

# DEFENDER®

## CABLE PROTECTION SYSTEMS

## PRODUCT CATALOGUE

# PROTECT YOUR WORLD!

PVC FREE RECYCLING MATERIAL

5 YEARS GUARANTEE

MADE IN GERMANY

TÜV SÜD

## EN: DEFENDER® CABLE PROTECTORS

DEFENDER® cable protection systems were originally intended to protect power cables and avoid tripping hazards at rock concerts, but they have become the standard in many industrial, commercial and public applications. Designed and manufactured in Germany, DEFENDER® products are made from highly durable, recyclable TPU (thermoplastic polyurethane) and include various modular protection systems for cables and hoses of up to 113 mm in diameter. Strict raw material and production controls ensure DEFENDER® cable protectors meet strict specifications and the highest quality standards. All DEFENDER® cable protection systems are certified by TÜV SÜD. They meet the requirements of fire protection class E in accordance with DIN EN 13501-1.

More details about DEFENDER® cable protectors are available at www.defender-protects.com. DEFENDER® cable protection experts are happy to answer any questions you may have.

## DE: DEFENDER® KABELBRÜCKEN

Ursprünglich zum Schutz von Stromkabeln und zur Vermeidung von Stolperfallen bei Rockkonzerten gedacht, haben sich die DEFENDER® Kabelschutzsysteme mittlerweile als Standard bei zahlreichen Anwendungen in industriellen, kommerziellen und öffentlichen Bereichen durchgesetzt. Die in Deutschland entworfenen und hergestellten DEFENDER® Produkte werden aus besonders robustem, wiederverwertbarem TPU (thermoplastisches Polyurethan) gefertigt und umfassen verschiedene modular einsetzbare Schutzsysteme für Kabel und Schläuche bis zu einem Durchmesser von 113 mm. Strengste Rohstoff- und Produktionskontrollen gewährleisten, dass die DEFENDER® Kabelbrücken die anspruchsvollste Spezifikationen und höchste Qualitätsstandards erfüllen. Alle DEFENDER® Kabelschutzsysteme sind vom TÜV SÜD zertifiziert. Sie erfüllen die Anforderungen der Brandschutzklasse E nach DIN EN 13501-1.

Weitere Informationen über die DEFENDER® Kabelbrücken sind unter www.defender-protects.com verfügbar. Bei Fragen stehen Ihnen die Kabelschutzexperten von DEFENDER® gerne zur Verfügung.

## ES: PASACABLES DEFENDER®

Desarrollados inicialmente para proteger cables eléctricos y evitar tropiezos en conciertos de rock, los protectores de cables DEFENDER® se han convertido en una solución estándar dentro de una amplia variedad de aplicaciones industriales, comerciales y públicas. Diseñada y fabricada en Alemania con TPU (poliuretano termoplástico) muy resistente y reciclable, la gama DEFENDER® comprende diversos sistemas de protección modular para cables y tubos flexibles con diámetros de hasta 113 mm. Los estrictos controles sobre materias primas y producción garantizan que los protectores DEFENDER® cumplen las más rigurosas especificaciones y las más exigentes normas de calidad. Todos los sistemas de protección de cables DEFENDER® están certificados por TÜV SÜD. Cumplen los requisitos de la clase de protección contra incendios E de acuerdo con la norma DIN EN 13501-1.

Para ampliar la información sobre los sistemas de protección de cables DEFENDER®, visite www.defender-protects.com; para obtener asistencia, contacte con el equipo de DEFENDER® de expertos en protección de cables.

## FR: PASSAGES DE CÂBLES DEFENDER®

Initialement prévus pour protéger les câbles électriques et éviter les trébuchements pendant les concerts de rock, les systèmes de protection des câbles DEFENDER® se sont désormais imposés comme la norme pour de nombreuses applications dans les domaines industriel, commercial et public. Conçus et fabriqués en Allemagne, les produits DEFENDER® sont en TPU (polyuréthane thermoplastique) extrêmement robuste et recyclable. Ils intègrent différents systèmes de protection modulaires pour les câbles et les tuyaux jusqu'à un diamètre de 113 mm. Les contrôles très stricts auxquels sont soumises les matières premières et la production garantissent la conformité des passages de câbles DEFENDER® aux spécifications et aux normes de qualité les plus exigeantes. Tous les systèmes de protection de câbles DEFENDER® sont certifiés par TÜV SÜD. Ils répondent aux exigences de la classe de protection incendie E selon DIN EN 13501-1.

Vous trouverez de plus amples informations sur les passages de câbles DEFENDER® sur www.defender-protects.com. Pour toute question, n'hésitez pas à contacter les experts en protection des câbles de DEFENDER®.





# EVEN GREATER SAFETY, THANKS TO THE NEW 3D LASERGRIP® SURFACE

THE INNOVATIVE DESIGN OF THE 3D LASERGRIP® SURFACE SIGNIFICANTLY INCREASES TREAD AND SLIP RESISTANCE. DUE TO THE SPECIAL SHAPE AND SURFACE STRUCTURE, THE RISK OF MOVING AN ENTIRE LINE OF DEFENDER® MICRO CABLE PROTECTORS IS SIGNIFICANTLY REDUCED, EVEN WHEN DRIVEN OVER BY HEAVY VEHICLES.



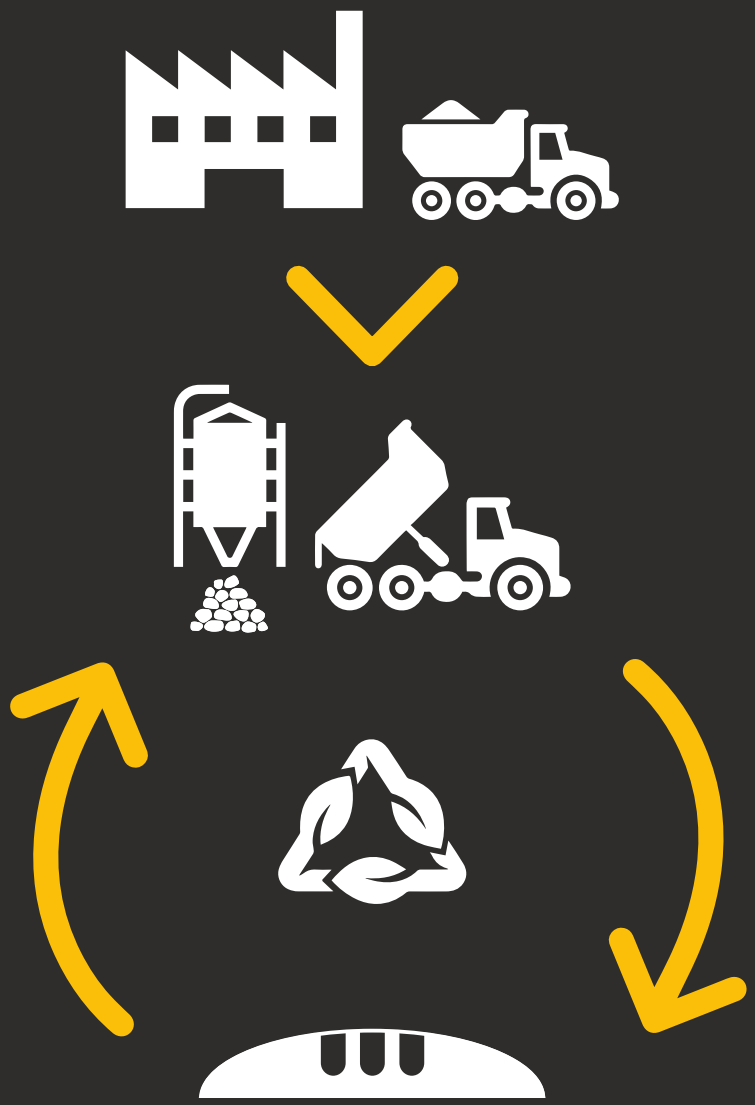


# PROTECTION AND ENVIRONMENT

Most companies nowadays place high value on sustainability, and so do we. And most probably so does your company. This is why we recycle over 90% of the DEFENDER® materials in-house – from shredding to granulating. We even monitor the whole process here on our production premises. We know exactly which materials we are processing. Everything comes from Germany and exclusively from certified companies. DEFENDER® continually recycles granulate and is an official recycler of materials from Bayer®, BASF® and DOW® Chemical.

## RECYCLING

After processing the raw material from our German certified suppliers, the granulate remains in our recycling loop. At the end of their life cycle, the cable protectors are reprocessed into new granulate and the whole process is repeated.

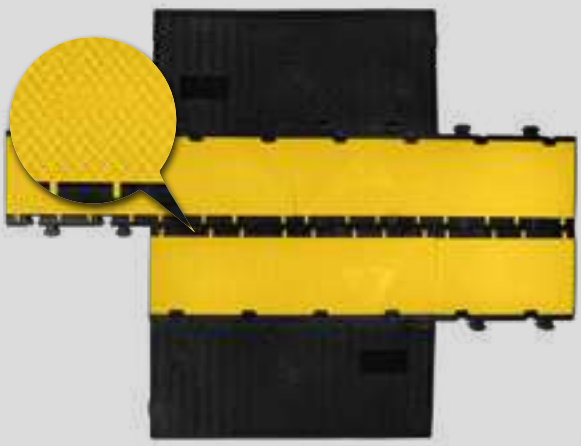


# 5 YEARS GUARANTEE



SIMPLE, MULTIDIRECTIONAL MODULAR STRUCTURE
WITH UNLIMITED EXPANDABILITY IN WIDTH AND LENGTH



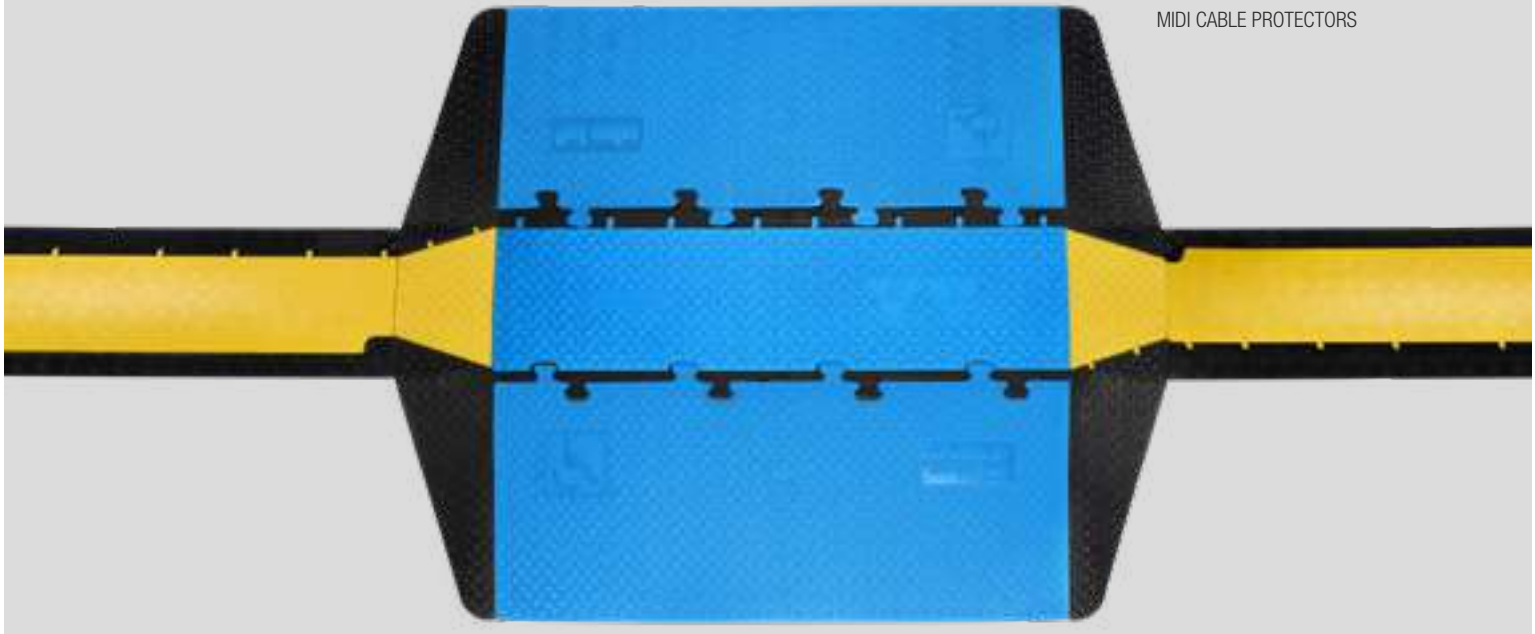


HEAVY-DUTY RAMP WITH 3D LASERGRIP ANTI-SLIP SURFACE
MADE OUT OF BLACK, RECYCLED POLYURETHANE



SELF-CLEANING SYSTEM AND LID HINGE

MALE AND FEMALE ADAPTERS TO EASILY
CONNECT THE MIDI 5 2D WITH DEFENDER®
MIDI CABLE PROTECTORS



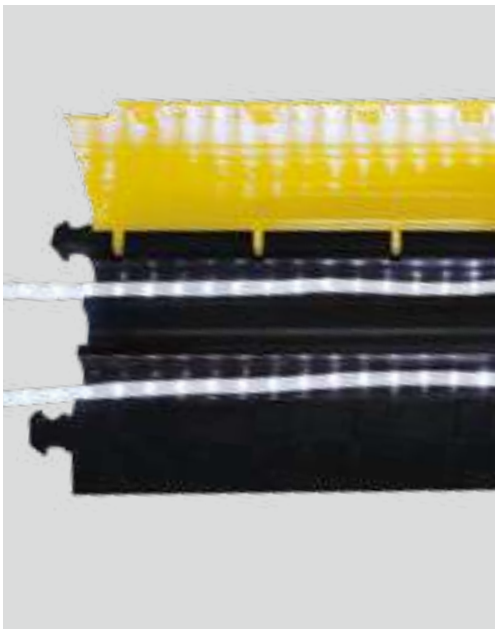


# DEFENDER®

## MODULAR SYSTEMS







# DEFENDER® LUX

## SEMI-TRANSPARENT LID SERIES

The ultimate in cable protection and trip hazard prevention, our innovative DEFENDER® LUX SERIES features highly translucent, yellow-tinted lids for running LED rope lights along your cables and cords. Developed in conjunction with major venues and event organisers, DEFENDER® LUX cable protectors are the state-of-the-art indoor and outdoor solution to ensure maximum visibility and security in the dark. See our price list for DEFENDER® LUX or talk to your DEFENDER® representative.

| Description: | Art. No.: |
|---|---|
| DEFENDER® ULTRA L LUX | 85600LUX |
| DEFENDER® ULTRA L II LUX | 85601LUX |
| DEFENDER® XXL LUX | 85500LUX |
| DEFENDER® 3 LUX | 85002LUX |
| DEFENDER® MIDI LUX | 85300LUX |

| Description: | Art. No.: |
|---|---|
| DEFENDER® MIDI 4C LUX | 85301LUX |
| DEFENDER® MINI LUX | 85200LUX |
| DEFENDER® MICRO 2 LUX | 86100LUX |
| DEFENDER® NANO LUX | 85150LUX |

# DEFENDER® CUSTOM SERVICE

DESIGN YOUR CABLE PROTECTION SYSTEM!

## CUSTOM SOLUTION DEVELOPMENT



**DEFENDER® subterra**

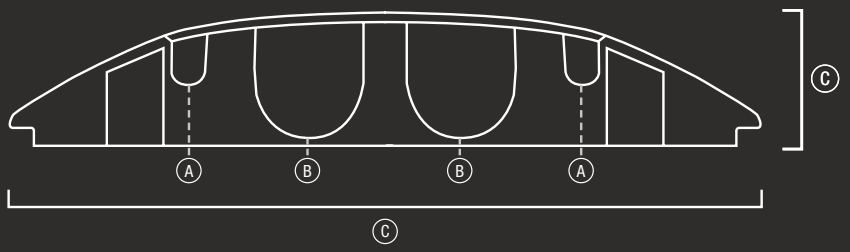
Developed with and produced for Halliburton Oil Field Services, the Subterra is a protection system for underground hydraulic lines. It combines thermoplastic polyurethane and reinforced polyamide materials to withstand earth pressure and truly demonstrates the scope of DEFENDER'S purpose design and custom production facilities.



**DEFENDER® race result**

Developed with leading race management and timing software company Race Result, these injection-moulded thermoplastic polyurethane protectors are another DEFENDER® custom product that has been purpose-designed for the company's sports event timing system antennas.

# DEFENDER® RANGE OVERVIEW

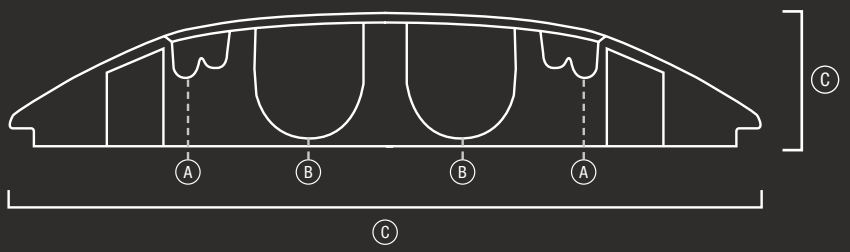



## DEFENDER® ULTRA L

TWO ULTRA-LARGE CHANNELS – THE HEAVY-DUTY GIANT

| | |
|---|---|
| A | 33 × 50 mm / 1.3" × 2.0" |
| B | 113 × 120 mm / 4.5" × 4.7" |
| C | 765 × 139 mm / 30.12" × 5.472" |

SEE PAGE **16–17**

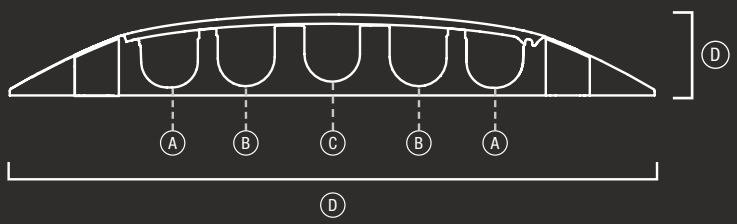



## DEFENDER® ULTRA L 2

TWO ULTRA-LARGE CHANNELS (2+4) – THE HEAVY-DUTY GIANT

| | |
|---|---|
| A | 25 mm (2×) / 1.0" |
| B | 108 × 110 mm / 4.2" × 4.3" |
| C | 765 × 120 mm / 30.12" × 4.725" |

SEE PAGE **18–19**

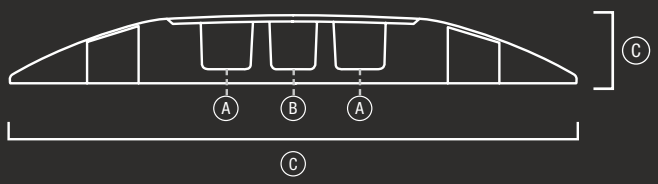



## DEFENDER® XXL

FIVE XXL CHANNELS – THE HEAVY-DUTY ALL-ROUNDER

| | |
|---|---|
| A | 61 × 59 mm / 2.4" × 2.3" |
| B | 62 × 65 mm / 2.4" × 2.6" |
| C | 60 × 63 mm / 2.4" × 2.5" |
| D | 696 × 87 mm / 27.4" × 3.43" |

SEE PAGE **20–21**

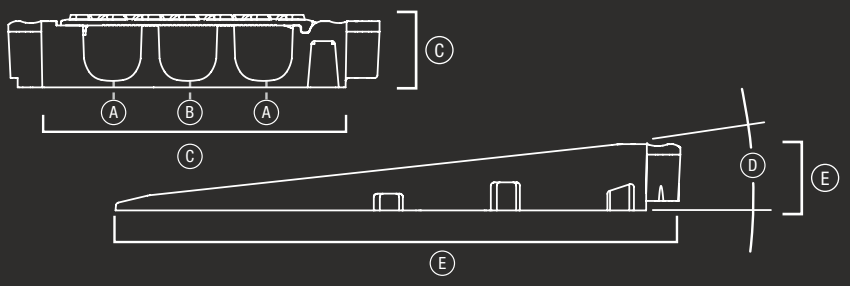



## DEFENDER® 3

THREE BIG CHANNELS – MOST POPULAR

| | |
|---|---|
| A | 52 × 49 mm / 2.1" × 2.0" |
| B | 45 × 50 mm / 1.8" × 2.0" |
| C | 605 × 75 mm / 23.82" × 2.953" |

SEE PAGE **22–23**




## DEFENDER® 3 2D

DEFENDER® 3 2D MODULAR SYSTEM FOR WHEELCHAIR RAMP AND BARRIER-FREE TRANSITION

MIDDLE PART

| | |
|---|---|
| A | 52 × 49 mm / 2.1" × 2.0" |
| B | 45 × 50 mm / 1.8" × 2.0" |
| C | 395 × 73 mm / 15.6" × 2.87" |

