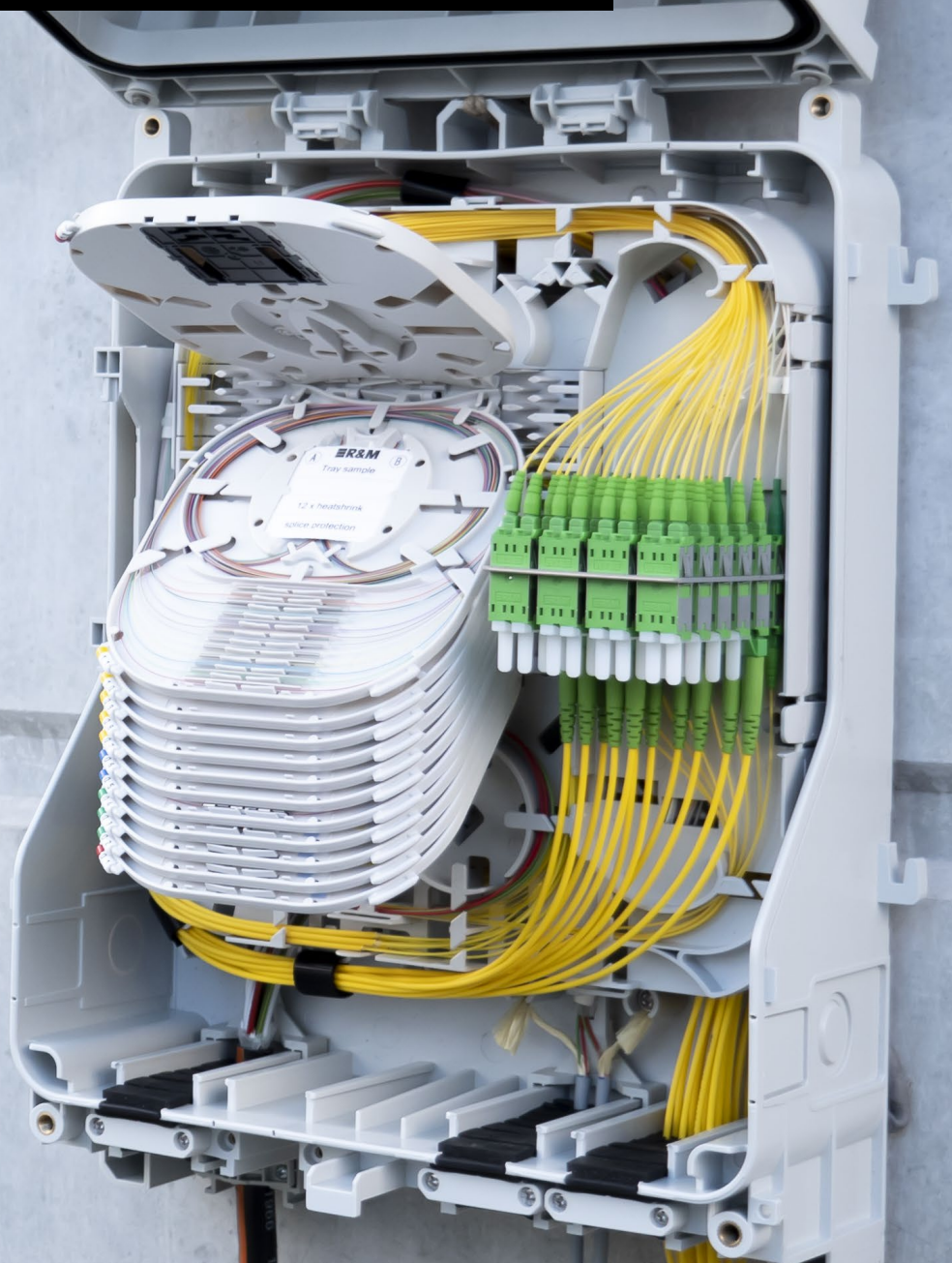# Polaris-box Family
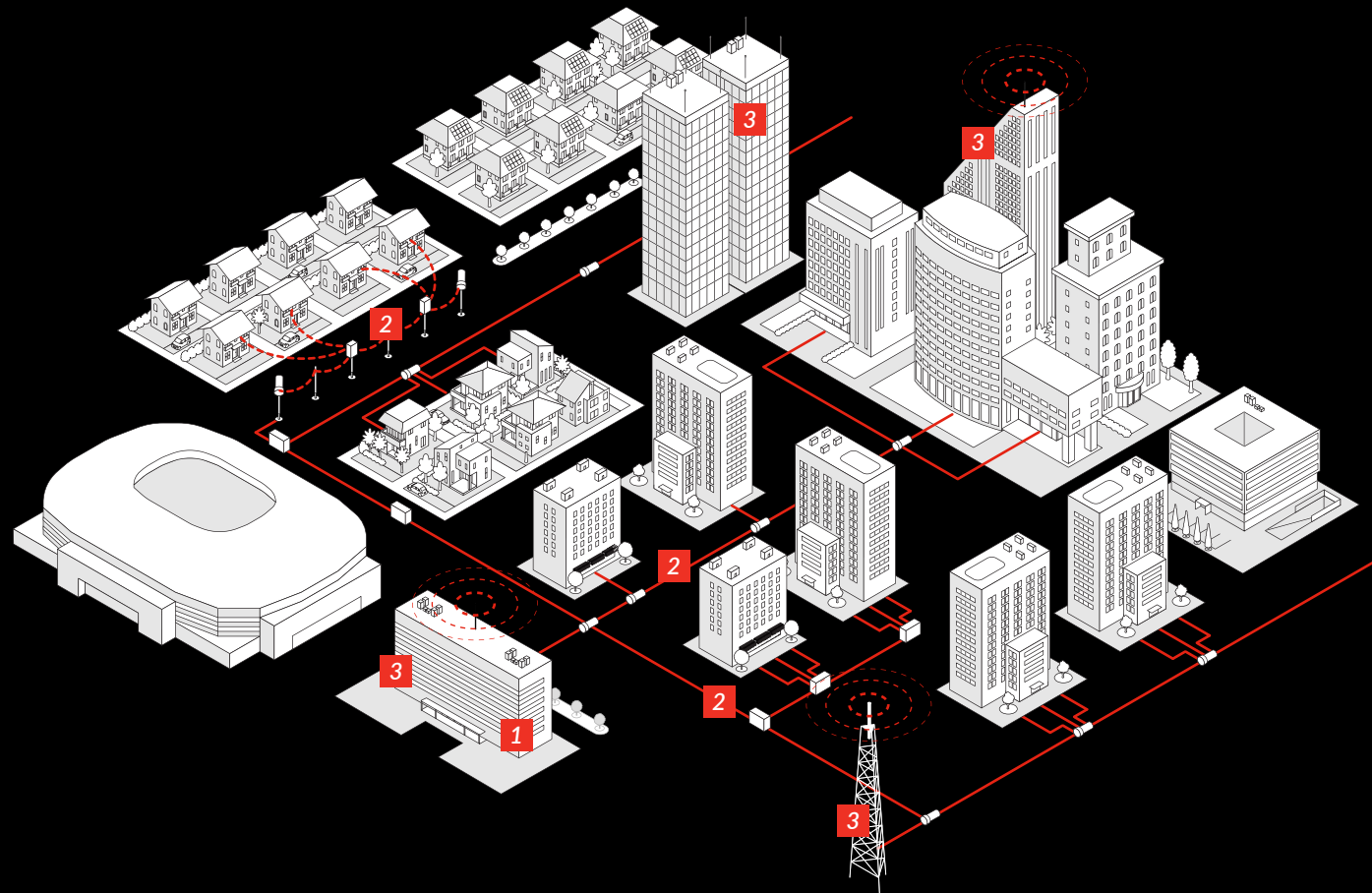## Multifunctional for a flexible fiber optic termination

