Roxtec

CABLE ENTRY SEALS

FOR CABINETS AND ENCLOSURES

We Seal Your World™

ABOUT ROXTEC

- World leader in seals for multiple cables and pipes
- Founded in Sweden in 1990
- Inventor of Multidiameter™
- Local support in more than 70 markets
- Certified according to ISO 9001/14001 and EN 13980
- More than 250 product certifications and safety listings

ROXTEC CABINET SEALING SOLUTIONS

A truly flexible sealing system

Multidiameter™ by Roxtec

Our innovative solution for adaptability simplifies design, installation and maintenance. Our sealing modules have removable layers enabling a perfect fit to cables and pipes of different sizes. Just peel off layers until the module fits.

Install today, expand tomorrow

One area efficient Roxtec seal can replace up to 32 traditional cable glands. The built-in spare capacity makes it easy to open up the seal and change or add cables, without punching new holes or adding material, whenever there is a need.

BENEFITS

- ■ Plan for extra capacity
- ■ Save design and installation time
- ■ Avoid costly surprises onsite
- ■ Add cables without adding cost
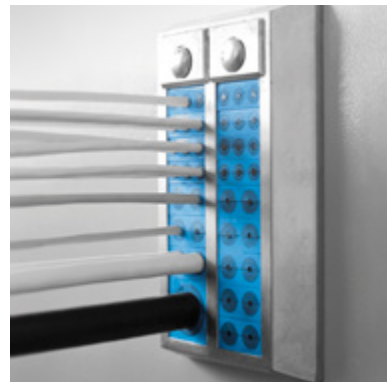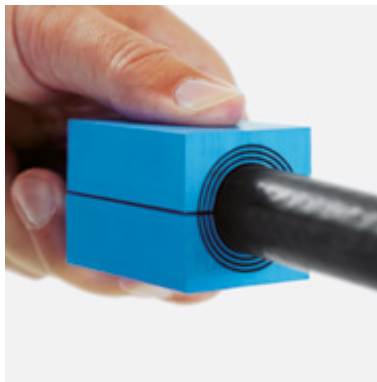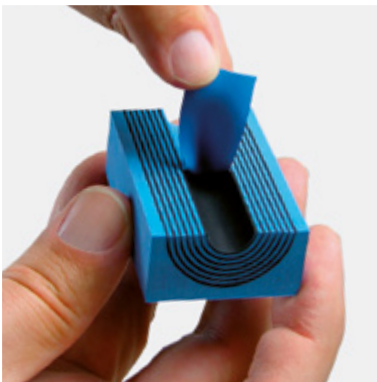
No more cutting off connectors

Roxtec sealing solutions allow you to route and seal pre-terminated cables without cutting connectors.

Roxtec seals have large openings making them ideal for use with pre-terminated cables. You can adjust and trim your system at the factory and eliminate the time-consuming and insecure cutting and re-attaching of connectors onsite. The result is better connectivity and less risk for EMI and signal loss.

- Maintain the integrity of the connection
- Long-term operational reliability
- Shorter installation times
- Reduction of installation costs

More cable, less cabinet

Roxtec solution

Traditional gland solution

Maximize space in your cabinets. Avoid drilling – and the risk of new leak paths.

Roxtec seals allow multiple cables or pipes through one opening. You eliminate the need for punching holes for cable glands and make it possible to reduce the size and cost of cabinets. The seals can be pre-packed for quick field installation.

FEATURES AND BENEFITS

- Multiple cables and pipes per opening
- Enables smaller cabinets
- Allows work-bench assembly
- Adapter plates for cabinets

Certified protection
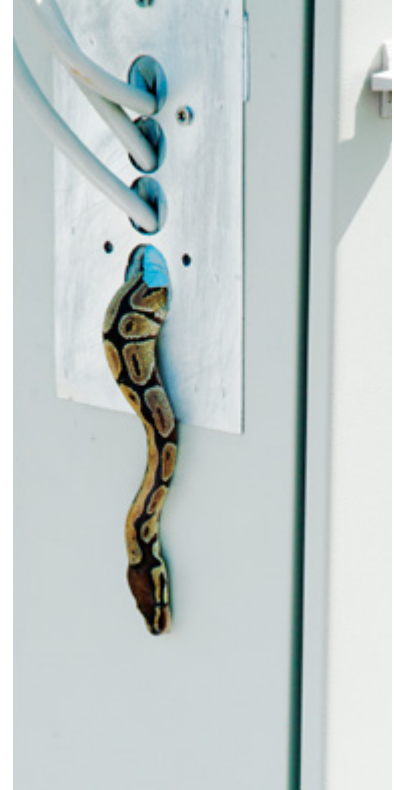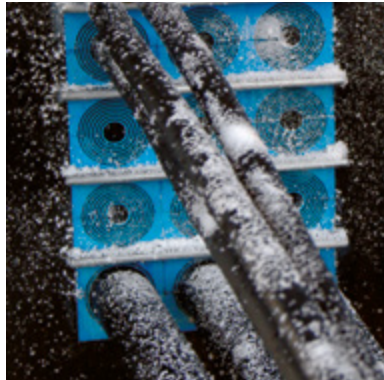
Roxtec cable and pipe entry seals provide protection against a wide range of hazards. Typical examples are gas, smoke, dust, fire, vibration and electromagnetic interference. Roxtec offers sealing solutions that are certified by industry recognized certifying authorities and have been tested and found compliant by recognized testing laboratories worldwide.

TESTED AND APPROVED

- IP 54, IP 66/67, IP69K
- Fire protection
- Water-tightness
- Vibration damping
- IECEx/ATEX
- UL/NEMA 3, 3R, 4, 4X, 12, 12K and 13
- EMC
- Pull-out resistance

Fewer warranty claims

By standardizing with Roxtec, our customers have been able to achieve safer and more reliable installations of cables with connectors. This reduces their costs for repairs after delivery due to component failure and improper routing.

Roxtec cable sealing solutions for every industry

Thanks to their reliability and extreme flexibility, our sealing solutions are used in a wide range of industries and applications. You find Roxtec seals for cabinets and enclosures in demanding environments on land and at sea all over the world.
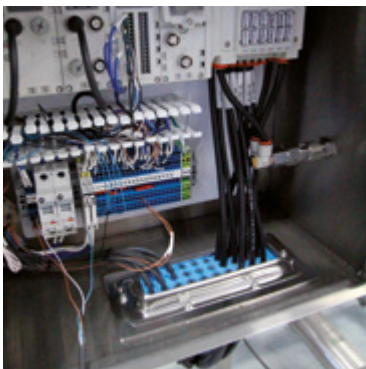
MACHINE BUILDERS/ PANEL SHOPS

Power supply cabinet: The Roxtec CF 32 can accommodate several cables in a small space.

Robotic routing machine control cabinet: The compact design of the Roxtec CF 16 maximizes free space.

High pressure wash down environments: The Roxtec CF 16 AISI 304 maintains high sanitary requirements.

ROLLING STOCK

Driver cab and engine room: Customized sealing solution installed to keep tight between the driver cab and engine room.

Light railway vehicle: The fire rated Roxtec CF 24 F1 helps ensure passenger safety by preventing the spread of fire into the passenger compartment.
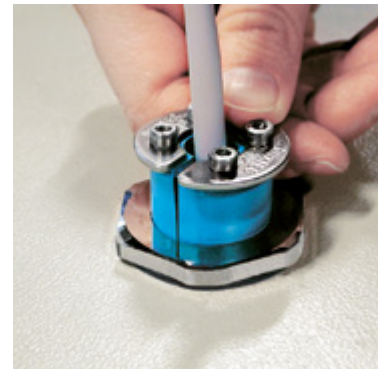

Fire-proof and pressure resistant cable seal.

MILITARY VEHICLES

V-hull vehicles: The Roxtec CF 16 cable seal is used in the walls and on the roof/ceiling of vehicles to prevent the ingress of water and dust.

Ambulances: The Roxtec C RS T seal for roof-top cable entries.

Radar control cabinet: The Roxtec CF 32 is used for sealing cables to radar systems.

CONSTRUCTION

Transformers and switchgear: The Roxtec GHM solution provides protection to ensure operational reliability.

Converter system: The Roxtec EzEntry™ cable entry seal protects against dust and water.

Junction boxes and control cabinets: The Roxtec CF 32/32 provides IP 67 and NEMA 4 protection, sealing up to 32 cables in a single small cut-out.

POWER (WIND, NUCLEAR, SOLAR)

I/C cabinets: Neat and area efficient cable entry seals suitable for safety and non-safety applications.

Control cabinets: The Roxtec CF 32 PE for potential equalization is used for generator and turbine cubicle marshalling.

Wind turbine: Roxtec transits for potential equalization as well as the Roxtec standard system for control cabinets in the nacelle.

PROCESSING AND HEAVY INDUSTRIES

Ex e terminal box: The Roxtec CF 32 Ex frame can accommodate 32 SWA or MC cables.

DCS/PLC and I/O marshalling cabinets: Roxtec solutions reduce required cabinet space, ensure functionality and provide capacity for additional cables.
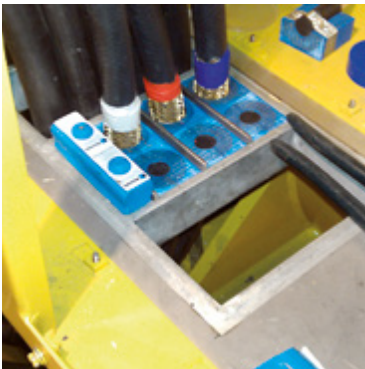

Instrumentation and communication: The Roxtec CF 32 provides protection against coal dust.

OFFSHORE OIL AND GAS

Generators, thrusters and motor terminal boxes: IP and vibration protection. The seals allow routing of cables with terminations. Available in EMC versions.
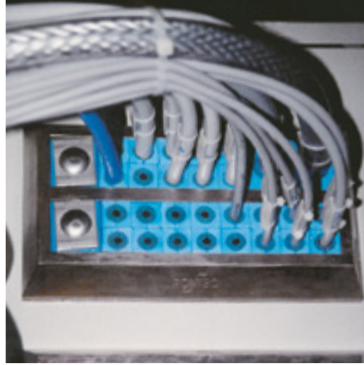

Bonding and grounding: Roxtec BG™ provides solutions for termination of conduits, armored and metal clad cables in control cabinets and junction boxes.

The Roxtec HD 32 is our lighter frame, a bolted alternative that is suitable for both indoor and outdoor applications. EMC versions also available.

MARINE

Captain's bridge: Route wiring through Roxtec cabinet seals and into enclosures without compromising IP ratings.
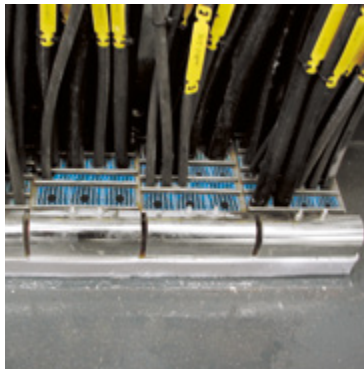
Radio room: RFI shielded EMC and firestop solutions for radar and navigation equipment in bulkheads.

Generators and propulsion system: Roxtec seals are adaptable to fit cables and pipes of different sizes.

TELECOM

Base station shelter: The Roxtec CRL provides increased line capacity to maxed-out entry port panels without modification of the existing shelter or entry port.

Communication centers: The Roxtec GHM solution seals fiber optics and cables in floors and outer walls.

Telecom cabinet: The Roxtec RG M63 cable glands are weather, water, pest and dust tight.

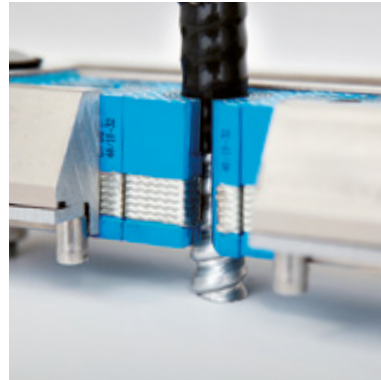# Roxtec BG™ B for bonding and grounding

The Roxtec BG B and BG (bonding and grounding) product family is our cable entry system for sealing large quantities of metal clad or armored cables in the least amount of space. Use it in building structures, cabinets and enclosures to save design and installation time – and to reduce weight and costs!

Save space and money
Roxtec BG B and BG solutions are lighter and up to 70 percent more area efficient than cable glands and a direct replacement to glands for terminating metal clad and armored cable types. With a single cable entry from Roxtec, you can seal varying outside diameters of single or multiple cables while ensuring a certified bonding or grounding termination.

More cables, less cabinet
For cabinets and electrical enclosures, Roxtec BG B and BG solutions allow for the size and weight of cabinets to be greatly

reduced. A single cut-out for a standard Roxtec CF 32 BG B kit can accommodate up to 32 cables, which drastically reduces the amount of space required when compared to 32 individual cable glands.

Replacing "pig-tails"
Flattened braids, combining large copper masses in a flat form, are often used to ensure earth paths for higher frequencies. The Roxtec BG B and BG solution has such a braid embedded and surrounded by the solid metal frame. This solution can easily replace weak solutions such

as "pig-tails" – individual earthing conductors connecting the cable armor to the earthing bar.