SEE PAGE **24–25**

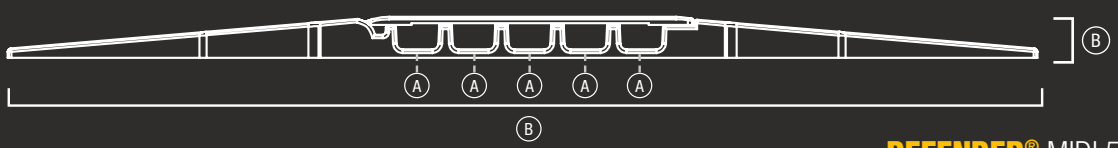
RAMP

| | |
|---|---|
| D | 6° |
| E | 600 × 71 mm / 23.6" × 2.796" |

SEE PAGE **24–25**

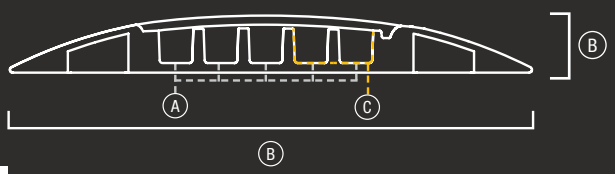
## DEFENDER® SLIM 5

ULTRA FLAT WITH FIVE CHANNELS




| | |
|---|---|
| A | 34 × 20 mm / 1.34" × 0.79" |
| B | 860 × 35 mm / 33.9" × 1.38" |

SEE PAGE **26–29**




## DEFENDER® MIDI 5 AND MIDI 4

FIVE MEDIUM CHANNELS OR THREE MEDIUM-SIZED CABLE CHANNELS AND ONE LARGE CHANNEL FOR FIRE HOSES

MIDI

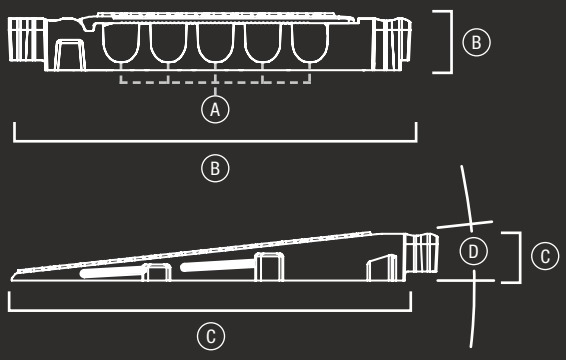
| | |
|---|---|
| A | 34 × 36 mm / 1.3" × 1.4" |
| B | 538 × 55 mm / 21.18" × 2.17" |

SEE PAGE **30–33**

MIDI 4

| | |
|---|---|
| C | 600 × 55 mm / 23.6" × 2.17" |

SEE PAGE **26–27** AND **34–35**




## DEFENDER® MIDI 5 2D

MIDI 5 2D MODULE SYSTEM FOR WHEELCHAIR RAMP AND BARRIER-FREE TRANSITION

| MIDDLE PART | |
|---|---|
| A | 35 × 38 mm / 1.4" × 1.5" |
| B | 325 × 54 mm / 12.8" × 2.13" |

SEE PAGE **26–27** AND **30–31**

| MIDDLE PART, SHORT | |
|---|---|
| A | 35 × 38 mm / 1.4" × 1.5" |
| B | 325 × 54 mm / 12.8" × 2.13" |

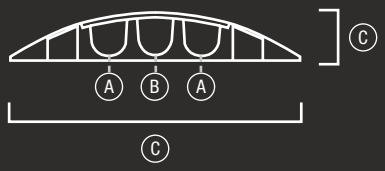
SEE PAGE **26–27** AND **30–31**

| RAMP | |
|---|---|
| C | 430 × 54 mm / 16.9" × 2.13" |
| D | 6° |

SEE PAGE **30–31**

| RAMP, SHORT | |
|---|---|
| C | 172 × 54 mm / 6.7" × 2.13" |

SEE PAGE **30–31**

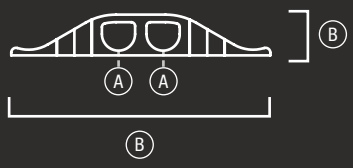



## DEFENDER® MINI

THREE SMALL CHANNELS – THE LIGHTWEIGHT CHAMPION

| | |
|---|---|
| A | 35 × 30 mm / 1.4" × 1.2" |
| B | 35 × 35 mm / 1.4" × 1.4" |
| C | 290 × 50 mm / 11.42" × 1.97" |

SEE PAGE **36–37**

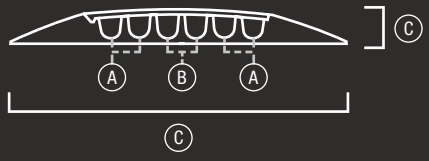



## DEFENDER® MICRO 2

CABLE PROTECTOR WITH TWO CHANNELS

| | |
|---|---|
| A | 35 × 35 mm / 1.4" × 1.4" |
| B | 273 × 45 mm / 10.7" × 1.77" |

SEE PAGE **38–39**

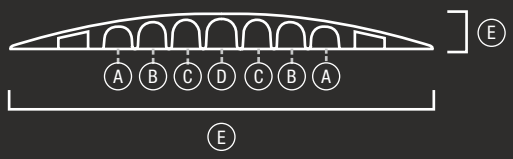



## DEFENDER® NANO

SIX SLIM CHANNELS – DISCREET OUTDOOR / INDOOR PROTECTION

| | |
|---|---|
| A | 17 × 18 mm / 0.7" × 0.7" |
| B | 17 × 19 mm / 0.7" × 0.7" |
| C | 285 × 32 mm / 11.22" × 1.26" |

SEE PAGE **40–41**

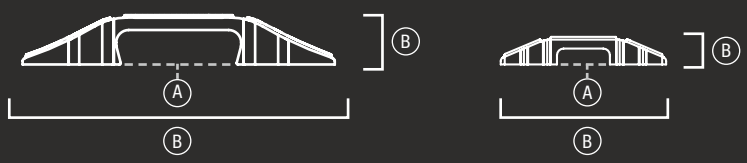



## DEFENDER® COMPACT

SEVEN SMALL CHANNELS – THE DROP-OVER SOLUTION

| | |
|---|---|
| A | 28 × 23 mm / 1.1" × 0.9" |
| B | 28 × 27 mm / 1.1" × 1.1" |
| C | 28 × 29 mm / 1.1" × 1.1" |
| D | 28 × 30 mm / 1.1" × 1.1" |
| E | 410 × 37 mm / 16.14" × 1.46" |

SEE PAGE **42–43**




## DEFENDER® XPRESS

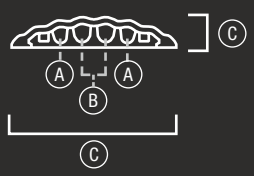
DROP-OVER CABLE PROTECTOR – INDOOR & DESIGN SOLUTION

| 100 | |
|---|---|
| A | 100 × 30 mm / 3.94" × 1.2" |
| B | 250 × 40 mm / 9.85" × 1.6" |

SEE PAGE **44–45**

| 40 | |
|---|---|
| A | 40 × 12 mm / 1.6" × 0.48" |
| B | 125 × 20 mm / 4.92" × 0.79" |

SEE PAGE **44–45**




## DEFENDER® OFFICE

FOUR MINI CHANNELS – INDOOR & DESIGN SOLUTION

| | |
|---|---|
| A | 10 × 10 mm / 0.4" × 0.4" |
| B | 12 × 12 mm / 0.5" × 0.5" |
| C | 125 × 20 mm / 4.82" × 0,79" |

SEE PAGE **44–45**

## RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / events / department stores / construction sites, streets, etc.

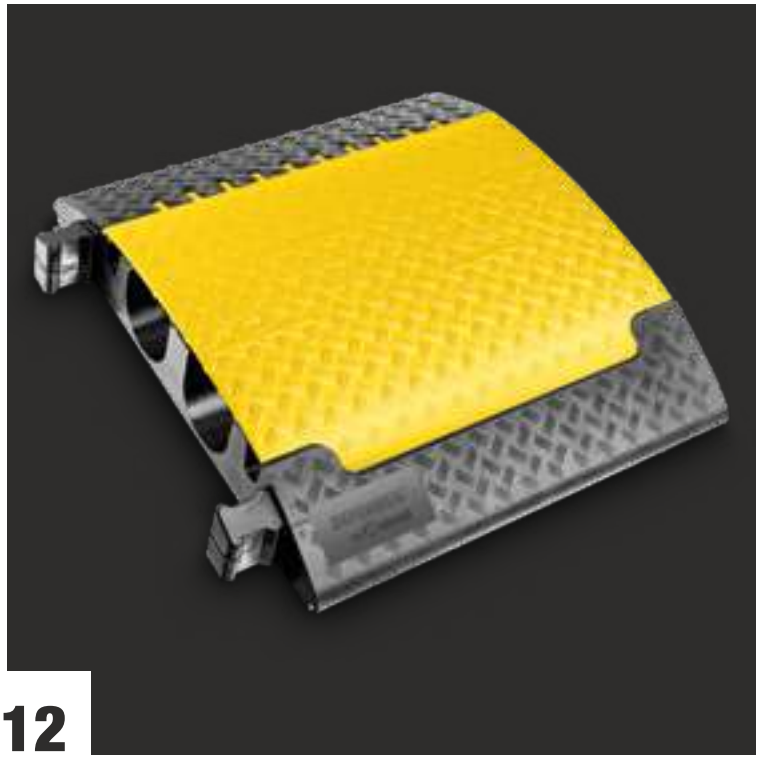
# DEFENDER® ULTRA L

## TWO ULTRA-LARGE CHANNELS – THE HEAVY-DUTY GIANT

The Ultra L cable protection system is designed for extra-heavy-duty environments and the largest cable and hose diameters. Featuring a pair of 120 × 113 mm / 4.7" × 4.5" channels flanked by two 33 × 50 mm / 1.3" × 2.0" ducts, integrated dog bone connectors for easy linking and a 5.0 ton/11,023 lb per 20 × 20 cm / 7.9" × 7.9" load capacity, DEFENDER® ULTRA L protectors are eminently suitable for heavy wheeled traffic, construction sites, warehouses, carnivals, fairs, music events and other demanding applications.

**SPECIFICATIONS**:

| | |
|---|---|
| Art. No.: | 85600 |
| Product: | Four-channel cable protector |
| Channel W × H: | 33 × 50 mm / 1.3" × 2.0" (channels 1 and 4), 120 × 113 mm / 4.7" × 4.5" (channels 2 and 3) |
| Material: | TPU (thermoplastic polyurethane) |
| Shore A hardness: | 88 ± 4 |
| Load capacity: | Approx. 5.0 ton/11,023 lb / 20 × 20 cm / 7.9" × 7.9" (typical tyre footprint area) |
| Fire classification: | Class E in accordance with DIN EN 13501-1 |
| Resistant to: | Oil, petrol and short-term contact with solvent |
| Operating temperature: | –30°C to +60°C / –22°F to 140°F |
| Length: | 700 mm / 27.6" |
| Width: | 770 mm / 30.32" |
| Height: | 143 mm / 5.63" |
| Weight: | 30 kg / 66.1 lb |

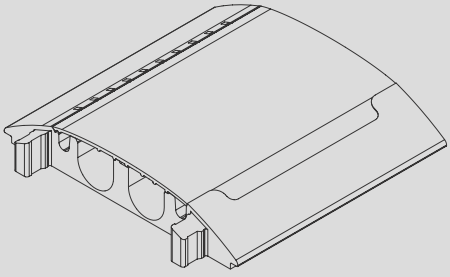


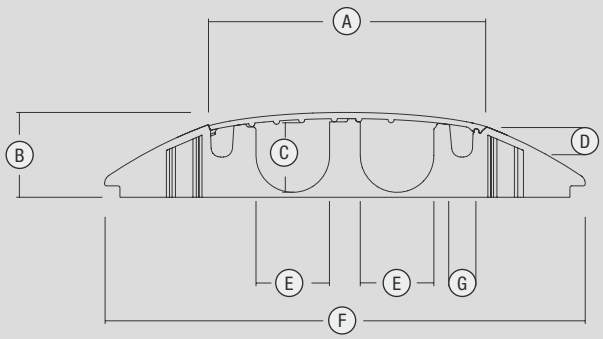


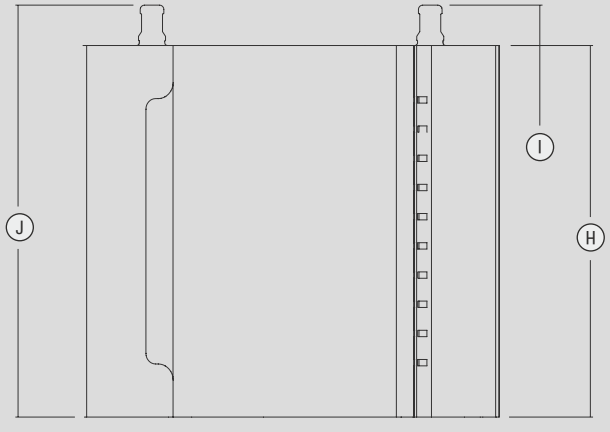



**ALSO AVAILABLE AS LUX VERSION!**

More info, page 8






| | | | |
|---|---|---|---|
| A | 452 mm / 17.8" | F | 770 mm / 30.32" |
| B | 143 mm / 5.63" | G | 33 mm / 1.3" |
| C | 113 mm / 4.5" | H | 700 mm / 27.6" |
| D | 50 mm / 2.0" | I | 76 mm / 3.0" |
| E | 120 mm / 4.7" | J | 776 mm / 30.6" |

## RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / events / department stores / construction sites, streets, etc.

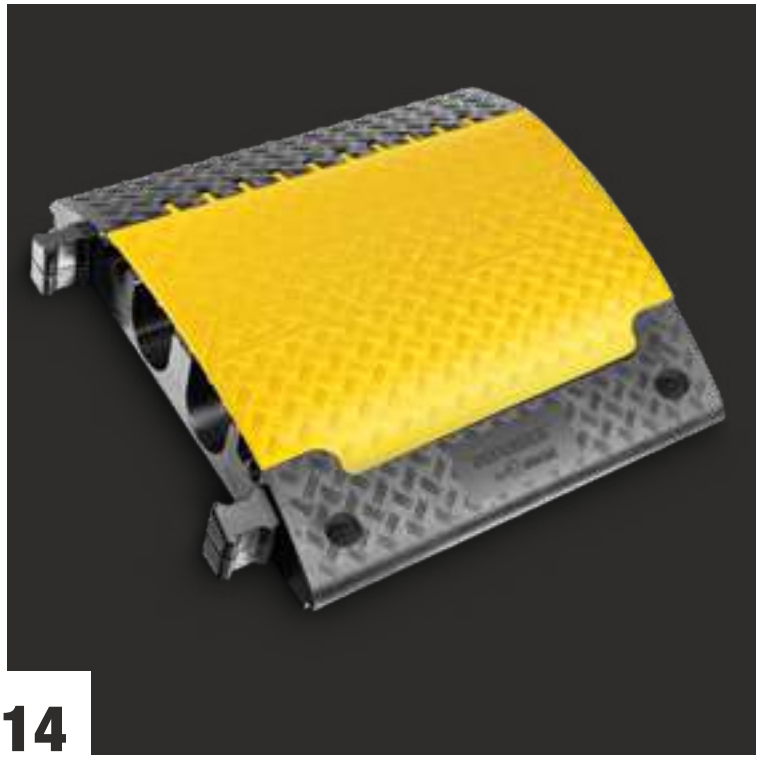
# DEFENDER® ULTRA L 2

## TWO ULTRA-LARGE CHANNELS (2+4) – THE HEAVY-DUTY GIANT

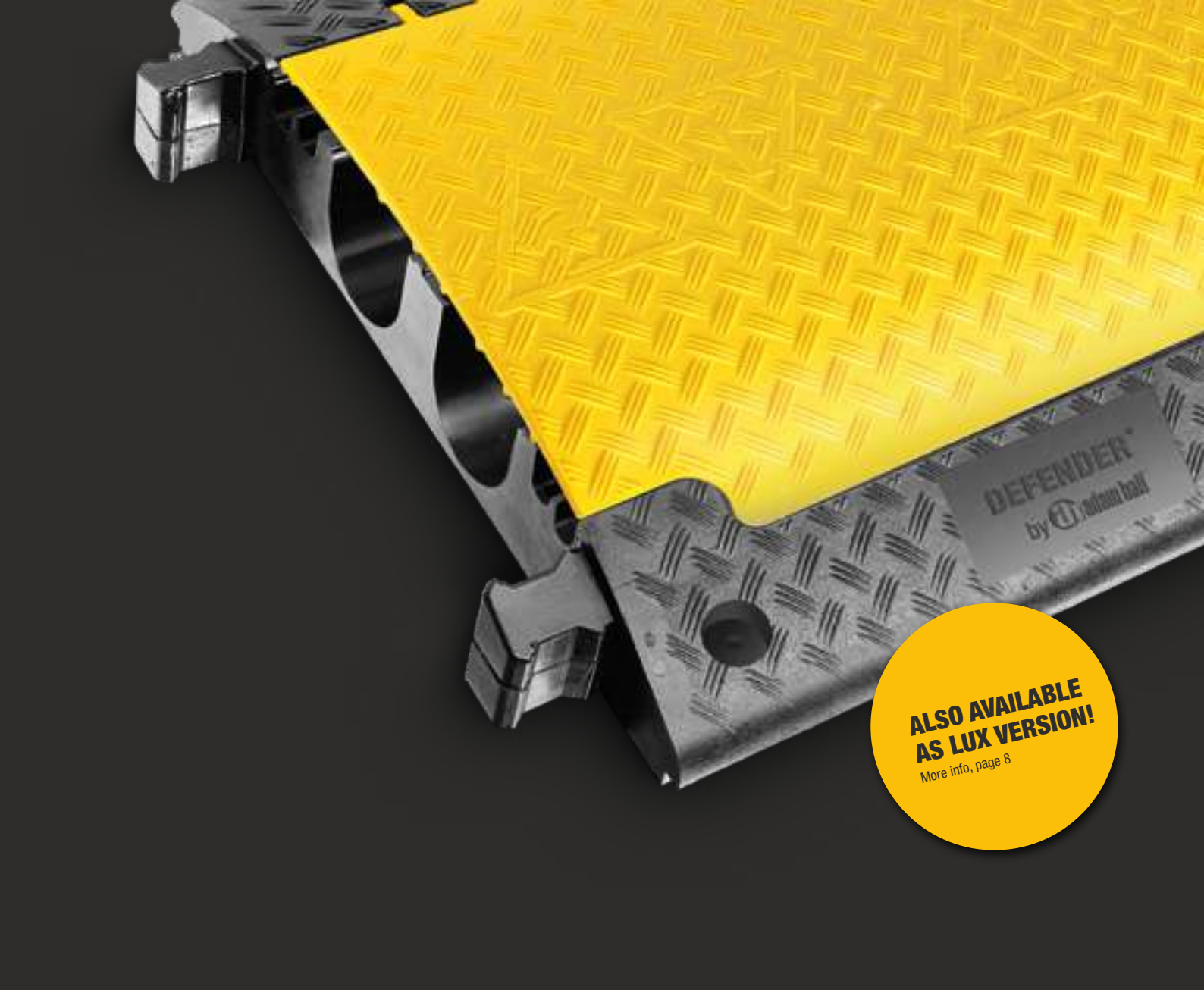
Ultra L 2 – heavy-duty cable crossovers are designed for the most demanding applications and feature two extra-large cable channels of 108 × 110 mm / 4.2" × 4.3", plus four channels with 25 mm / 1.0" diameter and integrated connector plugs for easy coupling of several elements. The load-bearing capacity is approx. 5.0 tons/11,023 lb on a 25 × 30 cm / 9.8" × 11.8" surface area. Therefore, Ultra L 2 cable crossovers are the ideal solution for heavy traffic, construction sites, warehouses, trade shows, carnivals and music events, and other applications involving particularly heavy use. They are equipped with four fixing holes (ø 15 mm / 0.6") for street installation.