Your next generation
FO-Boxes

R&M – Building FTTX Networks

For global customers in different industries

Central office
Customer specific solutions for easy assembly, future-proof and effective operation. Our optical distribution frames PRIME ODF and SCM ODF offer modular system solutions with plenty of different elements, complemented by a professional planning consultancy.
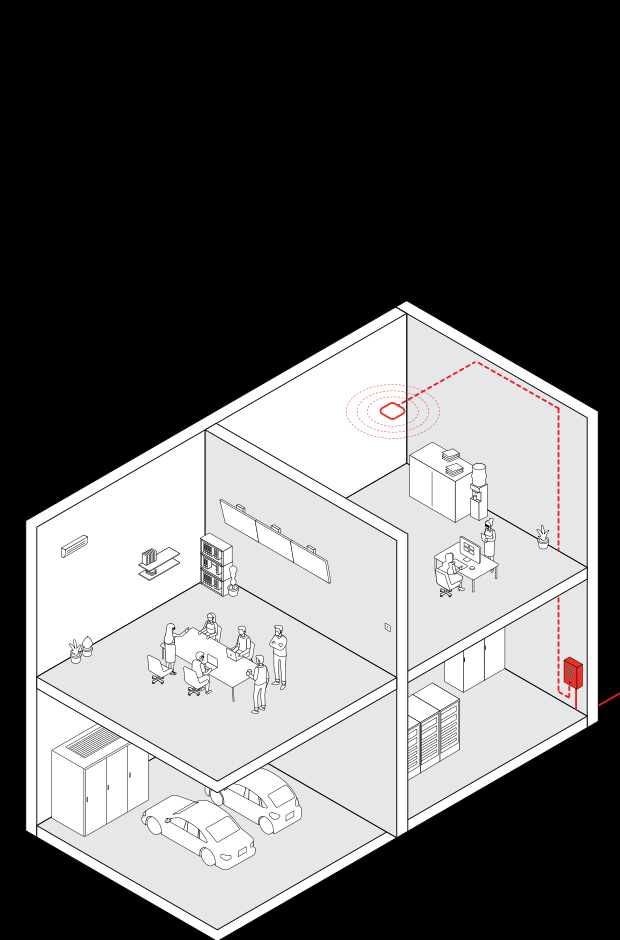
2

Outside plant
Complete portfolio of robust street cabinets, closures and distribution boxes offering state-of-the-art technology in fiber connectivity and cable management. The different product platforms support various cable types and optical network topologies
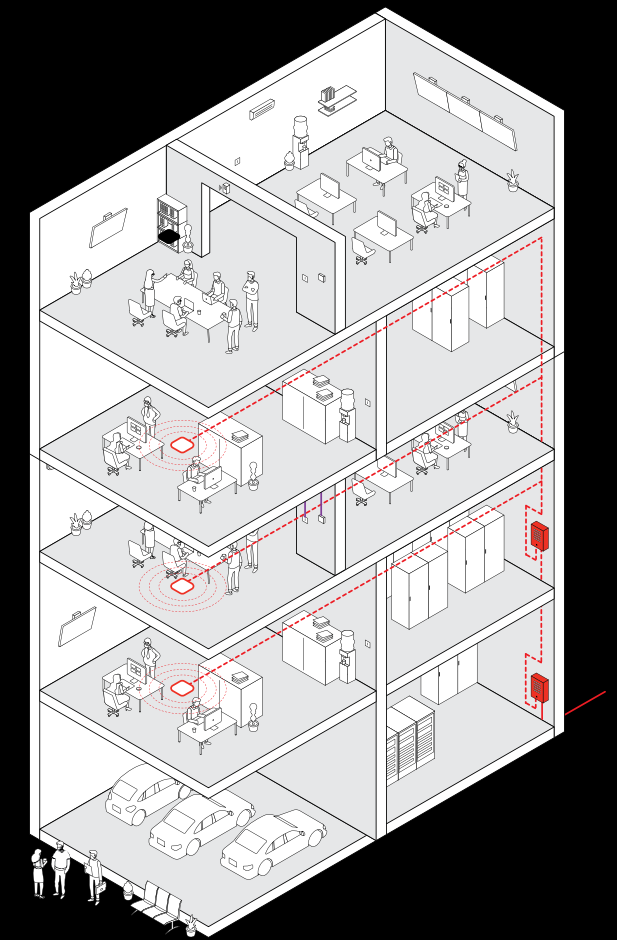
3