FEATURES AND BENEFITS

- Bond and ground metal clad and armored cables
- Ensure electrical safety and protect life and assets
- Reduce the area required by 70% compared to cable glands
- Perfect for walls, floors, cabinets and enclosures
- Fire rated and available for hazardous locations (Ex)

ROXTEC BG™ B PRODUCT LINE
Roxtec BG B provides electrical safety and protection against lightning strikes.
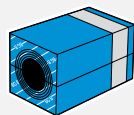
Roxtec BG B/BG (bonding and grounding) handles high currents and bonds and grounds armored or shielded cables. It has high current withstand capability for short-circuit and surge currents.

Roxtec EMC solutions

Ensuring EMC, electromagnetic compatibility, is a two way challenge. You must limit the effects of EMI, electromagnetic interference, entering the enclosure, while minimizing the potential for EMI generated within the enclosure from escaping and causing interference with nearby electronics.

Multiple risk prevention

Roxtec EMC solutions can perform multiple risk prevention functions at the same time. They can combine protection against disturbances from technical systems with protection against risk factors such as fire, smoke, water, gas, explosion and vibration. So why use many components, labor time and space when one Roxtec system is enough?

Increased EMI exposure

Electromagnetic disturbances travel either conducted along a metallic object or propagate through air. The conductive armor in a cable can carry unwanted signals and cause interference in a system far away from the original source. It is crucial for designers, engineers and owners to consider the risk of EMI exposure and to include EMC into the initial electrical design for cabinets, enclosures, and terminal and junction termination boxes. Roxtec seals support best practice EMI protection principles by providing a single entry and by integrating the earth path.

Electromagnetic shielding

Roxtec also provides solutions for cables going in or out of electro-magnetically sealed enclosures. The seals are tested to a minimum of 18GHz to prove the shielding effectiveness. Transfer impedance from cable shield to frame is also measured up to 30MHz.

ROXTEC EMC PRODUCT LINES

Roxtec EMC solutions provide protection against EMI.
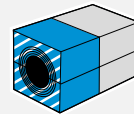
Roxtec ES provides electromagnetic shielding. It blocks and diverts high frequency radiated and conducted EMI and electromagnetic pulses, EMP.
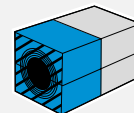
Roxtec PE provides protection against conducted EMI carried by cable screens or metal pipes.

Roxtec Transit Designer™

The Roxtec Transit Designer is a free, web-based engineering tool. It reduces project risks and simplifies product selection as well as the entire process of designing, purchasing and installing cable and pipe transits.

Its batch import with auto validation feature helps designers create and update thousands of transits automatically and take full control of their largest project designs. They can also validate their complete project by using the Roxtec CAD symbols and the Roxtec Transit Designer for easy incorporation of the transits into the design.

Always available, everywhere
The Roxtec Transit Designer is accessible online. Share your work with project teams anywhere in the world, and our experts are available through the chat function.
To start using it, sign-up on www.roxtec.com.

GET STARTED ON
roxtec.com

FEATURES

- Free web-based application
- Simple product selection
- Manufacturer-approved outputs
- Improves project efficiency
- Batch import with auto validation
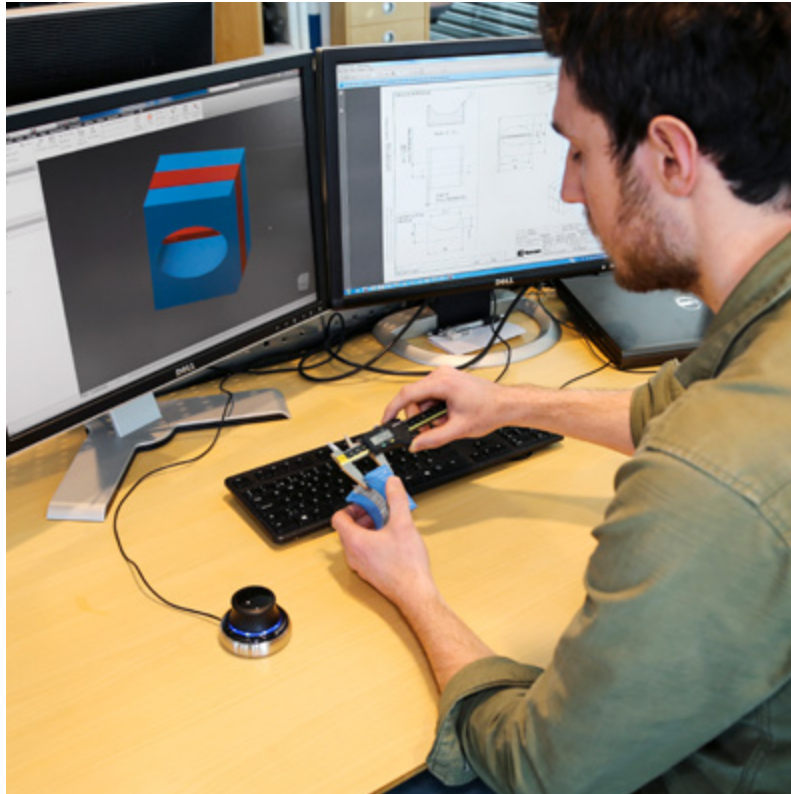- Import multiple transits to speed up design work

SIMPLE USER INPUT

Cable/pipe schedule or estimates

Sealing/certification requirements

Installation preferences

Material quality selection

APPROVED OUTPUT

2D drawings in DXF and PDF

3D STEP

Bill of material in Excel

Installation instructions

We create customized solutions

We are here to solve your sealing problem – even when it requires the creation of a new customized solution. We have an entire Customer Service team with designers and engineers ready to develop tailored seals according to your needs.

Experience in innovation

If you need a special solution, just inform your local Roxtec representative about the specific requirements. In many cases, we have already supplied a similar sealing solution, somewhere in the world, allowing us to respond very quickly to your request.

ROXTEC CABINET SEAL SELECTION GUIDE

	ComSeal LW	CF 8/32	CF 16	EzEntry	RG M63	ComSeal
RATINGS						
IP 44	✓					
IP 54						
IP 55						✓
IP 66/67		✓	✓	✓	✓	
IP 69K						
UL/NEMA 3R	✓					
UL/NEMA 3, 12, 12K						✓
UL/NEMA 4, 4X, 12, 13		✓	✓	✓	✓	
TRANSIT						
Single cable					✓	
Multiple cables	✓	✓	✓	✓	✓	✓
MATERIAL						
Composite frame				✓		
Aluminum	✓	✓				✓
Powder coated mild steel			✓			
Nickel-plated brass					✓	
Stainless steel			✓		✓	✓
		⟨Ex⟩ ⚡	⟨Ex⟩ ⚡			⚡

UL FILE NUMBERS

COMPANY NAME	CATEGORY NAME	FILE NUMBER
Roxtec Inc	Firestop Devices	XHJI.R16085
Roxtec Inc	Firestop Devices Certified for Canada	XHJI7.R16085
Roxtec Inc	Industrial Control Panels – Component	NITW2.E197106
Roxtec Inc	Industrial Control Panels Certified for Canada – Component	NITW8.E197106
Roxtec Inc	Plastics – Component	QMFZ2.E179133
Roxtec International AB	Firestop Devices	XHJI.R15556
Roxtec International AB	Firestop Devices Certified for Canada	XHJI7.R15556
Roxtec International AB	Industrial Control Panels – Component	NITW2.E209828
Roxtec International AB	Industrial Control Panels Certified for Canada – Component	NITW8.E209828
Roxtec International AB	Plastics – Component	QMFZ2.E185619

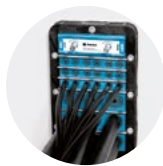*For more information, go to www.roxtec.com*

C RS T	HD 32	GHM	KFO	CF 24	C KFO	C ComShelt	CRL
							✓
					✓	✓	
✓	✓	✓	✓	✓			
✓							
✓	✓	✓		✓			
✓							✓
	✓	✓	✓	✓	✓	✓	✓
			✓		✓	✓	✓
				✓			
✓							
✓	✓	✓					
⬡Ex		⚡					

⬡Ex *Available in Ex version*

⚡ *Available in EMC version*

Roxtec ComSeal™ LW

The Roxtec ComSeal LW is a light-weight and area efficient cable and pipe sealing solution for cabinets. The frames are made out of cast aluminum and used with adaptable sealing modules. The product is supplied as ready-made kits which include all necessary components.

■ Available in six different sizes
■ Attached on inside or outside of cabinet
■ Version available for the FL 21 cut-out
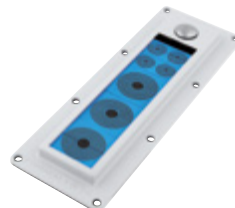
ComSeal™ LW kits, integrated compression unit, aluminum

ComSeal LW 6   ComSeal LW 12   ComSeal LW 12 FL 21   ComSeal LW 16

RATINGS	IP: 44	UL/NEMA: 3R

Kit	Diameter range and number of cables/pipes			Weight		Art. No
	0+3.5-10.5 mm 0+0.138-0.413 in (EM 15w40)	0+3.5-16.5 mm 0+0.138-0.650 in (EM 20w40)	0+9.5-32.5 mm 0+0.374-1.280 in (EM 40 10-32)	(kg)	(lb)	
ComSeal LW 6/3		2 cables/pipes	1 cable/pipe	0.322	0.710	107788
ComSeal LW 6/6		6 cables/pipes		0.322	0.710	107789
ComSeal LW 6/12	12 cables/pipes			0.322	0.710	107790
ComSeal LW 12/3			3 cables/pipes	0.445	0.981	107791
ComSeal LW 12/6		4 cables/pipes	2 cables/pipes	0.445	0.981	107792
ComSeal LW 12/9		8 cables/pipes	1 cable/pipe	0.445	0.981	107793
ComSeal LW 12/12		12 cables/pipes		0.445	0.981	108020
ComSeal LW 12/3 FL 21			3 cables/pipes	0.488	1.076	107799
ComSeal LW 12/6 FL 21		4 cables/pipes	2 cables/pipes	0.488	1.076	107800
ComSeal LW 12/9 FL 21		8 cables/pipes	1 cable/pipe	0.488	1.076	107802

ComSeal™ LW kits, integrated compression unit, aluminum

Kit	Diameter range and number of cables/pipes			Weight		Art. No
	0+3.5-10.5 mm 0+0.138-0.413 in (EM 15w40)	0+3.5-16.5 mm 0+0.138-0.650 in (EM 20w40)	0+9.5-32.5 mm 0+0.374-1.280 in (EM 40 10-32)	(kg)	(lb)	
ComSeal LW 12/12 FL 21		12 cables/pipes		0.488	1.076	108018
ComSeal LW 16/4			4 cables/pipes	0.536	1.180	107794
ComSeal LW 16/7		4 cables/pipes	3 cables/pipes	0.536	1.180	107795
ComSeal LW 16/10		8 cables/pipes	2 cables/pipes	0.536	1.180	107796
ComSeal LW 16/16		16 cables/pipes		0.536	1.180	107797

Modules and frames can be ordered separately.

ComSeal™ LW frame, technical information

ComSeal LW 6

ComSeal LW 12

ComSeal LW 12 FL 21

ComSeal LW 16

	ComSeal LW 6		ComSeal LW 12		ComSeal LW 12 FL 21		ComSeal LW 16	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
c	68.5	2.697	68.5	2.697	62	2.441	68.5	2.697
D	55	2.165	55	2.165	55	2.165	55	2.165
H	133	5.236	193	7.598	216	8.504	233	9.173
h_1	60	2.362	120	4.724	120	4.724	160	6.299
l	121	4.764	90.5	3.583	193	7.598	73.5	2.913
w_1	40	1.575	40	1.575	40	1.575	40	1.575
W	80.5	3.169	80.5	3.169	88	3.465	80.5	3.169
ø	5.5	0.217	5.5	0.217	8.5	0.335	5.5	0.217

For ComSeal LW 12 FL 21: If the wall is thinner than 2 mm, a Roxtec ComSeal 12 counter flange 2CV0001020219 is recommended (not supplied in the kit)

Max wall thickness:
ComSeal LW 6, 12, 16: 10 mm (0.394")
ComSeal LW 12 FL 21: 7 mm (0.275")

Note: All dimensions are nominal values

Roxtec CRL seal

Roxtec CRL is a round expansion frame for 4" and 5" holes. Its square packing space houses modules and services, such as cables, pipes and fiber optics. Compression is integrated in the frame.