**SPECIFICATIONS**:

| | |
|---|---|
| Art. No.: | 85601 |
| Product: | 2+4-channel cable protector |
| Channel W × H: | Diameter channel 1+2: 25 mm / 1.0" / Diameter channel 5+6: 25 mm / 1.0"<br>Channel 3: 108 × 110 mm / 4.2" × 4.3" / Channel 4: 108 × 110 mm / 4.2" × 4.3" |
| Material: | TPU (thermoplastic polyurethane) |
| Shore A hardness: | 88 ± 4 |
| Load capacity: | Approx. 5.0 tons/11,023 lb / 25 × 30 cm / 9.8" × 11.8"<br>(typical tyre footprint area) |
| Fire classification: | Class E in accordance with DIN EN 13501-1 |
| Resistant to: | Oil, petrol and short-term contact with solvent |
| Operating temperature: | –30°C to +60°C / –22°F to 140°F |
| Length: | 705 mm / 27.8" |
| Width: | 765 mm / 30.1" |
| Height: | 120 mm / 4.7" |
| Weight: | 27.05 kg / 59.64 lb |

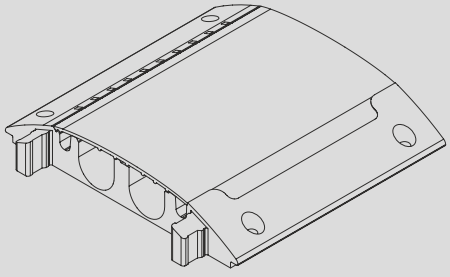


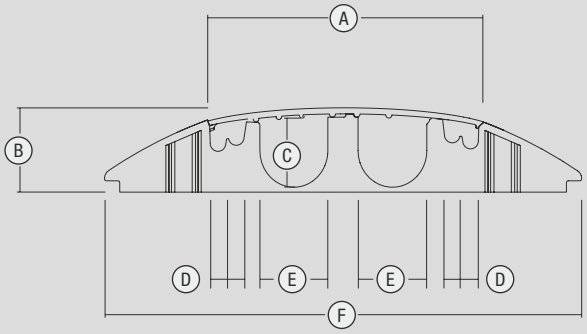


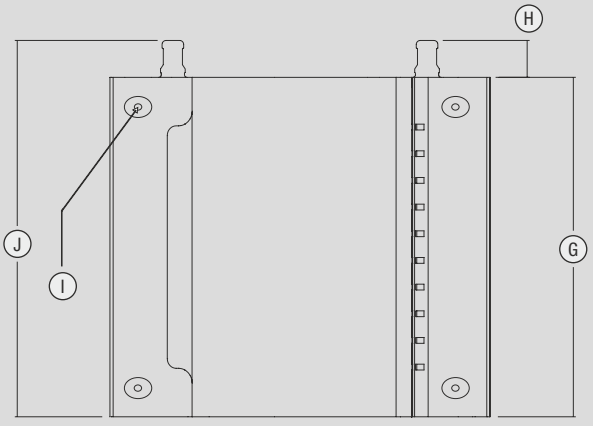



**ALSO AVAILABLE AS LUX VERSION!**

More info, page 8






| | | | |
|---|---|---|---|
| A | 452 mm / 17.8" | F | 765 mm / 30.1" |
| B | 143 mm / 5.63" | G | 705 mm / 27.8" |
| C | 95 mm / 3.74" | H | 76 mm / 3.0" |
| D | 2.0 × 25 mm / 1.0" | I | ø 15 mm / 0.6" |
| E | 111 mm / 4.37" | J | 780 mm / 30.71" |

## RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / events / department stores / construction sites, streets, etc.

# DEFENDER® XXL

## FIVE XXL CHANNELS – THE HEAVY-DUTY ALL-ROUNDER

Developed for extreme work environments, the DEFENDER® XXL cable protection system provides five channels for large cable and hose diameters, including three channels suitable for type C fire hoses (only hoses up to Ø 62 mm / 2.4" – no coupling) as well as high-voltage cables. Integrated dog bone connectors facilitate linking to form a rigid continuous protector. End ramps are available for secure cable entry and exit. With a 5.0 ton/11,023 lb per 20 × 20 cm / 7.9" × 7.9" load capacity, DEFENDER® XXL protectors are ideal for heavy wheeled traffic, construction sites, warehouses, carnivals, fairs and music events. Built-in handles are supplied for easy portability.

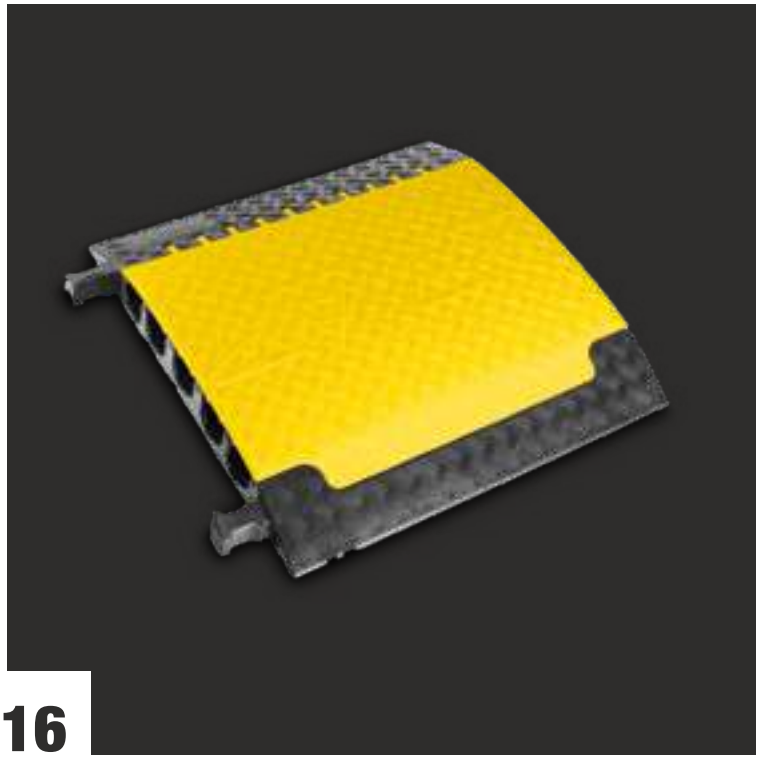
**SPECIFICATIONS**:

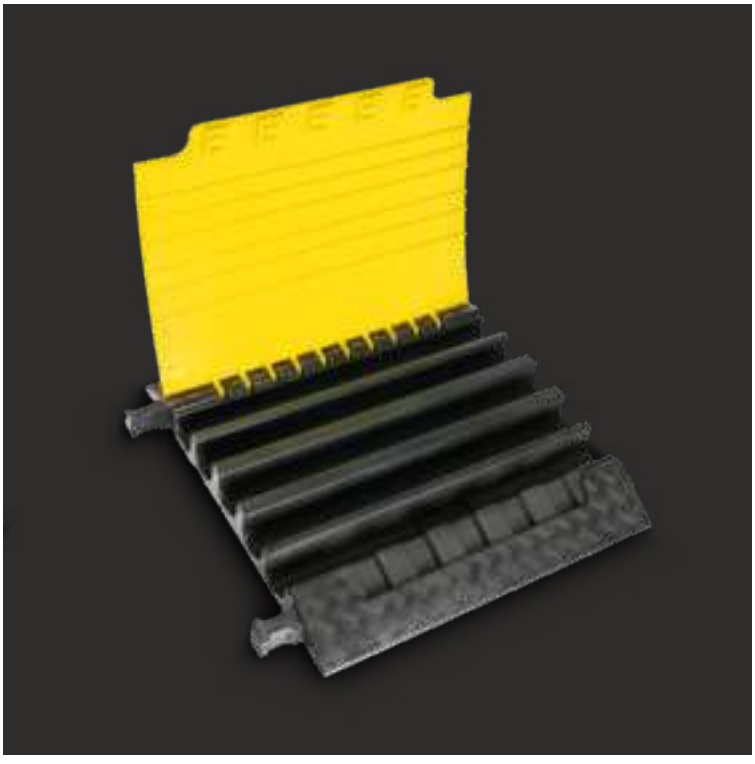
| | |
|---|---|
| Art. No.: | 85500 |
| Product: | Five-channel cable protector |
| Channel W × H: | 61 × 59 mm / 2.4" × 2.3" (channels 1 and 5), 62 × 65 mm / 2.4" × 2.6" (channels 2 and 4), 60 × 63 mm / 2.4" × 2.5" (channel 3) |
| Material: | TPU (thermoplastic polyurethane) |
| Shore A hardness: | 88 ± 4 |
| Load capacity: | Approx. 5.0 ton/11,023 lb / 20 × 20 cm / 7.9" × 7.9" (typical tyre footprint area) |
| Fire classification: | Class E in accordance with DIN EN 13501-1 |
| Resistant to: | Oil, petrol and short-term contact with solvent |
| Operating temperature: | –30°C to +60°C / –22°F to 140°F |
| Length: | 700 mm / 27.6" |
| Width: | 696 mm / 27.4" |
| Height: | 87 mm / 3.4" |
| Weight: | 21.1 kg / 46.52 lb |

**OPTIONAL COMPONENTS:**

**DEFENDER® XXL END RAMP, connectors included**

Art. No.: **85510**





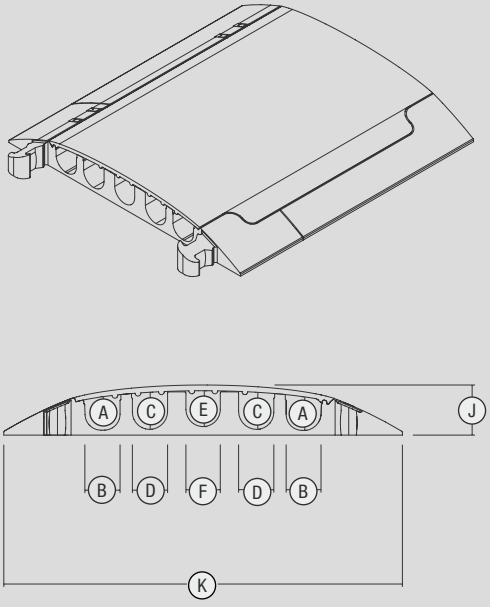


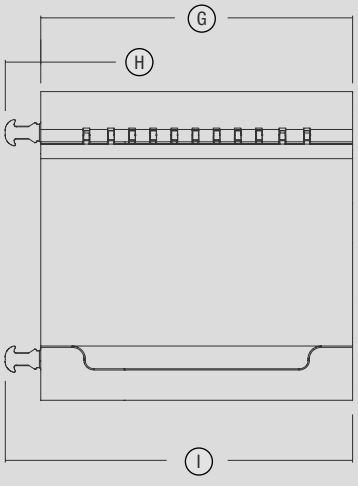
**ALSO AVAILABLE AS LUX VERSION!**

More info, page 8

Art. No. **85510**






| | |
|---|---|
| A | 60 mm / 2.36" |
| B | 59 mm / 2.32" |
| C | 63 mm / 2.48" |
| D | 62 mm / 2.44" |
| E | 58 mm / 2.28" |
| F | 59 mm / 2.32" |

| | |
|---|---|
| G | 700 mm / 27.6" |
| H | 80 mm / 3.0" |
| I | 780 mm / 30.7" |
| J | 87 mm / 3.4" |
| K | 696 mm / 27.4" |

## RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / events / department stores / construction sites, streets, etc.

# DEFENDER® 3

## THREE BIG CHANNELS

Featuring a 73 mm / 2.9" profile, 45° curve and end ramps with detachable dovetail connectors, the DEFENDER® 3 cable protection system provides versatile cable routing and safe crossing for vehicles and pedestrians. With three medium-size channels, built-in handles for easy portability and a 5.0 ton/ 11,023 lb per 25 × 30 cm / 9.84" × 11.81" load capacity, the 73 mm / 2.9" profile DEFENDER® 3 cable protectors are the perfect all-round choice for a wide variety of applications, including heavy wheeled traffic, construction sites, warehouses, carnivals, fairs, trade shows, exhibitions, shopping centres and music events.

**SPECIFICATIONS**:

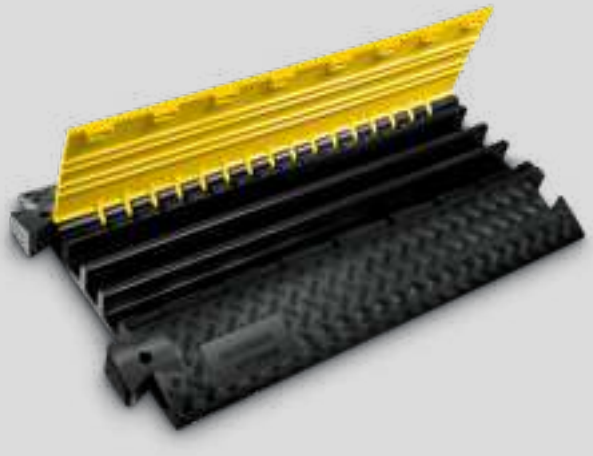
| | |
|---|---|
| Art. No.: | 85002 |
| Product: | Three-channel cable protector |
| Channel W × H: | 52 × 49 mm / 2.1" × 2.0"(channels 1 and 3), 45 × 50 mm / 1.8" × 2.0" (channel 2) |
| Material: | TPU (thermoplastic polyurethane) |
| Shore A hardness: | 88 ± 4 |
| Load capacity: | 5.0 ton/11,023 lb / 25 × 30 cm / 9.84" × 11.81" (typical tyre footprint area) |
| Fire classification: | Class E in accordance with DIN EN 13501-1 |
| Resistant to: | Oil, petrol and short-term contact with solvent |
| Operating temperature: | –30°C to +60°C / –22°F to 140°F |
| Length: | 1005 mm / 39.6" |
| Width: | 607 mm / 23.9" |
| Height: | 75 mm / 3.0" |
| Weight: | 23.5 kg / 51.8 lb |

**OPTIONAL COMPONENTS:**

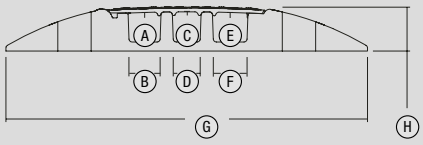
**DEFENDER® 3 45° CURVE with detachable lid and two dovetail connectors**
Art. No.: **85009**

**DEFENDER® 3 END RAMP**
Art. No.: **85008**

**DEFENDER® 3 DOVETAIL CONNECTOR**
Art. No.: **85004**

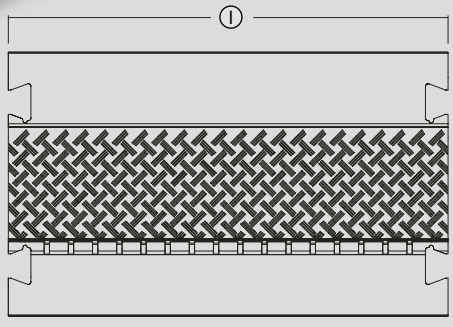


| | |
|---|---|
| A | 49 mm / 2.0" |
| B | 52 mm / 2.1" |
| C | 50 mm / 2.0" |
| D | 45 mm / 1.8" |
| E | 49 mm / 2.0" |
| F | 56 mm / 2.2" |
| G | 607 mm / 23.9" |
| H | 75 mm / 3.0" |




Art. No. **85002BLK**






| | |
|---|---|
| I | 1005 mm / 39.6" |






Art. No. **85009**

Art. No. **85009BLK**

Art. No. **85004**



Art. No. **85008**





## RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / events / department stores / construction sites, streets, etc.

# DEFENDER® 3 2D

## DEFENDER® 3 2D MODULAR SYSTEM FOR WHEELCHAIR RAMP AND BARRIER-FREE TRANSITION

'Barrier-free accessibility' has become a topic of mounting concern for both public authorities and event organisers over the past few years. With most common cable protector systems, a compromise usually has to be made between barrier-free access and trafficability. But this is not the case with the new DEFENDER® 3 2D: each middle section can be equipped with a 6°-inclined ramp that can be driven over completely without any problems. The flat incline makes it easy for wheelchair users to roll over the protectors with no trouble at all. They're also so stable that even forklifts and trucks can drive over them.

The system length and width can be expanded, and thus guarantee easy access and safety to areas where three channels are typically not enough, for example near power generators or FOH areas. Sound, lighting, power cables and hoses can be laid out individually, effortlessly and safely. The middle sections are designed to be symmetrical all the way around to facilitate assembly so that you never have to look for the right attachment piece ever again. As such, no assembly diagrams are required. The symmetrical set-up makes it possible to achieve excellent longitudinal and lateral stability by arranging middle sections and ramps. It also means there are no loose parts which can easily be lost, such as adapters and spanners. The connections have been designed to have enough space for easy installation while still providing stability. In case the cable protectors need to be installed without ramps, adapters are available to connect the middle sections with the popular DEFENDER® 3 lengthways.

**SPECIFICATIONS:**

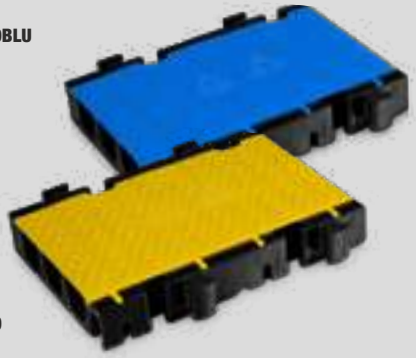
| | |
|---|---|
| Art. No.: | 869002 |
| Product type: | Cable protectors |
| Type: | 3 channels |
| Width: | 330 mm / 13.0" |
| Height: | 73 mm |
| Length: | 1000 mm / 39.4" |
| Channels: | 3 |
| Width, channel 1: | 52 mm / 2.05" |
| Height, channel 1: | 49 mm / 1.93" |
| Width, channel 2: | 45 mm / 1.77" |
| Height, channel 2: | 50 mm / 1.97" |
| Width, channel 3: | 52 mm / 2.05" |
| Height, channel 3: | 49 mm / 1.93" |
| Material: | Polyurethane |
| Max. load: | Approx. 5 t on a surface area of 20 × 20 cm |
| Hardness range: | 88 Shore ± 4 Shore |
| Fire classification: | Class E in accordance with DIN EN 13501-1 |
| Resistant to: | Oil, petrol and short-term contact with solvent |
| Temperature range: | –40°C to +70°C / –40°F to +158°F |
| Weight: | 13.5 kg / 29.76 lb |



Art. No. **8690021ASET**



Art. No. **86900250BLU**



Art. No. **86900250**



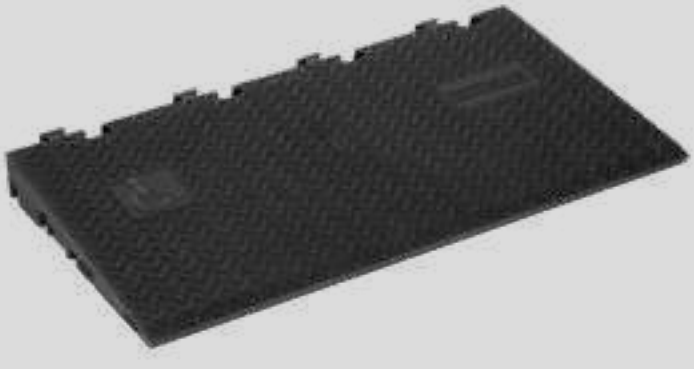
**OPTIONAL COMPONENTS:**

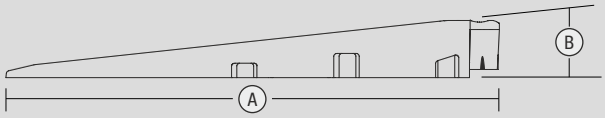
**DEFENDER® 3 2D ADAPTER SET**
Art. No.: **8690021ASET**

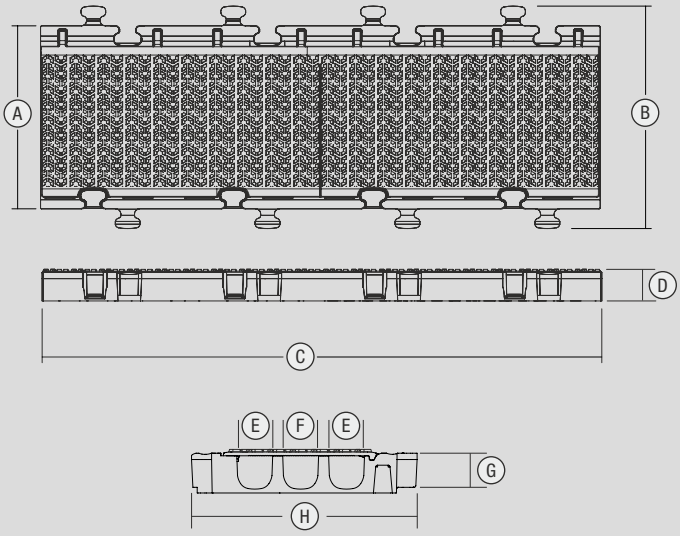
**DEFENDER® 3 2D RAMP**
Art. No. **8690021**

Art. No. **8690021**

| | |
|---|---|
| A | 600 mm / 23.62" |
| B | 6° |






| | | | | | |
|---|---|---|---|---|---|
| A | 330 mm / 13.0" | D | 73 mm / 2.9" | G | 68 mm / 2.7" |
| B | 395 mm / 15.6" | E | 52 mm / 2.1" | H | 325 mm / 12.8" |
| C | 1000 mm / 39.4" | F | 45 mm / 1.78" | | |

# STRONG ARGUMENTS

## TÜV-SÜD-CERTIFIED

The DEFENDER® cable protection systems are certified by TÜV SÜD. The strict testing requirements and production controls of TÜV SÜD ensure that the DEFENDER® cable protectors meet the highest quality standards. In addition, the DEFENDER® cable protection systems meet the requirements of fire protection class E according to DIN EN 13501-1.



