3 |
|-----------------|--|--------------|--------------|



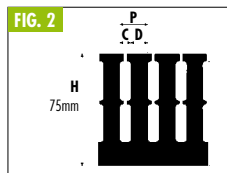
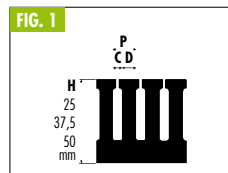
| CODE     | BOTTOM SECTION | B mm | H mm | PACK m | PACK m <sup>3</sup> | PACK Kg | PALLET m | TECHNICAL DATA |   |     |      |
|----------|----------------|------|------|--------|---------------------|---------|----------|----------------|---|-----|------|
|          |                |      |      |        |                     |         |          | FIG.           | C | D   | P    |
| EHF2525  |                | 25   | 25   | 84     | 0,051               | 16,5    | 2100     | 1              | 5 | 7,5 | 12,5 |
| EHF2537  |                |      | 37,5 | 64     | 0,057               | 15,1    | 1280     | 1              | 5 | 7,5 | 12,5 |
| EHF2550  |                |      | 50   | 52     | 0,057               | 15,3    | 1040     | 1              | 5 | 7,5 | 12,5 |
| EHF2575  |                |      | 75   | 32     | 0,051               | 13,1    | 800      | 2              | 5 | 7,5 | 12,5 |
| EHF3737  |                | 37,5 | 37,5 | 48     | 0,057               | 14,4    | 960      | 1              | 5 | 7,5 | 12,5 |
| EHF3750  |                |      | 50   | 32     | 0,051               | 11,2    | 800      | 1              | 5 | 7,5 | 12,5 |
| EHF3775  |                |      | 75   | 32     | 0,069               | 15      | 640      | 2              | 5 | 7,5 | 12,5 |
| EHF5050  |                | 50   | 50   | 24     | 0,051               | 10,8    | 600      | 1              | 5 | 7,5 | 12,5 |
| EHF5075  |                |      | 75   | 24     | 0,069               | 13,4    | 480      | 2              | 5 | 7,5 | 12,5 |
| EHF7550  |                | 75   | 50   | 24     | 0,069               | 13,7    | 480      | 1              | 5 | 7,5 | 12,5 |
| EHF7575  |                |      | 75   | 16     | 0,069               | 11,8    | 320      | 2              | 5 | 7,5 | 12,5 |
| EHF10050 |                | 100  | 50   | 16     | 0,064               | 12,2    | 288      | 1              | 5 | 7,5 | 12,5 |
| EHF10075 |                |      | 75   | 16     | 0,085               | 14,1    | 240      | 2              | 5 | 7,5 | 12,5 |
| EHF12575 |                | 125  | 75   | 12     | 0,085               | 13,6    | 180      | 2              | 5 | 7,5 | 12,5 |

## COVERS

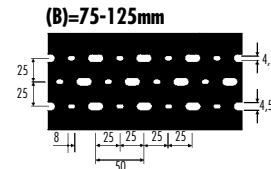
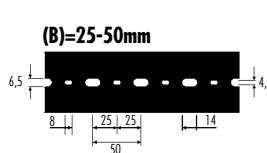


| CODE     | B mm |
|----------|------|
| HFCOP25  | 25   |
| HFCOP37  | 37,5 |
| HFCOP50  | 50   |
| HFCOP75  | 75   |
| HFCOP100 | 100  |
| HFCOP125 | 125  |