- ■ Attachment by expansion
- ■ Designed to be installed on a shelter port hatch plate (not manufactured by Roxtec)

CRL kit, CRL 4": Polyamide, PA 6.6 25% GF, CRL 5": Primed mild steel

| CRL 4"/1 | CRL 4"/4 | CRL 4"/5 | CRL 4"/9 | CRL 5"/1 | CRL 5"/4 | CRL 5"/5 | CRL 5"/9 |

RATINGS IP: 54

Kit	Number of cables/pipes	Diameter range and number of cables/pipes			Weight		Art. No
		0+4-16.5 mm 0+0.157-0.650 in (CM22w66)	0+10-29 mm 0+0.394-1.142 in (CM33w66)	0+24-54 mm 0+0.945-2.126 in (CM66)	(kg)	(lb)	
CRL 4"/1	1			1 cable/pipe	0.6	1.323	102997
CRL 4"/4	4		4 cables/pipes		0.6	1.323	102993
CRL 4"/5	5	3 cables/pipes	2 cables/pipes		0.6	1.323	102994
CRL 4"/9	9	9 cables/pipes			0.6	1.323	102995
CRL 5"/1	1			1 cable/pipe	0.95	2.094	CRL0005010012
CRL 5"/4	4		4 cables/pipes		0.95	2.094	CRL0005040012
CRL 5"/5	5	3 cables/pipes	2 cables/pipes		0.95	2.094	CRL0005050012
CRL 5"/9	9	9 cables/pipes			0.95	2.094	CRL0005090012

Modules and frames can be ordered separately.

CRL seal, technical information
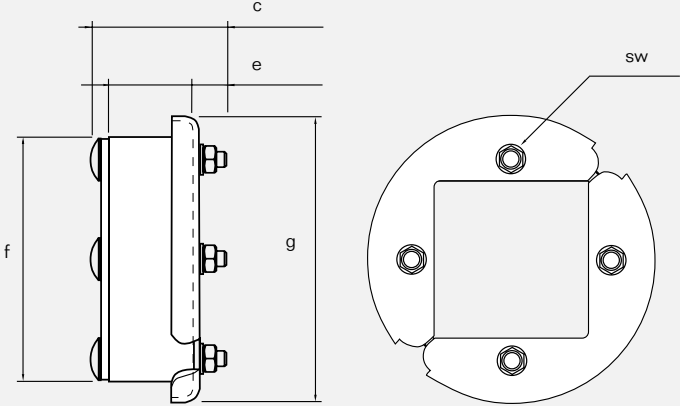
	CRL 4"		CRL 5"	
Pos	(mm)	(in)	(mm)	(in)
c	74.0	2.913	74.0	2.913
e	59.0	2.323	33.0	1.299
f	98.0	3.858	123.0	4.843
g	115.0	4.528	140.0	5.514
sw	10	0.394	9.525	0.375

Note: All dimensions are nominal values

Roxtec ComSeal™

The Roxtec ComSeal is a light-weight and area efficient cable sealing solution for cabinets. The frames are available in cast aluminum and cast acid-proof stainless steel, AISI 316, and used with adaptable sealing modules. The product is supplied as ready-made kits which include all necessary components.

- Available in six different sizes
- Attached on inside or outside of cabinet

ComSeal™ kits, integrated compression unit, aluminum
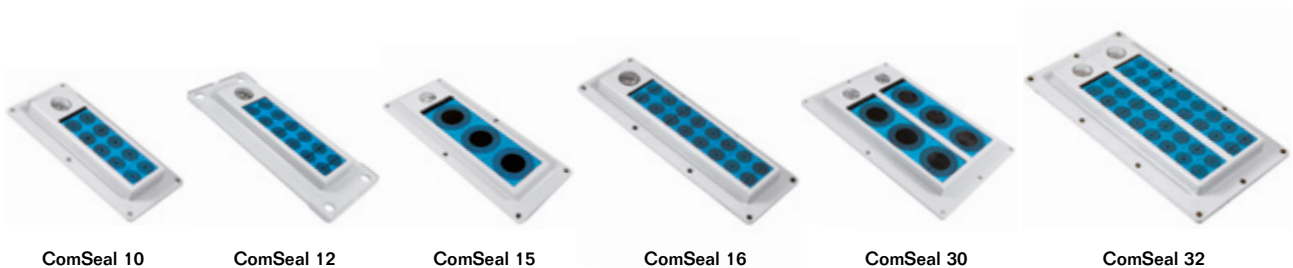
ComSeal 10   ComSeal 12   ComSeal 15   ComSeal 16   ComSeal 30   ComSeal 32

RATINGS	IP: 55	UL/NEMA: 3, 12, 12K

Kit	Diameter range and number of cables/pipes			Weight		Art. No
	0+3.5-16.5 mm 0+0.138-0.650 in (CM 20W40)	0+9.5-32.5 mm 0+0.374-1.280 in (CM 40 10-32)	0+28-43 mm 0+1.102-1.693 in (CM 50)	(kg)	(lb)	
ComSeal 10/4	2 cables/pipes	2 cables/pipes		0.515	1.13	105299
ComSeal 10/7	6 cables/pipes	1 cable/pipe		0.515	1.13	105301
ComSeal 10/10	10 cables/pipes			0.515	1.13	105302
ComSeal 12/3		3 cables/pipes		0.61	1.34	105303
ComSeal 12/6	4 cables/pipes	2 cables/pipes		0.61	1.34	105305
ComSeal 12/9	8 cables/pipes	1 cable/pipe		0.61	1.34	105306
ComSeal 12/12	12 cables/pipes			0.61	1.34	105307
ComSeal 15/3			3 cables/pipes	0.91	2.0	105308
ComSeal 16/4		4 cables/pipes		0.666	1.47	105310
ComSeal 16/7	4 cables/pipes	3 cables/pipes		0.666	1.47	105312

ComSeal™ **kits**, integrated compression unit, aluminum

Kit	Diameter range and number of cables/pipes			Weight		Art. No
	0+3.5-16.5 mm 0+0.138-0.650 in (CM 20W40)	0+9.5-32.5 mm 0+0.374-1.280 in (CM 40 10-32)	0+28-43 mm 0+1.102-1.693 in (CM 50)	(kg)	(lb)	
ComSeal 16/10	8 cables/pipes	2 cables/pipes		0.666	1.47	105313
ComSeal 16/16	16 cables/pipes			0.666	1.47	105314
ComSeal 30/6			6 cables/pipes	1.40	3.09	105315
ComSeal 32/8		8 cables/pipes		1.259	2.78	105316
ComSeal 32/14	8 cables/pipes	6 cables/pipes		1.259	2.78	105320
ComSeal 32/20	16 cables/pipes	4 cables/pipes		1.259	2.78	105321
ComSeal 32/32	32 cables/pipes			1.259	2.78	105322

Modules and frames can be ordered separately.

ComSeal™ **kits**, integrated compression unit, acid-proof stainless steel

ComSeal 10 AISI 316   ComSeal 16 AISI 316   ComSeal 32 AISI 316

RATINGS   **IP:** 55   **UL/NEMA:** 3, 12, 12K

| Kit	Diameter range and number of cables/pipes		Weight		Art. No
	0+3.5-16.5 mm 0+0.138-0.650 in (CM 20W40)	0+9.5-32.5 mm 0+0.374-1.280 in (CM 40 10-32)	(kg)	(lb)	
ComSeal 10/4 AISI 316	2 cables/pipes	2 cables/pipes	1.096	2.42	105676
ComSeal 10/7 AISI 316	6 cables/pipes	1 cable/pipe	1.096	2.42	105677
ComSeal 10/10 AISI 316	10 cables/pipes		1.096	2.42	105678
ComSeal 16/4 AISI 316		4 cables/pipes	1.407	3.11	105679
ComSeal 16/7 AISI 316	4 cables/pipes	3 cables/pipes	1.407	3.11	105680
ComSeal 16/10 AISI 316	8 cables/pipes	2 cables/pipes	1.407	3.11	105681
ComSeal 16/16 AISI 316	16 cables/pipes		1.407	3.11	105682
ComSeal 32/8 AISI 316		8 cables/pipes	2.395	5.28	105683
ComSeal 32/14 AISI 316	8 cables/pipes	6 cables/pipes	2.395	5.28	105684
ComSeal 32/20 AISI 316	16 cables/pipes	4 cables/pipes	2.395	5.28	105685
ComSeal 32/32 AISI 316		32 cables/pipes	2.395	5.28	105686

Modules and frames can be ordered separately.
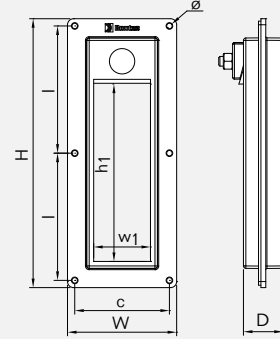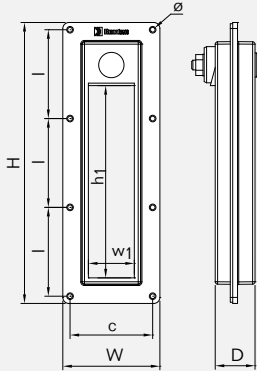
ComSeal™ **frame**, technical information

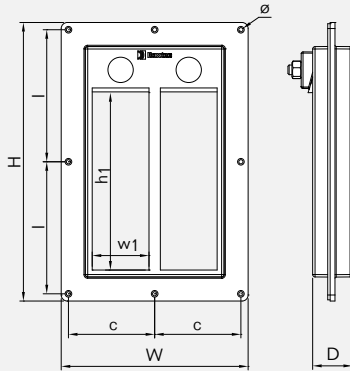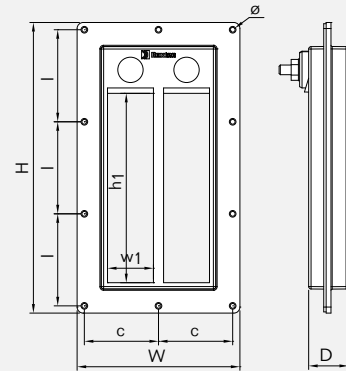**ComSeal 10**
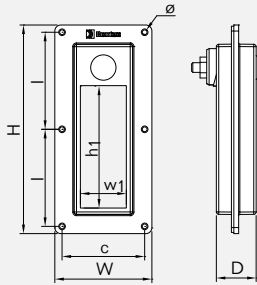
ComSeal 12
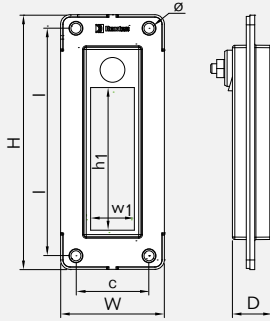
ComSeal 15


ComSeal 16

ComSeal 30

ComSeal 32

	ComSeal 10		ComSeal 12		ComSeal 15		ComSeal 16		ComSeal 30		ComSeal 32	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
c	68.5	2.697	62	2.441	78.5	3.091	68.5	2.697	71.5	2.815	61.5	2.421
D	33	1.299	33	1.299	33	1.299	33	1.299	33	1.299	33	1.299
H	173	6.811	216	8.504	223	8.780	233	9.173	231	9.094	241	9.488
h1	100	3.937	120	4.724	150	5.906	160	6.299	150	5.906	160	6.299
l	80.5	3.169	193	7.598	105.5	4.154	73.7	2.902	109.5	4.311	76.33	3.005
w1	40	1.575	40	1.575	50	1.969	40	1.575	50	1.969	40	1.575
W	80.5	3.169	88	3.465	90.5	3.563	80.5	3.169	155	6.102	135	5.315
ø	5.5	0.217	8.5	0.335	5.5	0.217	5.5	0.217	5.5	0.217	5.5	0.217

Max wall thickness:
ComSeal 10, 15, 16, 30, 32: 10 mm (0.394")
ComSeal 12: 7 mm (0.275")

Roxtec ComSeal 12 fits the FL 21 knock-out

Note: All dimensions are nominal values
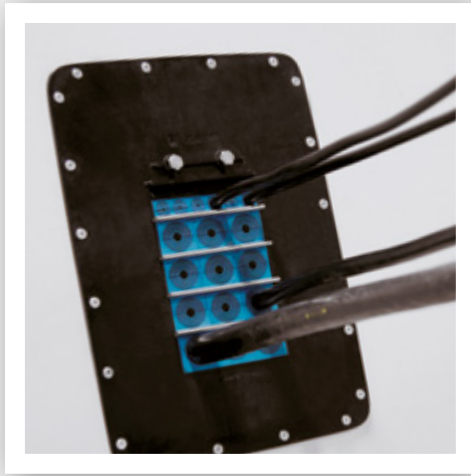
Roxtec ComShelt™

The Roxtec ComShelt is a sealing solution for cables and pipes of different sizes. The light-weight composite frame with integrated compression unit is designed for use in telecom shelters and cabinets. The product is supplied as ready-made kits which include all necessary components.

- Available in two different sizes
- Attached by bolting or riveting

## ComShelt™ kits, integrated compression unit, composite PA 6.6 33% GF

ComShelt S
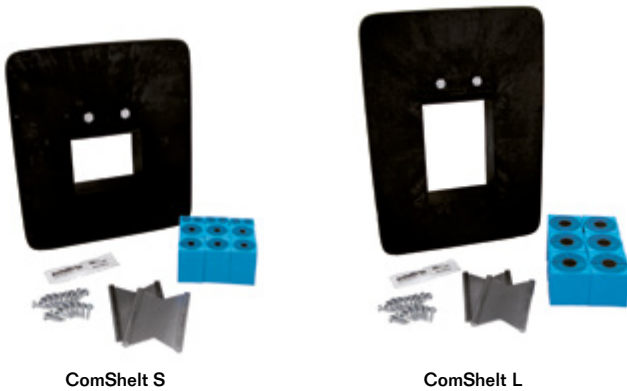
ComShelt L

RATINGS   IP: 55

Kit	Diameter range and number of cables/pipes			Weight		Art. No
				(kg)	(lb)	
	0+3.5-16.5 mm (RM 20w40)	0+9.5-32.5 mm (RM 40 10-32)	0+24-54 mm (RM 60 24-54)			
ComShelt L/6			6 cables/pipes	3.9	8.59	CSL0000000006
ComShelt L/18	6 cables/pipes	12 cables/pipes		3.9	8.59	CSL0000000018
ComShelt S/12	6 cables/pipes	6 cables/pipes		2.8	6.17	CSS0000000012
ComShelt S/30	30 cables/pipes			2.8	6.17	CSS0000000030

Modules and frames can be ordered separately.