## HIGH-TECH RAW MATERIAL

All DEFENDER® cable protectors are made of extremely sturdy, unbreakable TPU (thermoplastic polyurethane), produced from recycled and new plastic materials. They feature a fire resistance rating “normally inflammable” (also available soon as hardly inflammable) in compliance with DIN EN13051-1 and resistant to oil, petrol and short-term contact with solvent. The operating temperature range is approximately –30°C to +60°C [–22°F to 140°F]. The Shore A hardness range is 88 ± 4.



## SELF-CLEANING HINGE

Our cable protectors are equipped with self-cleaning hinges. The dirt gathering around the hinges is automatically pushed out when opening and closing the lid of the DEFENDER® cable protector. All DEFENDER® products are made of extremely sturdy, unbreakable TPU (thermoplastic polyurethane). If needed, the protectors can be easily cleaned using a steam jet cleaner.



## EASY LOCK SYSTEM

The DEFENDER® cable protectors feature a very easy and efficient opening and locking system, allowing you to open and close the lid without tooling or special efforts. This exclusive feature also guarantees that the lid remains closed at all times, even when cars or trucks cross over it.



## FIVE-YEAR GUARANTEE

We, like many companies, are completely convinced by the high quality, longevity and durability of the robust DEFENDER® cable protection systems. Therefore, we are delighted to provide a five-year guarantee on our DEFENDER® cable protector systems.



## EASY TO CONNECT

The DEFENDER® cable protection systems also offer high-quality accessories to adapt your configuration to each new location, such as end ramps, 90° and 45° bends. Each cable protector has connectors and corresponding sockets that enable you to connect cable protectors in the same series continuously with each other with maximum stability.



## LABEL YOUR CABLE PROTECTORS

Self-branding of your cable protectors has three main advantages:
Advertisement for your brand / Corporate identity conformity / Avoids mixing up your equipment with another company's at large events. Self-branding of the DEFENDER® cable protectors with the logo of your company can be purchased for orders exceeding 30 pieces. You will find the logo format requirements on our website. Feel free to contact our sales team for more information at: **sales@adamhall.com**



## EASY HANDLING

The heaviest DEFENDER® cable protection systems are equipped with transport handles (DEFENDER® XXL, DEFENDER® 3 and DEFENDER® MIDI). The DEFENDER® BOX provides safe and practical storage but also a logistically efficient solution for the transport of many protectors at once (EUR-pallet dimensions).













# LOW PROFILE
# HIGH PROTECTION

Flat, resilient and safe, with five cable channels for flexible usage

The particularly flat design of the Defender SLIM 5 cable protector offers reliable protection for cables and people – ideal for indoor and outdoor use. The heavy-duty, non-slip body, made of black, recyclable polyurethane, ensures maximum stability. The yellow polyurethane lid guarantees a high warning effect and has a secure locking mechanism. A 3D LaserGrip surface, with its special structure and unique, innovative design, provides a particularly high level of tread and slip resistance.

Thanks to the self-cleaning hinged cover, the cable protector stays functional even with heavy use. With five cable channels, each measuring 34 x 20 mm, and a load-bearing capacity of 5 tonnes on 25 x 30 cm, it is suitable for events, trade fairs, industrial use and many other applications. It guarantees maximum safety for pedestrians, wheelchair users and trolleys – particularly important in areas with heavy public traffic, such as shopping centres, airports or sporting events. At only 3.5 cm high, this exceptionally flat cable protector is barely noticeable to people walking or driving over it. The cable protector's special design means that, even when used in long stretches, it is also less likely to move when driven over by heavy vehicles.

The Defender cable protector meets the requirements of fire protection class B2 (DIN 4102) and is resistant to oil, acid, petrol and short-term contact with solvents.

## RANGE OF APPLICATION

Exhibitions / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centers / department stores / etc.

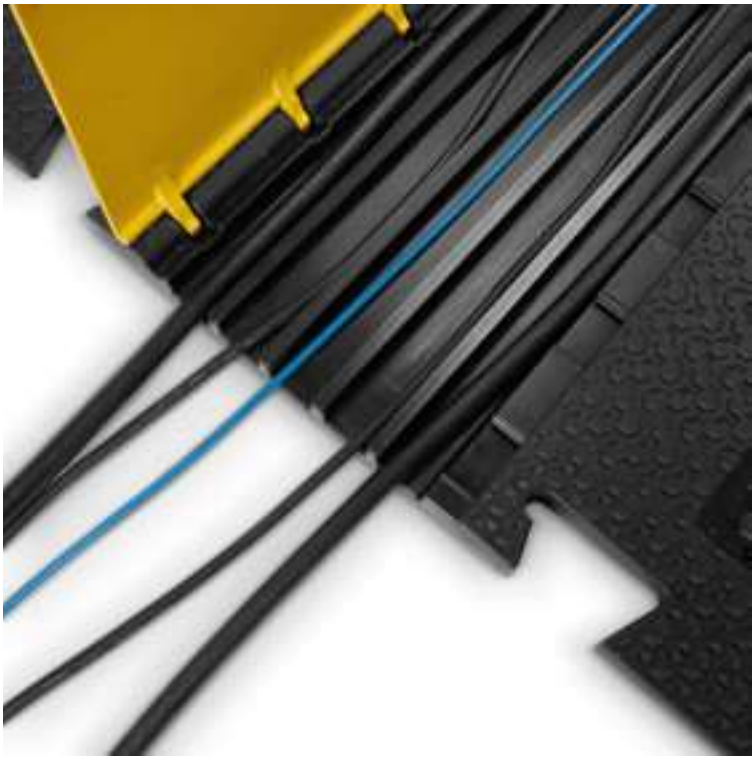
# DEFENDER® SLIM 5

## ULTRA-FLAT CABLE PROTECTION

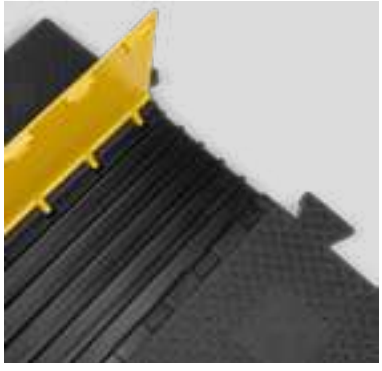
Made from heavy-duty, recyclable polyurethane, the SLIM 5 can withstand loads weighing up to 5 tonnes per 25 × 30 cm. The patented 3D LaserGrip surface improves slip resistance, while the self-cleaning hinges ensure functionality over the long term. Five large cable ducts (34 × 20 mm) make flexible applications possible, whereas the eye-catching yellow cover with a secure locking system increases visibility, and everything is covered under a five-year guarantee. Not suitable for road traffic.

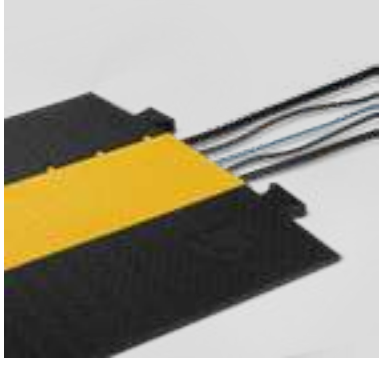
| **SPECIFICATIONS**: | |
|---|---|
| Art. No.: | 86200 |
| Product: | Five-channel ultra-flat cable protector |
| Channel W × H: | 34 × 20 mm / 1.34" × 0.79" |
| Material: | TPU (thermoplastic polyurethane) |
| Shore A hardness: | 88 ± 4 |
| Max. load capacity: | Tons (area 25 × 30 cm) |
| | 5 T / 11023.1 lb |
| Fire classification: | Class E in accordance with DIN EN 13501-1 |
| Resistant to: | Petrol, Solvents (short-term contact), Oil |
| Operating temperature: | –30°C to +60°C / –22°F to 140°F |
| Length: | 1000 mm / 39.4" |
| Width: | 860 mm / 33.9" |
| Height: | 35 mm / 1.38" |
| Weight: | 16.3 kg / 35.94 lb |

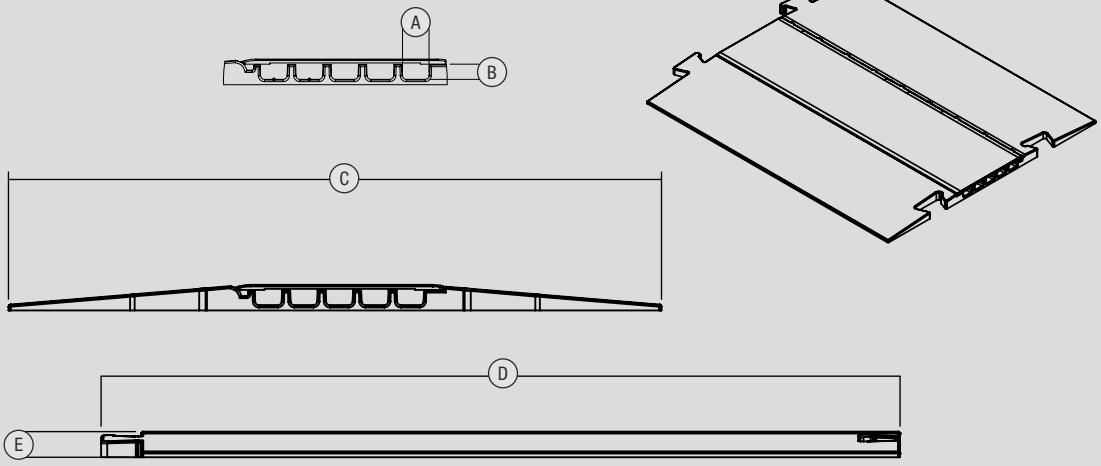













| | |
|---|---|
| A | 34 mm / 1.34" |
| B | 20 mm / 0.79" |
| C | 860 mm / 33.9" |
| D | 1000 mm / 39.4" |
| E | 35 mm / 1.38" |

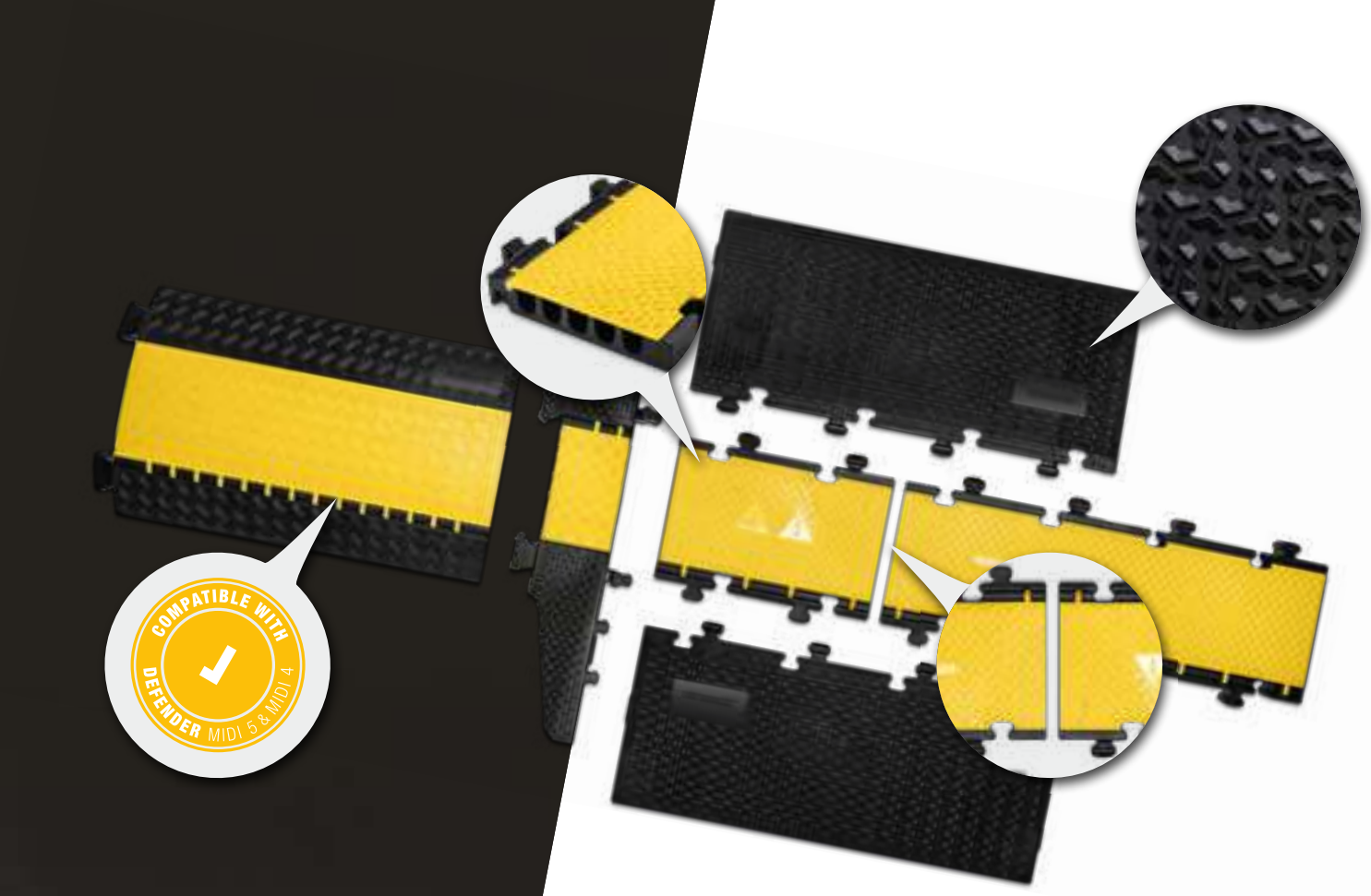


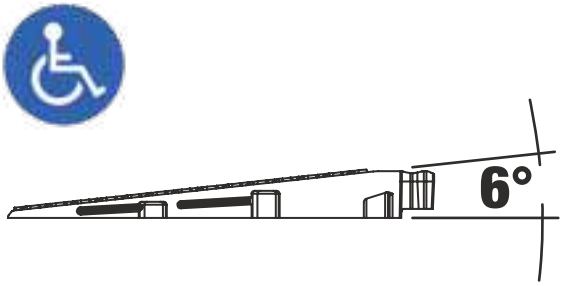
# FLEXIBLE IN NEW DIMENSIONS: **DEFENDER®** 2D

## INNOVATIVE IN APPLICATION, THE ULTIMATE IN FLEXIBILITY.

DEFENDER® 2D – that's the name of our new modular plug-in system. For you, this means: maximum flexibility in every situation. No matter whether it's a small festival or a large construction site with extremely rough terrain. The reason for the great flexibility of DEFENDER® 2D lies in the pluggable middle section modules. These ensure that the system can be easily extended in length and width.

DEFENDER® 2D lives up to its name in every environment: the system reliably protects cables and hoses on construction sites as well as at outdoor events. Not even trucks driving over it can harm the robust construction. The naming system is as simple as the installation: all products matching DEFENDER® 2D have '2D' in their name, for example 'MIDI 5 2D'.




# NO BARRIERS
# WHATSOEVER

Accessibility is a fundamental requirement everywhere these days, and especially at events. That's why the modular DEFENDER® 2D cable protector exists, with an incredible 6° slope ramp, which can be extended both widthways and lengthways, without restriction. Flexible, robust, unlimited and TÜV type-tested.

**STAY ON THE SAFE SIDE:** half-length middle part modules give several ramp parts enormously high durability in combination next to each other.

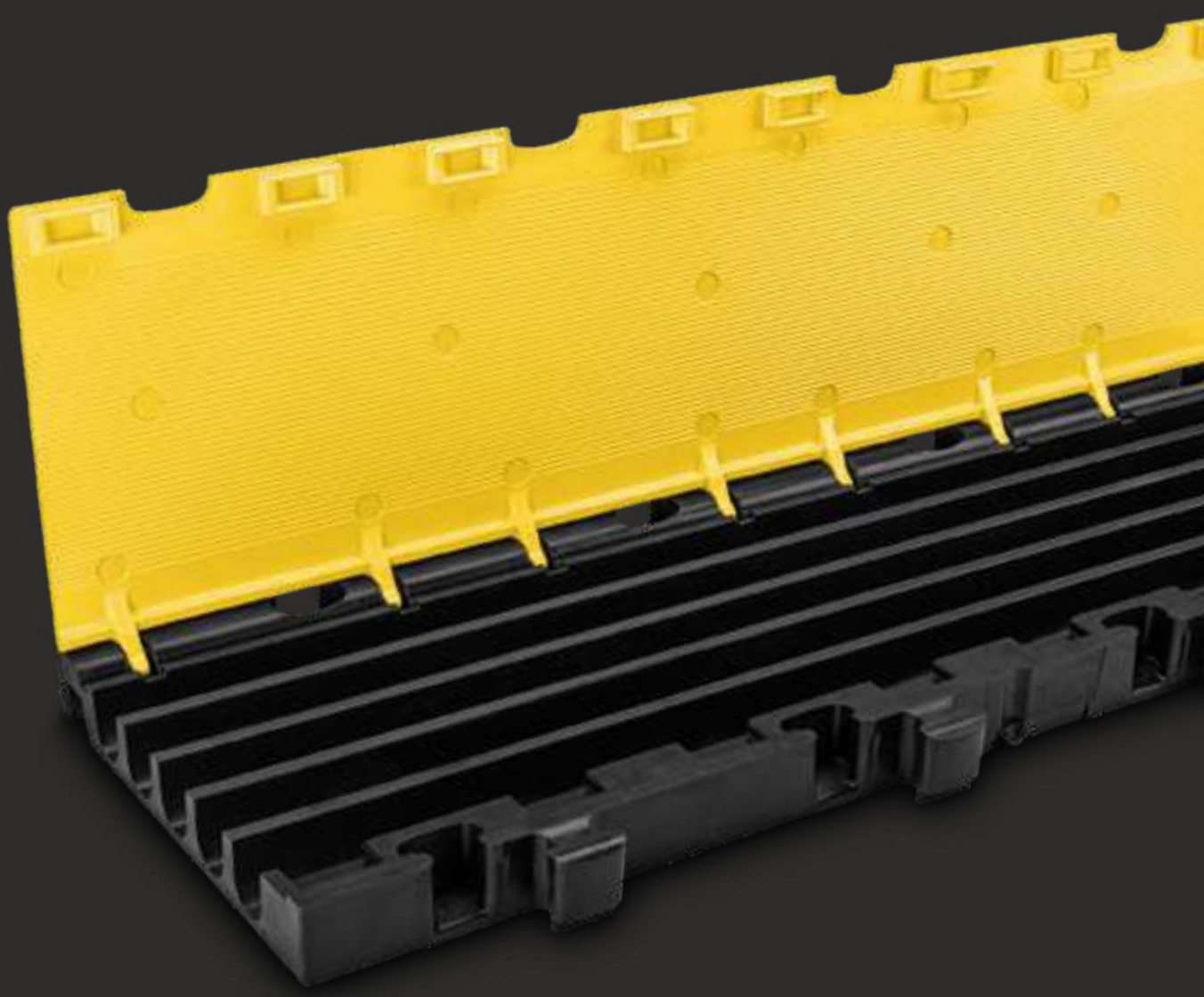
**DEFENDER® 2D** in combination with **DEFENDER® MIDI 5**
Combine the new MIDI 5 2D middle part modules quickly and easily with products from the proven MIDI 5 series using adapters. All module parts are also available in the signal colour blue.

# **DEFENDER®** MIDI SERIES

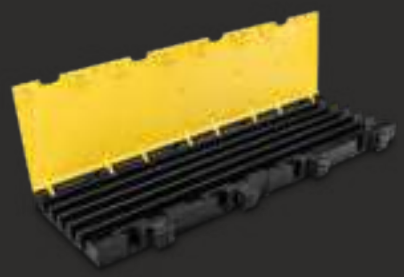
Your cable protection system must cater to many different demands. That's why the multifaceted, extremely flat yet secure DEFENDER® MIDI cable protector is designed for a whole range of indoor and outdoor uses. It can withstand loads of approx. 5 tons per 20 × 20 cm, making it fit for heavy-duty traffic, construction sites, warehouses, shopping centres, trade fairs, exhibitions, carnivals and music events as well as broadcasting studios.

**Two versions are available:** one with five cable channels in order to securely lay out power, sound and light cables, the other with three cable channels and a wide hose guard for laying down a pressure hose alongside individual cables. Their built-in connectors and handles make sure they are simple to use and lighten the load of your employees.

DEFENDER® MIDI cable protection systems are decked out for any event and are highly flexible thanks to the extensive range of accessories available, such as the 45° curve pieces and end ramps which allow you to put together a wide variety of continuous cable paths. Different coloured lids – yellow for hi-vis, black for subtly blending into the environment – are further examples of how you can individually use cable protection systems.



