

FLEXICON
Ultra

THE POWER OF ONE

NEW

Flexicon ULTRA™ Selection Guide

Integrated
Sealing
Technology

Integrity • Strength • Assurance

Flexible conduit solutions for
performance and safety critical systems





Testing & Applications



The risks of Cable Protection failure can have significant consequences to Personal Safety, Continuity of Power / Data Supply and System Integrity.

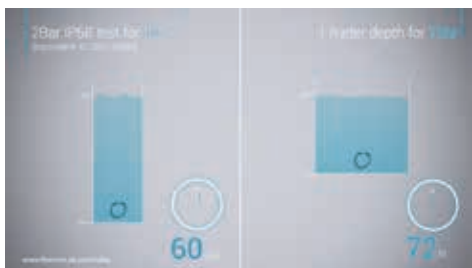
Flexicon ULTRA™ is the world's best solution to protect critical cabling and vulnerable installations. Ideal for the harshest environments and technically demanding applications, Flexicon ULTRA™ exceeds expectations when it comes to Cable Protection Performance.



Flexicon ULTRA™ is ideal for applications which demand...



- **Simplicity:** One piece solution - no separate parts or pre-assembly required
- **High level of Ingress Protection:** IP66, IP67, IP68 and IP69 performance
- **Dynamic performance:** Highest tensile strength non-metallic fitting, upto 70kg
- **Light weight:** Non-metallic components
- **Reliability:** Tested to extremes
- **Corrosion resistance:** Long life performance



Our products have been tested to the extremes to ensure suitability for technically demanding environments.

For example, to demonstrate the Ingress Protection performance to IP68 we've tested our products for Ingress Protection to 1 metre depth for a period of 72 hours, far beyond the requirements of the BS EN IEC 60529.

We've also tested our products for 2 Bar (equivalent to 20 metre depth) for a period of 1 hour.

Typical applications include...



Rail



Automation



Utilities



Marine



Product Features & Benefits



NEW

Offering **Integrity**, **Strength** and **Assurance**, Flexicon ULTRA™ is the best solution for Performance & Safety Critical applications.

Integrity.

- **One Piece** – Integrated Sealing Technology
- IP68, IP69 performance
- Simple push and twist connection



Strength.

- **360° Strength** – All round teeth
- 70kg Tensile Strength
- Anti-tamper, Dynamic & Vibration performance

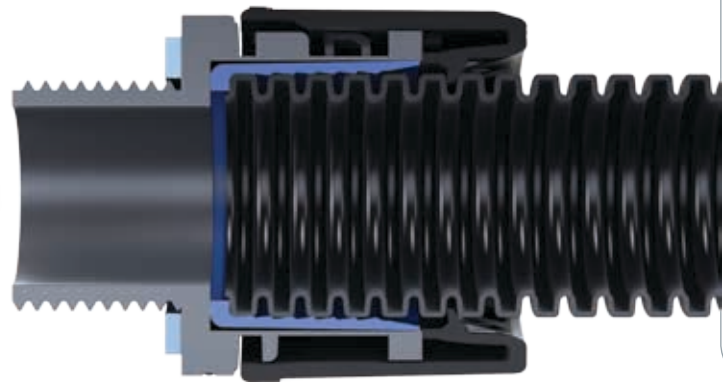


Assurance.

- **Lifetime sealing & reliability**
- Independently tested to extremes
- UK Manufacturer