## TECHNICAL DATA



## SIZES AND LAYOUT OF HOLES ON THE BOTTOM



## INDUSTRIAL SWITCHBOARDS

TECHNICAL DATA

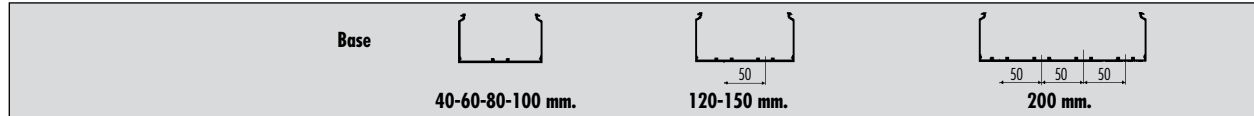
## WIRE FILL CAPACITY CHART

| TRUNKING DIMENSION<br>B x H mm |       | USABLE SECTION<br>mm <sup>2</sup> |      |     | ELECTRICAL WIRES |      |      |       |        |        |      |        |      |      |        | COMMUNICATION |                 |                 |        |        |      |      |
|--------------------------------|-------|-----------------------------------|------|-----|------------------|------|------|-------|--------|--------|------|--------|------|------|--------|---------------|-----------------|-----------------|--------|--------|------|------|
|                                |       |                                   |      |     | H07V-U/R/K       |      |      | 8 AWG | 10 AWG | 12 AWG |      | 14 AWG |      |      | 16 AWG |               | 18 AWG          |                 | 22 AWG | 24 AWG |      |      |
|                                |       |                                   |      |     | 1                | 1,5  | 2,5  | .216  | .153   | .122   | .158 | .105   | .139 | .165 | .096   | .125          | .084            | .113            | .065   | .217   | .250 | .422 |
|                                |       |                                   |      |     | THHN             | THHN | THHN | MTW   | THHN   | MTW    | MTW  | TFFN   | MTW  | TFFN | MTW    | MTW           | UTP/CM<br>Cat5e | STP/CM<br>Cat6e | UPT/CM |        |      |      |
| 15 x 17                        | 170   | 16                                | 12   | 8   | 4                | 7    | 10   | 7     | 14     | 10     | 6    | 18     | 11   | 24   | 13     | 40            | 4               | 3               | 1      |        |      |      |
| 15 x 30                        | 320   | 30                                | 22   | 15  | 7                | 12   | 20   | 14    | 27     | 18     | 12   | 34     | 20   | 45   | 25     | 75            | 7               | 5               | 2      |        |      |      |
| 25 x 30                        | 550   | 52                                | 38   | 26  | 12               | 21   | 34   | 24    | 46     | 31     | 20   | 59     | 35   | 77   | 43     | 129           | 12              | 9               | 3      |        |      |      |
| 40 x 30                        | 920   | 87                                | 63   | 44  | 20               | 35   | 56   | 40    | 76     | 52     | 33   | 98     | 58   | 129  | 71     | 215           | 19              | 15              | 5      |        |      |      |
| 60 x 30                        | 1400  | 132                               | 96   | 67  | 31               | 54   | 85   | 60    | 116    | 79     | 51   | 150    | 88   | 197  | 108    | 328           | 29              | 22              | 8      |        |      |      |
| 15 x 40                        | 450   | 42                                | 31   | 22  | 10               | 17   | 27   | 19    | 37     | 26     | 16   | 48     | 28   | 63   | 35     | 105           | 9               | 7               | 2      |        |      |      |
| 25 x 40                        | 760   | 72                                | 52   | 36  | 17               | 29   | 46   | 33    | 63     | 43     | 28   | 81     | 48   | 107  | 59     | 178           | 16              | 12              | 4      |        |      |      |
| 40 x 40                        | 1310  | 123                               | 90   | 63  | 29               | 50   | 80   | 57    | 109    | 74     | 48   | 140    | 83   | 184  | 101    | 306           | 27              | 21              | 7      |        |      |      |
| 60 x 40                        | 1960  | 185                               | 134  | 94  | 43               | 75   | 120  | 85    | 163    | 111    | 71   | 210    | 124  | 275  | 152    | 459           | 41              | 31              | 11     |        |      |      |
| 80 x 40                        | 2655  | 250                               | 182  | 127 | 58               | 102  | 162  | 115   | 220    | 151    | 96   | 284    | 168  | 373  | 205    | 621           | 56              | 42              | 15     |        |      |      |
| 100 x 40                       | 3375  | 318                               | 231  | 161 | 74               | 130  | 206  | 146   | 280    | 192    | 122  | 361    | 213  | 474  | 261    | 790           | 71              | 53              | 19     |        |      |      |
| 120 x 40                       | 4070  | 383                               | 279  | 195 | 89               | 156  | 248  | 176   | 338    | 231    | 148  | 435    | 257  | 571  | 315    | 952           | 85              | 64              | 23     |        |      |      |
| 25 x 60                        | 1200  | 113                               | 82   | 57  | 26               | 46   | 73   | 52    | 100    | 68     | 44   | 128    | 76   | 168  | 93     | 281           | 25              | 19              | 7      |        |      |      |
| 40 x 60                        | 1960  | 185                               | 134  | 94  | 43               | 75   | 120  | 85    | 163    | 111    | 71   | 210    | 124  | 275  | 152    | 459           | 41              | 31              | 11     |        |      |      |
| 60 x 60                        | 3080  | 290                               | 211  | 147 | 68               | 118  | 188  | 133   | 256    | 175    | 112  | 330    | 194  | 432  | 238    | 721           | 65              | 49              | 17     |        |      |      |
| 80 x 60                        | 4175  | 393                               | 286  | 200 | 92               | 161  | 255  | 180   | 347    | 237    | 151  | 447    | 264  | 586  | 323    | 977           | 88              | 66              | 23     |        |      |      |
| 100 x 60                       | 5295  | 499                               | 363  | 253 | 116              | 204  | 323  | 229   | 440    | 301    | 192  | 566    | 334  | 743  | 409    | 1239          | 111             | 84              | 29     |        |      |      |
| 120 x 60                       | 6390  | 602                               | 438  | 306 | 140              | 246  | 390  | 276   | 530    | 363    | 232  | 684    | 403  | 897  | 494    | 1495          | 134             | 101             | 35     |        |      |      |
| 150 x 60                       | 8070  | 760                               | 553  | 386 | 177              | 310  | 493  | 349   | 670    | 458    | 293  | 863    | 510  | 1133 | 624    | 1888          | 169             | 127             | 45     |        |      |      |
| 200 x 60                       | 10820 | 1019                              | 741  | 517 | 237              | 416  | 661  | 467   | 898    | 614    | 393  | 1158   | 683  | 1519 | 837    | 2531          | 227             | 171             | 60     |        |      |      |
| 25 x 80                        | 1540  | 145                               | 105  | 74  | 34               | 59   | 94   | 67    | 128    | 87     | 56   | 165    | 97   | 216  | 119    | 360           | 32              | 24              | 9      |        |      |      |
| 40 x 80                        | 2680  | 253                               | 183  | 128 | 59               | 103  | 164  | 116   | 222    | 152    | 97   | 287    | 169  | 376  | 207    | 627           | 56              | 42              | 15     |        |      |      |
| 60 x 80                        | 4200  | 396                               | 288  | 201 | 92               | 161  | 256  | 181   | 349    | 238    | 152  | 449    | 265  | 590  | 325    | 983           | 88              | 66              | 23     |        |      |      |
| 80 x 80                        | 5695  | 537                               | 390  | 272 | 125              | 219  | 348  | 246   | 473    | 323    | 207  | 609    | 360  | 800  | 440    | 1332          | 119             | 90              | 32     |        |      |      |
| 100 x 80                       | 7215  | 680                               | 494  | 345 | 158              | 277  | 440  | 312   | 599    | 409    | 262  | 772    | 456  | 1013 | 558    | 1688          | 151             | 114             | 40     |        |      |      |
| 120 x 80                       | 8710  | 821                               | 596  | 416 | 191              | 335  | 532  | 376   | 723    | 494    | 316  | 932    | 550  | 1223 | 674    | 2038          | 183             | 138             | 48     |        |      |      |
| 150 x 80                       | 10770 | 1015                              | 737  | 515 | 236              | 414  | 658  | 465   | 894    | 611    | 391  | 1152   | 680  | 1512 | 833    | 2520          | 226             | 170             | 60     |        |      |      |
| 200 x 80                       | 14470 | 1363                              | 991  | 692 | 317              | 556  | 883  | 625   | 1201   | 821    | 525  | 1548   | 914  | 2031 | 1119   | 3385          | 304             | 229             | 80     |        |      |      |
| 25 x 100                       | 2310  | 218                               | 158  | 110 | 51               | 89   | 141  | 100   | 192    | 131    | 84   | 247    | 146  | 324  | 179    | 540           | 48              | 36              | 13     |        |      |      |
| 40 x 100                       | 3350  | 316                               | 229  | 160 | 73               | 129  | 205  | 145   | 278    | 190    | 122  | 358    | 212  | 470  | 259    | 784           | 70              | 53              | 19     |        |      |      |
| 60 x 100                       | 5320  | 501                               | 364  | 254 | 117              | 205  | 325  | 230   | 442    | 302    | 193  | 569    | 336  | 747  | 411    | 1245          | 112             | 84              | 29     |        |      |      |
| 80 x 100                       | 7125  | 671                               | 488  | 341 | 156              | 274  | 435  | 308   | 591    | 404    | 258  | 762    | 450  | 1000 | 551    | 1667          | 149             | 113             | 39     |        |      |      |
| 100 x 100                      | 9135  | 861                               | 625  | 437 | 200              | 351  | 558  | 395   | 758    | 518    | 331  | 977    | 577  | 1282 | 706    | 2137          | 192             | 144             | 51     |        |      |      |
| 120 x 100                      | 10820 | 1019                              | 741  | 517 | 237              | 416  | 661  | 467   | 898    | 614    | 393  | 1158   | 683  | 1519 | 837    | 2531          | 227             | 171             | 60     |        |      |      |
| 150 x 100                      | 13670 | 1288                              | 936  | 654 | 300              | 526  | 835  | 590   | 1135   | 776    | 496  | 1462   | 863  | 1919 | 1057   | 3198          | 287             | 216             | 76     |        |      |      |
| 200 x 100                      | 18370 | 1731                              | 1258 | 878 | 403              | 706  | 1122 | 794   | 1525   | 1043   | 666  | 1965   | 1160 | 2579 | 1421   | 4298          | 385             | 290             | 102    |        |      |      |
| 100 x 150                      | 13695 | 1290                              | 938  | 655 | 300              | 527  | 836  | 592   | 1137   | 777    | 497  | 1465   | 865  | 1923 | 1059   | 3204          | 287             | 216             | 76     |        |      |      |
| 25 x 25                        | 440   | 41                                | 30   | 21  | 10               | 17   | 27   | 19    | 37     | 25     | 16   | 47     | 28   | 62   | 34     | 103           | 9               | 7               | 2      |        |      |      |
| 25 x 37,5                      | 720   | 68                                | 49   | 34  | 16               | 28   | 44   | 31    | 60     | 41     | 26   | 77     | 45   | 101  | 56     | 168           | 15              | 11              | 4      |        |      |      |
| 25 x 50                        | 985   | 93                                | 67   | 47  | 22               | 38   | 60   | 43    | 82     | 56     | 36   | 105    | 62   | 138  | 76     | 230           | 21              | 16              | 5      |        |      |      |
| 25 x 75                        | 1485  | 140                               | 102  | 71  | 33               | 57   | 91   | 64    | 123    | 84     | 54   | 159    | 94   | 208  | 115    | 347           | 31              | 23              | 8      |        |      |      |
| 37,5 x 37,5                    | 1125  | 106                               | 77   | 54  | 25               | 43   | 69   | 49    | 93     | 64     | 41   | 120    | 71   | 158  | 87     | 263           | 24              | 18              | 6      |        |      |      |
| 37,5 x 50                      | 1560  | 147                               | 107  | 75  | 34               | 60   | 95   | 67    | 129    | 89     | 57   | 167    | 99   | 219  | 121    | 365           | 33              | 25              | 9      |        |      |      |
| 37,5 x 75                      | 2370  | 223                               | 162  | 113 | 52               | 91   | 145  | 102   | 197    | 135    | 86   | 254    | 150  | 333  | 183    | 554           | 50              | 37              | 13     |        |      |      |
| 50 x 50                        | 2090  | 197                               | 143  | 100 | 46               | 80   | 128  | 90    | 173    | 119    | 76   | 224    | 132  | 293  | 162    | 489           | 44              | 33              | 12     |        |      |      |
| 50 x 75                        | 3220  | 303                               | 220  | 154 | 71               | 124  | 197  | 139   | 267    | 183    | 117  | 344    | 203  | 452  | 249    | 753           | 68              | 51              | 18     |        |      |      |
| 75 x 50                        | 3200  | 302                               | 219  | 153 | 70               | 123  | 195  | 138   | 266    | 182    | 116  | 342    | 202  | 449  | 247    | 749           | 67              | 51              | 18     |        |      |      |
| 75 x 75                        | 4930  | 465                               | 338  | 236 | 108              | 190  | 301  | 213   | 409    | 280    | 179  | 527    | 311  | 692  | 381    | 1153          | 103             | 78              | 27     |        |      |      |
| 100 x 50                       | 5000  | 471                               | 342  | 239 | 110              | 192  | 305  | 216   | 415    | 284    | 181  | 535    | 316  | 702  | 387    | 1170          | 105             | 79              | 28     |        |      |      |
| 100 x 75                       | 6630  | 625                               | 454  | 317 | 145              | 255  | 405  | 286   | 550    | 376    | 241  | 709    | 419  | 931  | 513    | 1551          | 139             | 105             | 37     |        |      |      |
| 125 x 75                       | 7115  | 670                               | 487  | 340 | 156              | 274  | 434  | 307   | 591    | 404    | 258  | 761    | 449  | 999  | 550    | 1665          | 149             | 112             | 39     |        |      |      |
| 90 x 90                        | 8100  | 763                               | 555  | 387 | 178              | 311  | 495  | 350   | 672    | 460    | 294  | 867    | 511  | 1137 | 626    | 1895          | 170             | 128             | 45     |        |      |      |
| 110 x 110                      | 11020 | 1038                              | 755  | 527 | 242              | 424  | 673  | 476   | 915    | 625    | 400  | 1179   | 696  | 1547 | 852    | 2578          | 231             | 174             | 61     |        |      |      |

## INDUSTRIAL SWITCHBOARDS

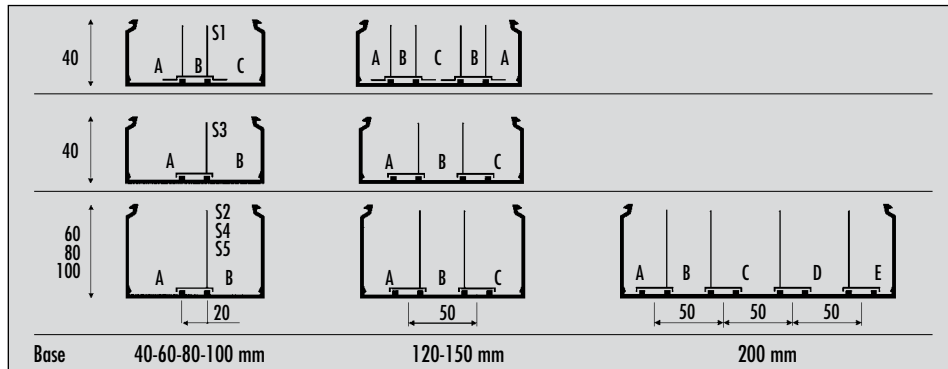
TECHNICAL DATA

## BOTTOM RAILS



Sizes and layout of the bottom rails for separators use.