ComShelt™, technical information
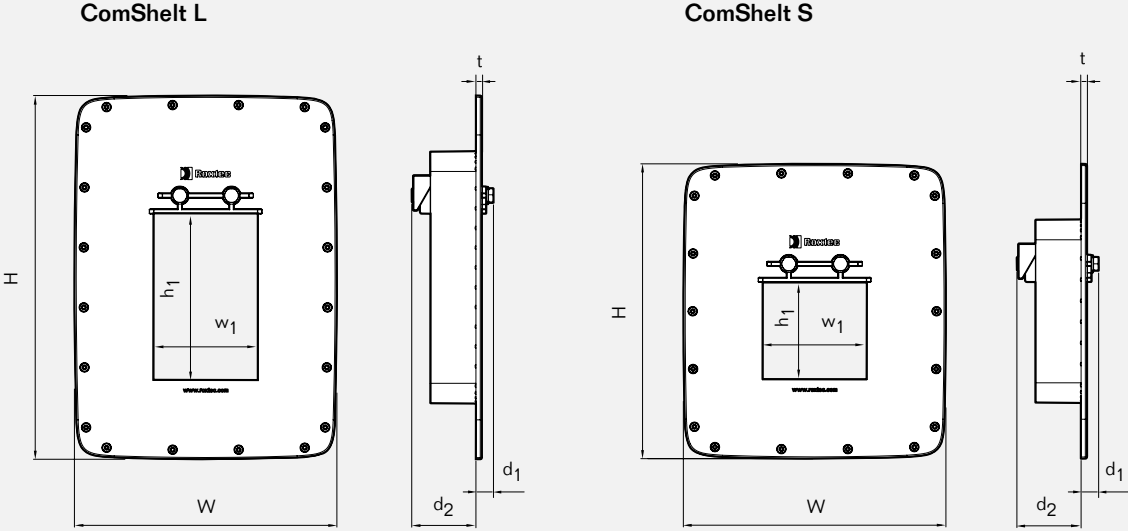
ComShelt L

ComShelt S

	ComShelt L		ComShelt S	
Pos	(mm)	(in)	(mm)	(in)
H	422	16.614	342	13.465
W	305	12.008	305	12.008
h_1	180	7.087	100	3.937
w_1	120	4.724	120	4.724
t	7	0.276	7	0.276
d_1	20	0.787	20	0.787
d_2	70	2.756	70	2.756

Note: All dimensions are nominal values
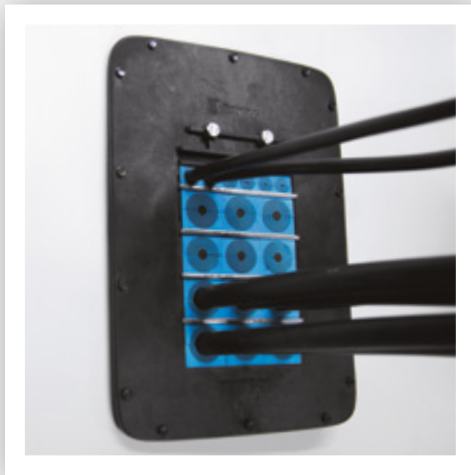
Roxtec C ComShelt™

The Roxtec C ComShelt is a sealing solution for cables and pipes of different sizes. The light-weight composite frame with integrated compression unit is designed for use in telecom shelters and cabinets. The product is supplied as ready-made kits which include all necessary components. It is available with an additional cover plate for closing a part of the opening until further installation is required.

■ Attached by bolting or riveting

C ComShelt™ kits, integrated compression unit, composite PA 6.6 33% GF

C ComShelt

C ComShelt with cover plate

C ComShelt expansion module kit

RATINGS   IP: 55

Kit	Diameter range and number of cables/pipes		Weight		Art. No
			(kg)	(lb)	
	0+3.5-16.5 mm (CM 20w40)	0+9.5-32.5 mm (CM 40 10-32)			
C ComShelt/18	6 cables/pipes	12 cables/pipes	2.1	4.63	102716
C ComShelt/12 with cover plate	6 cables/pipes	6 cables/pipes	2.1	4.63	104660
C ComShelt expansion module kit		6 cables/pipes	0.5	1.10	109078

Modules and frames can be ordered separately.

C ComShelt™, technical information
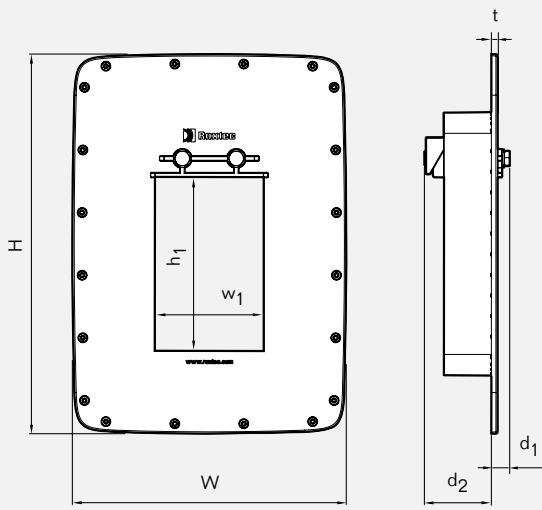
Pos	(mm)	(in)
H	358	14.173
W	255	10.039
t	8	0.315
h_1	190	7.480
w_1	120	4.724
d_1	13	0.512
d_2	22	0.866

Note: All dimensions are nominal values

Roxtec EzEntry™

The Roxtec EzEntry simplifies cable sealing in cabinets and enclosures. The single-side seal consists of a composite frame and adaptable modules. The product is supplied as ready-made kits which include all necessary components.

- Available in sizes from 4 to 32 cables
- Integrated compression unit
- Allows pre-terminated cables
- Versions available for the FL 21 knock-out and multipin 24 connector knock-out
- Available with stainless steel fasteners upon request to meet requirements in aggressive corrosive environments

EzEntry™ kit, integrated compression unit, PA 66 25% GF

| EzEntry 4 mini | EzEntry 4 | EzEntry 10 | EzEntry 16 | EzEntry 24 | EzEntry 32 |

| RATINGS | EzEntry 4 mini: IP 55, UL/NEMA 12, 13 | | EzEntry 4, 10, 16, 24, 32: IP 66/67, UL/NEMA 4, 4x, 12, 13 | | |

| Kit	Diameter range and number of cables/pipes						Weight		Art. No
	0+3.5-10.5 mm 0+0.138-0.413 in (GM 13.3w40)	0+3.5-16.5 mm 0+0.138-0.650 in (GM 20w40)	0+3.5-16.5 mm 0+0.138-0.650 in (EM 20w40)	0+9.5-32.5 mm 0+0.374-1.280 in (EM 40 10-32)	0+3.5-16.5 mm 0+0.138-0.650 in (CM 20w40)	0+9.5-32.5 mm 0+0.374-1.280 in (CM 40 10-32)	(kg)	(lb)	
EzEntry 4 mini/4		4 cables/pipes					0.10	0.22	EZ00000000440
EzEntry 4 mini/9	9 cables/pipes						0.10	0.22	EZ00000000490
EzEntry 4/4			4 cables/pipes				0.13	0.29	EZ00000000044
EzEntry 10/4			2 cables/pipes	2 cables/pipes			0.30	0.65	EZ00000001004
EzEntry 10/7			6 cables/pipes	1 cable/pipe			0.30	0.65	EZ00000001007
EzEntry 10/10			10 cables/pipes				0.30	0.65	EZ00000001010

EzEntry™ **kit**, integrated compression unit, PA 66 25% GF

| Kit	Diameter range and number of cables/pipes						Weight		Art. No
	0+3.5-10.5 mm 0+0.138-0.413 in (GM 13.3w40)	0+3.5-16.5 mm 0+0.138-0.650 in (GM 20w40)	0+3.5-16.5 mm 0+0.138-0.650 in (EM 20w40)	0+9.5-32.5 mm 0+0.374-1.280 in (EM 40 10-32)	0+3.5-16.5 mm 0+0.138-0.650 in (CM 20w40)	0+9.5-32.5 mm 0+0.374-1.280 in (CM 40 10-32)	(kg)	(lb)	
EzEntry 16/4				4 cables/pipes			0.39	0.86	EZ00000001604
EzEntry 16/10			8 cables/pipes	2 cables/pipes			0.39	0.86	EZ00000001610
EzEntry 16/16			16 cables/pipes				0.39	0.86	EZ00000001616
EzEntry 24/6						6 cables/pipes	0.80	1.77	EZ00000002406
EzEntry 24/15					12 cables/pipes	3 cables/pipes	0.80	1.77	EZ00000002415
EzEntry 24/24					24 cables/pipes		0.80	1.77	EZ00000002424
EzEntry 32/8						8 cables/pipes	1.03	2.27	EZ00000003208
EzEntry 32/20					16 cables/pipes	4 cables/pipes	1.03	2.27	EZ00000003220
EzEntry 32/32					32 cables/pipes		1.03	2.27	EZ00000003232

Modules and frames can be ordered separately.

EzEntry™, technical information

EzEntry 4 mini   **EzEntry 4**   **EzEntry 10**
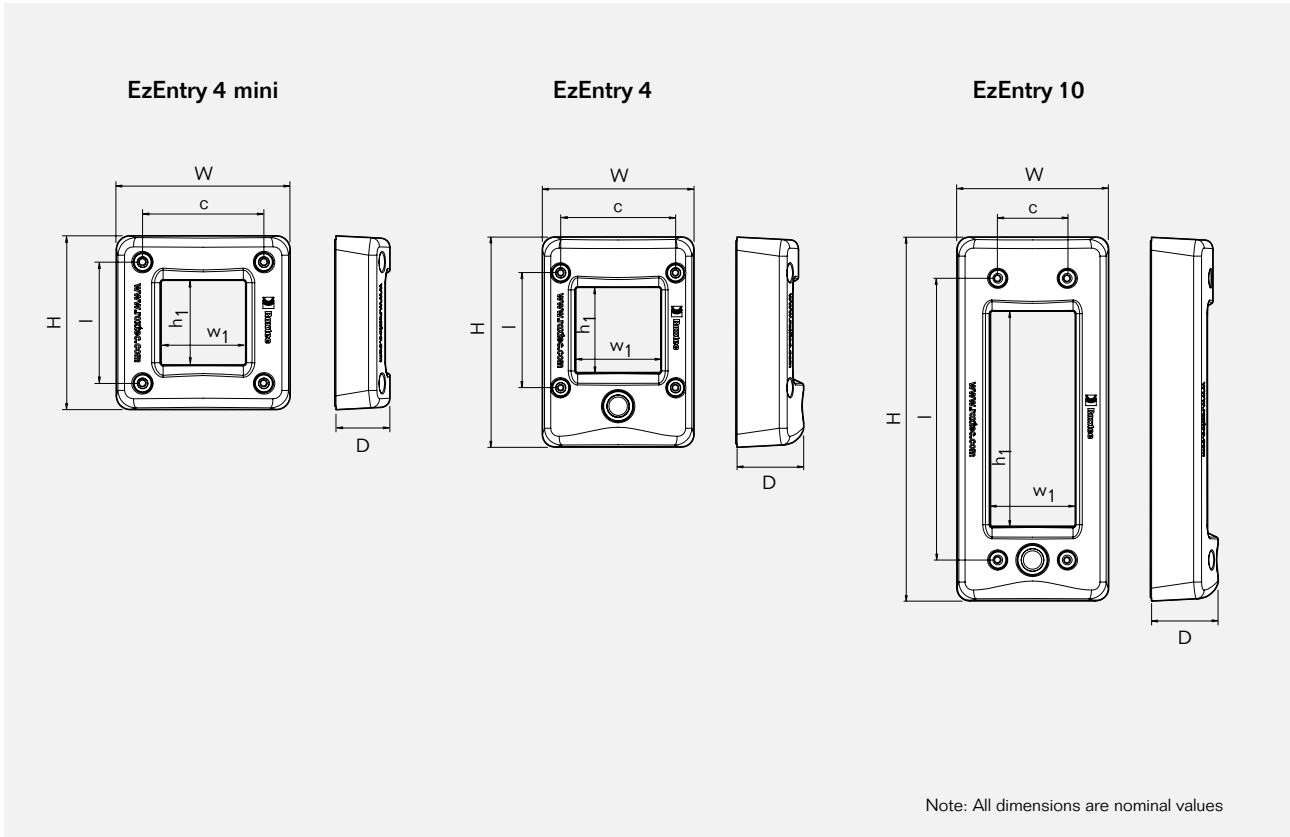
Note: All dimensions are nominal values

