

OmniReach™ FTTX Solutions

FDH 3000



ADC KRONE's OmniReach™ FTTX Solutions are the industry's first infrastructure solutions designed from the ground up to meet the unique requirements of FTTX networks. Designed for operational efficiency and scalability, OmniReach solutions simplify FTTX network installation, maintenance and management from the central office/headend to the outside plant.

The OmniReach FDH 3000 is designed to meet and serve the distinct needs of diverse markets and customer segments. The unique design of the FDH 3000 provides for rapid connection between fibre optic cables and passive optical splitters in the outside plant segment of the network, facilitating fast service connection and reconfiguration, simplified network installations and improved installation efficiencies in the field.

Unique Design to Meet Diverse Customer Requirements

"Installer Friendly" to support both low and high-density applications, different network system designs, and diverse installation environments

Flexible and Modular

Standardised splitter modules and accessories for all FDH 3000 cabinets

Easy to Order

Streamlined configurations simplify the ordering process

Incorporates ADC KRONE Quality and Innovation

ADC KRONE is a high quality, industry-leading brand you can rely on to future-proof your network, with a complete portfolio of FTTX products and services to ensure seamless deployment and maintenance over the life of the network

The FDH 3000 incorporates four time-tested elements that have long impacted reliability, flexibility and operational costs within the central office:

- Bend radius protection
- Intuitive cable routing
- Easy fibre/connector access
- Physical protection

TECHNICAL DATA



Technical Assistance
Europe & Middle East • +32 2 712 6542 • euro.tac@adckrone.com
United Kingdom • 0800 960236 • contactuk@adckrone.com
www.adckrone.com

Features and Benefits

Four cabinet sizes

Extra Small (24-96 fibres)
Small (72-288 fibres)
Medium (72-432 fibres)
Large (72-864 fibres)

Intelligent design

Allows for standardised splitter modules and accessories across all cabinet sizes

Unique “swing-out frame” design

Allows for easy maintenance and access to back of modules and cables

Common “Mini Plug & Play” splitter module with common output length

Allows for true plug and play functionality

Supports diverse splitter module configurations

1x32, 2x32, 1x16, dual 1x16, 1x8, dual 1x8, 1x4, dual 1x4, 1x2, dual 1x2

Installer friendly splitter module design

Easy to insert and remove without affecting adjacent splitters

Features discrete ground and cable location access

Allows for locating wires without entry into the cabinet

Extreme temperature tubing

Improved performance at high and low temperatures

Integrated slack storage spools

Allows for storage of excess fibre while providing positive bend radius control

Angled bulkhead panels

Eliminates 90° bends and assists technician with routing

Dust-cap friendly parking lot

96 terminations up to 48 parking lots;
288 terminations up to 72 parking lots;
432 terminations up to 128 parking lots;
864 terminations up to 256 parking lots

Pole mounting option

Available with small (72-288) and medium (72-432) termination models

Three-point latch

Provides weather-tight seal

Six-inch pad mount skirt

Included with all cabinets

Hand hole options

Available in polymer-concrete

NEMA-4 Design

Provides heavy duty protection from wind, rain and other contaminants

Accessible with standard 216B tool

Offers flexible security options, including pad lock provisions

Product Dimensions

Cabinet	Size (HxWxD)	Distribution Area Size	Access	Mounting Options	Splitter Slots	Cable Exit Location
Extra Small (24-96)	30" x 21" x 14" (76.20 x 52.80 x 35.3 cm)	24-96 homes	all front	ground, pole	6	bottom
Small (72-288)	30" x 27" x 18" (76.20 x 68.58 x 45.72 cm)	72-288 homes	all front	ground, pole	12	top or bottom
Medium (72-432)	41" x 27" x 18" (121.92 x 68.58 x 45.72 cm)	72-432 homes	all front	ground, pole	24	top or bottom
Large (72-864)	48" x 46" x 22" (121.92 x 116.84 x 55.88 cm)	72-864 homes	all front	ground	48	bottom