The wiring duct is fastened to the wall by TS plugs, 2/4 per meter for the smaller sizes, 4/8 per meter for the larger sizes.



Use of the S separators.  
Compartments section in mm<sup>2</sup>

| Wiring duct sizes<br>mm. | N°compartments           | Section              |                      |                      |      |      |
|--------------------------|--------------------------|----------------------|----------------------|----------------------|------|------|
|                          |                          | A<br>mm <sup>2</sup> | B<br>mm <sup>2</sup> | C<br>mm <sup>2</sup> | D    | E    |
| 60 x 40                  | 3                        | 680                  | 425                  | 680                  | -    | -    |
| 80 x 40                  | 3                        | 1030                 | 425                  | 1030                 | -    | -    |
| 100 x 40                 | 3                        | 1387                 | 425                  | 1387                 | -    | -    |
| 120 x 40                 | 3 - 5                    | 805                  | 425                  | 875                  | -    | -    |
|                          | <b>S2 / S3 / S4 / S5</b> |                      |                      |                      |      |      |
| 60 x 40                  | 2                        | 1223                 | 737                  | -                    | -    | -    |
| 80 x 40                  | 2                        | 1565                 | 1090                 | -                    | -    | -    |
| 100 x 40                 | 2                        | 1930                 | 1445                 | -                    | -    | -    |
| 120 x 40                 | 3                        | 1387                 | 1295                 | 1387                 | -    | -    |
| 60 x 60                  | 2                        | 2060                 | 1020                 | -                    | -    | -    |
| 80 x 60                  | 2                        | 2607                 | 1567                 | -                    | -    | -    |
| 100 x 60                 | 2                        | 3167                 | 2127                 | -                    | -    | -    |
| 120 x 60                 | 3                        | 2170                 | 2035                 | 2170                 | -    | -    |
| 150 x 60                 | 3                        | 3015                 | 2035                 | 3015                 | -    | -    |
| 200 x 60                 | 5                        | 1750                 | 2035                 | 2640                 | 2640 | 1750 |
| 60 x 80                  | 2                        | 2820                 | 1380                 | -                    | -    | -    |
| 80 x 80                  | 2                        | 3567                 | 2127                 | -                    | -    | -    |
| 100 x 80                 | 2                        | 4327                 | 2887                 | -                    | -    | -    |
| 120 x 80                 | 3                        | 2965                 | 2775                 | 2965                 | -    | -    |
| 150 x 80                 | 3                        | 3995                 | 2775                 | 3995                 | -    | -    |
| 200 x 80                 | 5                        | 2247                 | 2775                 | 3600                 | 3600 | 2247 |
| 100 x 100                | 2                        | 5487                 | 3647                 | -                    | -    | -    |
| 120 x 100                | 3                        | 3705                 | 3404                 | 3705                 | -    | -    |
| 150 x 100                | 3                        | 5130                 | 3404                 | 5130                 | -    | -    |
| 200 x 100                | 5                        | 3065                 | 3404                 | 4416                 | 4416 | 3065 |

## CLASSIFICATION INDEX ACCORDING TO THE STANDARD EN 50085-2/3

Reference to the specifications for slotted and solid trunkings for installation inside of electrical panels.

| Classification min. temperature of transport and storage |          |          | Classification min. temperature of installation and use |          |          | Classification max temp. of use |          |          |
|--|----------|----------|---|----------|----------|---------------------------------|----------|----------|
| 1 <sup>st</sup> Code                                     | Temp. C° | Temp. F° | 2 <sup>nd</sup> Code                                    | Temp. C° | Temp. F° | 3 <sup>rd</sup> Code            | Temp. C° | Temp. F° |
| 1xx  | -45      | -49      | x1x   | -25      | -13      | xx1                             | +60      | 140      |
| 2xx  | -25      | -13      | x2x   | -15      | 5        | xx2                             | +90      | 194      |
| 3xx  | -5       | 23       | x3x   | -5       | 23       | xx3                             | +105     | 221      |
|  |          |          | x4x   | +5       | 41       | xx4                             | +120     | 248      |
|  |          |          | x5x   | +15      | 59       |                                 |          |          |

Derivating classification of our wire ducts

| ECABL     |     | ALOFREE  |     |
|-----------|-----|----------|-----|
| Tipo E    | 231 | Tipo EHF | 222 |
| Tipo E/4  | 231 |          |     |
| Tipo EDGE | 231 |          |     |

## INDUSTRIAL SWITCHBOARDS

TESTS OF FLAMMABILITY, QUALITY AND RESISTANCE REFERRED TO ELECTRICAL SYSTEMS

## Test on printout

## Flammability tests.

- IEC 695-2-2** Description: the test simulates the effect of small flames caused by faulty conditions inside electrical equipment. The test piece is subjected to a 12 mm long flame produced by a burner whose nozzle has a diameter of 0.5 mm. Propagation of the flame is tested by placing under the specimen a layer of material of the components which in reality surround the part and a sheet of tissue paper.  
Evaluation: the duration of combustion is less than 30" and the flame does not propagate to the underlying material.  
Classification: pass/fail.
- UL 94** Description: the test simulates the effect of small flames caused by faulty conditions inside electrical equipment. The test piece is subjected to a 12.7 mm long flame produced by a nozzle with diameter of 9.5 mm.  
Vertical positioning (standard in force in the USA)  
The flame is applied for 10", repeating this for a further 10" after extinguishing of the fire. Propagation of the flame is tested by placing dry cotton wool under the specimen.  
Evaluation: the duration of combustion is less than the set time and there are few drips of flamed material.  
Classification:  
V0: combustion stops within 10" without flame propagation.  
V1: combustion stops within 30" without flame propagation.  
V2: combustion stops within 30" with flame propagation.
- IEC 695-2-1** Description: this test simulates the thermal stresses produced by heat or ignition sources such as overloaded resistors or glowing metal elements. The specimen is clamped for 30" with the force of 1 Newton against the tip of a glowing metal wire with specified temperatures (750, 850, 950°C). A sheet of paper and board are placed under the specimen.  
(Glow Wire)  
Evaluation: extinguishing of the flame and ceasing of glowing within 30" from removal of the wire, no ignition of the paper and no scorching on the board.  
Classification: pass/fail.
- CSE RF 1/75/A** Description: the test gives an approximate indication of the reaction to fire of a material during the initial phase of a fire. The flame, 40 mm high, is applied on both faces of a vertical specimen, on the lower edge.  
Evaluation: various parameters are considered and set, according to specified formulae: post-combustion time, post-glowing time, damaged area, dripping.  
Classification: on the basis of the calculation procedures categories I, II, III, IV are assigned in decreasing order of safety.

## Fire reaction class.

- CSE RF1** Description: combination of the classifications CSE RF 1 and CSE RF 3.  
**CSE RF3** Classification: six classes are defined: 0 (non-combustible material), 1, 2, 3, 4, and 5, through the combination of the categories obtained from the two tests.

## Characterisation of fumes.

- CEI 20-37** Description: the presence of a certain number of substances in fumes generated by the product at a temperature of 80°C is gauged. The substances measured are: carbon dioxide, carbon monoxide, hydrochloric acid, hydrobromic acid, hydrofluoric acid, hydrocyanic acid, sulphur dioxide, hydrogen sulphide, nitrogen oxides (NO+NO<sub>2</sub>), ammonia, acrylonitrile, formaldehyde.  
Part 2  
Evaluation: according to a predefined formula, a toxicity rating is obtained (from 0 onwards) from the quantities of all the substances measured.  
Classification: according to the rating. (ENEL, the Italian electricity board, for example, sets 5 as maximum acceptability and the Italian navy 2.5).

## Tests on material

## Heat resistance.

- CEI 23-8** Description: the temperature at which the material, under load, starts to soften, is measured. A test piece of a pipe cut longitudinally is brought to a temperature of 90°C. A steel ball, 5 mm in diameter, is pressed against the inner surface of the test piece with a force of 20 Newton. After 1 hour the ball is removed.  
Evaluation: the diameter of the imprint left by the ball on the surface, measured cold, must not be more than 2 mm.  
Classification: pass/fail.

## Flame resistance.

- CEI 23-8** Description: the resistance to the prolonged action of a flame is measured. The test consists in subjecting a piece of pipe to the action of a 100 mm flame (energy produced: 775 Kcal/h) slanting 45° upwards for 1 minute. The test is repeated three times.  
Evaluation: after this time, if the test piece burns through self-combustion, the flames must extinguish within 30".  
Classification: pass/fail.