Customer premises, buildings and cell sites
Efficient solutions for different buildings and urban infrastructure with fiber optic connectivity. Building entry points for indoor or outdoor use, realized with various box family. Compact, flexible and modular solution for any fiber termination. Complemented by field deployable connectors as a modern alternative to fusion splicing.

Fiber optic termination housing

Single dwelling unit (SDU)

Multi dwelling unit (MDU)

New generation FO-boxes
The Polaris-box family is the new generation of FO-boxes from R&M for a flexible fiber optic termination for indoor or outdoor applications. It extends R&M FTTH solutions in the customer connection segment and its area of application ranges from single-family homes to building complexes.

Learn more ⚡

Build for the future
The new Polaris-boxes are really multifunctional. In buildings, Polaris-boxes are suitable for entry points (BEP), riser zones, floor distributors up to the Optical Termination Outlet (OTO). They support patch, splice and splitter configurations as well as flexible and individual assembly. The new boxes enable network operators to quickly bridge the last meters into the buildings. At the same time, they secure options for the future.

Polaris-box 4

The Polaris-box 4 is the smallest in the family and fits even into tiny spaces. The basic configuration with one fiber inlay supports up to 12 crimp (ANT) or shrink (HS) splice connections. For plug connections, a coupling field for 2 or 4 SC, LC duplex or E-2000™ adapters is available.

030.6846

030.8773

Polaris-box 4
It's hard to believe, but the box offers space for an additional fiber storage under the first insert. If required, a second fiber inlay can be retrofitted.

Polaris-box 4 SCM
These solution offer space for quick splitter integration as well as the first twelve splice connections without additional FMTS trays. In addition, up to four FMTS-Compact splice trays can be retrofitted.

1

Flexible
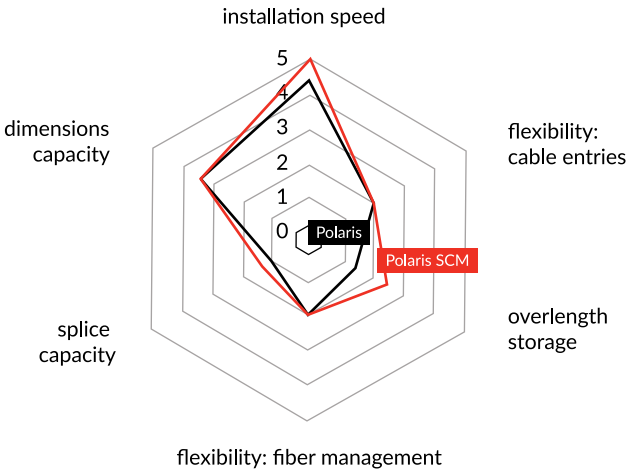Flexible assembly of splice trays for different applications.

2

Direct access
Direct access to the individual fibers, fiber protection through additional tray cover.

3

Reliable installation
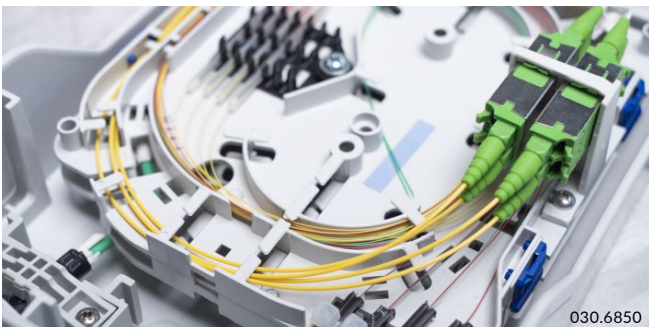Simple and reliable installation, strain-relief for cable and micro-ducts.

Radar chart axes: installation speed, flexibility: cable entries, overlength storage, flexibility: fiber management, splice capacity, dimensions capacity. Scale 0–5. Series: Polaris, Polaris SCM.

Polaris-box 4

030.6847

Fiber storage for loose tube.

030.6850

More safety through separate fiber routing of 900-um and 250-um fibers.

030.6849

Controlled bending radius. Access to individual fibers always guaranteed.

Polaris-box 4 SCM

030.8751

Clear fiber and subscriber separation, 4x FMTS-Compact Splice tray retrofittable.

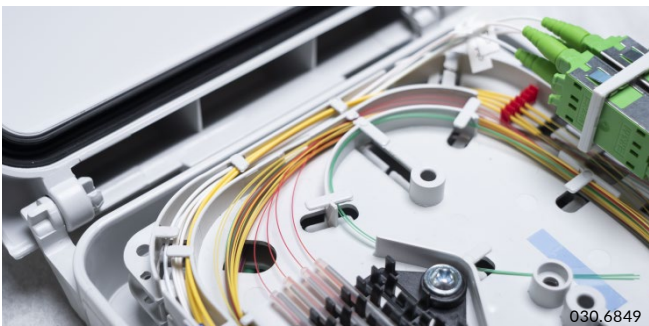030.8752

Splice tray identification thanks numbering and color coding.

030.8753

Position for an additional adapter field.

Get more

Safety
Easy handling, optimal and stress-free fiber guidance.