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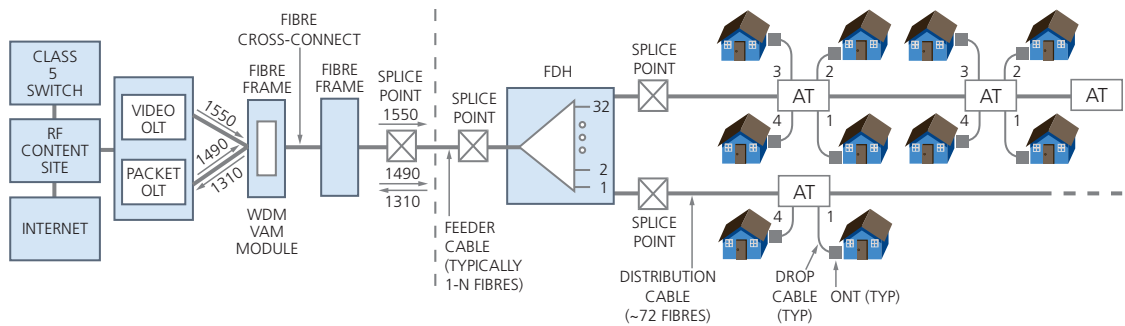


Centralised Splitting

There are two main approaches to FTTX optical splitters: centralised and cascaded. ADC KRONE recommends the centralised approach for several significant reasons.

- The centralised splitter approach maximises the highest efficiency of expensive OLT cards. Since each home in this approach is fibre-connected directly back to a central hub, there are no unused ports on the OLT card and 100% efficiency is achieved. This also allows a much wider physical distribution of the OLT ports—extremely important when initial take rates are projected to be low to moderate.
- Provides easy testing and troubleshooting access. It is very difficult to use an optical time-domain reflectometer (OTDR) to test multiple splitters unless the network is built with each fibre characterised to enable the OTDR to recognise each individual fibre run.
- Minimises signal loss by eliminating extra splices and and/or connectors from the distribution network. Each time an optical signal encounters a network component or connection, such as a splitter, it suffers a certain degree of signal loss. Therefore, when splitters are cascaded together, loss will occur at each device. The combined loss effect can reduce the distance a signal can travel, imposing distance limitations on fibre runs.
- Reducing the number of components in the network decreases the number of opportunities for failure.

Schematic Diagram of PON Architecture – Central Office to Outside Plant



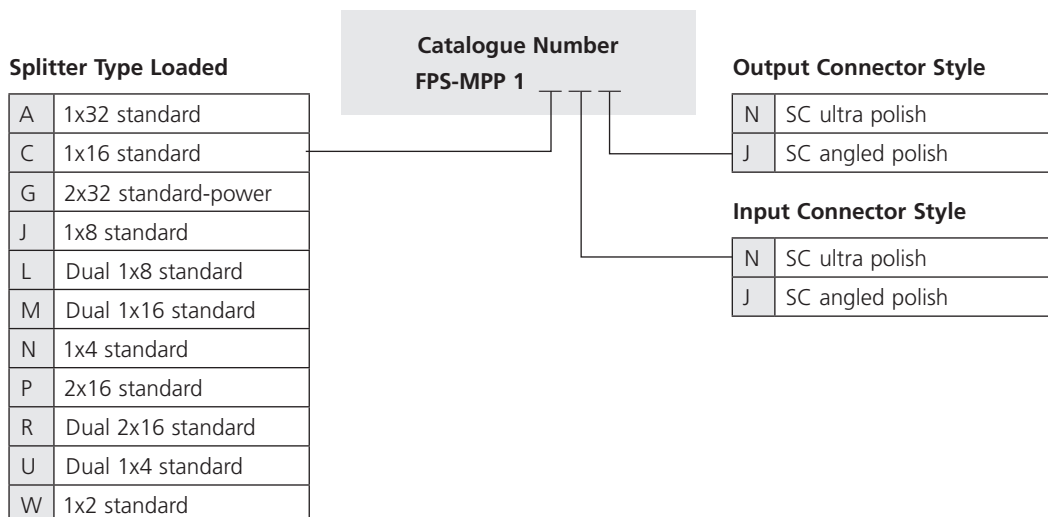
Mini Plug & Play Splitter Modules

The FDH 3000 utilises a Mini Plug & Play Splitter Module which is common to all of the cabinets and features a common output length. This module allows for true plug & play functionality.