## Compressive strength.

- CEI 23-8** Description: the pipe test piece is subjected to compression of 750 Newton for 1 minute. The variation in the external diameter, before and after removal of the force, is measured.  
Evaluation: the diameter must not exceed the original one by 25% with the force still applied, and by 20% after the force has been removed. The test pieces must not crack.  
Classification: pass/fail.

## Impact resistance.

- CEI 23-8** Description: the test piece, after being kept for 10 days in an oven at 60°C, is brought to the temperature of -25°C and then subjected to impact through the falling of a hammer, whose weight varies according to the diameter, from a height of 20 cm.  
Evaluation: the test pieces must not show fractures or cracks.  
Classification: pass/fail.

## Dielectric resistance.

- CEI 23-8** Description: a test to determine the degree of insulation, performed in two phases. The U-bent pipe is immersed, except for its ends, in water at a temperature of 20°C and filled with water. After 24 hours' immersion, a voltage of 2000V ac is applied to two electrodes, one inside the pipe the other in the receptacle, at a frequency of 50Hz, for 15 minutes.  
The same pipe is immersed in water at 60°C and after two hours the electrical resistance is measured, applying a continuous voltage of 500V.  
Evaluation: 1) there must be no perforations of the pipe. 2) the insulation resistance must not be below 100 MΩ.  
Classification: pass/fail.

## INDUSTRIAL SWITCHBOARDS

## TECHNICAL DATA

## MATERIALS' TECHNICAL PROPERTIES

|   | STANDARDS   |            | MEASUREMENT UNIT  | NORYL GREY | PVC  | ABS   |
|---|-------------|------------|-------------------|------------|------|-------|
| <b>MECHANICAL PROPERTIES</b>                      |             |            |                   |            |      |       |
| TENSILE STRENGTH TO YELD POINT                    | ASTM D 638  | DIN 53455  | MPa               | 45         | 46,2 | -     |
| ULTIMATE TENSILE STRENGTH                         | ASTM D 638  | DIN 53455  | MPa               | 45         | 37,3 | 40    |
| ELONGATION TO YIELD POINT                         | ASTM D 638  | DIN 53455  | %                 | -          | 25   | -     |
| ULTIMATE ELONGATION                               | ASTM D 638  | DIN 53455  | %                 | 50         | -    | -     |
| TENSILE MODULUS                                   | ASTM D 638  | DIN 53457  | MPa               | 2400       | -    | -     |
|   |             |            |                   |            |      |       |
| FLEXURAL STRENGTH TO YIELD POINT                  | ASTM D 790  | DIN 53452  | MPa               | 90         | -    | -     |
| FLEXURAL MODULUS                                  | ASTM D 790  | DIN 53457  | MPa               | 2500       | 2736 | 2400  |
|   |             |            |                   |            |      |       |
| HARDNESS H358/30                                  | -           | DIN 53456  | MPa               | 87         | -    | -     |
| ROCKWELL HARDNESS                                 | ASTM D 758  | -          | -                 | R115       | -    | -     |
| SHORE HARDNESS                                    | -           | -          | -                 | -          | 79 D | 110 R |
| <b>IMPACT RESISTANCE</b>                          |             |            |                   |            |      |       |
| CHARPY TEST, WITH NOTCH                           | ISO 179/1eA | DIN 53453  | KJ/m <sup>2</sup> | 15         | -    | -     |
| IZOD TEST, WITH NOTCH, AT 23°C                    | ASTM D 256  | -          | J/m               | 250        | 74   | 70    |
| IZOD TEST, WITH NOTCH, AT 0°C                     | -           | -          | J/m               | -          | 41   | 40    |
| IZOD TEST, WITH NOTCH, AT -10°C                   | -           | -          | J/m               | -          | 4    | 5     |
| IZOD TEST, WITH NOTCH, AT -30°C                   | -           | -          | J/m               | -          | -    | -     |
| IZOD TEST, WITH NOTCH, AT -40°C                   | ASTM D 256  | -          | J/m               | 120        | -    | -     |
| <b>THERMAL PROPERTIES</b>                         |             |            |                   |            |      |       |
| SOFTENING TEMPERATURE, VICAT METHOD B             | ASTM D 1525 | -          | °C                | 105        | -    | -     |
| VICAT VST/B/120                                   | -           | DIN 53460  | °C                | 100        | 76   | 95    |
| DEFORM. TEMPERATURE UNDER LOAD, 1,82 MPa          | ASTM D 648  | DIN 53461  | -                 | -          | -    | -     |
| THERMAL CONDUCTIVITY                              | ASTM C 117  | -          | W/m°C             | 0,16       | -    | -     |
| COEFFICIENT OF LINEAR THERMAL EXPANSION           | ASTM D 696  | VDE 0304/1 | m/m°C             | 7x10-10    | 0,1  | 0,19  |
| <b>PHYSICAL PROPERTIES</b>                        |             |            |                   |            |      |       |
| SPECIFIC WEIGHT                                   | ASTM D 792  | DIN 53479  | g/cm <sup>3</sup> | 1,10       | 1,55 | 1,05  |
| WATER ABSORPTION, 24 HOURS                        | ASTM D 570  | -          | %                 | 0,08       | -    | -     |
| WATER ABSORPTION AT EQUILIBRIUM                   | ASTM D 570  | -          | %                 | 0,37       | -    | -     |
| WATER ABSORPTION AT EQUILIBRIUM AT 100°C          | ASTM D 570  | -          | %                 | 0,55       | -    | -     |
| <b>ELECTRICAL PROPERTIES</b>                      |             |            |                   |            |      |       |
| VOLUME RESISTIVITY                                | ASTM D 257  | -          | Ohm-m             | >1015      | -    | -     |
| INSTANTANEOUS DIELECTRIC RIGIDITY, IN OIL, 3,2 mm | IEC 60243-1 | -          | kV/mm             | 16,0       | -    | -     |
| DIELECTRIC CONSTANT AT 50 HZ                      | ASTM D 150  | -          | -                 | 2,70       | -    | -     |
| DIELECTRIC CONSTANT AT 1 MHZ                      | IEC 60250   | -          | -                 | 2,60       | -    | -     |
| DISSIPATION FACTOR AT 50 HZ                       | ASTM D 150  | -          | -                 | 0,0004     | -    | -     |
| DISSIPATION FACTOR AT 1 MHZ                       | IEC 60250   | -          | -                 | 0,0009     | -    | -     |
| <b>FLAME RESISTANCE</b>                           |             |            |                   |            |      |       |
| OXYGEN INDEX                                      | ASTM D 2863 | -          | %                 | 33         | -    | -     |
| SELF-EXTINGUISHING (mm OF THICKNESS)              | UL 94       | -          | -                 | V-1(1,5)   | V-0  | V-2   |
| OPTICAL DENSITY, 90 SEC.                          | ASTM E 662  | -          | -                 | 76         | -    | -     |
| 4 min   | ASTM E 662  | -          | -                 | 181        | -    | -     |
| DSMC  | ASTM E 662  | -          | -                 | 414        | -    | -     |
|   |             |            | (sp. 2 mm)        |            |      |       |

Typical values only, measured on injection bars. All values measured at standard laboratory conditions (23°C - 50% relative humidity) unless otherwise specified.

## CHEMICAL RESISTANCE OF NORYL

| CHEMICALS                    | CLASS    | CHEMICALS              | CLASS      | CHEMICALS                | CLASS    |
|------------------------------|----------|------------------------|------------|--------------------------|----------|
| Ethyl acetate                | <b>C</b> | Alcalis                | <b>A</b>   | Aromatic hydrocarbons    | <b>C</b> |
| Acetone                      | <b>C</b> | Ethyl alcohol          | <b>C</b>   | Chlorinated hydrocarbons | <b>C</b> |
| Mineral acids (diluted)      | <b>A</b> | Isopropyl alcohol      | <b>C</b>   | Potassium hydroxide 50%  | <b>A</b> |
| Mineral acids (concentrated) | <b>B</b> | Methyl alcohol         | <b>A</b>   | Sodium hydroxide 50%     | <b>A</b> |
| Acetic Acid 90%              | --       | Antifreeze             | <b>C</b>   | Transmission fluid       | <b>C</b> |
| Hydrochloric Acid 37%        | --       | Petrol                 | <b>B-C</b> | Methacrylate sealant     | <b>C</b> |
| Phosphoric Acid 60%          | <b>A</b> | Ketones                | <b>C</b>   | White mineral oil        | --       |
| Nitric Acid 90%              | --       | Greases and oil        | <b>B</b>   | Detergent solutions      | <b>A</b> |
| Sulphuric Acid 98%           | --       | Aliphatic hydrocarbons | <b>B</b>   | Solvents/Alcohols        | <b>A</b> |

LEGEND: CLASS **A** = resistant; CLASS **B** = limited resistance; CLASS **C** = not resistant; -- = not tested.