# THE MIDI CABLE PROTECTION SYSTEMS OVERVIEW



**MIDI 5 2D – 5 CHANNELS**

34 × 36 MM

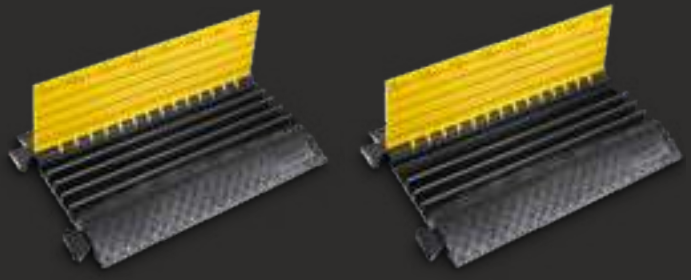
**COLOURS AVAILABLE:**

– Yellow lid
– Blue lid



**HALF VERSION AVAILABLE**





**MIDI 5 – 5 CHANNELS**

34 × 36 MM

**AVAILABLE AS:**

– Yellow lid
– Black lid
– LUX



**MIDI C:**

45° curve, 5 channels



**MIDI 4 – 4 CHANNELS**

1 CHANNEL 80 × 36 MM (FOR C-PRESSURE HOSES) AND 3 CHANNELS 34 × 36 MM

**AVAILABLE AS:**

– Yellow lid
– Black lid
– LUX



**MIDI 5 2D ADAPTER SET:**

Adapter set for connecting middle section/ramp with MIDI cable protector.



**ACCESSORIES:**

**MIDI 5 2D ADAPTER TO MINI, FEMALE/MALE**



**MIDI 5 2D ADAPTER, FEMALE/MALE**



For further information see page 34–35

**RAMP:**

**MIDI 5 2D R**



**MIDI 5 2D RS**



**MIDI 5 2D R BLU**



**MIDI 5 2D SET BLU**



For further information see page 36–37

## RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / events / department stores / construction sites, streets, etc.

# DEFENDER® MIDI 5

## FIVE MEDIUM CHANNELS – THE SOLUTION FOR NEARLY ANYTHING

The DEFENDER® MIDI cable protection system has been designed for maximum routing versatility and secure crossings. Featuring a low profile, 5.0 ton / 11,023 lb per 25 × 30 cm / 9.84" × 11.81" load capacity, integrated connectors and handles, the straight ramp, 45° curve and end ramps are easily linked to form a continuous cable guard while five 34 × 36 mm / 1.3" × 1.4" channels allow for individual sound, lighting and power line arrangement. DEFENDER® MIDI cable protectors are ideal for a multitude of usages such as heavy wheeled traffic, construction sites, warehouses, carnivals, fairs, trade shows, exhibitions, shopping centres, broadcasting and music events.

**SPECIFICATIONS**:

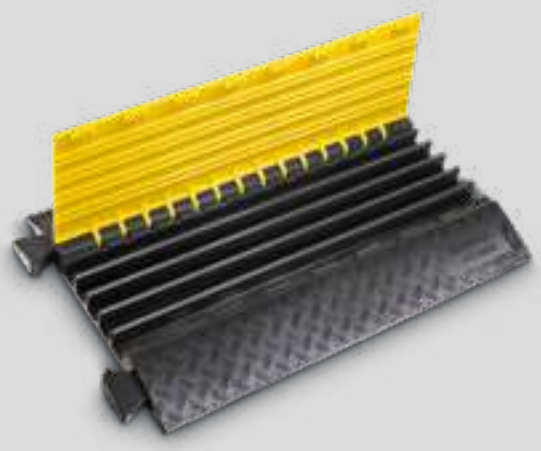
| | |
|---|---|
| Art. No.: | 85300 |
| Product: | Five-channel cable protector |
| Channel W × H: | 34 × 36 mm / 1.3" × 1.4" (channels 1 to 5) |
| Material: | TPU (thermoplastic polyurethane) |
| Shore A hardness: | 88 ± 4 |
| Load capacity: | Approx. 5.0 ton / 11,023 lb / 25 × 30 cm / 9.84" × 11.81" (typical tyre footprint area) |
| Fire classification: | Class E in accordance with DIN EN 13501-1 |
| Resistant to: | Oil, petrol and short-term contact with solvent |
| Operating temperature: | –30°C to +60°C / –22°F to 140°F |
| Length: | 870 mm / 34.3" |
| Width: | 538 mm / 21.2" |
| Height: | 55 mm / 2.2" |
| Weight: | 13.5 kg / 27.8 lb |

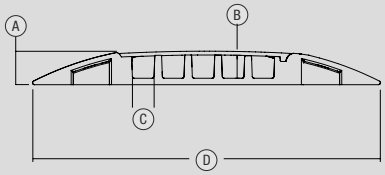
**OPTIONAL COMPONENTS:**

**DEFENDER® MIDI 45° CURVE for DEFENDER® MIDI**
Connectors are detachable and can be mounted on both sides.
Art. No.: **85310**

**DEFENDER® MIDI END RAMP, connectors included**
Art. No.: **85308**

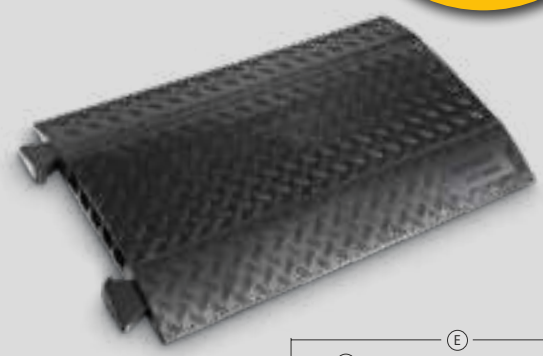
**ALSO AVAILABLE AS LUX VERSION!**
More info, page 8

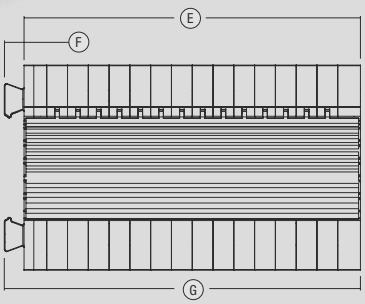





| | |
|---|---|
| A | 55 mm / 2.2" |
| B | 35 mm / 1.38" |
| C | 34 mm / 1.3" |
| D | 538 mm / 21.2" |

With black lid
Art. No. **85300BLK**






| | |
|---|---|
| E | 870 mm / 34.3" |
| F | 52 mm / 2.1" |
| G | 942 mm / 37" |

## RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / events / department stores / construction sites, streets, etc.

# DEFENDER® MIDI 4

## THREE MEDIUM-SIZED CABLE CHANNELS – ONE LARGE CHANNEL FOR FIRE HOSES

With one wide 80 × 36 mm / 3.2" × 1.4" channel and three 34 × 36 mm / 1.3" × 1.4" ducts, the DEFENDER® MIDI 4 cable protection system is the perfect choice when a lay-flat hose must be run next to separate sound, lighting and power lines. Featuring integrated connectors, the low profile and 5.0 ton/11,023 lb per 25 × 30 cm / 9.84" × 11.81" load capacity of the DEFENDER® MIDI system MIDI 4 protectors are suitable for heavy wheeled traffic, construction sites, warehouses, carnivals, fairs, trade shows, exhibitions, shopping centres and music events.

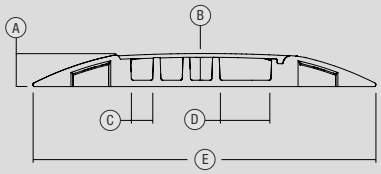
**SPECIFICATIONS**:

| | |
|---|---|
| Art. No.: | 85301 |
| Product: | Four-channel cable protector |
| Channel W × H: | 34 × 36 mm / 1.3" × 1.4" (channels 1 to 3), 80 × 36 mm / 3.2" × 1.4" (channel 4) |
| Material: | TPU (thermoplastic polyurethane) |
| Shore A hardness: | 88 ± 4 |
| Load capacity: | Approx. 5.0 ton/11,023 lb per typical tyre imprint (25 × 30 cm / 9.84" × 11.81") |
| Fire classification: | Class E in accordance with DIN EN 13501-1 |
| Resistant to: | Oil, petrol and short-term contact with solvent |
| Operating temperature: | –30°C to +60°C / –22°F to 140°F |
| Length: | 870 mm / 34.3" |
| Width: | 538 mm / 21.2" |
| Height: | 55 mm / 2.2" |
| Weight: | 12.55 kg / 27.7 lb |

**OPTIONAL COMPONENTS:**
**DEFENDER® MIDI END RAMP, connectors included**
Art. No.: **85308**

**ALSO AVAILABLE AS LUX VERSION!**
More info, page 8

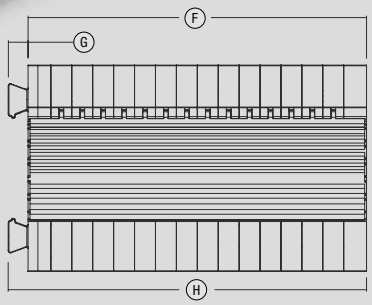





| | |
|---|---|
| A | 55 mm / 2.2" |
| B | 36 mm / 1.4" |
| C | 34 mm / 1.3" |
| D | 80 mm / 3.2" |

With black lid
Art. No. **85301BLK**






| | |
|---|---|
| E | 538 mm / 21.2" |
| F | 872 mm / 34.33" |
| G | 51 mm / 2.01" |
| H | 923 mm / 36.34" |

## RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / events / department stores / construction sites, streets, etc.

# DEFENDER® MIDI 5 2D

## MIDI 5 2D MODULE SYSTEM FOR WHEELCHAIR RAMP AND BARRIER-FREE TRANSITION – **MIDDLE PART**

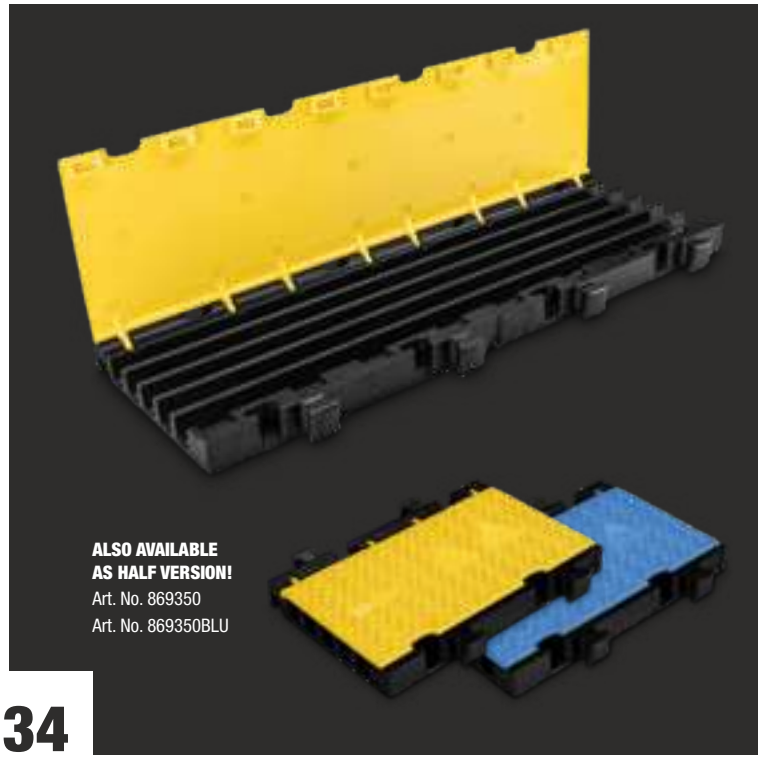
### Middle section

'Accessibility' has become a topic of mounting concern for both public authorities and event organisers over the past few years. With most common cable protector systems, a compromise usually has to be made between barrier-free access and trafficability. But this is not the case with the new DEFENDER® 2D M: each middle section can be equipped with a 6°-inclined, barrier-free ramp that can be driven over completely without any problems. The flat incline makes it easy for wheelchair users to roll over the protectors with no trouble at all. They're also so stable that even forklifts and trucks can drive over them.

The system length and width can be expanded, and thus guarantee easy access and safety to areas where five channels are typically not enough, for example near power generators or FOH areas. Sound, lighting and mains cables can be laid out individually, effortlessly and safely. The middle sections are designed to be symmetrical all the way around to facilitate assembly so that you never have to look for the right attachment piece ever again. As such, no assembly diagrams are required. The symmetrical set-up makes it possible to achieve excellent longitudinal and lateral stability by arranging middle sections and ramps. It also means there are no loose parts which can easily be lost, such as adapters and spanners. The connections were engineered to provide enough room to adjust for simple assembly but also to offer a sufficient level of stability. Adapters for joining middle sections longitudinally are also available should the cable protectors need to be installed without ramps.

**SPECIFICATIONS**:

| | |
|---|---|
| Art. No.: | 869300 |
| Product type: | Cable protectors |
| Type: | 5 channels |
| Length: | 1000 mm / 39.4" |
| Height: | 58 mm / 2.3" |
| Width: | 325 mm / 12.8" |
| Channels: | 5 |
| Width, channel 1: | 34.5 mm / 1.4" |
| Height, channel 1: | 38.6 mm / 1.5" |
| Width, channel 2: | 34.5 mm / 1.4" |
| Height, channel 2: | 38.6 mm / 1.5" |
| Width, channel 3: | 34.5 mm / 1.4" |
| Height, channel 3: | 38.6 mm / 1.5" |
| Width, channel 4: | 34.5 mm / 1.4" |
| Height, channel 4: | 38.6 mm / 1.5" |
| Width, channel 5: | 34.5 mm / 1.4" |
| Height, channel 5: | 38.6 mm / 1.5" |
| Material: | Polyurethane |
| Max. load: | Approx. 5 t on a surface area of 20 × 20 cm |
| Resistant to: | Oil, petrol and short-term contact with solvent |
| Hardness range: | 88 Shore ± 4 A Shore |
| Fire classification: | Class E in accordance with DIN EN 13501-1 |
| Temperature range | –30°C to 60°C / –22°F to +140°F |
| Weight: | 11.6 kg / 25.6 lb |



**ALSO AVAILABLE AS HALF VERSION!**
Art. No. 869350
Art. No. 869350BLU

Art. No. **869300AEF**
Art. No. **869300AEM**
(Adapter)



Art. No. **869300AE2F**
Art. No. **869300AE2M**
(Adapter)





**OPTIONAL COMPONENTS:**

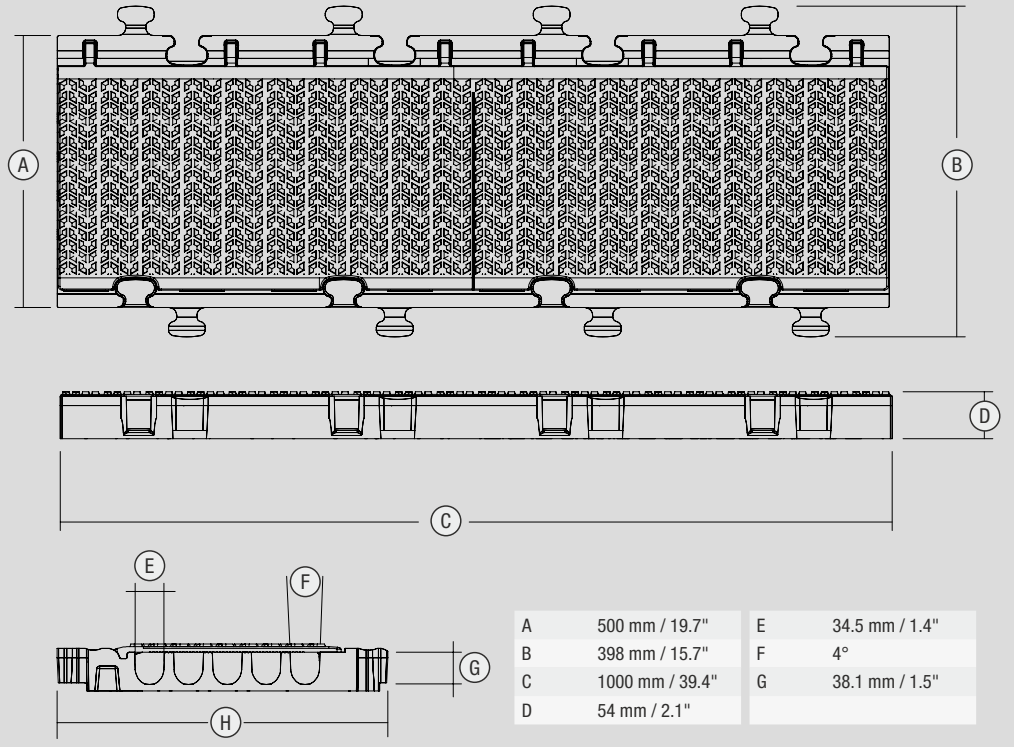
**DEFENDER® 5 2D ADAPTER SET**
Art. No.: **869301ASET**

**DEFENDER® 5 2D RAMP**
Art. No. **869301**

**MODULE SYSTEM FOR BARRIER-FREE ACCESS**
More info, page 8

**ALSO AVAILABLE AS BLUE VERSION!**






| | | | |
|---|---|---|---|
| A | 500 mm / 19.7" | E | 34.5 mm / 1.4" |
| B | 398 mm / 15.7" | F | 4° |
| C | 1000 mm / 39.4" | G | 38.1 mm / 1.5" |
| D | 54 mm / 2.1" | | |

**RAMPS FOR BARRIER-FREE ACCESS**
See more on the next page



## RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / events / department stores / construction sites, streets, etc.

# DEFENDER® MIDI 5 2D – RAMPS

The ramps are designed to be symmetrical all the way around to facilitate assembly so that you never have to look for the right attachment piece ever again. The sections can be used in several directions as there are no right or left elements. As such, no assembly diagrams are required. The symmetrical set-up makes it possible to achieve excellent longitudinal and lateral stability by arranging middle sections and ramps. It also means there are no loose parts which can easily be lost, such as adapters and spanners.

The connections were engineered to provide enough room to adjust for simple assembly but also to offer a sufficient level of stability. To connect ramps lengthways, for example, there's a small protrusion that snaps into place by pressing down on it from above. Elements don't have to be lifted up again after the cross- connector has been attached. Furthermore, the ramps feature an ergonomic handle to simplify handling, too.

**MIDI 5 2D R**

'Accessibility' has become a topic of mounting concern for both public authorities and event organisers over the past few years. With most common cable protector systems, a compromise usually has to be made between wheelchair access and trafficability. But that's not the case with the new DEFENDER® 2D M: each middle section is equipped with a 6°-inclined, wheelchair-accessible ramp that can be driven over completely without any problems. The ramp has the same load capacity as the middle section and can accommodate loads of approx. 5 tons per 25 × 30 cm. The flat incline makes it much easier for wheelchair users to roll over the protectors since the footrests don't touch the ramp, and forklifts and trucks also have an easy time driving over the cable protectors because of it.

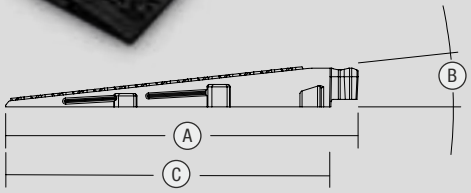
**SPECIFICATIONS:**

| | | |
|---|---|---|
| Art. No.: | 869301 | 869302 |
| Type: | Ramp module | Ramp module |
| Material: | Polyurethane | Polyurethane |
| Length: | 1000 mm / 39.4" | 1000 mm / 39.4" |
| Height: | 54 mm / 2.12" | 54 mm / 2.12" |
| Width: | 430 mm / 16.93" | 172 mm / 6.77" |
| Colour: | Black | Black |
| Max. load: | Approx. 5 t on a surface area of 25 × 30 cm | Approx. 5 t on a surface area of 25 × 30 cm |
| Hardness range: | 88 Shore ± 4 A Shore | 88 Shore ± 4 A Shore |
| Fire classification: | Class E in accordance with DIN EN 13501-1 | Class E in accordance with DIN EN 13501-1 |
| Resistant to: | Oil, petrol and short-term contact with solvent | Oil, petrol and short-term contact with solvent |
| Temperature range: | –30°C to + 60°C / –22°F to +140°F | –30°C to + 60°C / –22°F to +140°F |
| Weight: | 9.6 kg / 21.17 lb | 4.6 kg / 10.14 lb |

MIDI 5 2D R
Art. No. **869301**

| | |
|---|---|
| A | 465 mm / 18.31" |
| B | 6° |
| C | 430 mm / 16.93" |

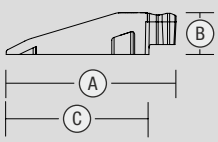





MIDI 5 2D RS
Art. No. **869302**

| | |
|---|---|
| A | 205 mm / 8.1" |
| B | 53 mm |
| C | 172 mm / 6.77" |





## RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / events / department stores / construction sites, streets, etc.

# DEFENDER® MIDI 5 2D SET BLU

## COMPLETE SET MIDI 5 2D MODULAR SYSTEM, CONSISTING OF TWO RAMPS AND A FIVE-CHANNEL MIDDLE PART, BLUE

The modular cable protector DEFENDER® 2D M Blue was developed on the basis of our popular DEFENDER® MIDI cable protectors for optimal wheelchair crossing. It consists of a MIDI-compatible blue middle part and two flat blue ramps, which can be extended and combined as required, both in length and width. Features extremely easy handling.