Flexibility
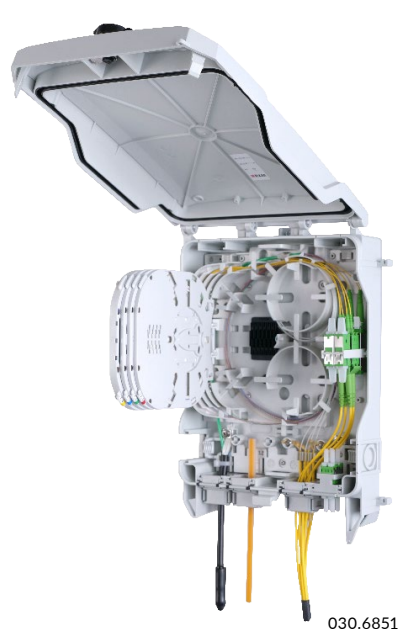Compact design, variable configurations, up to 12/24 splices and 4/8 connectors.

Efficiency
Uncomplicated cable migration, additional fiber storage and tool-free re-working.

Polaris-box 6

The Polaris-box 6 is the little all-rounder. The optical distribution box is suitable for indoor and outdoor use. The basic equipment of the Polaris-box has a fully integrated fiber management inlay for up to 12 splice connections and a splitter position.

030.6851

030.8777

Polaris-box 6

The Inlay has a fully integrated adapter field for up to six (12) SC, E-2000™ and LC duplex (SFF) adapters. In addition, it is possible to supplement the box with a maximum of four additional 1TPU splice trays (4/12 fibers) or two 2TPU splitter trays. The Polaris-box 6 can be modularly re-equipped with up to 60 splice connections.

Polaris-box 6 SCM

The fiber inlay can take up to six additional FMTS splice trays for a separation of subscribers or to increase the splice capacity. With a pure splice application, the splice capacity can reach up to 84 splice connections.
For the patch splice application an adapter field for six SC, LC-D can be toolless implemented.

1 **Direct access**
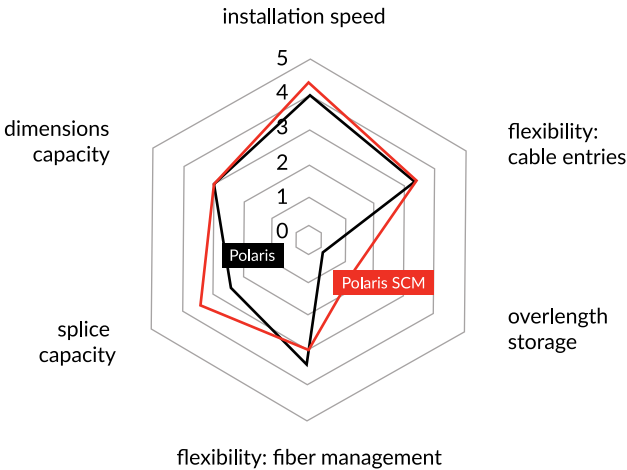Direct access to individual fibers, fiber protection through additional tray cover

2 **Reliable installation**
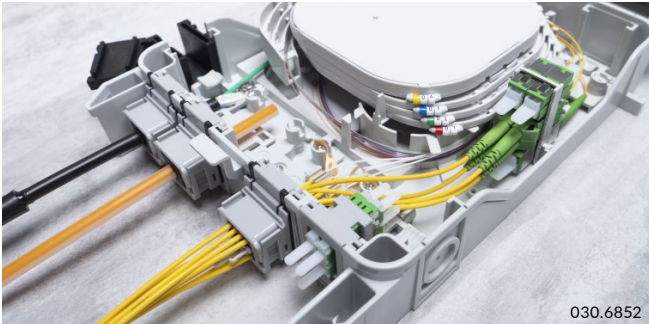Simple and reliable installation, cable or micro-pipe strain relief

3 **Flexible cable entries**
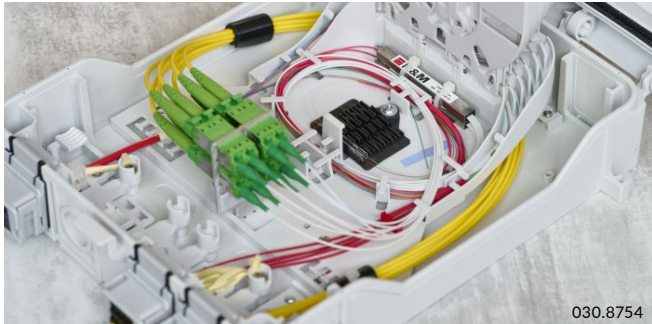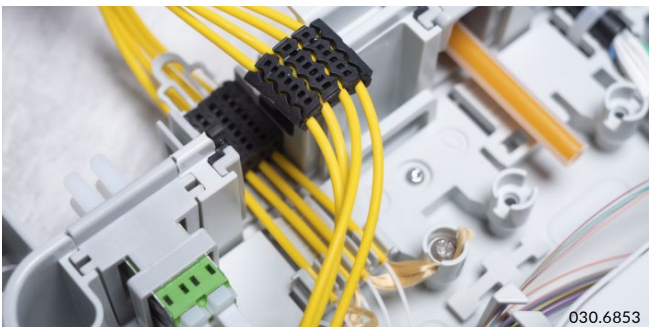Flexible cable entries for different cables and micro tubes

Radar chart axes: installation speed, flexibility: cable entries, overlength storage, flexibility: fiber management, splice capacity, dimensions capacity. Scale 0–5. Series: Polaris, Polaris SCM.

Polaris-box 6

030.6852

Cable entries on four sides and the rear side.

030.6853

Multi-layer pre-cut cable sealing elements for an easy cable migration.

030.6887

Access to adapters outside the housing, adapter field for two LC duplex, SC and E-2000™ connectors.