## INDUSTRIAL SWITCHBOARDS

## TECHNICAL DATA

## PVC RESISTANCE TO CHEMICAL AGENTS

| CHEMICAL COMPOUND                  | CONCENTRATION                | TEMP. ° C | RESISTANCE OF PVC | CHEMICAL COMPOUND                      | CONCENTRATION                | TEMP. ° C | RESISTANCE OF PVC |
|------------------------------------|------------------------------|-----------|-------------------|--|------------------------------|-----------|-------------------|
| LEAD ACETATE, solution             | hot saturated                | 50        | +                 | CALCIUM CHLORIDE, solution             | dilute                       | 40        | +                 |
| VINEGAR (wine)                     | commercially available       | 40        | +                 | IRON CHLORIDE, solution                | up to 10%                    | 40        | +                 |
| ACETONE                            | trace                        | 20        | -                 | HEXANE                                 | -                            | 20        | +                 |
| ACETONE                            | 100%                         | 20        | -                 | ETHYL BENZOL                           | -                            | 20        | -                 |
| FATTY ACIDS                        | 100%                         | 60        | +                 | FORMALDEHYDE                           | dilute                       | 40        | +                 |
| ARSENIC ACID, solution             | dilute                       | 40        | +                 | FREON 12                               | 100%                         | 20        | +                 |
| BENZOLIC ACID, solution            | any concentration            | 20        | +                 | OIL, heating                           | -                            | 20        | •                 |
| BORIC ACID, solution               | dilute                       | 40        | +                 | GELATINE, solution                     | all concentrations and types | 40        | +                 |
| BUTYRIC ACID, solution             | 20%                          | 20        | +                 | GLYCERINE, solution                    | all concentrations and types | 60        | +                 |
| CITRIC ACID, solution              | up to 10%                    | 40        | +                 | HYDROGEN                               | 100%                         | 60        | +                 |
| HYDROCHLORIC ACID, solution        | up to 30%                    | 40        | +                 | BARIUM HYDROXIDE, solution             | all concentrations and types | 60        | +                 |
| CHROMIC ACID, solution             | up to 50%                    | 40        | +                 | POTASSIUM HYDROXIDE, solution          | up to 40%                    | 40        | +                 |
| FORMIC ACID                        | 100%                         | 20        | +                 | SODIUM HYDROXIDE, solution             | up to 40%                    | 40        | +                 |
| FORMIC ACID, solution              | up to 50%                    | 40        | +                 | MILK                                   | commercially available       | 20        | +                 |
| NITRIC ACID, solution              | up to 30%                    | 50        | +                 | LIQUID ANTIFREEZE, for motor vehicles  | commercially available       | 20        | +                 |
| BATTERY ACID                       | -                            | 60        | +                 | LYE                                    | -                            | -         | -                 |
| PRUSSIC ACID                       | -                            | 60        | +                 | MOLASSES                               | industrial concentrate       | 20        | +                 |
| SILICIC ACID, solution             | all concentrations and types | 60        | +                 | PETROL/BENZOL MIXTURE                  | 80/20%                       | 20        | -                 |
| SULPHURIC ACID, solution           | up to 40%                    | 40        | +                 | NAPHTHALENE                            | -                            | 20        | -                 |
| SUCCINIC ACID, solution            | -                            | 60        | +                 | NEKTAL BX, solution                    | dilute                       | 40        | +                 |
| TANNIC ACID                        | 10%                          | 60        | •                 | OILS AND GREASES                       | commercially available       | 60        | +                 |
| TARTARIC ACID, solution            | up to 10%                    | 40        | +                 | LUBRICATING OILS                       | 100%                         | 20        | +                 |
| WATER                              | 100%                         | 40        | +                 | CAMPHOR OIL                            | 100%                         | 20        | +                 |
| AMMONIA WATER                      | hot saturated                | 40        | +                 | DIESEL OIL                             | 100%                         | 20        | +                 |
| BROMINE WATER                      | cold saturated               | 20        | +                 | CORNFLOWER OIL                         | -                            | 20        | +                 |
| CHLORINE WATER                     | saturated                    | 20        | •                 | LINSEED OIL                            | 100%                         | 60        | •                 |
| SEA WATER                          | -                            | 60        | •                 | MANDARIN OIL                           | -                            | 20        | +                 |
| WHITE SPIRIT                       | -                            | 20        | •                 | MINERAL OIL                            | 100%                         | 20        | +                 |
| SALT WATER                         | -                            | 40        | +                 | SILICONE OIL                           | 100%                         | 20        | +                 |
| CARBONATED WATER                   | normal                       | 40        | •                 | TURPENTINE OIL                         | 100%                         | 60        | •                 |
| AQUA VITAE, all types              | commercially available       | 20        | +                 | TRANSFORMER OIL                        | 100%                         | 20        | +                 |
| DENATURED ETHYL ALCOHOL (sol. 2%)  | 96%                          | 20        | +                 | LIQUID PARAFFIN                        | 100%                         | 20        | -                 |
| METHYL ALCOHOL                     | 100%                         | 40        | +                 | OZONE                                  | 100%                         | 20        | +                 |
| AMMONIA GAS                        | 100%                         | 60        | +                 | PARAFFIN                               | -                            | 60        | +                 |
| LIQUID AMMONIA                     | 100%                         | 20        | •                 | POTASSIUM PERMANGANATE                 | up to 6%                     | 20        | +                 |
| CARBON DIOXIDE dry                 | 100%                         | 60        | +                 | LIQUID PROPANE                         | 100%                         | 20        | +                 |
| PURE ANILINE                       | 100%                         | 20        | -                 | COOKING SALT, solution                 | dilute                       | 40        | +                 |
| PHOTOGRAPHIC DEVELOPMENT BATHS     | commercially available       | 40        | +                 | BARIUM SALTS, solution                 | all concentrations           | 60        | +                 |
| PETROL                             | 100%                         | 60        | +                 | FERTILIZER SALTS, solution             | up to 10%                    | 60        | +                 |
| PETROL for tests                   | -                            | 20        | +                 | ZINC SALTS, solution                   | cold diluted                 | 60        | +                 |
| BENZOL                             | 100%                         | 20        | -                 | SODIUM CARBONATE, solution             | dilute                       | 40        | +                 |
| ALCOHOLIC DRINKS                   | commercially available       | 20        | +                 | ALUMINIUM SULPHATE, solution           | dilute                       | 40        | +                 |
| BEER                               | commercially available       | 20        | +                 | COPPER SULPHATE, solution              | dilute                       | 40        | +                 |
| BORAX, solution                    | dilute                       | 40        | +                 | ZINC SULPHATE, solution                | dilute                       | 40        | +                 |
| BROMINE, liquid                    | 100%                         | 20        | -                 | SOLUTION for photographic laboratories | commercially available       | 40        | +                 |
| BUTADIENE                          | 50%                          | 60        | +                 | FRUIT JUICES                           | usual concentration          | 60        | +                 |
| BUTANE, gas                        | -                            | 20        | +                 | CARBON TETRACHLORIDE technical         | 100%                         | 20        | •                 |
| BUTANOL                            | up to 10%                    | 20        | +                 | TETRAETHYL LEAD                        | 100%                         | 20        | +                 |
| BEESWAX                            | commercially available       | 20        | +                 | TETRAHYDROFURAN                        | 100%                         | 20        | -                 |
| CHLORINE active                    | usual concentration          | 40        | +                 | TINCTURE OF IODINE                     | commercially available       | 20        | -                 |
| CHLORINE GAS, dry                  | 100%                         | 20        | +                 | TOLUENE                                | 100%                         | 20        | -                 |
| CHLORINE GAS, wet                  | 0,5%                         | 20        | +                 | UREA, solution                         | up to 10%                    | 40        | -                 |
| LIQUID CHLORINE                    | -                            | 20        | -                 | URINE                                  | normal                       | 40        | +                 |
| ALUMINIUM CHLORIDE, solution       | dilute                       | 40        | +                 | WINES, red and white                   | commercially available       | 20        | +                 |
| CALCIUM CHLORIDE, aqueous (sedim.) | -                            | 60        | •                 | SULPHUR                                | -                            | 60        | •                 |

Legend: + Resistant - Not resistant • Limited resistance

## FLAME RESISTANCE

Italian Ministry of Interiors Approval  
Cod. M1422C30CD100001  
File 4190, sub. 326 - Material prototype: G30


PVC: Class M1 (NFP 92-501)  
Self-extinguishing (UL94 VO) for trunking  
GWT 850° for accessories

# INDUSTRIAL SWITCHBOARDS

ACCESSORIES - TECHNICAL DATA

### "CP" SPIRAL

RoHS COMPLIANCE



| CODE  | Ø mm |    | MAX ELASTICITY OF TUBING | COLOUR | PACK m     |
|-------|------|----|--------------------------|--------|------------|
|       | A    | B  |                          |        |            |
| CP3   | 1,5  | 3  | 2-12                     | T      | 400 (8x50) |
| CP6   | 4,2  | 6  | 5-50                     | T      | 200 (8x25) |
| CP8   | 6,0  | 8  | 8-70                     | T      | 100 (4x25) |
| CP10  | 7,6  | 10 | 12-100                   | T      | 100 (4x25) |
| CP12  | 9,6  | 12 | 14-120                   | T      | 100 (4x25) |
| CP14  | 11,6 | 14 | 18-140                   | T      | 60 (3x20)  |
| CPA3  | 1,5  | 3  | 2-12                     | A      | 400 (8x50) |
| CPA6  | 4,2  | 6  | 5-50                     | A      | 200 (8x25) |
| CPA10 | 7,6  | 10 | 12-100                   | A      | 100 (4x25) |
| CPA12 | 9,6  | 12 | 14-120                   | A      | 100 (4x25) |
| CPN3  | 1,5  | 3  | 2-12                     |        | 400 (8x50) |
| CPN6  | 4,2  | 6  | 5-50                     |        | 200 (8x25) |
| CPN8  | 6,0  | 8  | 8-70                     |        | 100 (4x25) |
| CPN10 | 7,6  | 10 | 12-100                   |        | 100 (4x25) |
| CPN12 | 9,6  | 12 | 14-120                   |        | 100 (4x25) |