- Standardised splitter modules for all cabinet sizes
- Features bend-optimised fibre and ruggedised extreme temperature cabling rated for material handling in cold temperatures and superior loss performance at 1490 and 1550 wavelengths
- Rated from -50° C to 140° F (60° C)
- Splitter types supported: 1x32, 2x32, 1x16, dual 1x16, 1x8, dual 1x8, 1x4, dual 1x4, 1x2, dual 1x2
- Allows pass-through of up to 2 fibres per splitter set
- Splitters are easy to insert and remove without affecting adjacent splitters
- Reversible dust cap makes test and turn-up easy



	Max Loss	Typical Loss	Uniformity	Return Loss	Directivity	PDL
Standard						
1x2	3.7 dB	3.1 dB	0.8 dB	≥55 dB	≥55 dB	0.2 dB
1x4	7.3 dB	6.2 dB	1.4 dB	≥55 dB	≥60 dB	0.4 dB
1x8	10.7 dB	9.8 dB	1.0 dB	≥55 dB	≥60 dB	0.3 dB
1x16	13.5 dB	13.2 dB	1.5 dB	≥55 dB	≥60 dB	0.3 dB
1x32	16.7 dB	16.5 dB	1.5 dB	≥55 dB	≥60 dB	0.4 dB
2x16	14.7 dB	13.0 dB	2.0 dB	≥55 dB	≥60 dB	0.4 dB
2x32	17.9 dB	16.3 dB	2.5 dB	≥55 dB	≥60 dB	0.4 dB



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Extra Small Cabinet (24-96 Fibres)

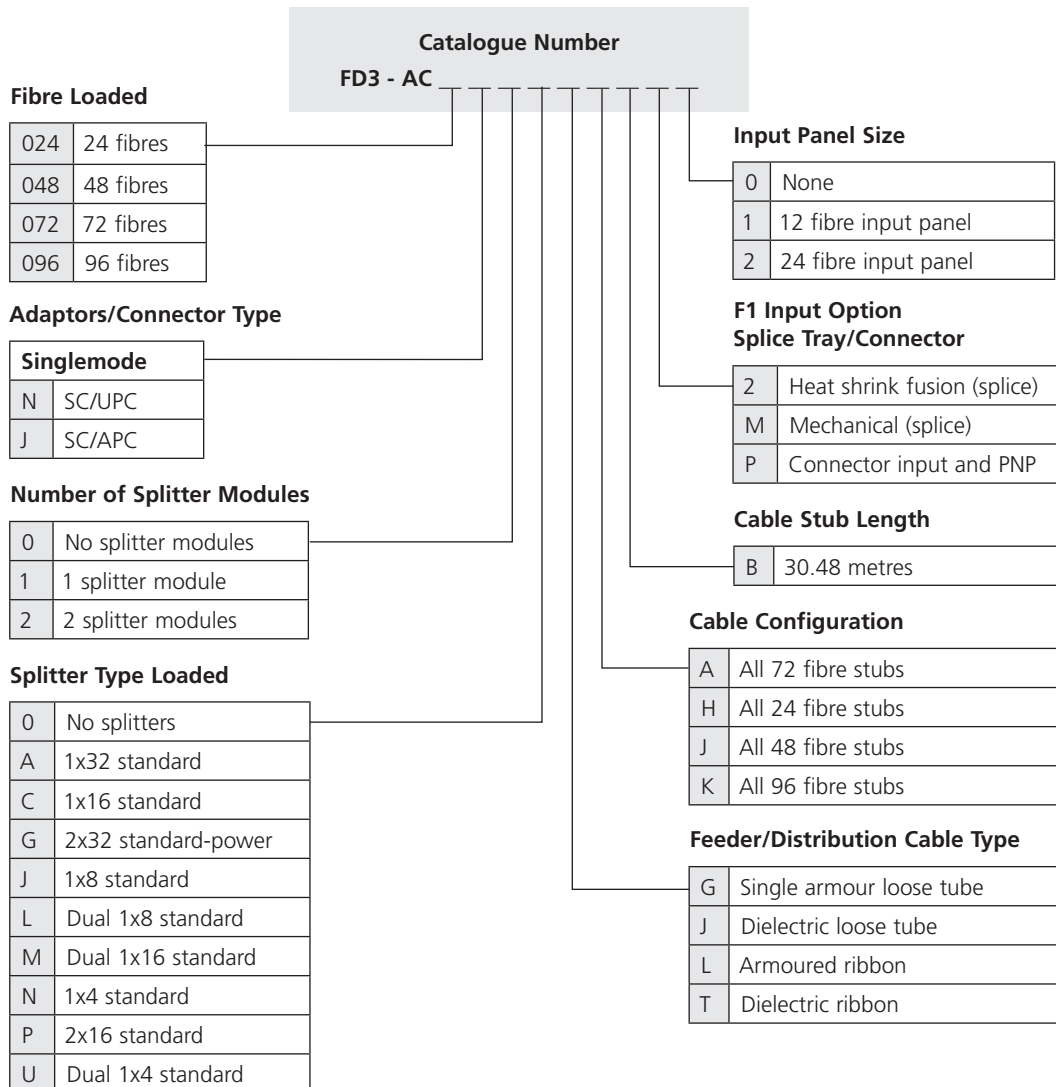
Features

- All front access
- Supports up to 96 distribution fibres
- Bottom cable exit locations