Polaris-box 6 SCM

030.8754

Basic Inlay for the first 12 splices including integrated Splitter fixing position.

030.8755

Up to 6x FMTS- Splice tray including Label for a fast fiber identification.

030.8756

Safe fiber guidance for all the different fiber types.

Get more

Safety
Unique sealing concept, high housing protection class IP65 and guaranteed minimum radius of 30 mm.

Flexibility
Multifunctional platform, many retrofittable configurations, up to 60 (86) splices and 6/12 connectors.
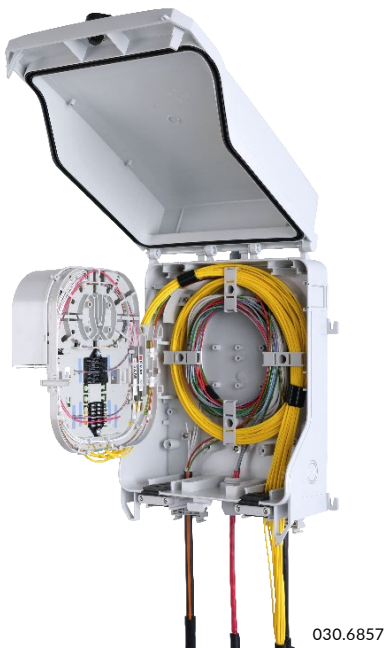
Efficiency
Fast, precise assembly, maintenance-friendly housing and tool-free handling.

Polaris-box 12/16

The Polaris-box 12/16 is a compact distribution box with plenty of space for many applications and additional space for a save fiber storage.

030.6857

030.8784

Polaris-box 16

The swiveling fiber inlay separates the connectors from the splice connections; this guarantees greater safety for the fiber connections. The bottom side can accommodate up to 24 splices and if required 3 splitters with a split ratio of 1:8 or 2:8. The top side offers space for 24 adapters or 2 pre-assembled LGX splitter modules.

Polaris-box 12 SCM

The fiber inlay can take up to 12 FMTS-compact splice trays with four ANT or HS splice protections per tray. The splice capacity can handle up to 48 splice connections on demand an adapter field for up to 6 SC, LC-D connectors can be retrofitted.

1

Secure fiber storage
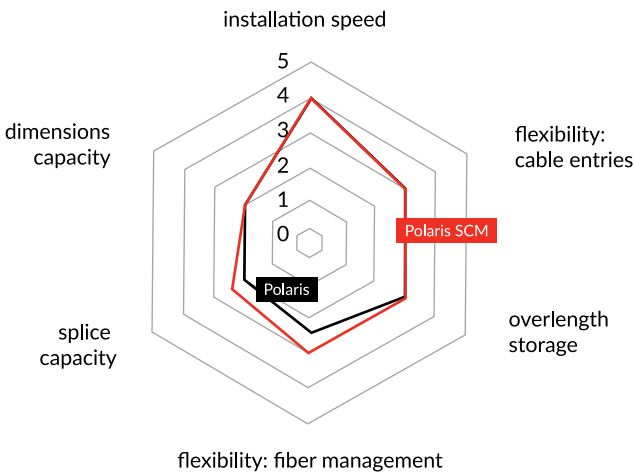Sufficient space for secure fiber storage for loose tube and drop cables

2

Quick access
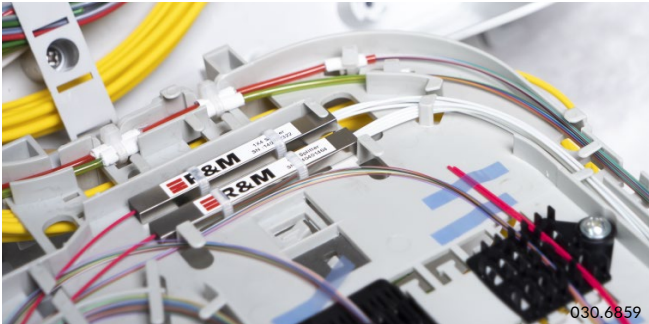Quick access to the connectors, protection for the fiber pigtail through the cover

3

Separate splicing area
Separate splicing area with optional space for splitter applications

Polaris-box 16

030.6859
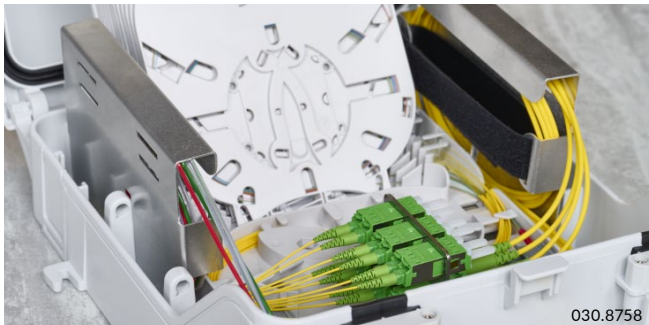Position for fanout and bare fiber splitter applications.

030.6860
Robust and flexible cable entries.

030.6858
Cover for optimal protection of the pigtail fibers.

Polaris-box 12 SCM

030.8757
Basic Inlay for up to 12 FMTS compact splice trays.

030.8758
Optional fiber overlength storage

030.8759
Fiber crossing from the left to the right side.

Get more

Safety
Separate sides for splice and patch connections, additional fiber protection through end caps and secure storage for bundled and drop cables.