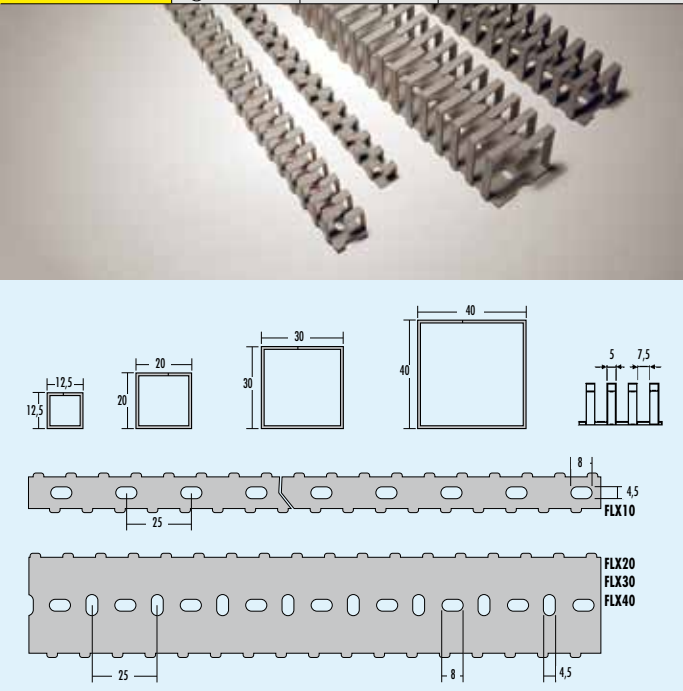
T = transparent  
A = Self-extinguishing white V2

### "FLX" FLEXIBLE DUCT TO GATHER THE CABLES

WITH ADHESIVE ON THE BOTTOM. MATERIAL: NYLON

RoHS COMPLIANCE


Temperature: -15° / +80° IEC 216: +85 / 110°C SELF-EXTINGUISHING UL94-V2



| CODE  | B    | H    | L   | COLOUR | PACK Pcs. |
|-------|------|------|-----|--------|-----------|
| FLX10 | 12,5 | 12,5 | 500 |        | 50        |
| FLX20 | 20   | 20   | 500 |        | 50        |
| FLX30 | 30   | 30   | 500 |        | 50        |
| FLX40 | 40   | 40   | 500 |        | 50        |

### "GUEST" EXTENSIBLE STOCKING SHEATHS

RoHS COMPLIANCE



| CODE     | Ø mm  | COLOUR | PACK m |
|----------|-------|--------|--------|
| GUEST 05 | 5 10  |        | 200    |
| GUEST 10 | 10 18 |        | 200    |
| GUEST 20 | 20 30 |        | 100    |
| GUEST 30 | 30 45 |        | 100    |
| GUEST 50 | 50 75 |        | 50     |

Suitable for flexible electrical wire and cables, the extensible sheath protects the wires from abrasion and improves the thermal and electrical isolation. The GUEST sheath allows pulling wires out off the mesh at different locations.


**SPECIFICATIONS**  
 Non-toxic  
 Resistant to abrasive and combustible substances, liquids, solvents, moulds  
 Excellent resistance to abrasion  
 Diameter of polyester yarn 0,22 mm  
 Working temperature -50°/+150°C  
 Max continuous working temperature +120°C  
 Max peak temperature +180°C

Flammability rating UL94 HB  
 Oxygen index L01 27,5  
 Melting point 257°C  
 Softening point 230° - 240°C  
 Water absorption in normal climate conditions 0,4%  
 Water absorption and saturation 0,5 - 0,6%  
 Max elongation at break 23 - 28%  
 Water contraction at 100° CX3 2 - 10%

### "SPIFAST" SHEATH AND TOOL

RoHS COMPLIANCE

Temperature: -40° / +85° SELF-EXTINGUISHING UL94-V0



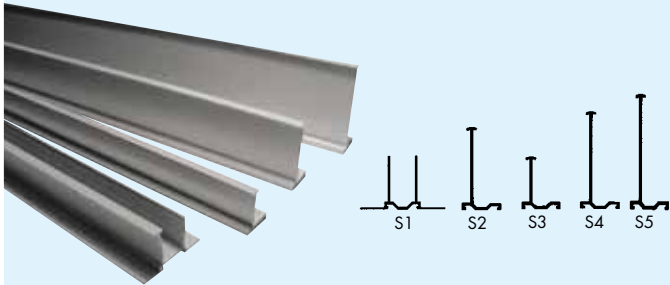
| CODE   | DESCRIPTION | Ø mm | CABLES 1x2,5 MAX | COLOUR | PACK m |
|--------|-------------|------|------------------|--------|--------|
| SPF08N | Sheath      | 8    | 6                |        | 100    |
| SPF15N | Sheath      | 15   | 10               |        | 50     |
| SPF20N | Sheath      | 20   | 14               |        | 30     |
| SPF25N | Sheath      | 25   | 14               |        | 20     |

|         |      |    |   | PACK Pcs. |
|---------|------|----|---|-----------|
| SPFUT08 | Tool | 8  | - | 10        |
| SPFUT15 | Tool | 15 | - | 10        |
| SPFUT20 | Tool | 20 | - | 10        |
| SPFUT25 | Tool | 25 | - | 5         |

## INDUSTRIAL SWITCHBOARDS

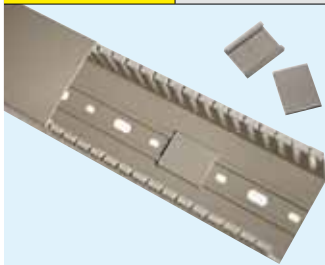
ACCESSORIES - TECHNICAL DATA

## CABLE SEPARATORS

RoHS COMPLIANCE 

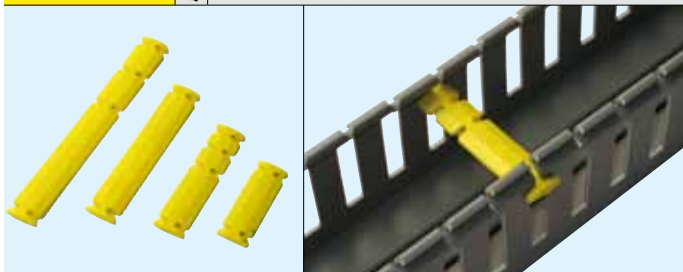
| CODE              | H   | PACK m |
|-------------------|-----|--------|
| S1 (2 Separators) | 40  | 30     |
| S2                | 60  | 50     |
| S3                | 40  | 60     |
| S4                | 80  | 32     |
| S5                | 100 | 32     |

## COVERS TO INSTALL OVER IF METAL SCREWS ARE USED TO SECURE THE DUCT

RoHS COMPLIANCE 

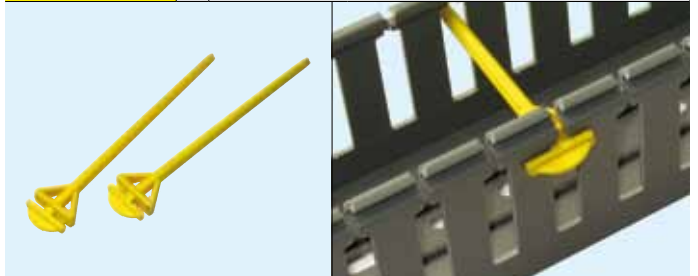
| CODE  | PACK Pcs. |
|-------|-----------|
| COVIT | 1000      |

## CROSS-ARMS TO RETAIN THE CABLES WHEN THE COVER IS REMOVED

RoHS COMPLIANCE 

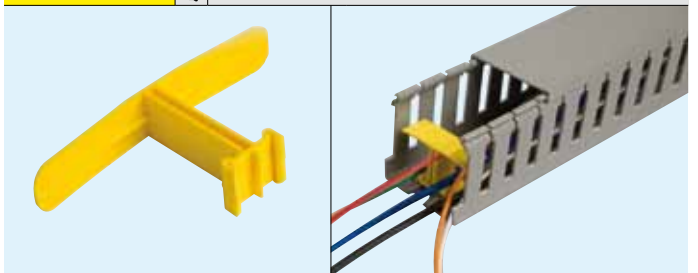
| CODE | FOR TRUNKING B | PACK Pcs.   |
|------|----------------|-------------|
| TR4  | 40             | 500 (5x100) |
| TR6  | 60             | 500 (5x100) |
| TR8  | 80             | 400 (5x80)  |
| TR10 | 100/120        | 250 (5x50)  |
| TR15 | 125            | 200 (1x200) |