Integrated Sealing Technology









non-metallic conduit

NEW

	FPAS	FPR	FPAH	FPI	FPIH	FPIHR
Weight	Standard	Standard	Heavy	Standard	Heavy	Heavy
Material	PA6	PA6*	PA6	PA12	PA12	PA12*
Compression Strength	75kg	75kg	120kg	45kg	60kg	60kg
High fatigue Life	Yes	Yes	-	Yes	Yes	Yes
Temperature Range	-40°C to +120°C	-40°C to +120°C	-40°C to +120°C	-50°C to +110°C	-50°C to +110°C	-50°C to +110°C
Low Temperature Impact	5J @ -40°C	3J @ -40°C	5J @ -40°C	6J @ -50°C	6J @ -50°C	9.8J @ -50°C
Low Fire Hazard						
Halogen Free	Yes	Yes	Yes	Yes	Yes	Yes
Self Extinguishing	Yes	Yes	Yes	Yes	Yes	Yes
High Abrasion Resistance	Yes	Yes	Yes	-	Yes	Yes
Resistant to Solvents & Oils	Yes	Yes	Yes	Yes	Yes	Yes
High UV Resistance (Black)	Yes	Yes	Yes	Yes	Yes	Yes
BS EN IEC 61386	Yes	Yes	Yes	Yes	Yes	Yes
Lloyds Register Approved	Yes	Yes	-	-	-	-
UL Recognised	Yes	Yes	Yes	Yes	Yes	-
UL Listed	Yes	-	-	-	-	-
EN 45545-2	-	HL3	-	-	-	HL3
LUL 1-085	-	Yes	-	-	-	Under Test
BS 6853	Yes	Yes	Yes	Yes	Yes	Under Test
NF F 16-101/2	Yes	Yes	Yes	Yes	Yes	Under Test
DIN 5510	-	Yes	-	Yes	Yes	Under Test
CEI 11170	-	Yes	-	-	-	Under Test
AS/NZS 1530.3	-	Yes	-	-	-	Under Test
ASTM E 162	-	Yes	-	-	-	Under Test
ASTM E 662	-	Yes	-	Yes	Yes	Under Test
CE	Yes	Yes	Yes	Yes	Yes	Yes
ROHS	Yes	Yes	Yes	Yes	Yes	Yes
REACH	Yes	Yes	Yes	Yes	Yes	Yes

*Highly Flame retardant

european (NW) sizes	pitch	nominal size (mm)						
			part number	part number	part number	part number	part number	part number
10	F	13	FPAS13	FPR13	FPAH13	FPI13	FPIH13	FPIHR13
12	F	16	FPAS16	FPR16	FPAH16	FPI16	FPIH16	FPIHR16
12	F	16						
12	F	16						
17	F	21	FPAS21	FPR21	FPAH21	FPI21	FPIH21	FPIHR21
	C	21	FPAS21C					
	C	21						
23	F	28	FPAS28	FPR28	FPAH28	FPI28	FPIH28	FPIHR28
	C	28	FPAS28C					
29	C	34	FPAS34	FPR34	FPAH34	FPI34	FPIH34	FPIHR34
29	F	34	FPAS34F					
36	C	42	FPAS42	FPR42	FPAH42	FPI42	FPIH42	FPIHR42
36	C	42						
48	C	54	FPAS54	FPR54	FPAH54	FPI54	FPIH54	FPIHR54
48	C	54						

NEW

Flexicon ULTRA™ - The World's Best Conduit Fitting!

FPAU system nylon and metallic threaded options

Featuring **Integrated Sealing Technology**, Flexicon ULTRA™ provides a true one piece solution when it comes to cable protection for technically demanding environments.

With all round teeth to secure the conduit, Flexicon ULTRA™ offers superior dynamic performance providing **Integrity, Strength & Assurance** in one package.

For technically demanding, safety and performance critical applications such as Rail, Machinery & OEM's, Automation or Marine, Flexicon ULTRA™ is the proven one piece fitting for all round performance.



ULTRA™ system straight



STRAIGHT	STRAIGHT	FLANGE	STRAIGHT	STRAIGHT	STRAIGHT
external thread Fast fit, external threaded fitting with integrated conduit seal. Suitable for knockouts or threaded entries.	UNEF swivel internal thread Fast fit fitting with nickel plated brass swivel UNEF internal thread for attachment to circular connectors with integrated conduit seal.	flange Fast fit fitting with nylon swivel flange with integrated conduit seal and with 'O' ring face seal.	swivel brass external thread Fast fit, swivel, nickel plated brass external threaded fitting with integrated conduit seal. Suitable for knockouts or threaded entries.	swivel brass internal thread Fast fit, swivel, nickel plated brass internal threaded fitting with integrated conduit seal.	cable gland Fast fit, swivel, nickel plated brass external threaded cable gland fitting with integrated conduit seal. Suitable for knockouts or threaded entries.
IP66 IP67 IP68 IP69	IP66 IP67 IP68 IP69	IP66 IP67 IP68 IP69	IP66 IP67 IP68 IP69	IP66 IP67 IP68 IP69	IP66 IP67 IP68 IP69