EzEntry™, technical information
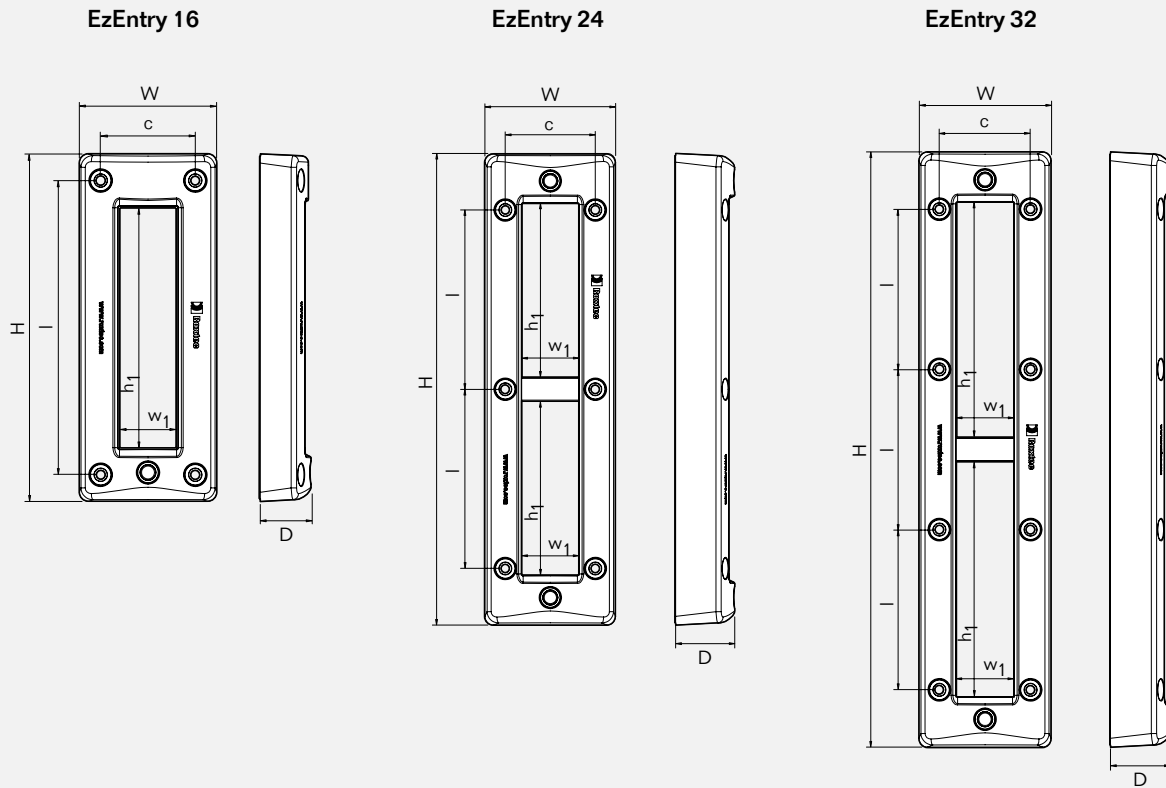
EzEntry 16

EzEntry 24

EzEntry 32

	EzEntry 4 mini		EzEntry 4		EzEntry 10		EzEntry 16		EzEntry 24		EzEntry 32	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
c	53	2.087	53	2.087	32	1.260	62	2.441	62	2.441	62	2.441
D	24	0.945	31	1.220	31	1.220	34	1.339	41	1.614	41	1.614
H	76	2.992	97	3.819	168	6.614	228	8.976	325	12.795	405	15.945
h_1	40	1.575	40	1.575	100	3.937	160	6.299	120	4.724	160	6.299
l	53	2.087	53	2.087	130	5.118	193	7.598	123.5	4.862	109	4.291
w_1	40	1.575	40	1.575	40	1.575	40	1.575	40	1.575	40	1.575
W	76	2.992	70	2.756	70	2.756	90	3.543	90	3.543	90	3.543

Max wall thickness (with nuts*):
EzEntry 4 mini: 3 mm (0.118")
EzEntry 16: 3.5 mm (0.138")
EzEntry 4, 10, 24, 32: 8 mm (0.315")

*The fasteners in the kit: self-tapping screws, washers and nuts

Note: All dimensions are nominal values

Roxtec CF 24 frame

The Roxtec CF 24 is a bolted together frame made from aluminum. Compression is integrated in the frame. The frame is easily installed around existing cables. The product is supplied as ready-made kits which include all necessary components.

■ Attachment by bolting
■ Openable to simplify retrofit

CF 24 kit, anodized aluminum

CF 24/8

CF 24/12

CF 24/28

RATINGS   IP: 66/67   UL/NEMA: 4, 4X, 12, 13

Kit	Number of cables/pipes	Diameter range and number of cables/pipes				Weight		Art. No
		0+3.5-10.5 0+0.138-0.413 (CM 15w40)	0+3.5-16.5 0+0.138-0.650 (CM 20W40)	0+10.0-25.0 0+0.394-0.984 (CM 30w40)	0+9.5-32.5 0+0.374-1.280 (CM 40 10-32)	(kg)	(lb)	
CF 24/8	8			8 cables/pipes		1.5	3.307	CF00000240035
CF 24/12	12		8 cables/pipes		4 cables/pipes	1.5	3.307	CF00000241235
CF 24/28	28	12 cables/pipes	16 cables/pipes			1.5	3.307	CF00000242835

Modules and frames can be ordered separately.

CF 24, technical information
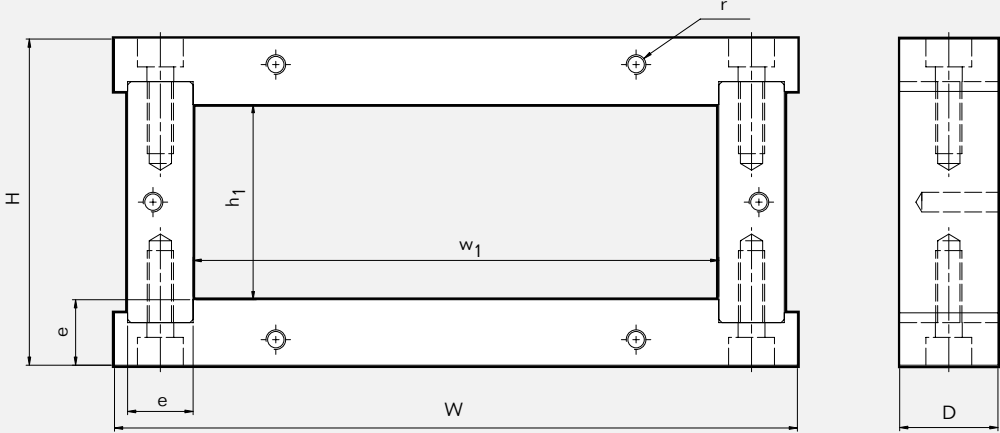
Pos	(mm)	(in)
e	20	0.787
H	100	3.397
h_1	60	2.362
W	209	8.228
w_1	160	6.299
r	M6	M6
D	30	1.181

Max wall thickness: 10 mm (0.394")

If the wall is thinner than 2 mm, a Roxtec CF 24 counter frame 2EPB001024012 is recommended (not supplied in the kit)

Note: All dimensions are nominal values

Roxtec RG M63 seal

The Roxtec RG M63 entry seal is a cable gland type of seal with adaptable sealing modules at the center. The product is supplied as ready-made kits which include all necessary components.

- Attachment by counter ring nut
- For one to nine cables/pipes
- Allows use of pre-terminated cables
- Recommended knockout punch: Greenlee hole punch (size 2.52"/ISO 63)

RG M63 kit, nickel-plated brass

Also available in stainless steel

Installation tools

page 52

RG M63/1   RG M63/4   RG M63/9

RATINGS   **IP**: 67   **UL/NEMA**: 4, 4X,12,13

Kit	Number of cables/pipes	Diameter range and number of cables/pipes			External dimensions		Weight		Art. No
					ØxD (mm)	ØxD (in)	(kg)	(lb)	
		0+3.5-10.5 mm 0+0.138-0.413 in (GM 13,3w40)	0+3.5-16.5 mm 0+0.138-0.650 in (GM 20w40)	0+9.5-32.5 mm 0+0.374-1.280 in (GM 40 10-32)					
RG M63/1	1			1 cable/pipe	74 x 51	2.913 x 2.008	0.5	1.213	RG00063010046
RG M63/4	4		4 cables/pipes		74 x 51	2.913 x 2.008	0.5	1.213	RG00063040046
RG M63/9	9	9 cables/pipes			74 x 51	2.913 x 2.008	0.5	1.213	RG00063090046

Modules and seals can be ordered separately.

RG M63 kit, technical information
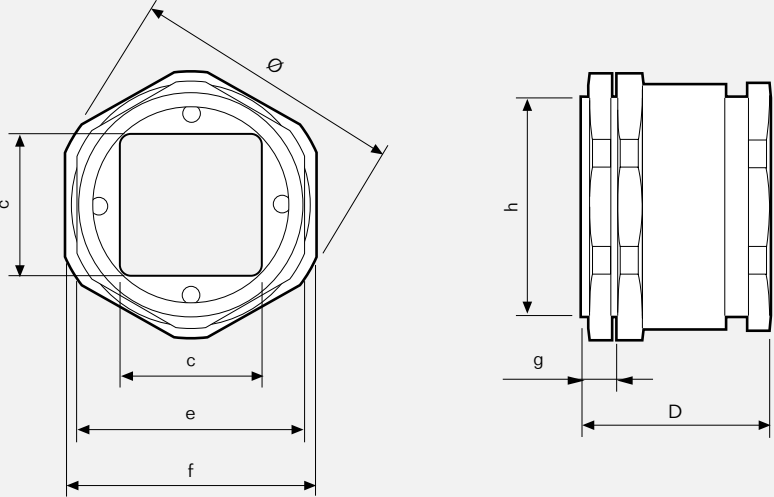
Pos	(mm)	(in)
c	40	1.575
e	SW 64	SW 2.520
f	SW 68	SW 2.677
g	10	0.394
h	M63x1.5	M63x1.5
D	51	2.008
Ø	74	2.913

Max wall thickness: 4 mm (0.157")

Note: All dimensions are nominal values

Roxtec C RS T seal

The Roxtec C RS T entry seal is a small-sized solution for cabinets and equipment. The product is supplied as ready-made kits which include all necessary components.

- Attachment by counter ring nut
- For one cable or pipe
- Allows use of pre-terminated cables

**C RS T kit**, nickel-plated brass and acid-proof stainless steel fittings

C RS T 25   C RS T 31   C RS T 43   C RS T 50
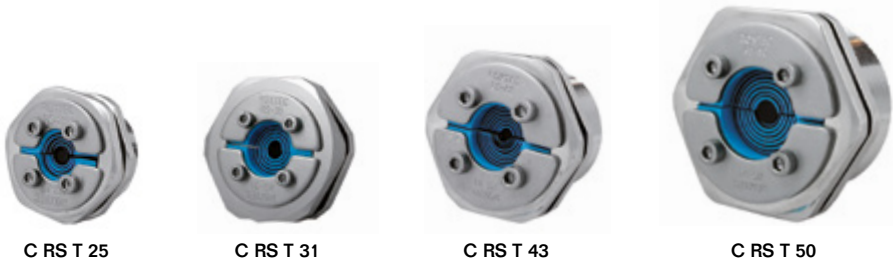
Also available in stainless steel

| RATINGS | **IP**: 66/67, 69K | | **UL /NEMA**: 4, 4X, 12, 13 | | | | | | |

Kit	Aperture dim. +1/-0 mm (+0.0394"/-0")		For cable/pipe		External dimensions sleeve		Weight sleeve		Art. No
	Ø (mm)	Ø (in)	Ø (mm)	Ø (in)	ØxD (mm)	ØxD (in)	(kg)	(lb)	
C RS T 25	32	1.260	0+3.6-12.0	0+0.142-0.472	39 x 20	1.535 x 0.787	0.1	0.220	CRST010025046
C RS T 31	40	1.575	0+4.0-17.0	0+0.157-0.669	50 x 20	1.969 x 0.787	0.2	0.331	CRST010031046
C RS T 43	50	1.969	0+4.0-23.0	0+0.157-0.906	65 x 40	2.559 x 1.575	0.4	0.882	CRST010043046
C RS T 50	63	2.480	0+8.0-30.0	0+0.315-1.181	78 x 40	3.071 x 1.575	0.7	1.433	CRST010050046

C RS T kit, technical information
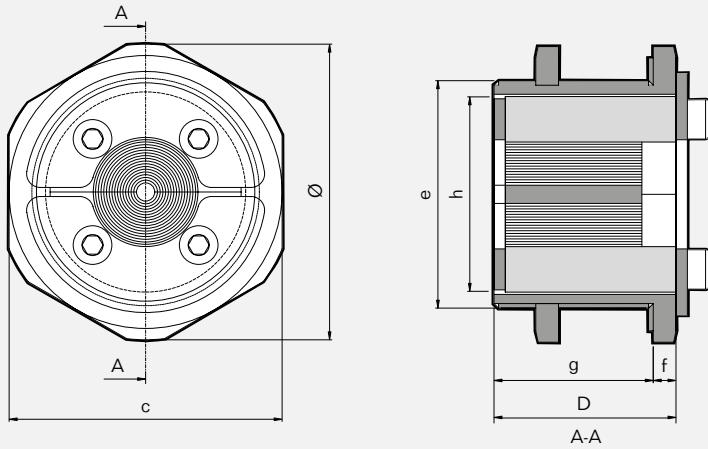
	C RS T 25		C RS T 31		C RS T 43		C RS T 50	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
c	36	1.417	46	1.811	60	2.362	70	2.756
e	M 32 x 1.5	M 32 x 1.5	M40x1.5	M40x1.5	M50x1.5	M50x1.5	M63x1.5	M63x1.5
f	4	0.157	5	0.197	5	0.197	6	0.236
g	16	0.630	15	0.591	35	1.378	34	1.339
h	25	0.984	31	1.220	43	1.693	50	1.969
D	20	0.787	20	0.787	40	1.575	40	1.575
Ø	39	1.535	50	1.969	65	2.559	78	3.071
Wall thickness	1-10	0.039-0.394	1-8	0.039-0.315	1-28	0.039-1.102	1-26	0.039-1.024

Note: All dimensions are nominal values

Roxtec CF 8/ CF 32 frames

The Roxtec CF 8 and CF 32 entry seals are made from cast aluminum. The compression unit is integrated in the frame. The product is supplied as ready-made kits which include all necessary components.