## CROSS-ARM FOR TRUNKINGS

RoHS COMPLIANCE 

| CODE | PACK Pcs.  |
|------|------------|
| PTR  | 100 (4x25) |

## CABLE-RETAINING CROSS-ARMS

RoHS COMPLIANCE 

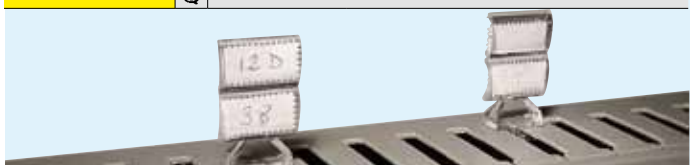
| CODE     | FOR TRUNKING B | PACK Pcs. |
|----------|----------------|-----------|
| FCV12040 | 60/120x40      | 40        |
| FCV12060 | 40/200x60      | 25        |

## CABLE TIE HOLDER

RoHS COMPLIANCE 

| CODE | PACK Pcs.  |
|------|------------|
| DMF  | 100 (2x50) |

## LABEL HOLDER FOR WIRE DUCTS

RoHS COMPLIANCE 

| CODE | PACK Pcs.  |
|------|------------|
| PTE  | 100 (2x50) |



## INDUSTRIAL SWITCHBOARDS

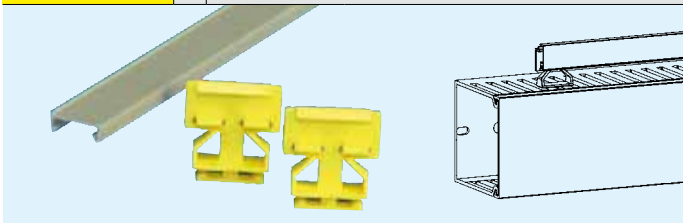
ACCESSORIES - TECHNICAL DATA

## UNIVERSAL CABLE-HOLDER

RoHS COMPLIANCE 

| CODE | FOR TRUNKING H | PACK Pcs. |
|------|----------------|-----------|
| FMC  | 60/80          | 40 (4x10) |

## WIRE DUCT IDENTIFICATION KIT

RoHS COMPLIANCE 

| CODE      | DESCRIPTION  | PACK KIT |
|-----------|--|----------|
| MARK15KIT | - n. 10 label-holder cover. Bar length 0,5 m.<br>- n. 20 cover-holders | 20       |

## LABEL-HOLDER COVER 15mm

RoHS COMPLIANCE 

| CODE    | DESCRIPTION                    | PACK m |
|---------|--------------------------------|--------|
| PTECO15 | Bar length 1 m. Use with PTECO | 150    |



## COVER HOLDER FOR PTECO15

RoHS COMPLIANCE 

| CODE  | PACK Pcs. |
|-------|-----------|
| PTECO | 150       |

## RIVETS



RoHS COMPLIANCE 

| CODE | Ø mm | DIMENSIONS |     |     |    | COLOUR  | PACK Pcs. |
|------|------|------------|-----|-----|----|---|-----------|
|      |      | A          | B   | C   | D  |   |           |
| RIV1 | 6,5  | 11         | 6   | 2   | 14 |  | 100       |
| RIV2 | 4,5  | 9          | 4,5 | 1,8 | 12 |  | 50        |

To fix the ducts to panels. Material: Nylon

## RIVETING TOOLS



| CODE   | Ø mm | DESCRIPTION                            | COLOUR  | PACK Pcs. |
|--------|------|--|---|-----------|
| PRRIV  | 6,5  | For the fast installation of the RIV1  |  | 4 (4x1)   |
| PRRIV2 | 4,5  | For the fast installation of the RIV12 |  | 4 (4x1)   |

## CUTTER FOR TRUNKINGS MAX 120x120 mm



| CODE    | DESCRIPTION          | PACK Pcs. |
|---------|----------------------|-----------|
| ETC120  | Cutter for trunkings | 1         |
| ETC120L | Spare blade          | 1         |

This bench-mounted cutter will allow you to cut precise lengths of ducts, thanks to the attached ruler stuck on the side panel. The well-sharpened blade will give you burr-free results as well.

## INDUSTRIAL SWITCHBOARDS

ACCESSORIES - DIN RAILS

## TOOL FOR HOLE PUNCHING WIRING DUCTS SIDES



| CODE | DESCRIPTION   | PACK Pcs. |
|------|---|-----------|
| ECUF | Tool for punch-cutting sides of wiring ducts up to bore 4mm<br>Repeat the action for bigger bores and for more wire ties. | 1         |


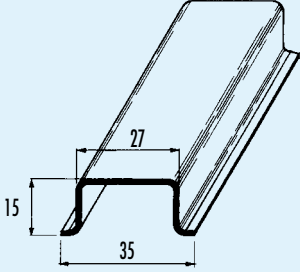
## TOOL FOR CUTTING WIRING DUCTS SIDES



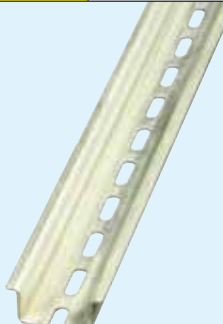
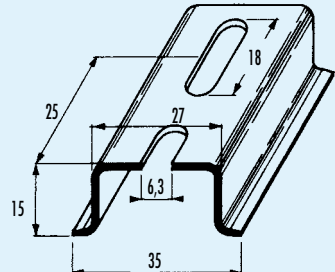
| CODE | DESCRIPTION  | PACK Pcs. |
|------|--|-----------|
| ECUT | Tool for punch-cutting sides of wiring ducts<br>Whitout blade as spare parts.<br>Repeat the action for bigger bores and for bunch wire | 1         |

## DIN RAILS


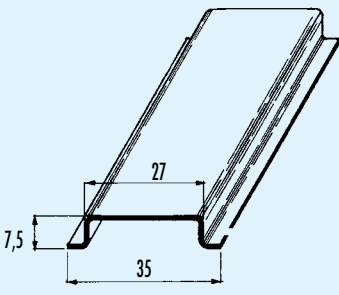
DIN RAIL  
TO SNAP-ON ELECTRICAL EQUIPMENT

| RoHS COMPLIANCE   | CeNELEC En 50.022   |                 |               |
|---|---|-----------------|---------------|
|  |  |                 |               |
| <b>CODE</b>   | <b>COLOUR</b>   | <b>LENGTH m</b> | <b>PACK m</b> |
| PD35CZ  | Sendzimir   | 2               | 20            |


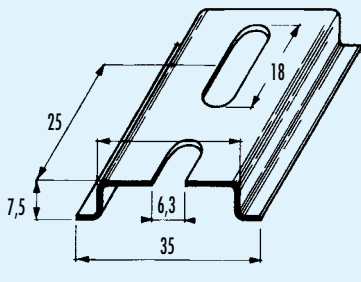
## PERFORATED DIN RAIL

| RoHS COMPLIANCE  | CeNELEC En 50.022   |                 |               |
|--|---|-----------------|---------------|
|  |  |                 |               |
| <b>CODE</b>  | <b>COLOUR</b>   | <b>LENGTH m</b> | <b>PACK m</b> |
| PD35CZF6   | Sendzimir   | 2               | 20            |

DIN RAIL  
TO SNAP-ON ELECTRICAL EQUIPMENT

| RoHS COMPLIANCE   | Din 46277/ FEUILLE 3  | CeNELEC En 50.022 |               |
|---|---|-------------------|---------------|
|  |  |                   |               |
| <b>CODE</b>   | <b>COLOUR</b>   | <b>LENGTH m</b>   | <b>PACK m</b> |
| PD35Z   | Sendzimir   | 2                 | 40            |

## PERFORATED DIN RAIL

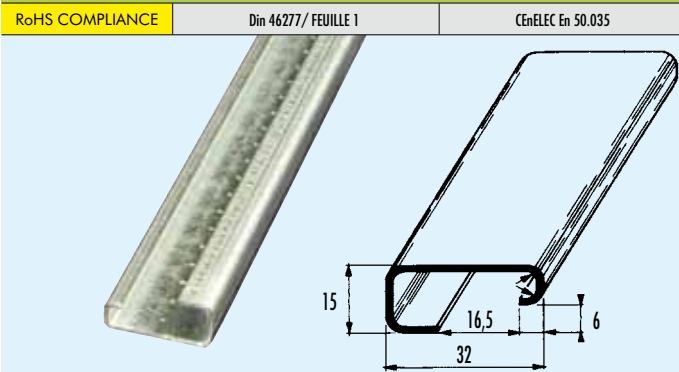
| RoHS COMPLIANCE  | Din 46277/ FEUILLE 3  | CeNELEC En 50.022 |               |
|--|---|-------------------|---------------|
|  |  |                   |               |
| <b>CODE</b>  | <b>COLOUR</b>   | <b>LENGTH m</b>   | <b>PACK m</b> |
| PD35ZF6  | Sendzimir   | 2                 | 20            |

## INDUSTRIAL SWITCHBOARDS

DIN RAILS - ACCESSORIES

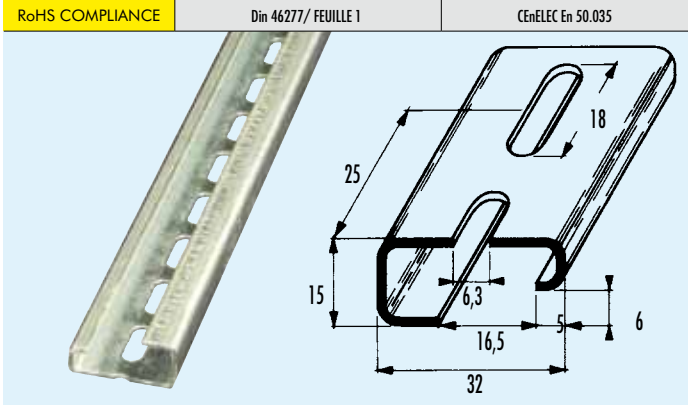
## DIN RAIL

TO SNAP-ON CLAMPS FOR ASSEMBLING EQUIPMENT AND FRAMES USING THE SPECIAL COUPLING PDC 46.