Ext Metric Int UNEF Flange NPB Ext Metric NPB Ext PG NPB Int Metric NPB Metric

FPAU13-M16			FPAU13-BM16	FPAU13-BPG9	FPAU13-BFM16	FPAU13-BM16-CG
FPAU16-M16	FPAU16-BU075	FPAU16-FL	FPAU16-BM16	FPAU16-BPG9	FPAU16-BFM16	FPAU16-BM16-CG
FPAU16-M20	FPAU16-BU100		FPAU16-BM20	FPAU16-BPG11	FPAU16-BFM20	FPAU16-BM20-CG
	FPAU16-BU119					
FPAU21-M20	FPAU21-BU100	FPAU21-FL	FPAU21-BM20	FPAU21-BPG13	FPAU21-BFM20	FPAU21-BM20-CG
	FPAU21-BU119			FPAU21-BPG16		
	FPAU21-BU138					
FPAU28-M25	FPAU28-BU138	FPAU28-FL	FPAU28-BM25	FPAU28-BPG21	FPAU28-BFM25	FPAU28-BM25-CG
	FPAU28-BU144					
FPAU34-M32	FPAU34-BU144	FPAU34-FL	FPAU34-BM32	FPAU34-BPG29	FPAU34-BFM32	FPAU34-BM32-CG
FPAU42-M40	FPAU42-BU200	FPAU42-FL	FPAU42-BM40	FPAU42-BPG36	FPAU42-BFM40	FPAU42-BM40-CG
FPAU42-M50	FPAU42-BU225		FPAU42-BM50			
FPAU54-M50	FPAU54-BU200		FPAU54-BM50	FPAU54-BPG48	FPAU54-BFM50	FPAU54-BM50-CG
FPAU54-M63	FPAU54-BU225		FPAU54-BM63			



Properties

- Fast fit - True one piece component
- PA66 Nylon moulded fitting
- Metallic threads made from Nickel Plated Brass
- Retained Face seal details:
 - Nylon and Brass external threads include Retained High Performance washer
 - UNEF and Flange supplied with O-ring
- IP rating: for conduit & fitting **IP66 + IP67 + IP68 (2 bar) + IP68 (72hrs @ 1m) + IP69**
- Vibration and shock tested to EN61373 Cat 2
- Tamper resistant
- Both 90° and 45° elbows incorporate swept bore to facilitate cable installation and protect cables when installed
- Can be removed using a screwdriver
- All round teeth give high pull off strength 70kg with FPAH21
- Suitable for fine and coarse pitch conduits
- Temperature range: **conduit fitting: -50°C to +135°C**
- Low Fire Hazard (LFH)
- Halogen, sulphur and phosphorus free
- UV resistant
- Swivel threads allow assembly without twisting of cables

Industry Approvals



EN 45545

ULTRA™ system
45°

NEW



IP66

IP67

IP68

IP69

45° ELBOW	45° ELBOW	FLANGE	45° ELBOW	45° ELBOW	45° ELBOW
<p>external thread</p> <p>Fast fit, external threaded 45 degree elbow fitting with integrated conduit seal. Suitable for knockouts.</p>	<p>UNEF swivel internal thread</p> <p>Fast fit, 45 degree elbow fitting with nickel plated brass swivel UNEF internal thread for attachment to circular connectors with integrated conduit seal.</p>	<p>flange</p> <p>Fast fit 45 degree elbow fitting with nylon swivel flange with integrated conduit seal and 'O' ring face seal.</p>	<p>swivel brass external thread</p> <p>Fast fit, swivel, 45 degree elbow, nickel plated brass external threaded fitting with integrated conduit seal. Suitable for knockouts or threaded entries.</p>	<p>swivel brass internal thread</p> <p>Fast fit, swivel, 45 degree elbow, nickel plated brass internal threaded fitting with integrated conduit seal.</p>	<p>cable gland</p> <p>Fast fit, swivel, 45 degree elbow, nickel plated brass external threaded cable gland fitting with integrated conduit seal. Suitable for knockouts or threaded entries.</p>
IP66 IP67 IP68 IP69	IP66 IP67 IP68 IP69	IP66 IP67 IP68 IP69	IP66 IP67 IP68 IP69	IP66 IP67 IP68 IP69	IP66 IP67 IP68 IP69