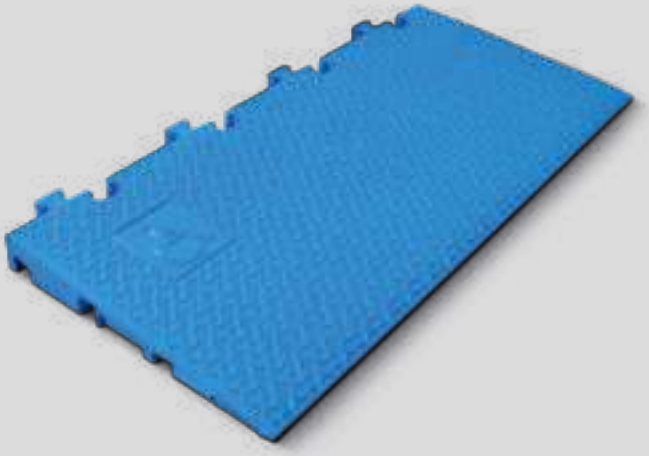
**COMPLETE SET DEFENDER® MIDI 5 2D SET BLU**
Art. No.: 869300SETBLU



Art. No. **869300BLU**



Art. No. **869301BLU**



## RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / events / department stores / construction sites, streets, etc.

# DEFENDER® MINI

## THREE SMALL CHANNELS – THE LIGHTWEIGHT CHAMPION

Available with a choice of black or yellow lids, the DEFENDER® MINI cable protection system is ideal for both indoor and outdoor use. The compact, low profile three-channel ramp with integrated dog bone connectors features a slip-resistant underside for superior grip on a wide variety of surfaces. Male and female end ramps are available to provide secure and tidy cable entry and exit. With a 2.0 ton/4,409 lb per 20 × 20 cm / 7.9" × 7.9" load capacity, DEFENDER® MINI protectors support lightweight vehicles, carts and pedestrian traffic. Applications include carnivals, fairs, trade shows, exhibitions, shopping centres, warehouses, stages, studios and broadcasting. Not suitable for road traffic.

**SPECIFICATIONS**:

| | |
|---|---|
| Art. No.: | 85200 |
| Product: | Three-channel cable protector |
| Channel W × H: | 35 × 30 mm / 1.4" × 1.2" (channels 1 and 3), 35 × 35 mm / 1.4" × 1.4" (channel 2) |
| Material: | TPU (thermoplastic polyurethane) |
| Shore A hardness: | 88 ± 4 |
| Max. load capacity: | Tons (area 20 × 20 cm) |
| | 1.2 T / 2645.6 lb |
| | 2.0 T / 4409.4 lb |
| Fire classification: | Class E in accordance with DIN EN 13501-1 |
| Resistant to: | Oil, petrol and short-term contact with solvent |
| Operating temperature: | –30°C to +60°C / –22°F to 140°F |
| Length: | 1005 mm / 39.6" |
| Width: | 290 mm / 11.4" |
| Height: | 50 mm / 2.0" |
| Weight: | 5.85 kg / 12.9 lb |

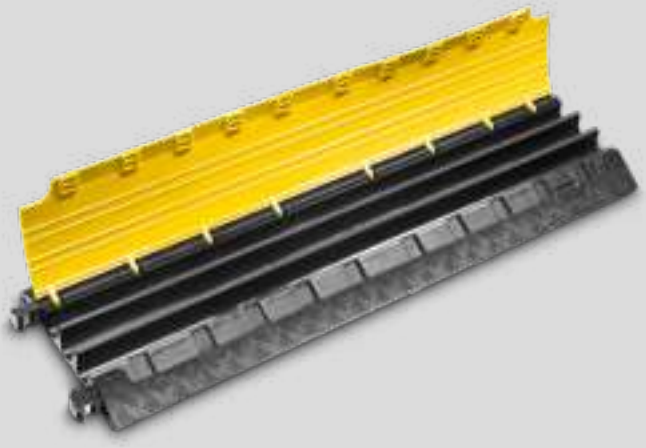
**OPTIONAL COMPONENTS:**

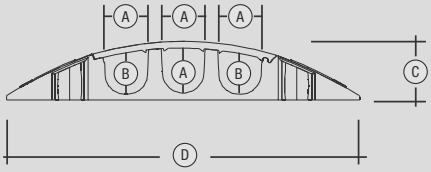
**DEFENDER® MINI END RAMP, FEMALE**
Art. No.: **85208F**

**DEFENDER® MINI END RAMP, MALE**
Art. No.: **85208M**

**DEFENDER® MINI L 45° CURVE LEFT**
Art. No.: **85210L**

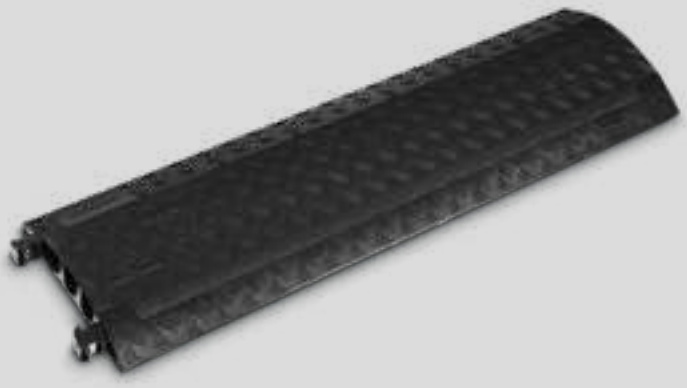
**DEFENDER® MINI R 45° CURVE RIGHT**
Art. No.: **85210R**

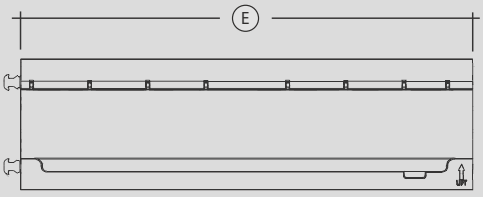




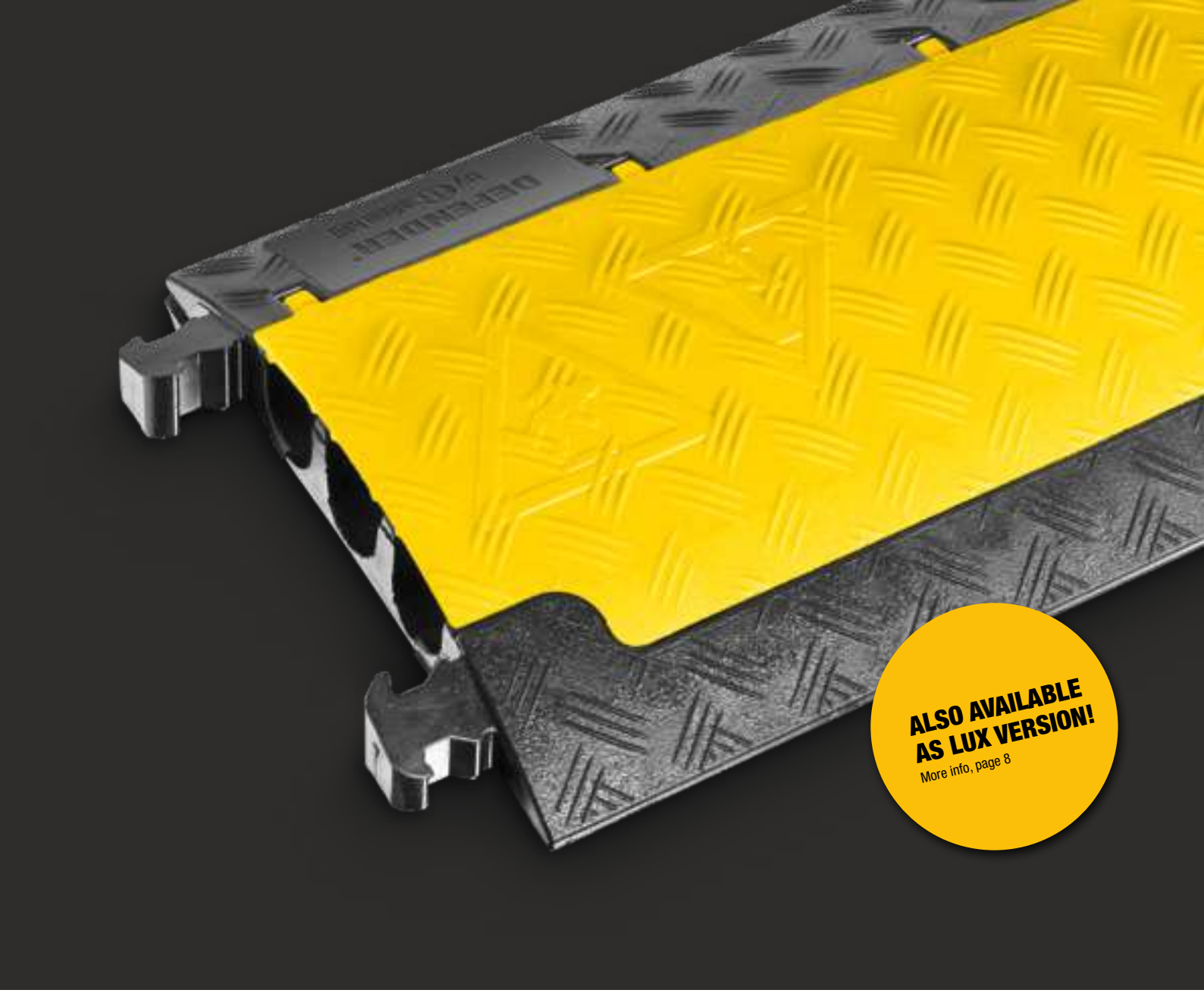

| | |
|---|---|
| A | 35 mm / 1.4" |
| B | 30 mm / 1.2" |
| C | 50 mm / 2.0" |
| D | 290 mm / 11.4" |

With black lid
Art. No. **85200BLK**






E 1005 mm / 39.6"




**ALSO AVAILABLE AS LUX VERSION!**

More info, page 8

Art. No. **85208F**



Art. No. **85208M**



Art. No. **85210L2BLK**



Art. No. **85210L2**

Art. No. **85210R2BLK**



Art. No. **85210R2**

Art. No. **85320F**



Art. No. **85320R**



## RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / events / department stores / construction sites, streets, etc.

# DEFENDER® MICRO 2

## TWO SMALL CHANNELS – THE MICRO MAESTRO

The compact DEFENDER® MICRO cable protector is ideally suited to indoor and outdoor use, such as at exhibitions and trade fairs and in shopping centres, on stages or in studios. It has two 35 × 30 mm cable guides for high-power cables and water hoses. With a maximum load capacity of 2 tons per 20 × 20 cm area, MICRO cable protectors are able to withstand vehicles, trolleys and pedestrians. Their high level of tread and slip resistance is derived from the LaserGrip® surface with its special structure and unique design. Extremely breakage-resistant TPU material ensures the durability of the robust cable protector.

**SPECIFICATIONS**:

| | |
|---|---|
| Art. No.: | 86100 |
| Product: | Two-channel cable protector |
| Channel W × H: | 30 × 30 mm / 1.2" × 1.2" (channels 1 and 2) |
| Material: | TPU (thermoplastic polyurethane) |
| Shore A hardness: | 88 ± 4 |
| Max. load capacity: | Tons (area 20 × 20 cm) |
| | 1.3 T / 2866.01 lb |
| | 2.0 T / 4409.4 lb |
| Fire classification: | Class E in accordance with DIN EN 13501-1 |
| Resistant to: | Oil, petrol and short-term contact with solvent |
| Operating temperature: | –30°C to +60°C / –22°F to 140°F |
| Length: | 1005 mm / 39.6" |
| Width: | 273 mm / 10.7" |
| Height: | 45 mm / 1.8" |
| Special feature: | TÜV type-tested / production-monitored |
| Weight: | 5.35 kg / 11.8 lb |

**OPTIONAL COMPONENTS:**

**DEFENDER® MICRO END RAMP, FEMALE**
Art. No.: **86101F**

**DEFENDER® MICRO END RAMP, MALE**
Art. No.: **86101M**



With black lid
Art. No. **86100BLK**



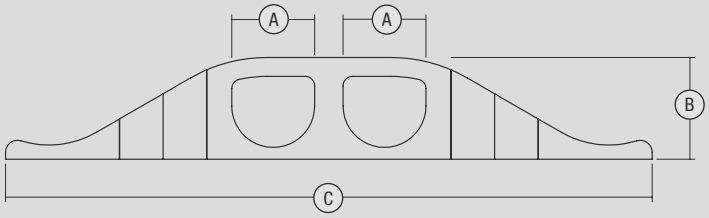



Art. No. **86101F**



Art. No. **86101M**






| | |
|---|---|
| A | 35 mm / 1.4" |
| B | 45 mm / 1.8" |
| C | 273 mm / 10.7" |
| D | 1005 mm / 39.6" |

## RANGE OF APPLICATION

Trade fairs / walkways / marketplaces / Christmas markets / workshops / warehouses / shopping centres / events / department stores / construction sites, streets, etc.

# DEFENDER® NANO

## SIX SLIM CHANNELS – DISCREET OUTDOOR / INDOOR PROTECTION

Providing convenient wheelchair access, the DEFENDER® NANO cable protection system is the ultra-low-profile solution for a wide range of indoor and outdoor applications. Available with a black or yellow lid, DEFENDER® NANO protectors feature six channels for clean and tidy cable arrangement, T-shaped connectors, and a 2.0 ton/4,409 lb per 20 × 20 cm / 7.9" × 7.9" load capacity to support lightweight vehicles, carts and pedestrian traffic, as well as forklifts and pallet trucks, thanks to their low-height design. Male and female end ramps are available to provide secure cable entry and exit.

The DEFENDER® NANO protection system is ideal for carnivals, fairs, trade shows, exhibitions, shopping centres, warehouses, stages, studios and broadcasting. Not suitable for road traffic.

**SPECIFICATIONS**:

| | | |
|---|---|---|
| Art. No.: | 85150 | |
| Product: | Six-channel cable protector | |
| Channel W × H: | 17 × 19 mm / 0.7" × 0.7" (channels 1, 2, 5, 6); 17 × 19 mm / 0.7" × 0.7" (channels 3, 4) | |
| Material: | TPU (thermoplastic polyurethane) | |
| Shore A hardness: | 88 ± 4 | |
| Load capacity: | Tons (area 20 × 20 cm) | Channel filling height |
| | 2.0 T / 4409.25 lb | 13 mm |
| Fire classification: | Class E in accordance with DIN EN 13501-1 | |
| Resistant to: | Oil, petrol and short-term contact with solvent | |
| Operating temperature: | –30°C to +60°C / –22°F to 140°F | |
| Length: | 1010 mm / 39.8" | |
| Width: | 285 mm / 11.2" | |
| Height: | 32 mm / 1.3" | |
| Weight: | 7.85 kg / 17.31 lb | |

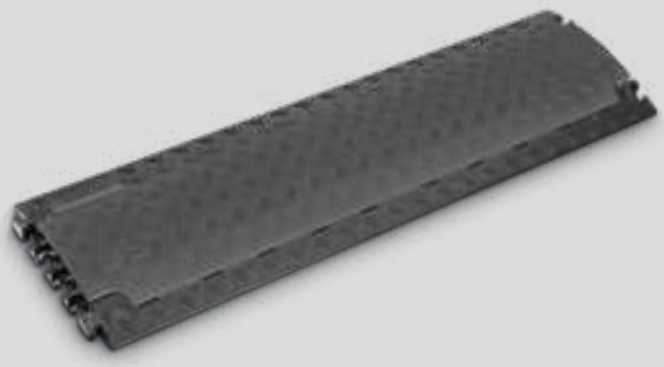
**OPTIONAL COMPONENTS:**

**DEFENDER® NANO END RAMP, FEMALE**
Art. No.: **85158F**

**DEFENDER® NANO END RAMP, MALE**
Art. No.: **85158M**



With black lid
Art. No. **85150BLK**





**ALSO AVAILABLE AS LUX VERSION!**

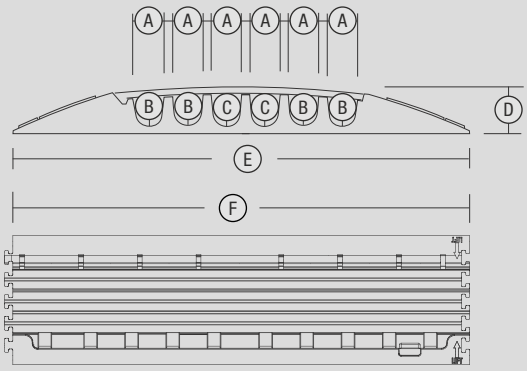
More info, page 8

Art. No. **85158F**



Art. No. **85158M**






| | |
|---|---|
| A | 17 mm / 0.7" |
| B | 18 mm / 0.7" |
| C | 19 mm / 0.7" |
| D | 32 mm / 1.3" |
| E | 285 mm / 11.2" |
| F | 1010 mm / 39.8" |

## RANGE OF APPLICATION

Mainly in halls, trade fairs, etc.

# DEFENDER® COMPACT

## SEVEN SMALL CHANNELS – THE DROP-OVER SOLUTION

The DEFENDER® COMPACT drop-over cable protector is a durable light-duty solution to guard cable lines and prevent tripping hazards. Featuring a ribbed surface for excellent traction and integrated dovetail connectors, DEFENDER® COMPACT drop-over cable ramps are suitable for pedestrian traffic in offices, shopping centres, conference facilities, trade shows and markets, as well as stage and studio applications.

**DEFENDER® COMPACT WITH BASE (85100 + 85103)**

Attached to the optional five-channel base, the DEFENDER® COMPACT drop-over cable protector transforms into a heavy-duty guard with high load capacity to support trucks, forklifts and other vehicles. The ribbed surface provides excellent traction while integrated connectors on the base and drop-over facilitate lining up to form a rigid continuous protection system. The range of applications includes construction sites, carnivals, fairs, trade shows, exhibitions, warehouses, shopping centres and music events.