Flexibility
Easy network migration, 2 retrofittable LGX splitter modules, up to 24 splices and 16/24 connectors

Efficiency
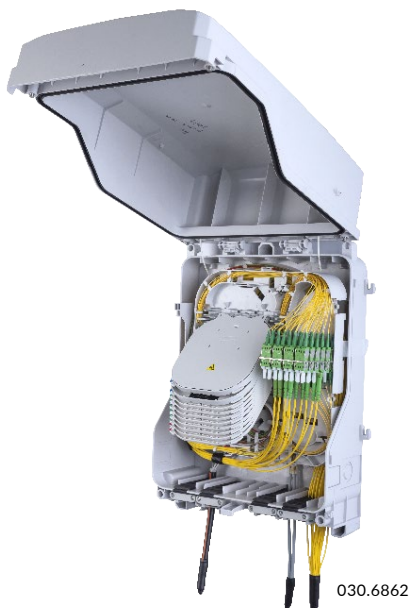Compact and cost-optimized, pivoting fiber inlay and user-friendly design.

Safe. Flexible. Efficient.

Polaris-box 24

The Polaris-box 24 is a versatile fiber optic termination box. With the FMTS (Fiber Management Tray System) trays, subscribers or the required number of fibers can be securely managed. Thanks to the sealing elements, up to 8 round cables or tubes with a diameter of 3 - 16 mm or a multiple of drop cables of 2 - 5 mm can be inserted into the box flexibly and without threading through a grommet.

030.6862

030.8788

Polaris-box 24

Polaris-box 24 has a swivel-mounted fiber inlay it offers space for 12 TPU (Tray Position Units), which can be individually equipped with splice or splitter trays. Up to 144 splices are possible when fully loaded with 12-fiber 1TPU splice trays. Up to 24 SC, E-2000™ or LC duplex adapters or 48 LC connection is packed by.

Polaris-box 24 SCM

The fiber inlay hold up to 24x FMTS 30 splice trays or support a splice capacity up to 288 splice connections. Optional a Patch field for up to 12 SC, LC-D adapter is available. The fiber storage can be retrofitted either to the left or right next to the splice trays. These allow save storage of loose tubes and additional drop cables. For the patch splice application an adapter field for six SC, LC-D can be toolless implemented.

1 **Secure fiber storage**
Splitter position for bare fiber splitter

2 **Separate area**
Separate area for splices and connectors

3 **Flexible assembly**
Four cable ducts for flexible assembly of the sealing elements

Polaris-box 24

030.6863

Swiveling fiber inlay for safe separation of incoming and outgoing fibers.

030.6864

Ample space for generous bundle and drop cable storage.

030.6866

Safe laying of the fibers with gentle bending radius.

Polaris-box 24 SCM

030.8760

Individual fiber management with several FMTS splice tray.

030.8761

Proper cable strain relief in out- and inside of the box.

030.8763

Tool free patch field mounting for LC-D, SC adapters.

Get more

Safety
Simple assignment of fibers and subscribers, separation between splicing, patching, and splitting applications and clear assignment of fiber paths.

Flexibility
Fast network expansion, variable assembly of 1TPU/2TPU trays up to 144 splices and 24/48 (LC) connectors.

Efficiency
Generous fiber storage, compact design, and optimal operability.

Polaris-box 36

The robust and highly compressed Polaris-box 36 is multifunctional. In order to cope with these fiber quantities, 6 break-out cable entry slots can be equipped with the pre-slotted sealing elements in a customer-specific and modular way. Up to 12 cables or tubes up to 16 mm diameter or 144 subscriber or drop cables with 2 – 3 mm diameter can be inserted.
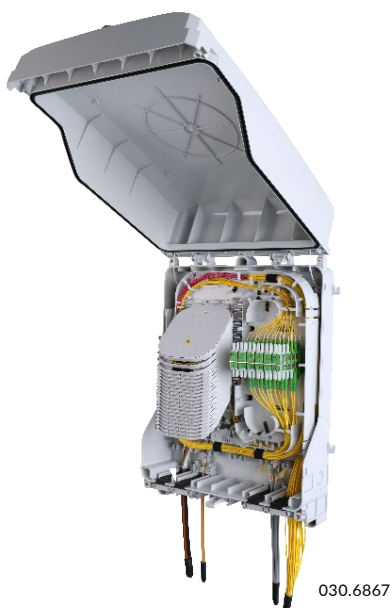
030.6867

030.8789

Polaris-box 36

The top side of the fiber inlay has two separate areas for splice and plug connections. On the left side up to 24 FMTS cassettes can be equipped with splice or splitter trays. A maximum of 288 splices can be realized with the 12-fiber 1TPU splice cassette when fully equipped.

Polaris-box 36 SCM

The inlay has a fiber capacity for up to 36 FMTS-30 splice trays and an easy (click-on) mountable adapter bracket for 18/36 patch connections (SC, LCD).
The modular, as set available overlength brackets allow an easy storage of loose tube (loop) or drop cable overlengths.

1

Safe fiber administration
Guaranteed access to individual fibers, well protected in the FMTS tray system
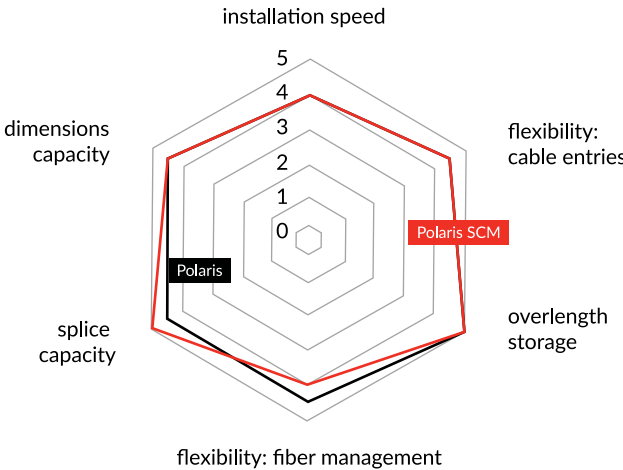
2