Ext Metric



Int UNEF



Flange



NPB Ext Metric



NPB Ext PG



NPB Int Metric



NPB Metric

FPAU16-M20-45

FPAU16-BU100-45
FPAU16-BU119-45

FPAU16-FL-45

FPAU16-BM16-45 FPAU16-BPG13-45
FPAU16-BM20-45 FPAU16-BPG16-45

FPAU16-BFM20-45

FPAU16-BM20-CG-45

FPAU21-M20-45

FPAU21-BU100-45
FPAU21-BU119-45
FPAU21-BU138-45

FPAU21-FL-45

FPAU21-BM20-45 FPAU21-BPG13-45
FPAU21-BPG16-45

FPAU21-BFM20-45

FPAU21-BM20-CG-45

FPAU28-M25-45

FPAU28-BU138-45
FPAU28-BU144-45

FPAU28-FL-45

FPAU28-BM25-45 FPAU28-BPG21-45

FPAU28-BFM25-45

FPAU28-BM25-CG-45

FPAU34-M32-45

FPAU34-BU144-45

FPAU34-FL-45

FPAU34-BM32-45 FPAU34-BPG29-45

FPAU34-BFM32-45

FPAU34-BM32-CG-45

FPAU42-M50-45

FPAU42-BU200-45
FPAU42-BU225-45

FPAU42-FL-45

FPAU42-BM40-45 FPAU42-BPG36-45
FPAU42-BM50-45

FPAU42-BFM50-45

FPAU42-BM40-CG-45

FPAU54-M50-45

FPAU54-BU200-45
FPAU54-BU225-45

FPAU54-FL-45

FPAU54-BM50-45 FPAU54-BPG48-45
FPAU54-BM63-45

FPAU54-BFM50-45

FPAU54-BM50-CG-45

Flexicon ULTRA™ fitting works with both fine and coarse pitch conduits



Fine Pitch



Coarse Pitch

How to identify a Flexicon ULTRA™ fitting



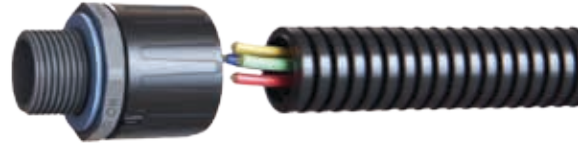
- 2 Tone colour - Capnut different to Body
- IP69 marked on product
- Blue insert seal with visible ribs within capnut
- Retained Face Sealing Washer

ULTRA™ system 90°



How to install a Flexicon ULTRA™ fitting

Step 1: Offer conduit to fitting



Step 2: Push whilst twisting conduit



Step 3: Complete



Removal with screwdriver possible if required



90° ELBOW	90° ELBOW	FLANGE	90° ELBOW	90° ELBOW	90° ELBOW
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external thread

Fast fit, external threaded 90 degree elbow fitting with integrated conduit for knockouts.



UNEF swivel internal thread

Fast fit, 90 degree elbow fitting with nickel plated brass swivel UNEF internal thread for attachment to circular connectors with integrated conduit seal.



flange

Fast fit 90 degree elbow fitting with nylon swivel flange with integrated conduit seal with 'O' ring face seal.



swivel brass external thread

Fast fit, swivel, 90 degree elbow, nickel plated brass external threaded fitting with integrated conduit seal. Suitable for knockouts or threaded entries.



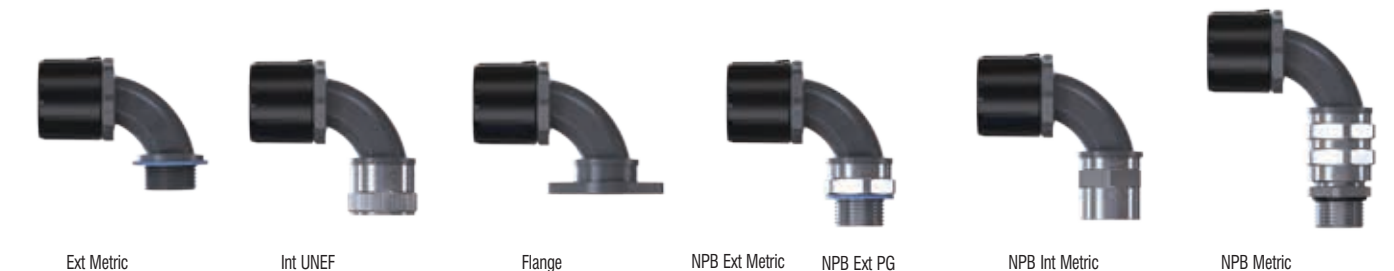
swivel brass internal thread

Fast fit, swivel, 90 degree elbow, nickel plated brass internal threaded fitting with integrated conduit seal.



cable gland

Fast fit, swivel, 90 degree elbow, nickel plated brass external threaded cable gland fitting with integrated conduit seal. Suitable for knockouts or threaded entries.