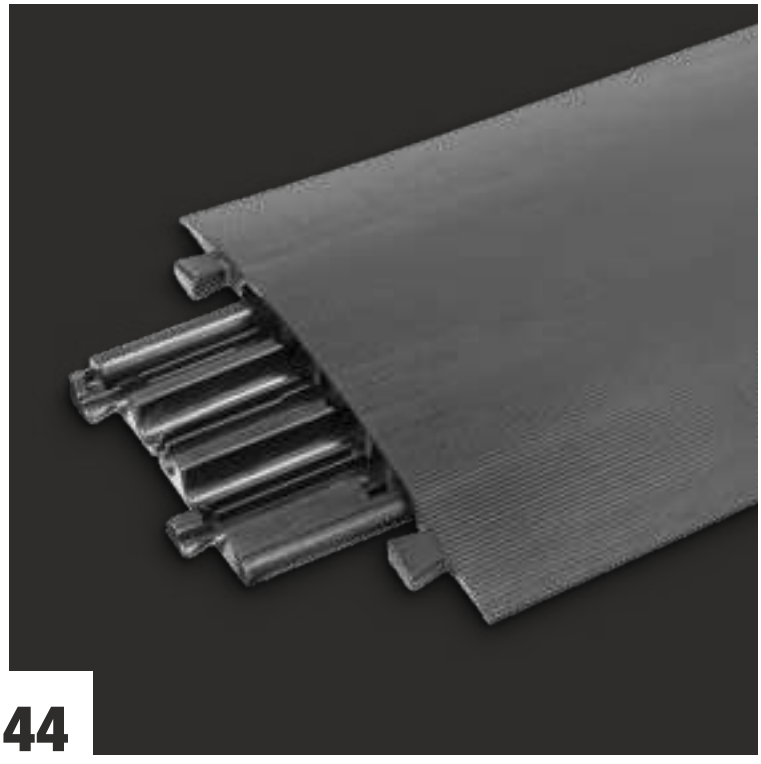
**SPECIFICATIONS**:

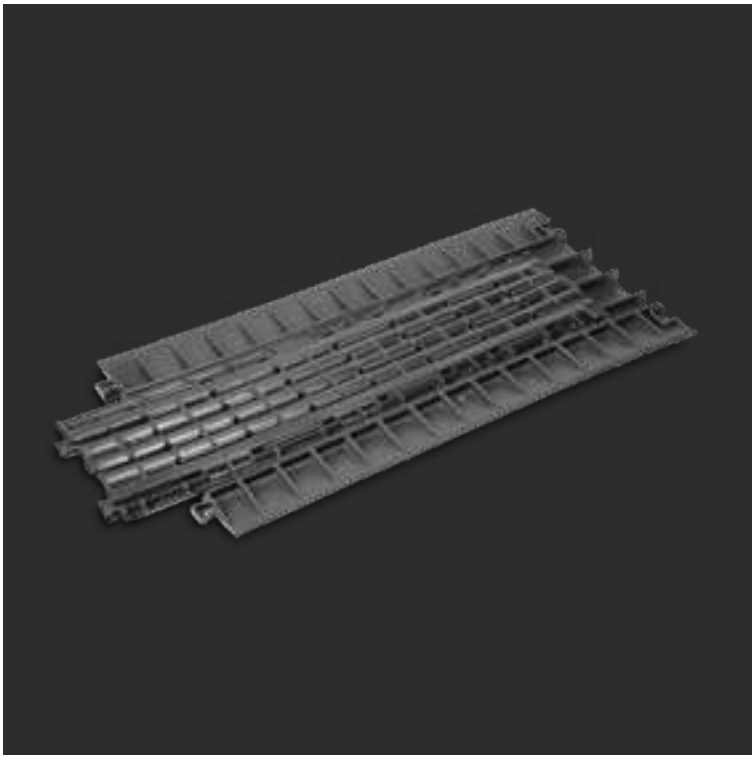
| | | |
|---|---|---|
| Art. No.: | 85100 | 85103 (optional base), 85100 (drop-over) |
| Product: | Seven-channel cable protector | Five-channel cable protector |
| Channel W × H: | 28 × 23 mm / 1.1" × 0.9" ( channels 1 and 7),<br>28 × 27 mm / 1.1" × 1.1" (channels 2 and 6),<br>28 × 29 mm / 1.1" × 1.1" (channels 3 and 5),<br>28 × 30 mm / 1.1" × 1.1" (channel 4) | 22 × 21 mm / 0.9" × 0.9" (channels 1 to 5) |
| Material: | TPU (thermoplastic polyurethane) | TPU (thermoplastic polyurethane) |
| Shore A hardness: | 88 ± 4 | 88 ± 4 |
| Load capacity: | See description above | See description above |
| Fire classification: | Class E in accordance with DIN EN 13501-1 | Class E in accordance with DIN EN 13501-1 |
| Resistant to: | Oil, petrol and short-term contact with solvent | Oil, petrol and short-term contact with solvent |
| Operating temperature: | –30°C to +60°C / –22°F to 140°F | –30°C to +60°C / –22°F to 140°F |
| Length: | 810 mm / 31.9" | 810 mm / 31.9" |
| Width: | 425 mm / 25.4" | 235 mm / 9.3" |
| Height: | 37 mm / 1.5" | 30 mm / 1.2" |
| Weight: | 3.65 kg / 8.1 lb | 2 kg / 4.41 lb (base with drop-over) |

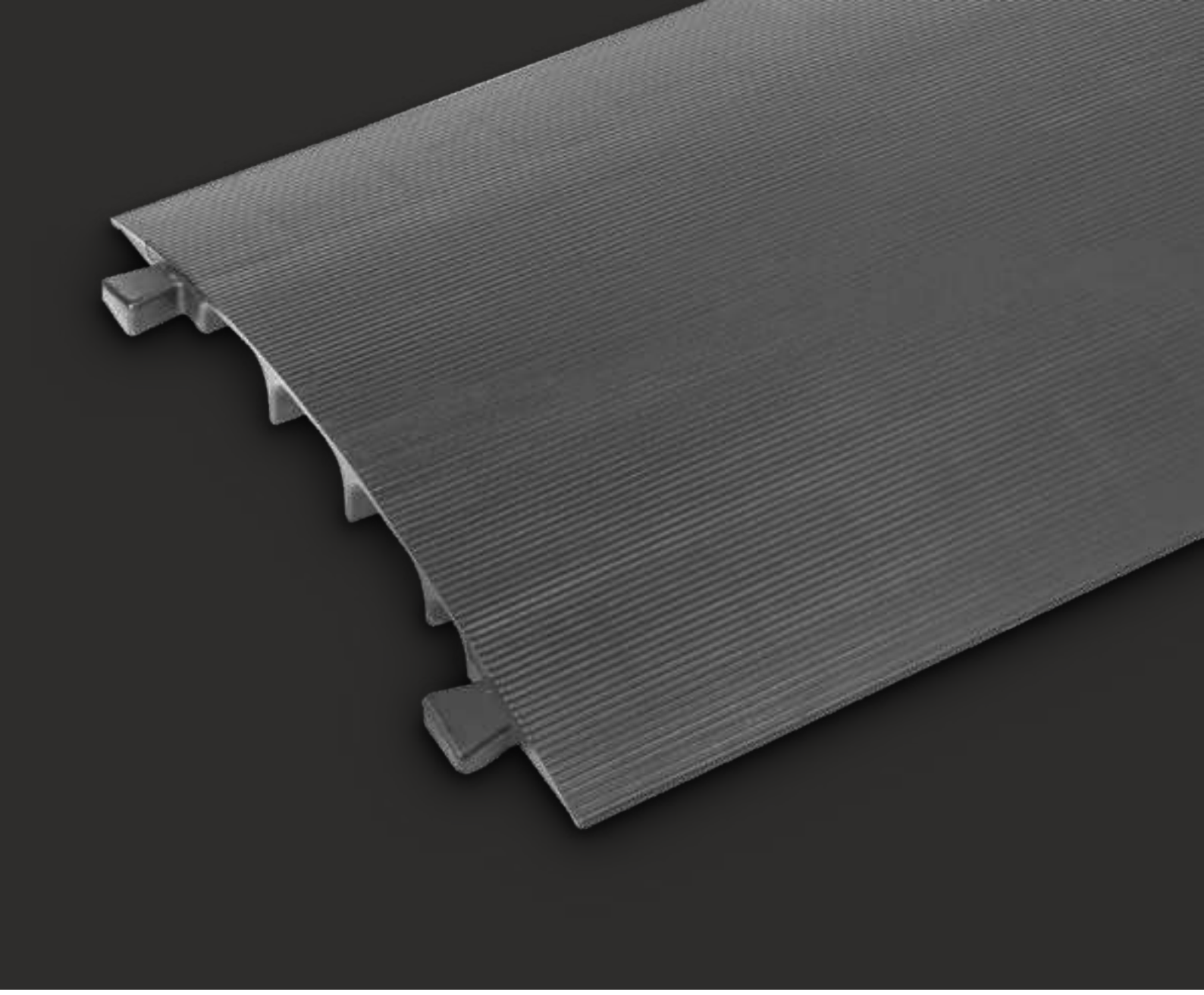
**OPTIONAL COMPONENTS:**

**DEFENDER® COMPACT** (drop-over)
Art. No.: **85100**

**DEFENDER® COMPACT BASE**
Art. No.: **85103**





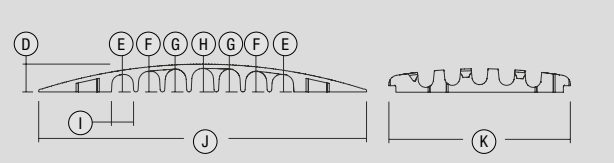


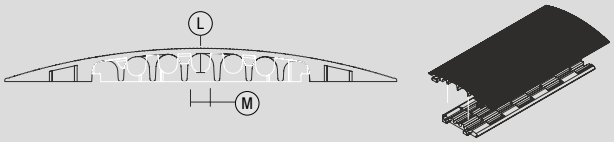
Art. No. **85100** (bottom view)

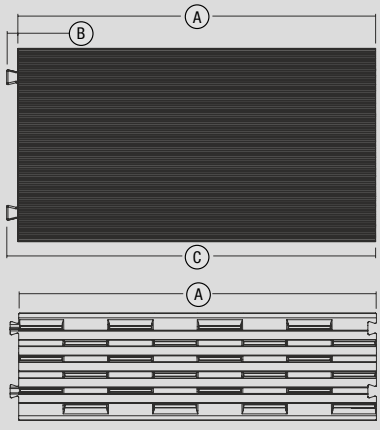


Art. No. **85103**






| | | | |
|---|---|---|---|
| A | 810 mm / 31.9" | H | 30 mm / 1.1" |
| B | 25 mm / 1.0" | I | 28 mm / 1.1" |
| C | 835 mm / 32.9" | J | 410 mm / 16.1" |
| D | 37 mm / 1.5" | K | 232 mm / 9.14" |
| E | 23 mm / 0.9" | L | 21 mm / 0.9" |
| F | 27 mm / 1.1" | M | 22 mm / 0.9" |
| G | 29 mm / 1.1" | | |

## RANGE OF APPLICATION

Mainly in offices, halls, trade fairs, etc.

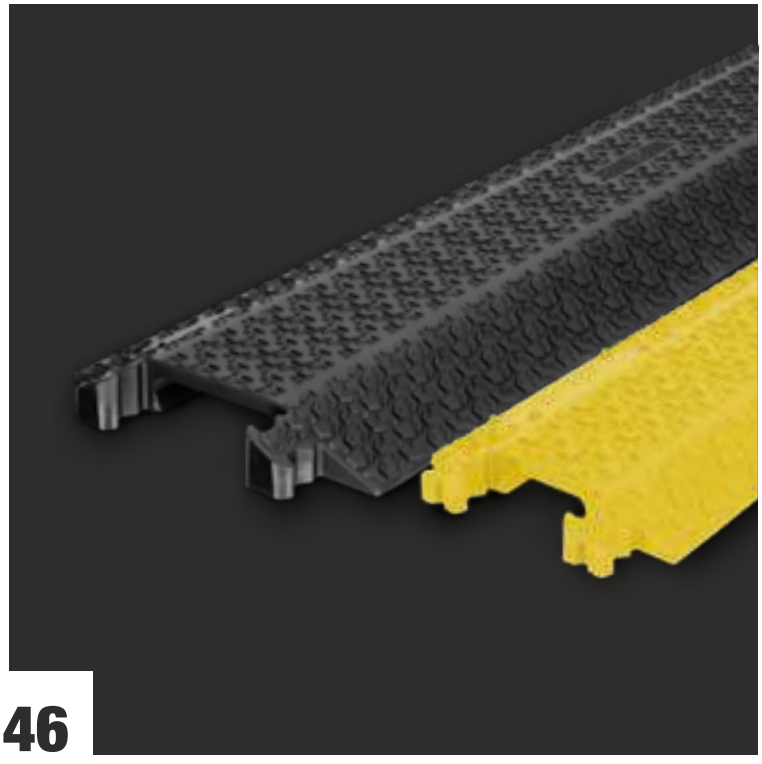
# DEFENDER® XPRESS

## THE FASTEST SOLUTION FOR CABLE RUNS.

The XPRESS cable protector can be laid over cables and hoses that have themselves already been laid – this alone makes the laying job unbeatably fast. In addition, the lower weight – due to the lack of a base – also contributes to easier handling. The compact DEFENDER® XPRESS cable protector is ideal for indoor and outdoor use at the likes of exhibitions, trade fairs, shopping centres, stages, studios, offices, and more. With a load capacity of approx. 0.5 tonnes per 20 × 20 cm area, XPRESS cable protectors can support the weight of standard cars, trolleys, bicycles, wheelchairs, and pedestrians. Our 3D LaserGrip® surface features a special structure and a unique, innovative design that ensures slip and tread resistance. Extremely robust and unbreakable TPU material is responsible for the stability and durability of the XPRESS cable protector. In addition, the XPRESS series – like all DEFENDER® cable protection systems – is particularly user-friendly. The XPRESS series is available in black or yellow and 100% “made in Germany”.

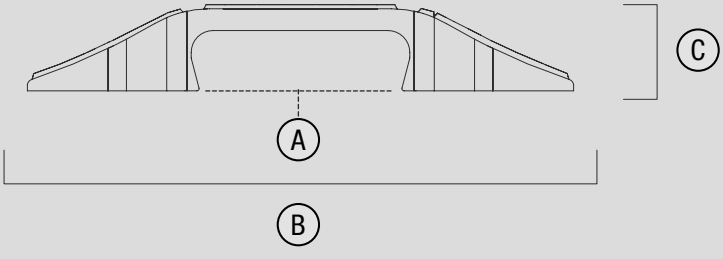
**SPECIFICATIONS**:

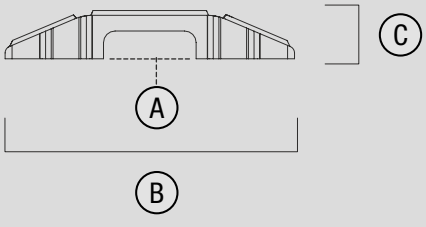
| **Item No.:** | **866XP100BLK, 866XP100YEL** | **866XP40BLK, 866XP40YEL** |
|---|---|---|
| Product type | Cable crossover | Cable crossover |
| Type | Drop over 1 - channel | Drop over 1 - channel |
| Color | Black, Yellow | Black, Yellow |
| Material | Polyurethane | Polyurethane |
| Width channel | 100 mm | 40 mm |
| Height channel | 30 mm | 12 mm |
| Max load | Approx. 0.5 t on a surface area of 20 × 20 cm | Approx. 0.5 t on a surface area of 20 × 20 cm |
| Dimensions (L × W × H) | 1005 mm × 250 mm × 40 mm | 1005 mm × 125 mm × 20 mm |
| Chemical resistance | Oil-resistant, Petrol-resistant, Short-term contact with solvents | Oil-resistant, Petrol-resistant, Short-term contact with solvents |
| Hardness range | 88 Shore ± 4 Shore | 88 Shore ± 4 Shore |
| Fire protection class | B2 | B2 |
| Temperature range | - 30°C to 60°C | - 30°C to 60°C |
| Weight | 4.2 kg | 1.35 kg |








| 100 | |
|---|---|
| A | 100 × 30 mm / 3.94" × 1.2" |
| B | 250 mm / 9.85" |
| C | 40 mm / 1.6" |

| 40 | |
|---|---|
| A | 40 × 12 mm / 1.6" × 0.48" |
| B | 125 mm / 4.92" |
| C | 20 mm / 0.79" |

## RANGE OF APPLICATION

Mainly in offices, halls, trade fairs, etc.

# DEFENDER® OFFICE

## FOUR MINI CHANNELS – INDOOR & DESIGN SOLUTION

Available with a choice of black, grey and yellow colours, the DEFENDER® OFFICE cable protection system is the elegant solution for secure pedestrian traffic in conference facilities, exhibitions, public buildings, retail outlets, shopping centres, trade shows and offices. Featuring straight, 90° and end ramps with cutting guides for length adjustment, zigzag connection and bolt holes for ground fixing, the DEFENDER® OFFICE system provides versatile cable routing while preventing tripping hazards.

**SPECIFICATIONS**:

| | |
|---|---|
| Art. No.: | 85160 (black) / 85160GREY (grey) / 85160YEL (yellow) |
| Product: | Four-channel cable protector |
| Channel W × H: | 10 × 10 mm / 0.4" × 0.4" (channels 1 and 4), 12 × 12 mm / 0.5" × 0.5" (channels 2 and 3) |
| Material: | TPU (thermoplastic polyurethane) |
| Shore A hardness: | 92 ± 4 |
| Load capacity: | Kilogram (area 20 × 20 cm) |
| | 400 kg / 881.85 lb |
| | 1000 kg / 2204.62 lb |
| Fire classification: | Class E in accordance with DIN EN 13501-1 |
| Resistant to: | Oil, petrol and short-term contact with solvent |
| Operating temperature: | –30°C to +60°C / –22°F to 140°F |
| Length: | 865 mm / 34.1" |
| Width: | 125 mm / 4.9" |
| Height: | 20 mm / 0.8" |
| Weight: | 1.25 kg / 2.76 lb |

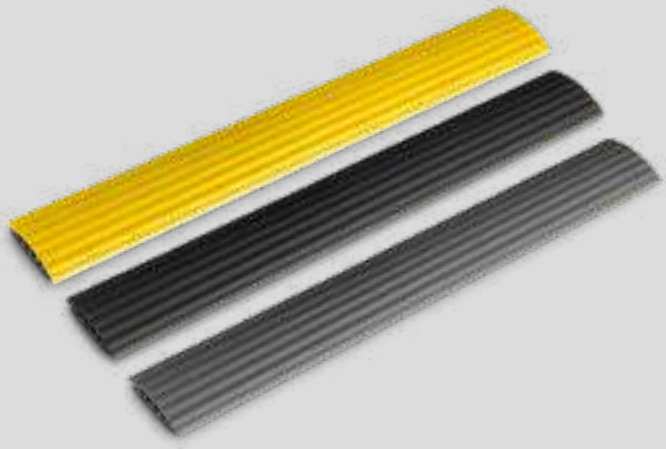
**OPTIONAL COMPONENTS:**

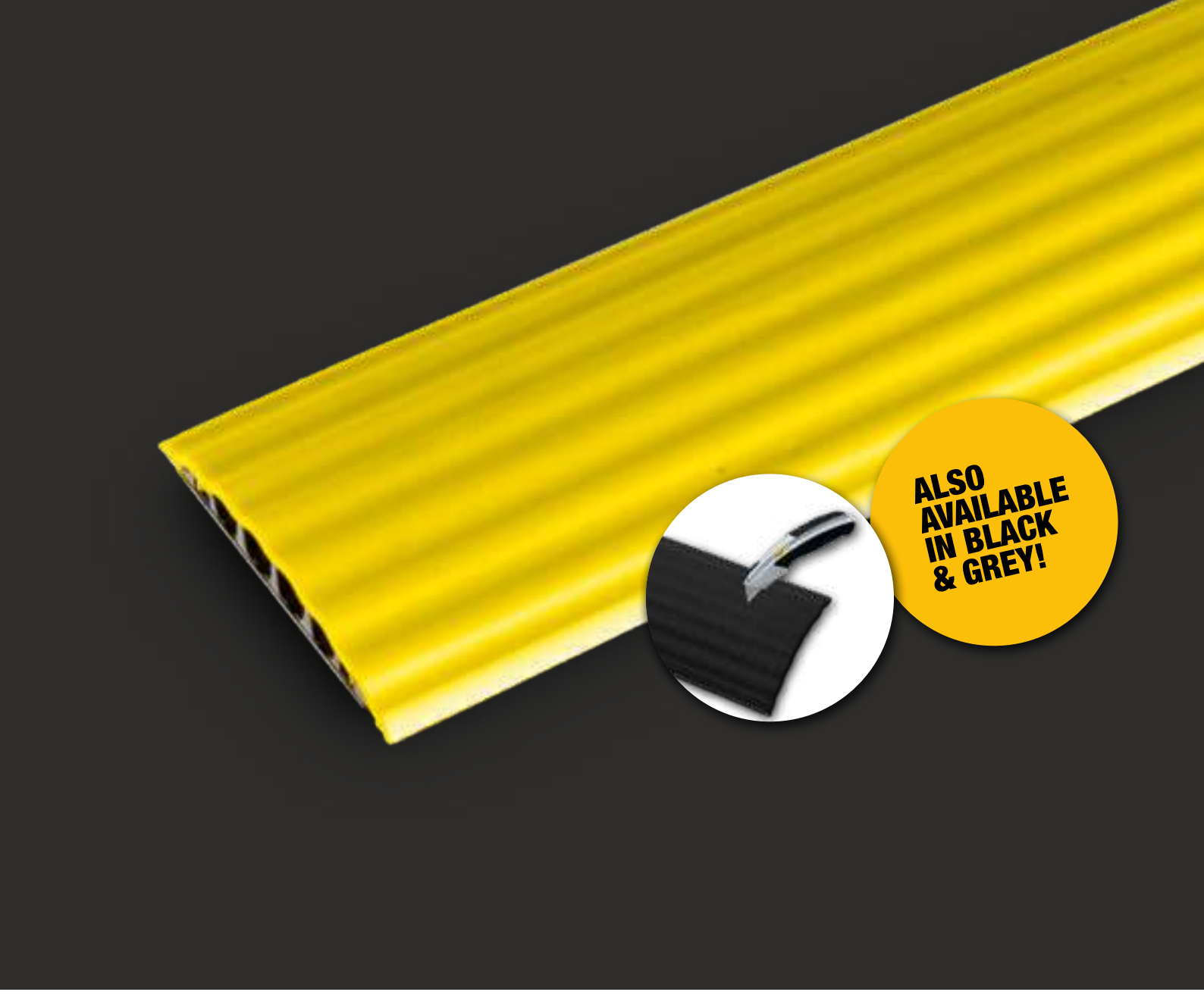
**DEFENDER® OFFICE 90° CURVE**
Art. No.: **85161** (black), **85161GREY**, **85161YEL**

**DEFENDER® OFFICE END RAMP**
Art. No.: **85168** (black), **85168GREY**, **85168YEL**

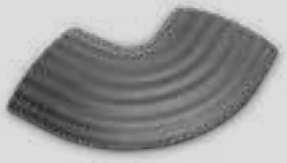


Available in:
Yellow – Art. No. **85160YEL**
Black – Art. No. **85160**
Grey – Art. No. **85160GREY**

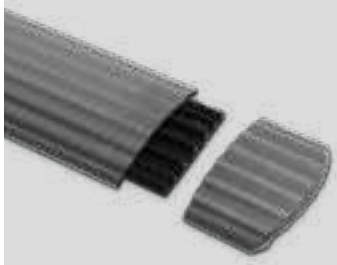


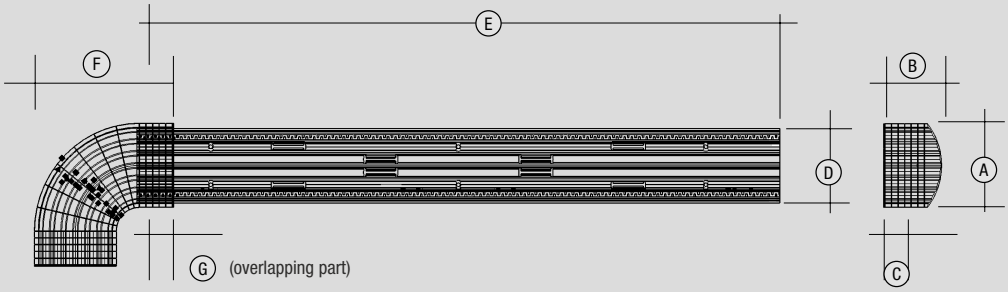


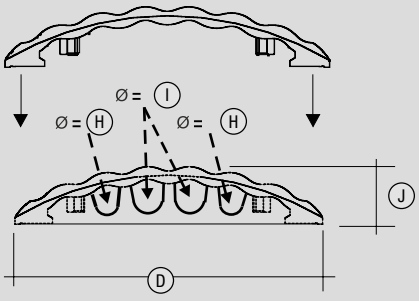

Art. No. **85161GREY**
**(90° curve)**



Art. No. **85161GREY**
**(90° curve)**






| | | | |
|---|---|---|---|
| A | 125 mm / 5.0" | F | 210 mm / 8.3" |
| B | 90 mm / 3.5" | G | 50 mm / 2.0" |
| C | 50 mm / 2.0" | H | 10 mm / 0.4" |
| D | 125 mm / 4.9" | I | 12 mm / 0.5" |
| E | 865 mm / 34.1" | J | 20 mm / 0.8" |




# DEFENDER® EXA-TAPE-VALUE

**Multi-purpose, high-quality, great-value gaffer tape**

If you want a tape that can do it all and do it well without breaking the bank, then it's got to be EXA-TAPE-VALUE. This heavy-duty gaffer tape has very strong adhesive properties so it gets stuck into the job with a quality and robustness you can rely on. Ideal for securing equipment, the tape is easily torn into small, no-thread strips and is effortlessly removable. EXA-TAPE-VALUE fits exactly onto the Ergo-Core (DTEXACORE) dispenser for convenient repeated taping.