■ Attachment by bolting

CF 8/CF 32 kits, integrated compression unit, aluminum

| CF 8/5 | CF 8/8 | CF 8/9 | CF 32/20 | CF 32/32 | CF 32/41 |

| RATINGS | IP: 66/67 | UL/NEMA: 4, 4X, 12, 13 |

| Kit	Diameter range and number of cables/pipes				External dimensions		Weight		Art. No
					HxW (mm)	HxW (in)	(kg)	(lb)	
	0+3.5-10.5 0+0.138-0.413 (CM 15W40)	0+3.5-16.5 0+0.138-0.650 (CM 20w40)	0+10.0-25.0 0+0.394-0.984 (CM 30w40)	0+9.5-32.5 0+0.374-1.280 (CM 40 10-32)					
CF 8/5		4 cables/pipes		1 cable/pipe	140 x 75	5.512 x 2.952	0.7	1.543	CKT8000000005
CF 8/8		8 cables/pipes			140 x 75	5.512 x 2.952	0.7	1.543	CKT8000000008
CF 8/9	6 cables/pipes	2 cables/pipes	1 cable/pipe		140 x 75	5.512 x 2.952	0.7	1.543	CKT0000000009
CF 32/20		16 cables/pipes		4 cables/pipes	230 x 130	9.055 x 5.118	2.0	4.409	CKT3200000020
CF 32/32		32 cables/pipes			230 x 130	9.055 x 5.118	2.0	4.409	CKT3200000032
CF 32/41	24 cables/pipes	16 cables/pipes		1 cable/pipe	230 x 130	9.055 x 5.118	2.0	4.409	CKT3200000041

Modules and frames can be ordered separately.

CF 8/CF 32 frames, technical information

CF 8
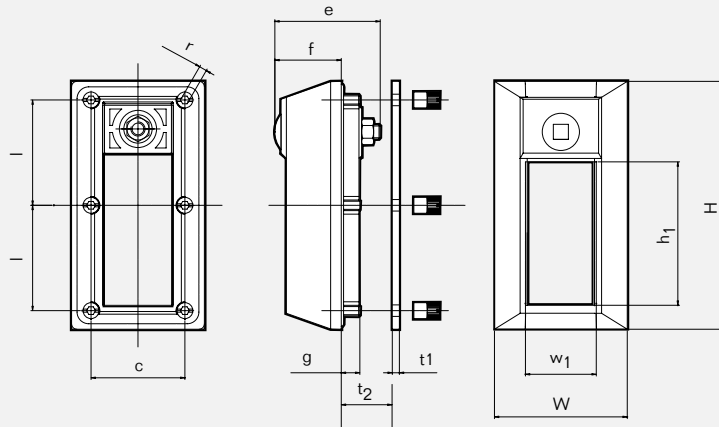
CF 32
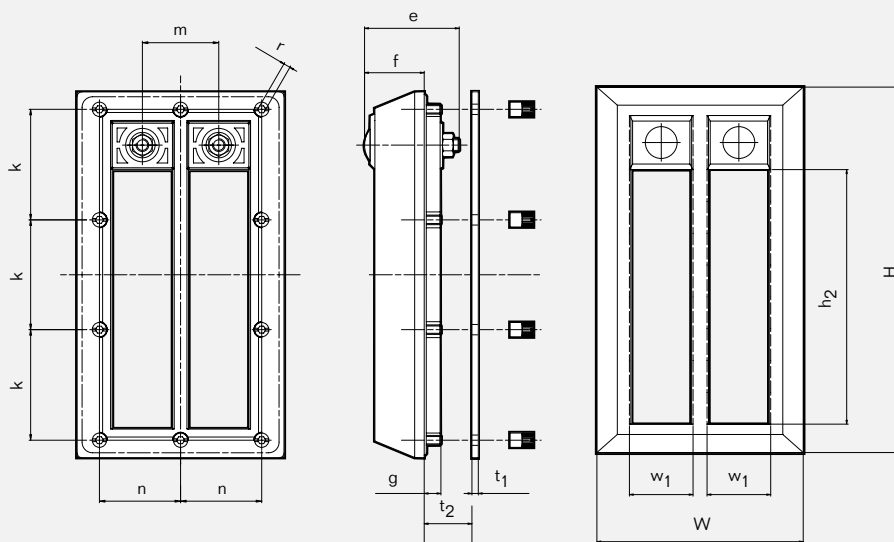
Pos	(mm)	(in)
c	53	2.087
e	59	2.323
f	38	1.496
g	12	0.472
l	60	2.362

Pos	(mm)	(in)
k	70	2.756
m	48	1.890
n	51	2.008
r	SW 4	SW 0.157
t_1	4	0.157

Pos	(mm)	(in)
t_2	Wall thickness Max 4	Max 0.157
h_1	80	3.150
h_2	160	6.299
w_1	40	1.575

Note: All dimensions are nominal values

Roxtec CF 16 frame

The Roxtec CF 16 is a low-profile metal frame. Compression is integrated in the frame. Adapter plates are available for standardized openings in cabinets. The product is supplied as ready-made kits which include all necessary components.

- ■ Attachment by bolting
- ■ Available in openable version for easy retrofit and installation around existing cables and pipes

CF 16 kit, powder coated mild steel

CF 16/4   CF 16/10   CF 16/16   CF 16/19
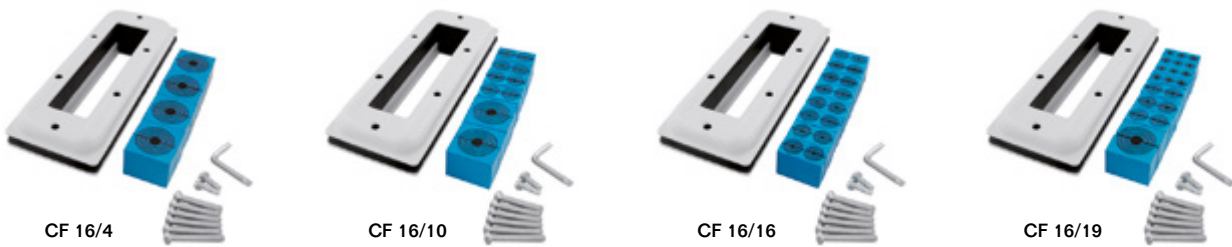
Also available in stainless steel

| RATINGS | | | IP: 66/67 | | UL/NEMA: 4, 4X, 12, 13 | | | | | |

Kit	Number of cables/pipes	Diameter range and number of cables/pipes			External dimensions		Weight		Art. No
		0+3.5-10.5 0+0.138-0.413 (CM 15W40)	0+3.5-16.5 0+0.138-0.650 (CM 20w40)	0+9.5-32.5 0+0.374-1.280 (CM 40 10-32)	HxW (mm)	HxW (in)	(kg)	(lb)	
CF 16/4	4			4 cables/pipes	234 x 93	9.213 x 3.661	1.7	3.748	CKT0008020004
CF 16/10	10		8 cables/pipes	2 cables/pipes	234 x 93	9.213 x 3.661	1.7	3.748	CKT0008020010
CF 16/16	16		16 cables/pipes		234 x 93	9.213 x 3.661	1.7	3.748	CKT0008020016
CF 16/19	19	12 cables/pipes	6 cables/pipes	1 cable/pipe	234 x 93	9.213 x 3.661	1.7	3.748	CKT0008020119

Modules and frames can be ordered separately.

CF 16 frame, technical information
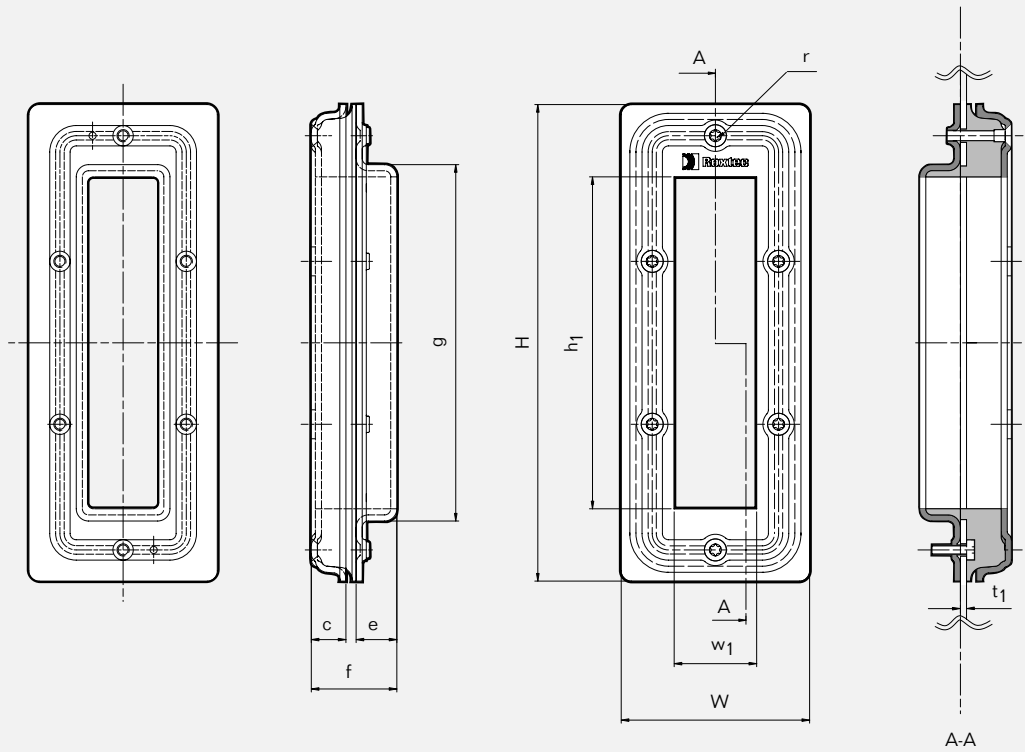
Pos		(mm)	(in)
c		17	0.669
e		20	0.787
f		42	1.654
g		175	6.890
h_1		160	6.299
w_1		40	1.575
t_1	Wall thickness	Max 4	Max 0.157
r		SW TX25	SW TX 25

Note: All dimensions are nominal values

Roxtec HD 32

The Roxtec HD 32 (High Density) is a corrosion resistant cable entry seal for sealing and terminating up to 32 cables in one single cut-out in junction and terminal boxes. The seal is designed to withstand the harshest of environments and it is approved for use in hazardous and industrial applications as a direct replacement to cable glands. The product is supplied as ready-made kits which include all necessary components.

- 316L stainless steel material
- Extremely area efficient
- Adapts to cables of different sizes

HD 32 kit, integrated compression unit, acid-proof stainless steel

| HD 32/8 | HD 32/20 | HD 32/32 | HD 32/41 |

| RATINGS | IP: 66/67 | UL /NEMA: 4, 4X, 12, 13 |

Kit	Number of cables/pipes	Diameter range and number of cables/pipes			External dimensions		Weight		Art. No
		0+9.5-31.5 mm 0+0.37-1.24" (HD 40)	0+3.5-15.5 mm 0+0.0.14-0.61" (HD 20w40)	0+3.5-9.5 mm 0+0.0.14-0.37" (HD 15w40)	HxW (mm)	HxW (in)	(kg)	(lb)	
HD 32/8	8	8 cables/pipes			236 x 130	9.3 x 5.1	3	6.8	112276
HD 32/20	20	4 cables/pipes	16 cables/pipes		236 x 130	9.3 x 5.1	3	6.8	112278
HD 32/32	32		32 cables/pipes		236 x 130	9.3 x 5.1	3	6.8	112279
HD 32/41	41	1 cable/pipe	16 cables/pipes	24 cables/pipes	236 x 130	9.3 x 5.1	3	6.8	112280

Modules and frames can be ordered separately.
Available in Ex version.