- Includes 6 splitter slots

Cabinet Dimensions: 30" (H) x 21" (W) x 14" (D)

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Small Cabinet (72-288 Fibres)

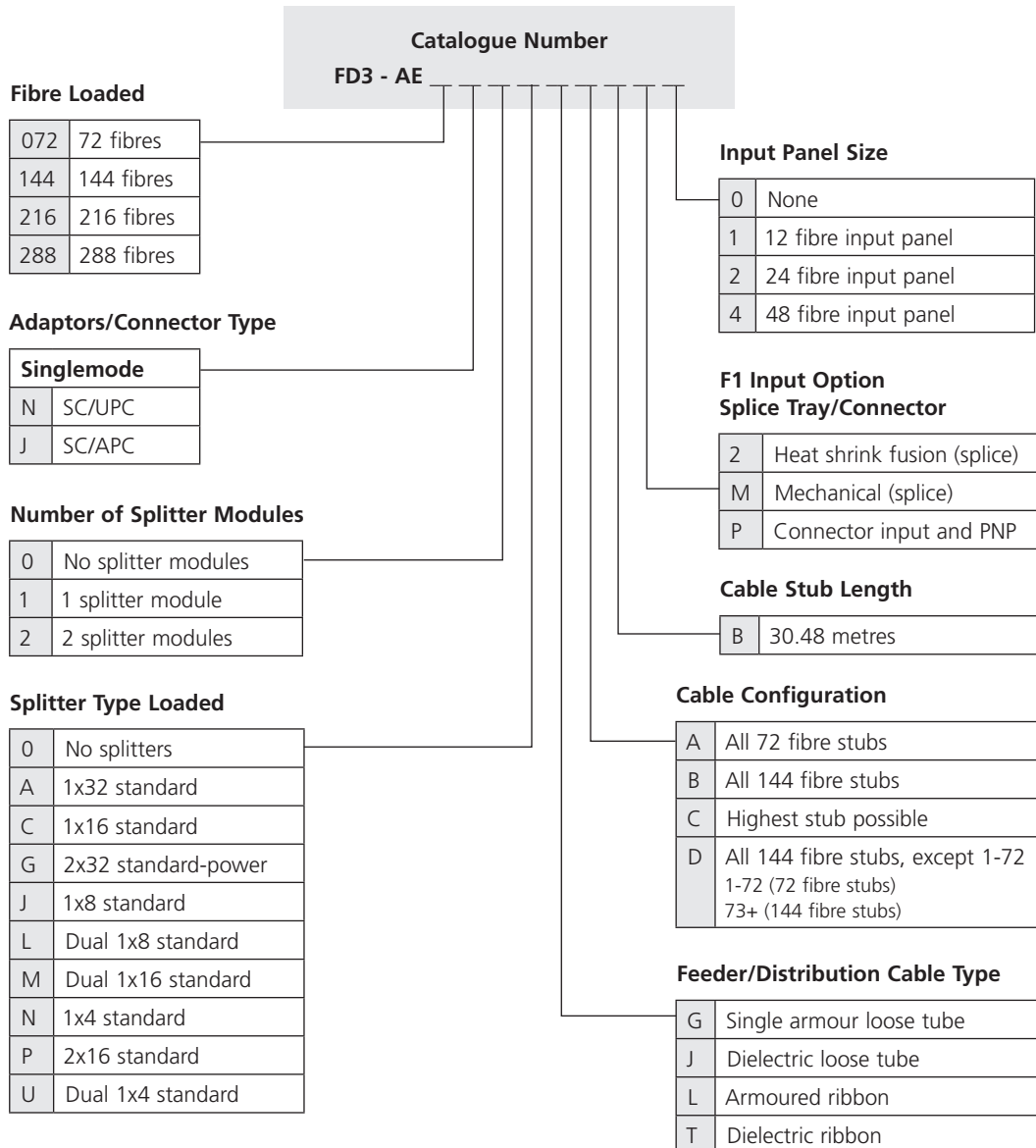
Features

- All front access
- Supports up to 288 distribution fibres
- Top or bottom cable exit locations