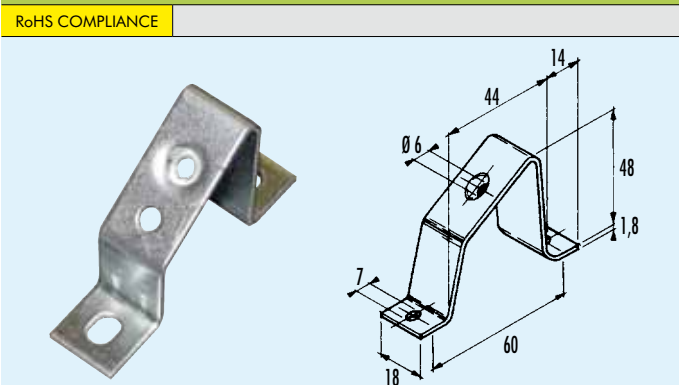
| CODE  | COLOUR    | LENGTH m | PACK m |
|-------|-----------|----------|--------|
| PD32Z | Sendzimir | 2        | 20     |

## PERFORATED DIN RAIL



| CODE    | COLOUR    | LENGTH m | PACK m |
|---------|-----------|----------|--------|
| PD32ZF6 | Sendzimir | 2        | 20     |

## SUPPORT BRACKET IN GALVANISED STEEL WITH M6 THREADED HOLE



| CODE   | COLOUR    | PACK Pcs. |
|--------|-----------|-----------|
| PDSZM6 | Sendzimir | 10        |

## MANUAL PROFILE CUTTING TOOL, 2 MOLDS



| CODE   | PACK Pcs. |
|--------|-----------|
| PDTR2M | 10        |

## GENERAL NOTES

### GENERAL SALES CONDITIONS - SYMBOLS

- 1 - Prices and conditions only become binding at the time of acceptance of the order, by us, with written confirmation. Your purchase order is an implicit acceptance of our General Conditions of Sale.
- 2 - The conditions and other commitments entered into the quotation by us are only valid if an order is placed for everything which is included in that quotation.
- 3 - Estimates, outline designs, etc. attached to the quotation are our exclusive property and may not therefore be communicated to third parties without our written authorisation.
- 4 - Any modifications to the quotation and to these general supply conditions must be in writing and are limited to what is clearly agreed.

### WEIGHTS - DIMENSIONS - TECHNICAL DATA

- 5 - Estimates, projects, drawings, photographs, colors and technical specifications listed in the catalogues, price lists and offers, are meant to be indicative and not binding for the company, which reserves the right to modify them at any time for improving product performances. For more information, please call our technical department.

### PRICES

- 6 - Prices and discounts on list prices and quotations are subject to variation according to market requirements or in line with variations in the cost of raw materials or labour, without any prior notice to our Customers. Prices are EXW-Incotems 2010; transport costs, customs duties and any other types of expense are always payable by the Customer, unless otherwise agreed in writing.

### PACKING AND TRANSPORT

- 7 - Packaging, which is invoiced at cost, is non-returnable. Our Company standard condition of delivery is EXW and therefore cannot be held responsible for missing or irregular deliveries by carriers, being explicitly understood that, even if the Company helps organize the shipment to the Customer's premises, the goods travel at the entire risk of the Purchaser. Any return of goods must first be authorised by our Company and goods must be returned free of any cost to our Factory warehouses.

### DELIVERY TIMES

- 8 - Agreed delivery times are indicative and not legally binding and are subject to the clause "unless sold" for goods indicated as ready; they are valid only in normal working and supply conditions. Our Company shall in no circumstances or for any reason be liable to pay compensation of any kind of direct or indirect damage due to late deliveries.

### PAYMENT - RETENTION OF PROPERTY TITLE

- 9 - Payment terms and conditions must be agreed in writing or, failing this, shall be understood to be net cash on delivery of the goods. The goods remain the property of Olan Ltd. and will not be transferred to the client until the same has not made full payment of the price stated in the invoice, meaning the sale under the above condition. Therefore, in case of non-payment, Olan Ltd will be entitled to claim the delivered goods even in case of bankruptcy of the buyer. In the event of late payment, the Customer undertakes to pay interest on delayed payment equivalent to the average market rate applied by Financial Institutions, plus 4%. If the purchaser fails to comply, even partially, with any of the conditions agreed for collection of the goods or for settlement and payment of individual invoices, our Company has the right to immediately suspend further deliveries and consider itself free of any contractual obligation, while retaining all its rights relating to failure to comply with the contract. Unless expressly agreed otherwise, payments must always be made directly to our Company.

### CLAIMS

- 10 - Any claims relating to the supply of goods must reach us within 12 days of receipt of such goods, after which time they will no longer be accepted. Every claim must be based on concrete facts in order to be taken into consideration. We shall be entitled, at our discretion, to take back or replace goods which the Customer demonstrates to be faulty, but will not accept any costs for repairs or modifications which have been made without our authorisation. It remains understood that any claims on any single consignment of goods will have no effect on the balance of the order or the obligation, or on payment for other goods already received without complaint.

### WARRANTY

- 11 - The warranty we offer for products made by us is 12 months from the date of the corresponding invoice and, during this period, we undertake to repair or replace free of charge in our workshops any parts or equipment which are unusable due to defective materials or workmanship. In all cases, we reserve the right to decide, at our entire discretion, whether repair or replacement is most appropriate. We however exclude the possibility of sending our personnel to make on-site inspections to installations where our equipment is installed, except in cases where, at our entire discretion, we believe it is necessary to check the operating conditions to which our equipment has been subjected.
- 12 - Our warranty is naturally valid provided that the Customer has used and treated our equipment with due care, that the equipment has not been misused or modified and that all the technical requirements contained in our price lists and instruction sheets have been complied with. The warranty does not cover parts which, due to the nature of the material with which they are made or to their specific use, are subject to premature wear; damage due to normal wear and tear is also excluded.
- 13 - The Customer must send written notification of failures and defects, giving an exact description of their nature and we shall arrange, within the necessary time required, repairs and replacement under the above terms and conditions. Material for repair or replacement must be delivered to us, carriage paid.
- 14 - With the repair or replacement of the equipment or any of its parts which were defective, our Company shall be relieved of all and any responsibility of any kind, while the Customer shall consider him/herself entirely satisfied by this fact and shall renounce any request for damages and costs. In certain cases, we may allow the Customer to arrange any necessary repairs or replacements, it being understood that our only obligation will be to refund any out-of-pocket expenses accepted as essential to put our equipment in working order.
- 15 - In the event of disputes of a technical nature, the parties shall submit to the opinion of an expert to be appointed by joint agreement or, if agreement cannot be reached on the appointment, selected by the President of the Milan Court.
- 16 - We shall not accept any expenses which may have been borne by the Customer, even within the warranty period, without our prior written authorisation.
- 17 - Our Company reserves the right to use, in the manufacture of its equipment, any material it deems the most suitable and to make any modifications it deems necessary to the shape, weight or dimensions of its products.

### DISPUTES

- 18 - All agreements, even if entered into with foreign companies or individuals or for materials supplied abroad, shall be governed solely by current Italian law. The Milan courts shall have sole jurisdiction over any dispute which may arise in relation to the performance of the Agreement, including by way of exception to sections 31 et seq. of the Civil Procedure Code, and the Customer shall not be entitled to file proceedings before the courts of any other place, even in the case of proceedings involving a guarantee or *lis alibi pendens*, without prejudice to the supplier company's right to take proceedings, as plaintiff, in the courts of the Customer's place of residence, whether in Italy or abroad.
- 19 - Disputes do not in any way relieve the Customer from having to comply with agreed payment terms and do not imply any extension of the terms agreed.

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### SYMBOLS

|           |                               |
|-----------|-------------------------------|
|           | Temperature of use °C Min/Max |
| <b>IP</b> | IP Protection grades          |
|           | Complete isolation protection |
| <b>PI</b> | Breaking power                |

|           |                             |
|-----------|-----------------------------|
| <b>Vn</b> | Nominal voltage             |
| <b>T</b>  | Grounding                   |
| <b>IK</b> | Mechanical protection grade |

| HEAT RESISTANCE |                             |
|-----------------|-----------------------------|
| <b>TB</b>       | Thermocompression with ball |
| <b>GWT</b>      | Glow wire test °C           |



**CANALPLAST®**  
ADVANCED TECHNOLOGIES FOR TRUNKING SYSTEMS


**Canalplast S.p.A.**

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