HD 32 frame, technical information
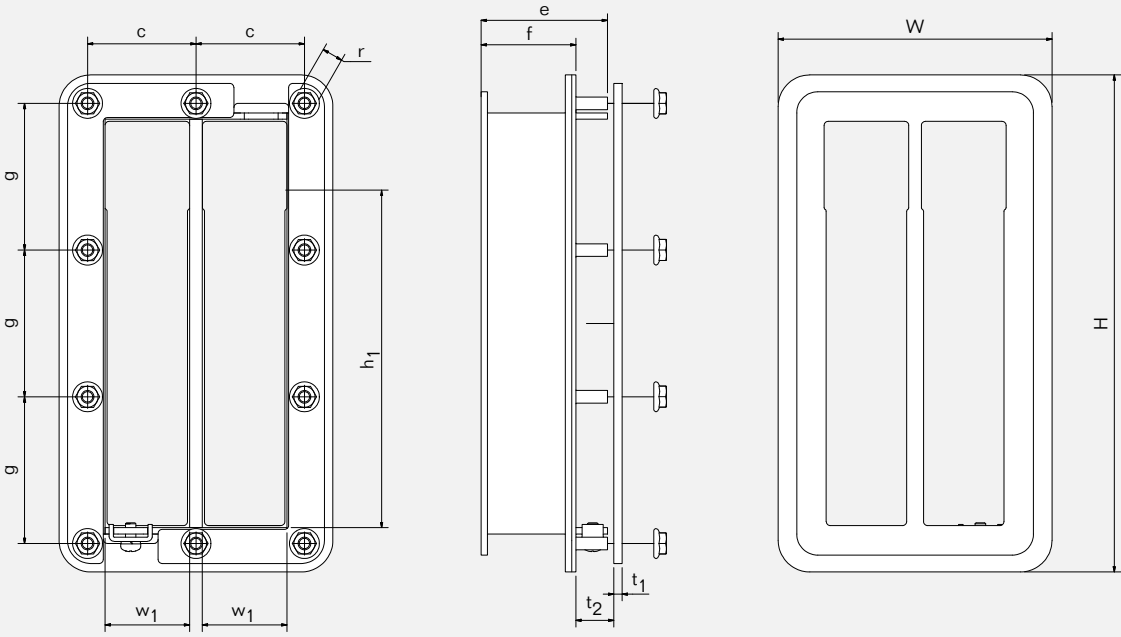
Pos		(mm)	(in)
c		51.5	2.02
e		60	1.36
f		45	1.77
g		69.7	2.75
h_1		160	6.3
w_1		40	1.57
t_1		4	0.15
t_2	Wall thickness	Max 4	Max 0.157
r		SW10	0.4

Note: All dimensions are nominal values

Roxtec C KFO frame

The Roxtec C KFO is a light-weight composite frame in size 6x1. The frame is openable for easy installation around existing cables. The product is supplied as ready-made kits which include all necessary components.

- Attachment by bolting
- Available with or without flange
- Available with stainless steel fasteners upon request

C KFO frame, PA 6.6, 30% GF - flange, PP

Parts needed for a complete solution

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C KFO 6x1

C KFO 6x1 with flange

C KFO Counter frame

RATINGS	IP: 55						
Frame	For No. openings	Packing space (mm)	External dimensions		Weight		Art. No
			HxW (mm)	HxW (in)	(kg)	(lb)	
C KFO 6x1	1	180 x 120	260 x 159	10.236 x 6.260	0.6	1.323	CKF0000060059
C KFO 6x1 with flange	1	180 x 120	420 x 319	16.535 x 12.559	1.2	2.646	CKF1000060059
C KFO Counter frame*	1	180 x 120	262 x 161	10.315 x 6.338	0.4	0.882	KFC0000100011

* The C KFO Counter frame is recommended if the wall is 1.5 mm (0.059") or thinner.

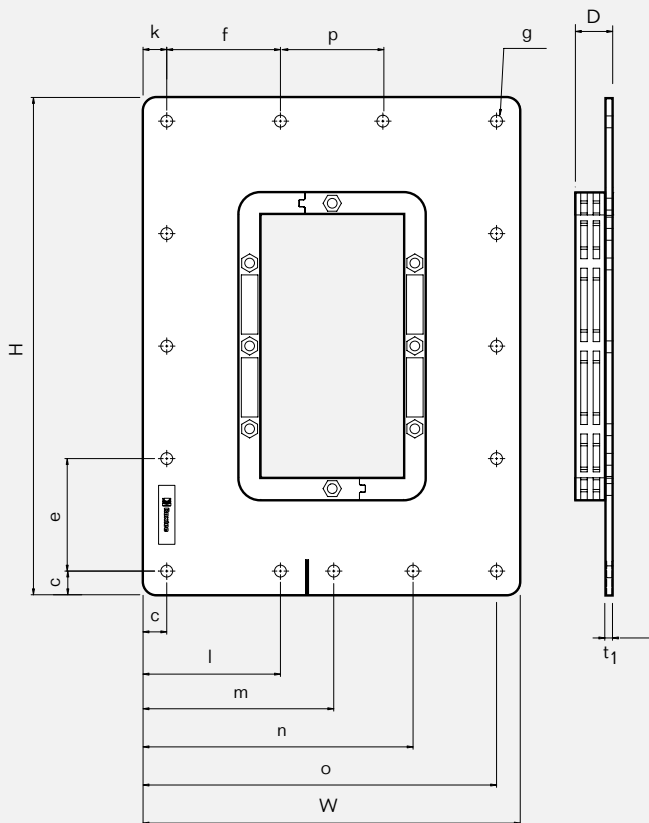Modules and frames can be ordered separately.

C KFO frame, technical information

C KFO 6x1
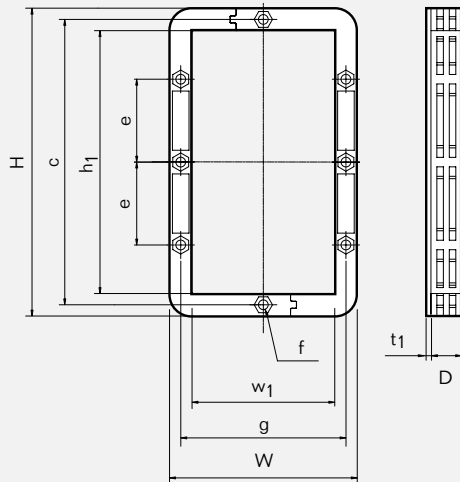
Pos		(mm)	(in)
c		241	9.488
e		70	2.756
f		Ø 8.2 (8x)	Ø 0.323 (8x)
g		140	5.512
h_1		222	8.740
w_1		120	4.724
t_1	gasket	2	0.079
D		26	1.024

C KFO 6x1 with flange
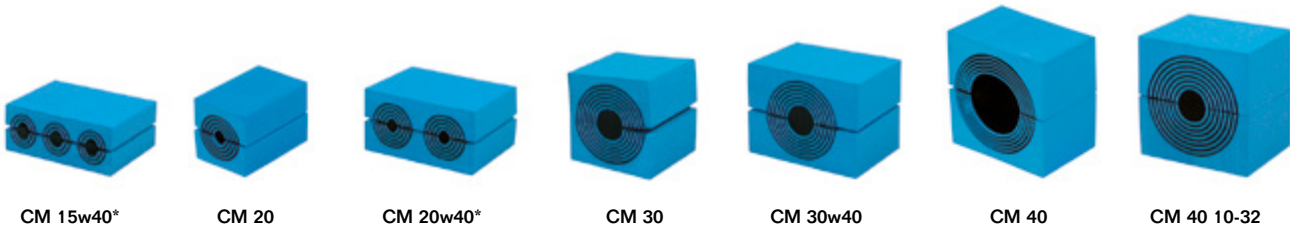

Pos	(mm)	(in)
c	20	0.787
e	95 (4x)	3.740 (4x)
f	96 (2x)	3.780 (2x)
g	Ø 10 (23x)	Ø 0.394 (23x)
l	116	4.567
m	161	6.339
n	228	8.976
o	299	11.772
t_1	8	0.315
p	87	3.425
D	34	1.339

Max wall thickness: 6 mm (0.236")

Note: All dimensions are nominal values

Roxtec CM modules

| CM 15w40* | CM 20 | CM 20w40* | CM 30 | CM 30w40 | CM 40 | CM 40 10-32 |

* Whenever possible we recommend choosing twin or triplet modules like CM20w40 or CM15w40. Benefits are higher area efficiency per frame opening, quicker installation and improved cost-effectiveness.

| Module	Number of cables/pipes	For cable/pipe diameter $\emptyset_a$-$\emptyset_b$ (mm)	$\emptyset_a$-$\emptyset_b$ (in)	External dim. (mm) HxW (D=30 mm)	Weight (max) (kg)	(lb)	Art. No
CM 15w40*	3	0+ 3.5-10.5	0+ 0.138-0.413	15 x 40	0.03	0.055	C000115401000
CM 20	1	0+ 4.0-14.5	0+ 0.157-0.571	20 x 20	0.02	0.044	C000100201000
CM 20w40*	2	0+ 3.5-16.5	0+ 0.138-0.650	20 x 40	0.04	0.077	C000120401000
CM 30	1	0+ 10.0-25.0	0+ 0.394-0.984	30 x 30	0.04	0.088	C000100301000
CM 30w40	1	0+ 10.0-25.0	0+ 0.394-0.984	30 x 40	0.06	0.121	C000130401000
CM 40	1	0+ 21.5-34.5	0+ 0.846-1.358	40 x 40	0.07	0.135	5CM0000008983
CM 40 10-32	1	0+ 9.5-32.5	0+ 0.374-1.280	40 x 40	0.07	0.135	C000140101000

C Wedge kit/parts, galvanized

C Wedge kit galv

The wedge kit includes one Roxtec Wedge 120, five stayplates, one lubricant and installation instructions.

Wedge	External dimensions W (mm)	W (in)	Weight (kg)	(lb)	Art. No
C Wedge kit galv	120	4.724	0.65	1.443	AWK2001201018
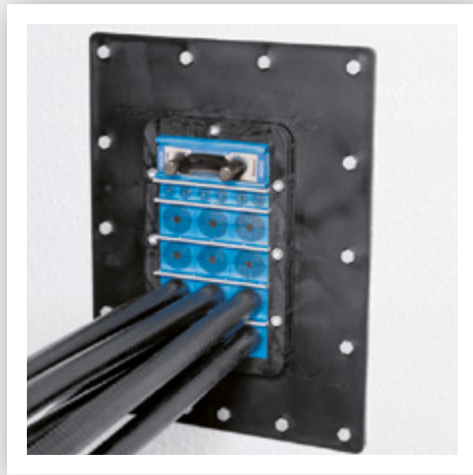
Roxtec KFO frame

The Roxtec KFO is a light-weight composite frame in size 6x1. The frame is openable for easy installation around existing cables and pipes. Upon request, the product can be supplied as ready-made kits including all necessary components.

- Attachment by bolting
- Available with or without flange
- Available with stainless steel fasteners upon request to meet requirements in aggressive corrosive environments

KFO frame, PA 6.6, 30% GF - flange, PP

KFO 6x1

KFO 6x1 with flange
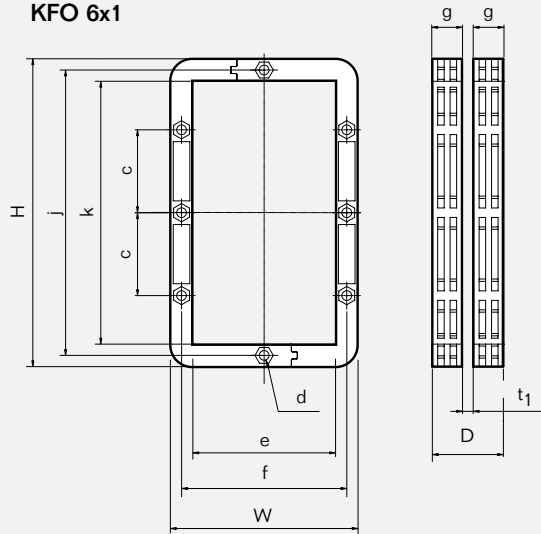
Parts needed for a complete solution

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|			External dimensions		Weight		
Frame	For No. openings	Packing space (mm)	HxW (mm)	HxW (in)	(kg)	(lb)	Art. No
KFO 6x1	1	180 x 120	260 x 159	10.236 x 6.260	1.0	2.094	KFO0000060059
KFO 6x1 with flange	1	180 x 120	420 x 319	16.535 x 12.559	1.6	3.417	KFO1000060059

RATINGS   IP: 66/67

KFO frame, technical information

KFO 6x1

Pos		(mm)	(in)
c		70	2.756
d		Ø 8.2 (8x)	Ø 0.323 (8x)
e		120	4.724
f		140	5.512
g		26	1.024
j		241	9.488
k		222	8.740
t_1	Wall thickness	5-8	0.197-0.315
D		57-60	2.244-2.362