Separate area
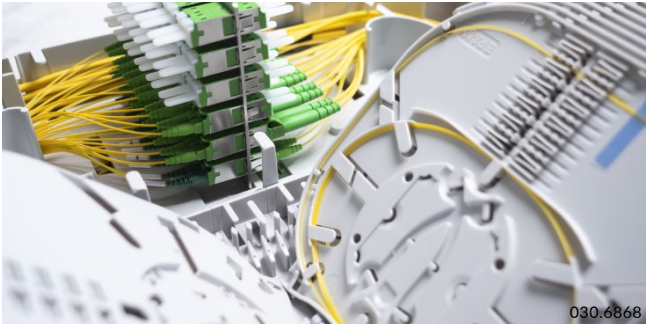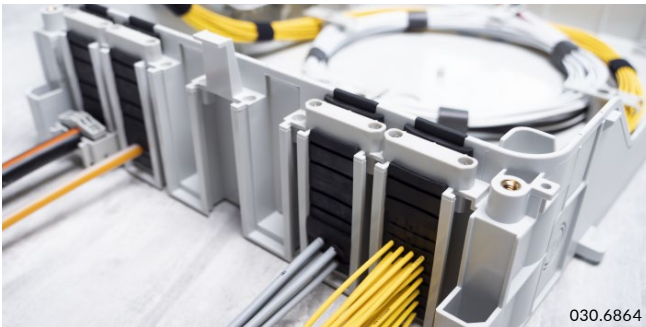Separate area for splices and connectors

3

Easy extension
Flexible break-out cable entry slots allow an expansion or extension according

installation speed

dimensions capacity

flexibility: cable entries

5
4
3
2
1
0

Polaris SCM

Polaris

splice capacity

overlength storage

flexibility: fiber management

Polaris-box 36

030.6868

Clear separation between splice and patch area guarantees optimal management of fiber connections.

030.6864

Highest flexibility for cable and tube feeding

030.6866

Protected area for up to 9 fanout splitters 1:8 on the underside of the fiber inlay.

Polaris-box 36 SCM

030.8764

Maximal splice capacity or subscriber separation.

030.8765

High fiber overlength storage.

030.8766

Safe fiber guidance for all the different fiber types.

Get more

Safety
Simple assignment of fibers and subscribers, separation between splicing, patching, and splitting applications and clear assignment of fiber paths.

Flexibility
Fast network expansion, variable assembly of 1TPU/2TPU trays up to 144 splices and 24/48 (LC) connectors.

Efficiency
Generous fiber storage, compact design, and optimal operability.

Overview
Polaris-box family

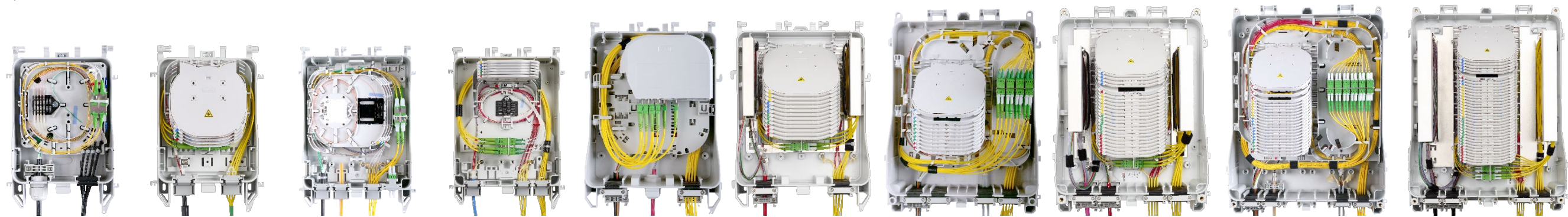|	Polaris-box 4	Polaris-box 4 SCM	Polaris-box 6	Polaris-box6 SCM	Polaris-box 16	Polaris-box 12 SCM	Polaris-box 24	Polaris-box 24 SCM	Polaris-box 36	Polaris-box 36 SCM
Protection class	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65
Nº of adapters E-2000, SC, LC-Duplex	2 or 4	2 or 4	6	6	16/24	6	24	12	36	36
Nº of splices	12...24	12...28	12...60	12...84	12...24	4...48	12...144	12...288	12...288	12...432
Nº of FMTS-30 trays	-	-	4	6 (no adapters)	-	-	12	24	24	36
Nº of FMTS compact trays	-	4	-	6	-	12	-	24	-	36
Nº of splices FMTS	-	4	4/12	4/12	-	4	4/12	4/12	4/12	4/12
Nº of cable inserts top/side	2 only side entries	2 only side entries	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Nº of cable inserts below	2	2	4	4	4	4	8	8	12	12
Main cable inserts	1 x Ø 3-13mm	1 x Ø 3-13mm	1 x Ø 3-13mm	1 x Ø 3-13mm	1 x Ø 3-16mm	1 x Ø 3-16mm	1 x Ø 3-16mm	1 x Ø 3-16mm	1 x Ø 3-16mm	1 x Ø 3-16mm
Drop cable inserts, round	12 x Ø 2-3mm	12 x Ø 2-3mm	12 x Ø 2-3mm	12 x Ø 2-3mm	16 x Ø 2-3mm	16 x Ø 2-3mm	16 x Ø 2-3mm	16 x Ø 2-3mm	16 x Ø 2-3mm	16 x Ø 2-3mm
Drop cable inserts, Butterfly	-	-	-	-	16 x 2-3mm	16 x 2-3mm	16 x 2-3mm	16 x 2-3mm	16 x 2-3mm	16 x 2-3mm
Drop cable inserts	8 x 4-5mm (IP55 only)	8 x 4-5mm (IP55 only)	8 x 4-5mm (IP55 only)	8 x 4-5mm (IP55 only)	4 x 4-5mm	4 x 4-5mm	4 x 4-5mm	4 x 4-5mm	4 x 4-5mm	4 x 4-5mm
Overlength storage	○○●	○○●	-	-	○○○●●	○○○●●	○○○●●	○○○●●	○○○○●	○○○○●
Extendibility	○○●	○○●	○○●	○○●	○○●	○○●	○○●	○○●	○○●	○○●
Splitter application	○○●	○○●	○○●	○○●	○○○○●	○○○○●	○○○○●	○○○○●	○○○○●	○○○○●
Collocation	○○○○●	○○○○●	○○○○●	○○○○●	○○○○●	○○○○●	○○○○●	○○○○●	○○○○●	○○○○●
Size	compact	compact	small	small	small / medium	small / medium	medium	medium	medium / large	medium / large