Ext Metric		Int UNEF	Flange	NPB Ext Metric	NPB Ext PG	NPB Int Metric	NPB Metric	European (NW) sizes	pitch	nominal size (mm)
FPAU13-M16-90				FPAU13-BM16-90	FPAU13-BPG9-90	FPAU13-BFM16-90	FPAU13-BM16-CG-90	10	F	13
FPAU16-M16-90		FPAU16-BU075-90	FPAU16-FL-90	FPAU16-BM16-90	FPAU16-BPG9-90	FPAU16-BFM16-90	FPAU16-BM16-CG-90	12	F	16
FPAU16-M20-90		FPAU16-BU100-90		FPAU16-BM20-90	FPAU16-BPG11-90	FPAU16-BFM20-90	FPAU16-BM20-CG-90	12	F	16
		FPAU16-BU119-90						12	F	16
FPAU21-M20-90		FPAU21-BU100-90	FPAU21-FL-90	FPAU21-BM20-90	FPAU21-BPG13-90	FPAU21-BFM20-90	FPAU21-BM20-CG-90	17	F	21
		FPAU21-BU119-90			FPAU21-BPG16-90				C	21
		FPAU21-BU138-90							C	21
FPAU28-M25-90		FPAU28-BU138-90	FPAU28-FL-90	FPAU28-BM25-90	FPAU28-BPG21-90	FPAU28-BFM25-90	FPAU28-BM25-CG-90	23	F	28
		FPAU28-BU144-90							C	28
FPAU34-M32-90		FPAU34-BU144-90	FPAU34-FL-90	FPAU34-BM32-90	FPAU34-BPG29-90	FPAU34-BFM32-90	FPAU34-BM32-CG-90	29	C	34
								29	F	34
FPAU42-M40-90		FPAU42-BU200-90	FPAU42-FL-90	FPAU42-BM40-90	FPAU42-BPG36-90	FPAU42-BFM50-90	FPAU42-BM40-CG-90	36	C	42
FPAU42-M50-90		FPAU42-BU225-90		FPAU42-BM50-90				36	C	42
FPAU54-M50-90		FPAU54-BU200-90		FPAU54-BM50-90	FPAU54-BPG48-90	FPAU54-BFM50-90	FPAU54-BM50-CG-90	48	C	54
FPAU54-M63-90		FPAU54-BU225-90		FPAU54-BM63-90				48	C	54

Flexicon a global presence with a local focus

LEADING THE WAY IN TODAY'S DEMANDING MARKETPLACE

- Excellence through engineering
- Progression through innovation
- Assurance through competence

The Flexicon Group is proud of its British Manufacturing heritage. Over 98% of our products are manufactured in our centre of excellence in Birmingham, UK. Continuous investment in our facilities, research and development and people have contributed to the Group's market leading position in Cable Protection Systems.

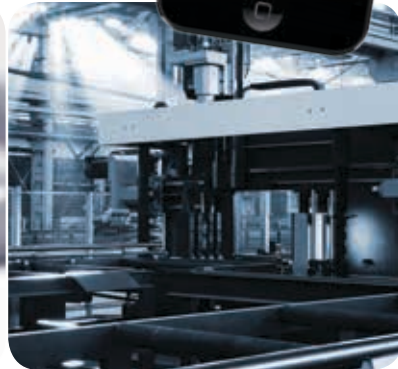
Our comprehensive product range consists of over 52 metallic and non-metallic systems. Growth in markets such as Hazardous areas, the Food and Beverage sector along with Renewable Energy, and further expansion in existing markets has seen the Group continue to achieve its strategic growth objectives.

Flexicon Offers;

- Independently tested products that comply with and exceed relevant global standards
- User friendly solutions offering time saving innovations
- Precision engineered quality products from the global experts
- International Technical Support
- Custom made solutions capability - bespoke or made to order assemblies
- Global distribution serving our worldwide customer base
- Continuous product development and investment in products for the future

flexiapp – find-a-conduit

Try our new smart phone app and find the perfect conduit for your requirements!



This selection guide brochure is only a snapshot of the full Flexicon range.



See our latest product guide for the widest choice - over 100 pages featuring over 4,000 products.



Flexicon Limited (Head Office)

A Roman Way, Coleshill, Birmingham,
B46 1HG, United Kingdom
T +44 (0)1675 466900
F +44 (0)1675 466901
E sales@flexicon.uk.com
W www.flexicon.uk.com

Flexicon in Europe

E sales@flexicon.eu.com
W www.flexicon.eu.com

Flexicon in USA

E sales@flexicon.us.com
W www.flexicon.us.com

Flexicon Australia Pty Limited

T National Sales Hotline: 1300 00 FLEX (3539)
E sales@flexiconaustralia.com
W www.flexiconaustralia.com

Sydney Office

A 1/38 Binney Road, Kings Park, NSW 2148
F +61 (0)2 8884 3889

Melbourne Office

A 14 Ovata Drive, Tullamarine, VIC 3043
F +61 (0)3 9372 3448



FM58347

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