## SPECIFICATIONS

| Item No.: | DTEXAVB50, DTEXAVS50, DTEXAVW50, DTEXAVBY50* |
|---|---|
| Product type | Adhesive Tape |
| Type | EXA-Tapes |
| Carrier | PE lined synthetic fabric or PVC (Polyvinyl chloride)* |
| Mesh | 26 or 0* |
| Total thickness | 0.17 mm or 0.15 mm* |
| Adhesion on steel | 20 N / 25 mm or 3 N / 25 mm* |
| Tensile strength | 74 – 82 N / 25 mm or 50 N / 25 mm* |

| Item No.: | DTEXAVB50, DTEXAVS50, DTEXAVW50, DTEXAVBY50* |
|---|---|
| Adhesive | Synthetic rubber or natural rubber* |
| Elongation at break | 10 – 15 % |
| Temperature range | Up to 40 °C |
| Colour | Black glossy, Silver glossy, White glossy or Black/Yellow |
| Width | 50 mm |
| Length | 50 m or 33 m* |
| Weight | 0.414 kg or 0.24 kg* |



### EXA-TAPE-VALUE B 50

Fabric tape, Black, glossy
50 mm × 50 m



### EXA-TAPE-VALUE S 50

Fabric tape, Silver, glossy
50 mm × 50 m



### EXA-TAPE-VALUE W 50

Fabric tape, White, glossy
50 mm × 50 m



### EXA-TAPE-VALUE BY 50

PVC tape, Black/Yellow
50 mm × 33 m

# DEFENDER® EXA-TAPE

## RESIDUE-FREE REMOVAL

On the stage or for a video/photo shoot, gaffer tape pitches in as a full-fledged member of the team, but after the gig it tends to leave an unsightly, sticky mess behind. Those days are gone now that the DEFENDER® EXA-TAPE® is here. It was developed entirely with today's stage, audio/video and worksite needs in mind and can be peeled off without leaving any marks behind. As a high-quality cloth adhesive tape or – as the experts say – 'gaffer tape', EXA-TAPE® is used in professional applications. The hand-tearable tape can be easily and cleanly ripped off without any hanging threads. The secret to its success is spun rayon fabric. EXA-TAPE® is coated with a special natural rubber adhesive and sticks to nearly all surfaces. Residue-free removal is also possible despite the tape being very adhesive.

**REUSABLE ERGO-CORE**

The ERGO-Core comes in handy during frequent use. This dispenser works much like a ball bearing and allows tape to be applied smoothly. The ERGO-Core dispenser is made out of two interconnectable plastic parts for repeated use. It is simply inserted into the tape sleeve and is thus universally usable.



- HIGH ADHESIVE STRENGTH
- RESIDUE-FREE REMOVAL
- CLEAN-TEAR TAPE STRUCTURE
- UV-RESISTANT
- REUSABLE ERGO-CORE INCLUDED
- SUSTAINABLE & RECYCLABLE PACKAGING

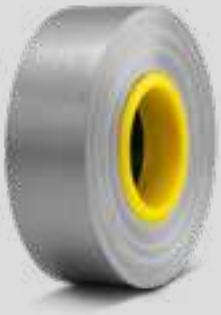
EXA-TAPE® with ERGO-Core
Black, matt
50 mm × 50 m
Art. No. **DTEXABM50**



EXA-TAPE® with ERGO-Core
Black, glossy
50 mm × 50 m
Art. No. **DTEXAB50**



EXA-TAPE® with ERGO-Core
Silver, glossy
50 mm × 50 m
Art. No. **DTEXAS50**



EXA-TAPE® with ERGO-Core
White, glossy
50 mm × 50 m
Art. No. **DTEXAW50**



EXA-TAPE® with ERGO-Core
Black/yellow , glossy
50 mm × 50 m
Art. No. **DTEXABY50**





ERGO-Core
Art. No. **DTEXACORE**

EXA-TAPE® NEON GRN 38
Neon green
38 mm × 25 m
Art. No. **58065NGRN**



EXA-TAPE® NEON OR 38
Neon orange
38 mm × 25 m
Art. No. **58065NOR**



EXA-TAPE® NEON PIN 38
Neon pink
38 mm × 25 m
Art. No. **58065NPIN**



EXA-TAPE® NEON YEL 38
Neon yellow
38 mm × 25 m
Art. No. **58065NYEL**



EXA-TAPE® NEON GRN 19
Neon green
19 mm × 25 m
Art. No. **58064NGRN**



EXA-TAPE® NEON OR 19
Neon orange
19 mm × 25 m
Art. No. **58064NOR**



EXA-TAPE® NEON PIN 19
Neon pink
19 mm × 25 m
Art. No. **58064NPIN**



EXA-TAPE® NEON YEL 19
Neon yellow
19 mm × 25 m
Art. No. **58064NYEL**



EXA-TAPE® LTBLU 19
Light blue
19 mm × 25 m
Art. No. **58064LTBLU**



EXA-TAPE® RED 19
Red
19 mm × 25 m
Art. No. **58064RED**



EXA-TAPE® VIO 19
Purple
19 mm × 25 m
Art. No. **58064VIO**



EXA-TAPE® Labelling Tape 19
White
19 mm × 25 m
Art. No. **5813**



EXA-TAPE® ISO B 19
Black
19 mm × 33 m
Art. No. **DTEXAIB19**



EXA-TAPE® ISO S 19
Silver
19 mm × 33 m
Art. No. **DTEXAIS19**



EXA-TAPE® ISO W 19
White
19 mm × 33 m
Art. No. **DTEXAIW19**



## RANGE OF APPLICATION

Maintaining and servicing Defender® cable protectors / maximising the service life of Defender® cable protectors / maintaining and preserving rubber, plastic and metal parts.

# DEFENDER® PRO SERVICE

## MAINTENANCE SPRAY – VERSATILE PROTECTION AND LUBRICATION

The Defender Pro service maintenance spray is a high-quality silicone spray that has been specially developed for the care and maintenance of Defender cable protectors. It provides an excellent solution for maintaining their functionality and extending their service life. The spray ensures that the hinges and catches operate smoothly and makes it much easier to open and close the lids.

The spray forms a long-lasting lubricating and release film that protects and maintains rubber, plastic and metal parts, making it ideal for regular use in the event and industrial sectors. It prevents rubber parts from becoming brittle, freezing or sticking, ensuring long-term, reliable use. The spray's simple application with precise spray dosage means that it can be applied to individual mechanisms.

For optimum results, surfaces should be cleaned and degreased before application. Shake the can well and spray on from a distance of approx. 25 cm. Check surface compatibility before using on rubber and plastic materials. Please observe the safety data sheet and operating instructions.

**SPECIFICATIONS**:

| | |
|---|---|
| Art. No.: | DPSMS400 |
| Product: | Care product TPU & moving parts |
| Content: | Silicone |
| Container type: | Spray can |
| Container capacity: | 400 ml / 13.526 oz |
| Diameter: | 70 mm / 2.76" |
| Height: | 200 mm / 7.87" |
| Weight: | 0.5 kg / 1.102 lb |






# DEFENDER® BOX MK2

## THE SMART TRANSPORT AND STORAGE SOLUTION

The DEFENDER® BOX MK2 is the ideal solution for transporting and storing DEFENDER® cable protectors. The sturdy box consists of a slim and stable welded steel construction in standard Euro pallet dimensions. Its floor is equipped with a galvanised steel grid, which makes it easy to clean cable protectors in the box. The removable strut at the front makes the box completely accessible – this facilitates fast and easy loading and unloading. The strut can also be practically stowed away in the floor area when not in use. The box is stackable and can be equipped with almost all DEFENDER® brand cable protectors.

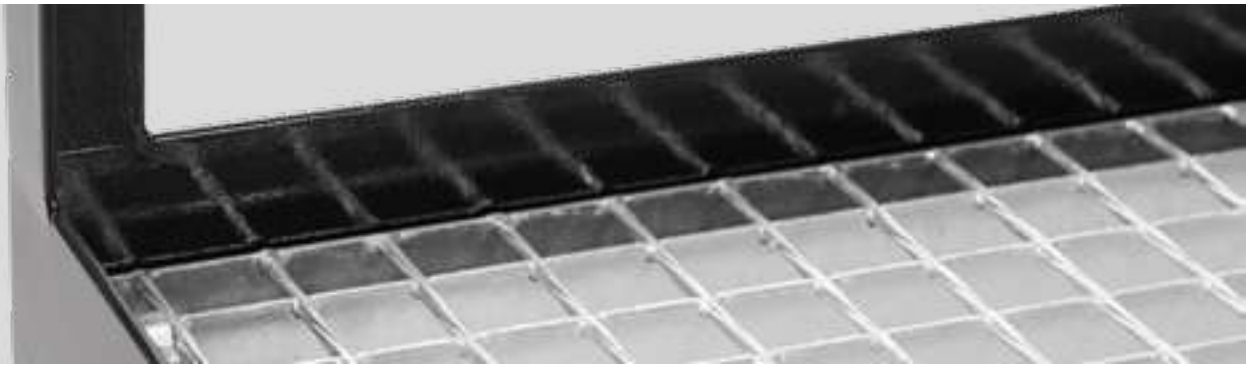
**SPECIFICATIONS**:

| | |
|---|---|
| Art. No.: | 85BOX MK2 |
| Product type: | Cable protector accessories |
| Type: | Transport boxes |
| Colour: | Black |
| Material: | Steel |
| Surface: | Powder-coated |
| Max. load capacity of the floor: | 500 kg |
| Max. load of the frame: | 650 kg |
| Stackable: | Max. 2 boxes on top of each other |
| Inner dimensions (L × H × D): | 119 × 111 × 79 cm |
| Outer dimensions (L × H × D): | 120 × 129 × 80 cm |
| Weight: | 78 kg / 171.96 lb |

Art. No. **85BOX2**



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# DEFENDER® REGISTER

| Article No. | Model Name | Description | Page |
|---|---|---|---|
| 85002 | 3 | Cable protector three-channel | 18 |
| 8690021ASET | 3 2D ADAPTER SET | Module system – Adapter Set for connecting Middle Section/Ramp with DEFENDER® 3 Cable Protector (85002) | 20 |
| 86900250 | 3 2D HV | Module system for wheelchair ramp and barrier-free transition – half Version | 20 |
| 869002 | 3 2D | Module system for wheelchair ramp and barrier-free transition – Middle Part | 20 |
| 8690021 | 3 2D RAMP | Module system for wheelchair ramp and barrier-free transition – Ramp | 20 |
| 85004 | 3 CONNECTOR PLUGS / DOVETAIL CONNECTOR | Connector plugs for 85002 cable protector three-channel | 18 |
| 85009 | 3 CURVE | 45° curve for 85002 cable protector three-channel | 18 |
| 85008 | 3 END RAMP | End ramp for 85002 cable protector three-channel | 20 |
| 85002LUX | 3 LUX | Cable protector three-channel LUX | 18 |
| 85BOX2 | BOX MK2 | Transport and storage box for cable protectors | 48 |
| 85100 | COMPACT | Cable protector seven-channel | 40 |
| 85103 | COMPACT BASE | Base for 85100 cable protector five-channel | 40 |
| DTEXACORE | EXA-TAPE® ERGO-CORE | REUSABLE ERGO-CORE | 46 |
| DTEXAB50 | EXA-TAPE® B 50 ERGO-CORE | Premium fabric adhesive tape with ERGO-Core black glossy 50 mm x 50 m | 51 |
| DTEXABM50 | EXA-TAPE® BM 50 ERGO-CORE | Premium fabric adhesive tape with ERGO-Core black matt 50 mm x 50 m | 51 |
| DTEXABY50 | EXA-TAPE® BY 50 ERGO-CORE | Premium fabric adhesive tape with ERGO-Core black/yellow glossy 50 mm x 50 m | 51 |
| DTEXAS50 | EXA-TAPE® S 50 ERGO-CORE | Premium fabric adhesive tape with ERGO-Core silver glossy 50 mm x 50 m | 51 |
| DTEXAW50 | EXA-TAPE® W 50 ERGO-CORE | Premium fabric adhesive tape with ERGO-Core white glossy 50 mm x 50 m | 51 |
| DTEXAVB50 | EXA-TAPE® VALUE B 50 | Fabric adhesive tape black glossy 50 mm x 50 m | 50 |
| DTEXAVBY50 | EXA-TAPE® VALUE BY 50 | PVC warning tape black/yellow 50 mm x 33 m | 50 |
| DTEXAVS50 | EXA-TAPE® VALUE S 50 | Fabric adhesive tape silver glossy 50 mm x 50 m | 50 |
| DTEXAVW50 | EXA-TAPE® VALUE W 50 | Fabric adhesive tape white glossy 50 mm x 50 m | 50 |
| DTEXAIB19 | EXA-TAPE® ISO B 19 | PVC insulating tape / Zumbel black 19 mm x 33 m | 52 |
| DTEXAIS19 | EXA-TAPE® ISO S 19 | PVC insulating tape / Zumbel silver 19 mm x 33 m | 52 |
| DTEXAIW19 | EXA-TAPE® ISO W 19 | PVC insulating tape / Zumbel white 19 mm x 33 m | 52 |
| 5813 | EXA-TAPE® Labelling Tape 19 | Marking tape PVC white 19 mm x 30 m | 52 |
| 58064LTBLU | EXA-TAPE® LTBLU 19 | Fabric adhesive tape light blue 19 mm x 25 m | 52 |
| 58064NGRN | EXA-TAPE® NEON GRN 19 | Fabric adhesive tape neon green 19 mm x 25 m | 52 |
| 58064NOR | EXA-TAPE® NEON OR 19 | Fabric adhesive tape neon orange 19 mm x 25 m | 52 |
| 58064NPIN | EXA-TAPE® NEON PIN 19 | Fabric adhesive tape neon pink 19 mm x 25 m | 52 |
| 58064NYEL | EXA-TAPE® NEON YEL 19 | Fabric adhesive tape neon yellow 19 mm x 25 m | 52 |
| 58064VIO | EXA-TAPE® VIO 19 | Fabric adhesive tape purple 19 mm x 25 m | 52 |
| 58064RED | EXA-TAPE® RED 19 | Fabric adhesive tape red 19 mm x 25 m | 52 |
| 58065NGRN | EXA-TAPE® NEON GRN 38 | Fabric adhesive tape neon green 38 mm x 25 m | 52 |
| 58065NOR | EXA-TAPE® NEON OR 38 | Fabric adhesive tape neon orange 38 mm x 25 m | 52 |
| 58065NPIN | EXA-TAPE® NEON PIN 38 | Fabric adhesive tape neon pink 38 mm x 25 m | 52 |
| 58065NYEL | EXA-TAPE® NEON YEL 38 | Fabric adhesive tape neon yellow 38 mm x 25 m | 52 |
| 86100 | MICRO 2 | Cable Protector with two Channels | 40 |
| 86100BLK | MICRO 2 BLACK | Cable Protector with two Channels black | 40 |
| 86100LUX | MICRO 2 LUX | Cable Protector with two Channels LUX | 40 |
| 85301 | MIDI 4 | Cable protector four-channel | 33 |
| 85301BLK | MIDI 4 BLACK | Cable Protector four-channel black | 33 |
| 85301LUX | MIDI 4 LUX | Cable protector four-channel LUX | 33 |
| 85300 | MIDI 5 | Cable protector five-channel | 32 |

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| 869300 | MIDI 5 2D | Midi 5 2D Module System for Barrier-free Access | 31 |
| 869301ASET | MIDI 5 2D ADAPTER SET | Module system – Adapter Set for connecting Middle Section/Ramp with Midi Cable Protector (85300/301) | 31 |
| 869300AEF | MIDI 5 2D ADAPTER/ENDPIECE FEMALE | Midi 5 modular system – adapter/end piece female for connection/termination of middle section/ Ramp with Midi cable protector (85300/301) or Midi 5 2D set | 34 |
| 869300AEM | MIDI 5 2D ADAPTER/ENDPIECE MALE | Midi 5 modular system - adapter/end piece male for connecting/terminating the middle section/ramp with Midi cable protector (85300/301) or Midi 5 2D set | 34 |
| 869300BLU | MIDI 5 2D BLU | Midi 5 2D module system for wheelchair ramp and wheelchair accessible transition – middle part blue lid | 37 |
| 869350BLU | MIDI 5 2D BLU HV | Midi 5 2D Blu modular system for wheelchair accessible transition – half Version | 34 |
| 869350 | MIDI 5 2D HV | Module system for wheelchair ramp and barrier-free transition – half Version | 34 |
| 869301 | MIDI 5 2D R | Module system for wheelchair ramp and barrier-free transition | 36 |
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| 869302 | MIDI 5 2D RS | Short ramp for the MIDI 5 2D modular system | 37 |
| 869300SETBLU | MIDI 5 2D SET BLU | COMPLETE SET MIDI 5 2D MODULAR SYSTEM | 37 |
| 85300BLK | MIDI BLACK | Cable protector five-channel with black cap | 32 |
| 85310 | MIDI CURVE | 45° curve for 85300 cable protector five-channel | 31 |
| 85310BLK | MIDI CURVE BLACK | 45° curve for 85300 cable protector five-channel with black cap | 31 |
| 85308 | MIDI END RAMP | End ramp for 85300 cable protector five-channel | 31 |
| 85300LUX | MIDI LUX | Cable protector five-channel LUX | 31 |
| 85200 | MINI | Cable protector three-channel | 38 |
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| 85208F | MINI END RAMP FEMALE | End ramp female for 85200/85200BLK cable protector three-channel | 38 |
| 85208M | MINI END RAMP MALE | End ramp male for 85200/85200BLK cable protector three-channel | 38 |
| 85210L | MINI LEFT | 45° curve left for 85200 cable protector three-channel | 38 |
| 85200LUX | MINI LUX | Cable protector three-channel LUX | 38 |
| 85210R | MINI RIGHT | 45° curve right for 85200 cable protector three-channel | 38 |
| 86100 | MICRO 2 | Compact cable protector | 40 |
| 85150 | NANO | Cable protector six-channel | 42 |
| 85150BLK | NANO BLACK | Cable protector six-channel with black cap | 42 |
| 85158F | NANO END RAMP FEMALE | End ramp female for 85150/85150BLK cable protector six-channel | 42 |
| 85158M | NANO END RAMP MALE | End ramp male for 85150/85150BLK cable protector six-channel | 42 |
| 85150LUX | NANO LUX | Cable protector six-channel LUX | 42 |
| 85100 | COMPACT | Drop-over cable protector | 44 |
| 85160 | OFFICE | Cable duct four-channel black | 48 |
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| 85510 | XXL END RAMP | End ramp for 85500 cable protector five-channel | 16 |
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**Important**
Slight discolouration of material and metallic sheen result from the halogen-free flame retardant additives and the recycled materials. They cannot be considered as a defect.

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# DEFENDER®

## CABLE PROTECTION SYSTEMS

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