FTTX Portfolio

> « **R&M products are stable, user-friendly and of premium quality** »
>
> Felix Neukom, Head of FO, Instakom AG

Indoor FO Cable

Fast Reel Outlet Box

Buildings

Connectivity

Optical Distribution Frames

Polaris-box Family:
Outdoor & Indoor
Distribution
Termination
Building Entry Point

Mechanical Gel sealed SYNO Closures

Heat-shrink Dome Closures

Heat-shrink Dome Closure Flex

Customized Street Cabinets

Outside Plant

Raceway

3U-Modules

19" Panels

Cable Assemblies

Central Office

Connectivity that matters

R&M Cube, the company's state-of-the-art headquarters in Wetzikon, Switzerland

Network technology from R&M guarantees decisive advantages. Users experience the benefits when they install cabling systems from R&M effortlessly and when they use infrastructure solutions from R&M for generations without interruption.

High-end since 1964
R&M has been developing and manufacturing high-end connecting and distributive technology since 1964. R&M customers around the world use it to design future-proof data and communication networks for public and private applications.

Independent Swiss family company
As an independent Swiss family company, R&M is one of the world's leading suppliers of infrastructures for telecom networks, data centers, offices and building automation. R&M covers the entire range of copper-based and fiber optic connectivity. The system approach integrates support, design and turnkey concepts for sites, buildings and housings. Software for network management rounds out the portfolio.

Connecting people and businesses
Connectivity that matters represents decisive progress. With great innovation, R&M provides unlimited and reliable network infrastructure that connects people and businesses across the world. Together with certified partners, R&M carries out pioneering work.
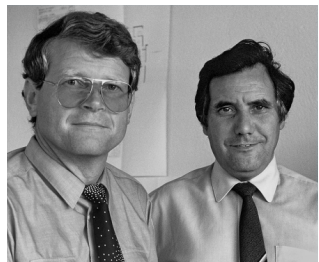
Superior performance
Clients who opt for R&M invest in sustainably reliable, scalable and migration-capable infrastructures. The result: networks with guaranteed, measurably superior performance.

Global reach
R&M tailors its product offerings and performance precisely to the needs of its customers. With 14 plants at international locations, logistics hubs, sales organizations and technical consultants, R&M remains close to its customers on every continent.

In 1964, Reichle & De-Massari AG (R&M) was founded by Hans Reichle & Renato De-Massari.

The garages and homes of the Reichle family in Wetzikon and the De-Massari family in Pfaffhausen served as offices, workshops and warehouses.

What we stand for

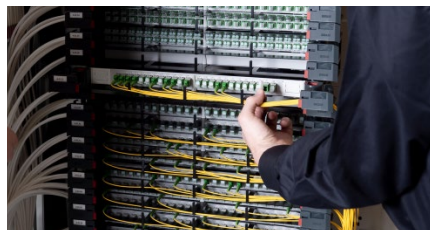|	
Quality	**Innovation**
Every bit reaches its goal	Excellent and effortless wiring
System warranty	**Protection of investment**
Lifelong commitment	Install just once and enjoy permanent use
Customer focus	**Sustainability**
Responsible experts on site	Man, nature and the market in harmony

Support that matters

Project success is determined by the network of project partners. The best data and communication networks are the result of good collaboration. That is why R&M resolutely forges close partnerships all over the world. Whether for individual projects and markets or for permanent, comprehensive commitment. Ideally, R&M starts off by advising investors, general contractors, planners, and installers on the special issues of the project. Subsequent support extends from the design to the commissioning of the network.

It includes evaluation, configuration, customizing, logistics, installation training and measurements. R&M also supports partners on site in downstream tasks such as infrastructure management. The global R&M network comprises proprietary sales offices and specialist consulting, plants, warehouses as well as certified distributors and partners. R&M products are available locally to partners and customers in more than 100 countries.

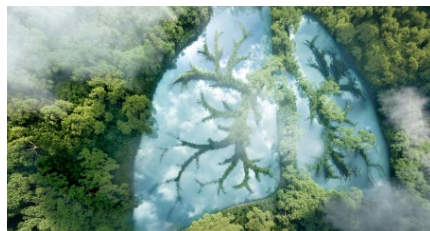
Lead: R&M makes partners insiders
Planners, project managers and installers gain practical insider knowledge in workshops and webinars. R&M provides information on technologies, solutions and standards. The participants share their experiences.

Expertise: R&M certifies professionals
Network and cabling professionals take part in the R&M Academy Qualified Partner Program (QPP). They receive exclusive certifications. QPP partners receive comprehensive technical support for their projects.

Warranty: R&M provides security
R&M assumes joint responsibility within the scope of its international warranty program. It includes a 25-year system warranty and a lifetime application warranty for fully tested cabling.

Sustainability: R&M represents values
R&M maintains the balance between economic, ecological, and social interests on the basis of exemplary ethical values. Ever since it was founded, sustainability has shaped the family business. The plan is to halve CO2 emissions by 2030, and to achieve full climate neutrality by 2050.

Success: meaningful case study publications
R&M continuously documents case studies in informative reports. The case studies developed together with partners and customers give valuable insight into network technology for interested parties around the globe.

R&M