- Includes 12 splitter slots

Cabinet Dimensions: 30" (H) x 27" (W) x 18" (D)

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Medium Cabinet (72-432 Fibres)

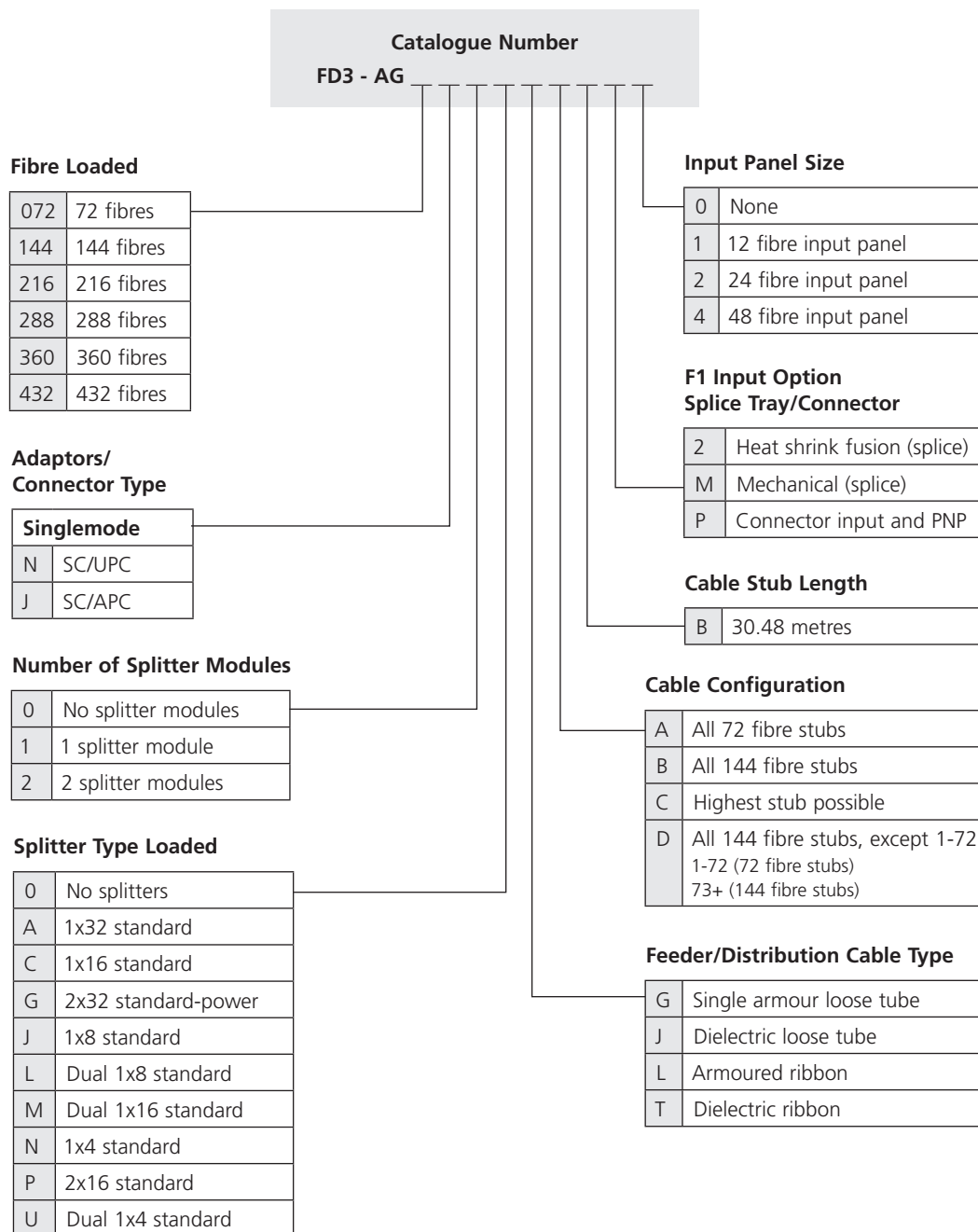
Features

- All front access
- Supports up to 432 distribution fibres
- Top or bottom cable exit locations