KFO 6x1 with flange
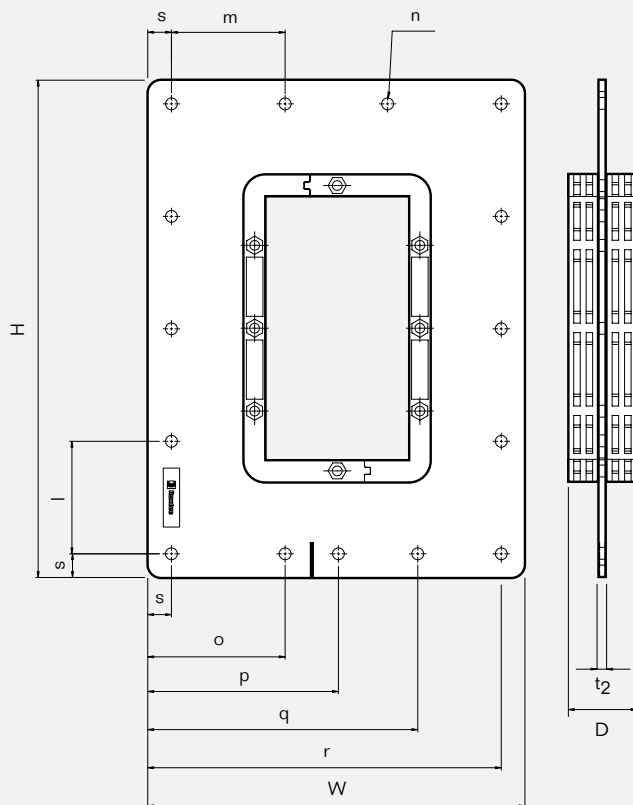
Pos	(mm)	(in)
l	95 (4x)	3.740 (4x)
m	96 (3x)	3.780 (3x)
n	Ø 10 (23x)	Ø 0.394 (23x)
o	116	4.567
p	160	6.299
q	220	8.661
r	299	11.772
s	20	0.787
t_2	8	0.315
D	60	2.362

Note: All dimensions are nominal values

Roxtec GHM frame

The Roxtec GHM frame is a flanged metal frame designed for installation through bolting. The frame is sealed onto the structure by use of TSL sealing strip and used with adaptable sealing modules. Upon request, the product can be supplied as ready-made kits including all necessary components.

■ Attachment by bolting
■ Drilled according to standardized hole pattern

GHM frame, acid-proof stainless steel

GHM 6x1 AISI 316

Parts needed for a complete solution

page 51

Also available in galvanized mild steel.

For shielded EMC applications a conductive gasket is required.

For information about other frame combinations, please contact your local Roxtec supplier or e-mail: info@roxtec.com

RATINGS   IP: 66/67   **UL/NEMA:** 4, 4X, 12, 13

| Frame	Frame openings	Packing space (mm)	External dimensions (D=60mm)		Weight		Art. No
			HxW (mm)	HxW (in)	(kg)	(lb)	
GHM 2x1 AISI316 INCL TSL 15x6	1	60 x 120	233 x 253	9.173 x 9.961	3.4	7.562	5GHM000003379
GHM 2x2 AISI316 INCL TSL 15x6	2	60 x 120	233 x 383	9.173 x 15.079	5.4	11.905	151674
GHM 2x3 AISI316 INCL TSL 15x6	3	60 x 120	233 x 514	9.173 x 20.236	7.4	16.218	109390
GHM 4x1 AISI316 INCL TSL 15x6	1	120 x 120	292 x 253	11.496 x 9.961	4.1	9.039	5GHM000003380
GHM 4x2 AISI316 INCL TSL 15x6	2	120 x 120	292 x 383	11.496 x 15.079	6.3	13.977	110624
GHM 4x3 AISI316 INCL TSL 15x6	3	120 x 120	292 x 514	11.496 x 20.236	8.6	18.938	GHM4000000321
GHM 6x1 AISI316 INCL TSL 15x6	1	180 x 120	350 x 253	13.780 x 13.961	4.8	10.516	150388
GHM 6x2 AISI316 INCL TSL 15x6	2	180 x 120	350 x 383	13.780 x 15.079	7.3	16.072	107786
GHM 6x3 AISI316 INCL TSL 15x6	3	180 x 120	350 x 514	13.780 x 20.236	9.8	21.627	110623

GHM frames, technical information

GHM Zx1

A-A

GHM ZxN

A-A
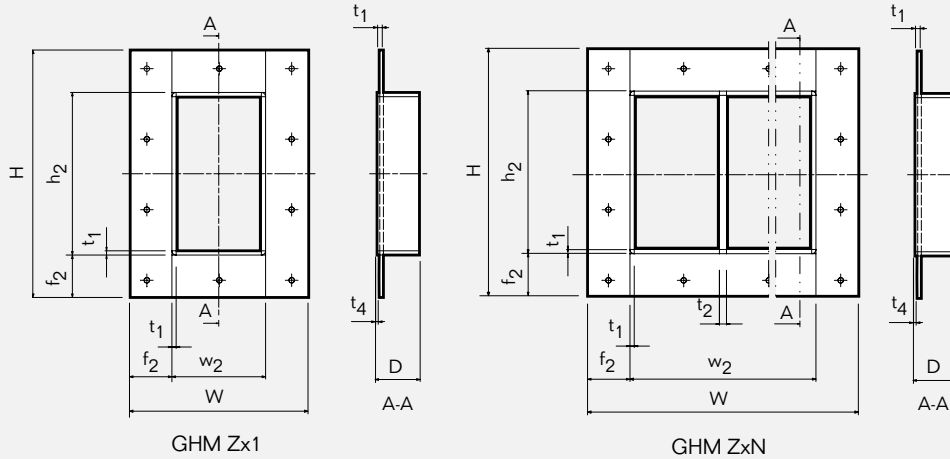
| Pos	(mm)	(in)
h_2	H - 120	H - 4.724
w_2	W - 120	W - 4.724
D	60	2.362
f_2	60	2.362
t_1	6	0.263
t_2	10	0.394
t_3	12	0.394
t_4	3	0.118
e	10	0.394
c	35	1.378

Z = Frame size
N = Number of horizontal openings

Hole pattern
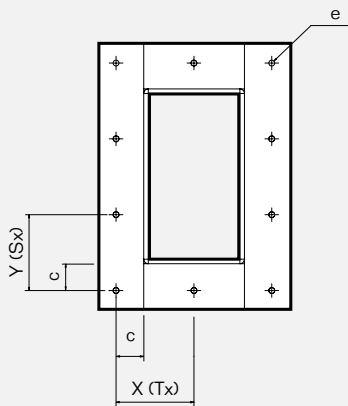
	X (Tx)			Y (Sx)		
	X (mm)	X (in)	T	Y (mm)	Y (in)	S
GHM 2x1	101.3	3.988	2	91.5	3.602	2
GHM 2x2	111	4.370	3	91.5	3.602	2
GHM 2x3	92.7	3.650	5	91.5	3.602	2
GHM 4x1	101.3	3.988	2	80.5	3.169	3
GHM 4x2	111	4.370	3	80.5	3.169	3
GHM 4x3	92.7	3.650	5	80.5	3.169	3
GHM 6x1	101.3	3.988	2	75	2.953	4
GHM 6x2	111	4.370	3	75	2.953	4
GHM 6x3	92.7	3.650	5	75	2.953	4

Note: All dimensions are nominal values

Roxtec RM modules

RM 15   RM 15w40*   RM 20   RM 20w40*   RM 30   RM 40   RM 40 10-32

RM 60   RM 60 24-54   RM 80
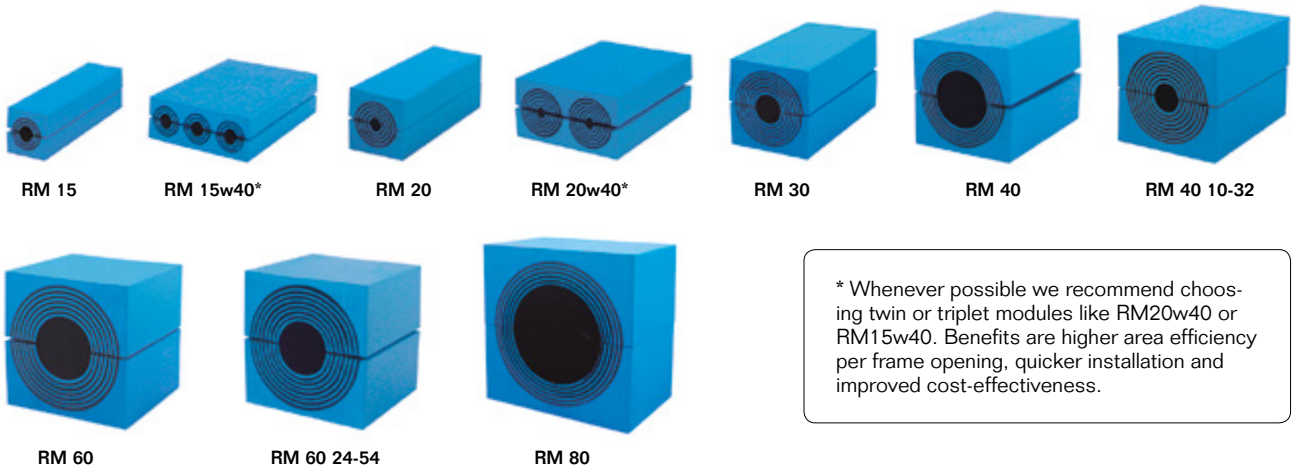
> * Whenever possible we recommend choosing twin or triplet modules like RM20w40 or RM15w40. Benefits are higher area efficiency per frame opening, quicker installation and improved cost-effectiveness.

| Module | Number of cables/pipes | For cable/pipe diameter | | External dim. (mm) HxW (D=60 mm) | Weight (max) | | Art. No |
		$\varnothing_a$-$\varnothing_b$ (mm)	$\varnothing_a$-$\varnothing_b$ (in)		(kg)	(lb)	
RM 15	1	0+ 3.0-11.0	0+ 0.118-0.433	15x15	0.02	0.044	RM00100151000
RM 15w40*	3	0+ 3.5-10.5	0+ 0.138-0.413	15x40	0.05	0.110	RM00115401000
RM 20	1	0+ 4.0-14.5	0+ 0.157-0.571	20x20	0.04	0.088	RM00100201000
RM 20w40*	2	0+ 3.5-16.5	0+ 0.138-0.650	20x40	0.07	0.154	RM00120401000
RM 30	1	0+ 10.0-25.0	0+ 0.394-0.984	30x30	0.08	0.176	RM00100301000
RM 40	1	0+ 21.5-34.5	0+ 0.846-1.358	40x40	0.14	0.309	RM00100401000
RM 40 10-32	1	0+ 9.5-32.5	0+ 0.374-1.280	40x40	0.14	0.309	RM00140101000
RM 60	1	0+ 28.0-54.0	0+ 1.102-2.126	60x60	0.33	0.728	RM00100601000
RM 60 24-54	1	0+ 24.0-54.0	0+ 0.945-2.126	60x60	0.33	0.728	RM00160201000
RM 80	1	0+ 48.0-71.0	0+ 1.890-2.795	80x80	0.59	1.301	5RM0000003350

Wedge kits, galvanized/acid-proof stainless steel

Wedge kit 120 galv

> The wedge kit includes one Roxtec Wedge 120, five stayplates, one wedge clip, one lubricant and installation instructions.

| Wedge | External dimensions | | Weight | | Art. No |
	W (mm)	W (in)	(kg)	(lb)	
GALVANIZED					
Wedge kit galv	(wedge) 120	(wedge) 4.724	1.5	3.307	AWK0001201018
ACID PROOF STAINLESS STEEL					
Wedge kit AISI 316	(wedge) 120	(wedge) 4.724	1.5	3.307	AWK0001201021

Installation/disassembly tools

Pre-compression tool, small

Pre-compression tool, large

Pre-compression eccentric tool, small

Pre-compression eccentric tool, large

Pre-compression eccentric tool, compact

Handgrip pre-compression tool

Pre-compression wedge 60/40

Pre-compression wedge 120

Stayplate clamps horizontal inst

Stayplate clip

RG M63 tools

RG M63 tool 3/8 grip

Module Adaption Indicator

Tool	For use with	Art. No
Pre-compression tool, small	KFO, GHM	5ICT000001269
Pre-compression tool, large	KFO, GHM	ICT0001000000
Pre-compression eccentric tool, small	KFO, GHM	ICT0001000302
Pre-compression eccentric tool, large	KFO, GHM	ICT0001000301
Pre-compression eccentric tool, compact	ComSeal LW, ComSeal, EzEntry, CF 8/32, CF 16, HD 32, C KFO	ICT0001000316
Handgrip pre-compression tool	KFO, GHM	ICT0001000401
Pre-compression wedge 60/40	ComSeal LW, ComSeal, EzEntry, CF 8/32, CF 16, HD 32	5ICT000003691
Pre-compression wedge 120	KFO, GHM	ICT0001000500
Stayplate clamps horizontal inst, 2 pcs	KFO, GHM	ICT0001000100
Stayplate clip	KFO, GHM	ICT0001000200
RG M63 tools	RG M63	5IRG000001545
RG M63 tool 3/8 grip	RG M63	ICT2010000001
Module Adaption Indicator	Measuring tool for easier selection of sealing module	IQR2009000101