- Includes 24 splitter slots

Cabinet Dimensions: 41" (H) x 27" (W) x 18" (D)

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Large Cabinet (72-864 Fibres)

Features

- All front access
- Available with pre-terminated OSP cable
- Supports up to 864 distribution fibres

- Bottom cable exit locations

- Includes 48 splitter slots

Cabinet Dimensions: 48" (H) x 46" (W) x 22" (D)

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Fibre Loaded

072	72 fibres
144	144 fibres
216	216 fibres
288	288 fibres
360	360 fibres
432	432 fibres
504	504 fibres
576	576 fibres
648	648 fibres
720	720 fibres
792	792 fibres
864	864 fibres

Adaptors/ Connector Type

Singlemode	
N	SC/UPC
J	SC/APC

Number of Splitter Modules

0	No splitter modules
1	1 splitter module
2	2 splitter modules

Splitter Type Loaded

0	No splitters
A	1x32 standard
C	1x16 standard
G	2x32 standard-power
J	1x8 standard
L	Dual 1x8 standard
M	Dual 1x16 standard
N	1x4 standard
P	2x16 standard
U	Dual 1x4 standard

Catalogue Number

FD3 - AJ

Input Panel Size

0	None
1	12 fibre input panel
2	24 fibre input panel
4	48 fibre input panel
7	72 fibre input panel

F1 Input Option Splice Tray/Connector

2	Heat shrink fusion (splice)
M	Mechanical (splice)
P	Connector input and PNP

Cable Stub Length

B	30.48 metres
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Cable Configuration

A	All 72 fibre stubs
B	All 144 fibre stubs
C	Highest stub possible
D	All 144 fibre stubs, except 1-72 1-72 (72 fibre stubs) 73+ (144 fibre stubs)

Feeder/Distribution Cable Type

G	Single armour loose tube
J	Dielectric loose tube
L	Armoured ribbon
T	Dielectric ribbon

216 Tools – Can Wrench Keys

Ordering Information

Description	Catalogue Number
Nickel plated brass can wrench key For use in loosening/tightening security screws	OSP-216BKEY1
Aluminum can wrench key For use in loosening/tightening security screws	OSP-216BKEY2
Plastic can wrench key For use in loosening/tightening security screws	OSP-216BKEY3

Cleaning Kits

Ordering Information

Description	Catalogue Number
Alcohol cleaning kit for cabinet connector and faces	FPC-CLNKIT1

Risers

Note: All FDH 3000 cabinets ship with one riser.

Ordering Information

Description	Catalogue Number
6" ground spacer/riser for extra small (24-96 fibres) cabinets Raises cabinet and additional 6"	FD3-RSRC06
6" ground spacer/riser for small (72-288 fibres) and medium (72-432 fibres) cabinets Raises cabinet an additional 6"	FD3-RSRE06
6" ground spacer/riser for large (72-864 fibres) cabinets Raises cabinet an additional 6"	FD3-RSRJ06

Hand Hole Kits

Ordering Information

Description	Catalogue Number
Hand Hole and cover kit for extra small (24-96 fibres) cabinets	FMS-FD3C-KIT-A
Hand Hole and cover kit for small (72-288 fibres) and medium (72-432 fibres) cabinets	FMS-ACE100-KIT-A
Hand Hole and cover kit for large (72-864 fibres) cabinets	FMS-FD3J-KIT-A

Pad Mount Frames

Ordering Information

Description	Catalogue Number
Extra small (24-96 fibres) pad mount frame	FD3-PMFC06
Small (72-288 fibres) and medium (72-432 fibres) pad mount frame	FD3-PMFE06
Large (72-864 fibres) pad mount frame	FD3-PMFJ06

TECHNICAL DATA



Web Site: www.adckrone.com

EMEA Office: ADC GmbH, Beeskowdamm, 3-11, 14167 Berlin, Germany • Phone: +49 30 8453-1818 Fax: +49 30 8453-1703. For a listing of all ADC KRONE's global sales office locations, please refer to our web site.

UK Office: ADC Communications (UK) Ltd., Runnings Road, Kingsditch Trading Estate, Cheltenham, Gloucestershire GL51 9NQ, United Kingdom • Phone: +44 (0) 1242 264 400 Fax: +44 (0) 1242 264 488 contactuk@adckrone.com

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