

# Fiber optic

## Reliable and future proof

More than 80% of all errors in networks and fiber optic networks are caused by failures related to cabling. Businesses that depend on excellent network performance invest in the best brands and products of active equipment like switches, servers and routers but often overlook the part that makes the biggest difference, the cabling. Customers choose for ACT cables and cabling solutions because our products are reliable and future proof. ACT cables and components meet and exceed international standards by using grade A fiber and fiber optic connectors. Premium materials are used and all our products have 100% quality control.

## Consistent low loss

In fiber optic networks it's important that all the light from the source reaches the end of the link. By using ACT cables you are ensured of a consistent low loss.

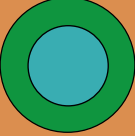
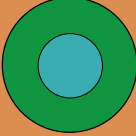
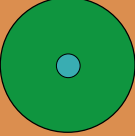
## Upgrade to 40-400Gb

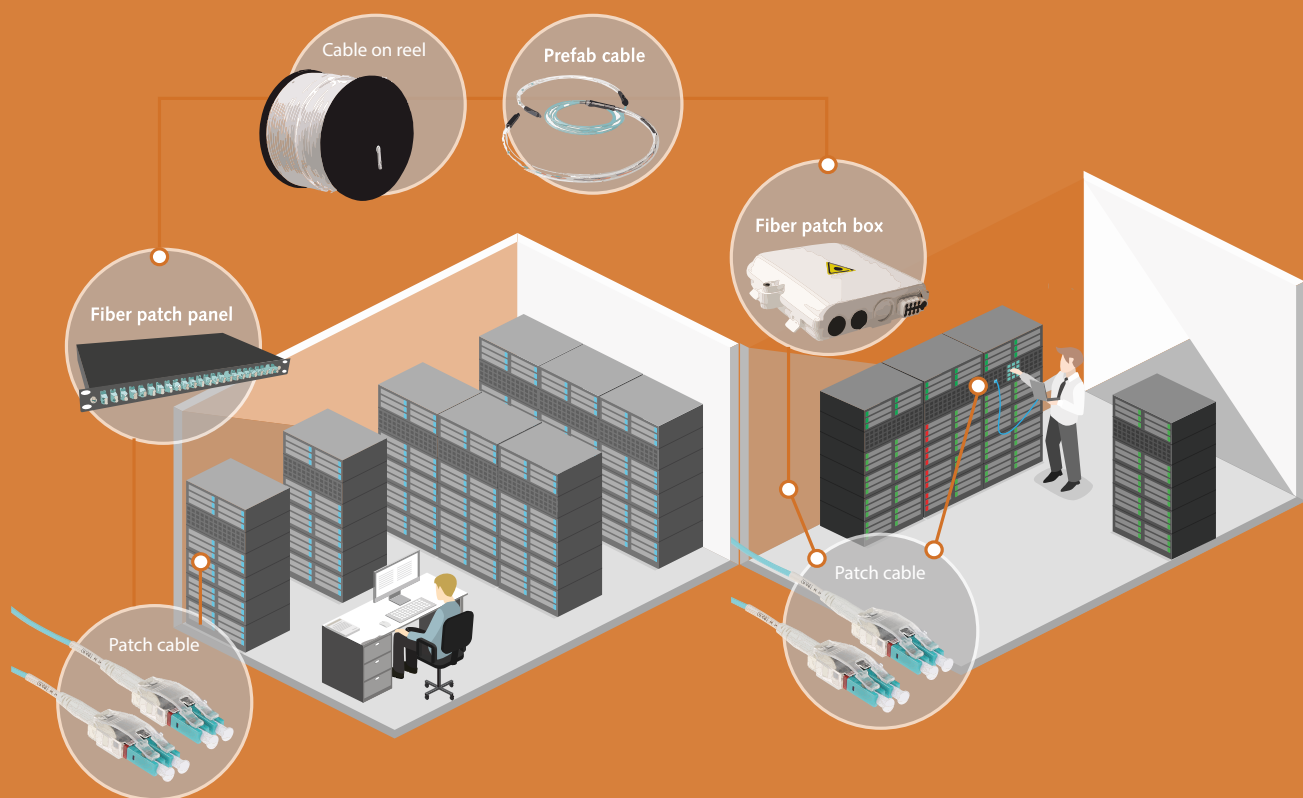
ACT fiber optic cables ensure low loss in networks. This makes it possible to upgrade 1Gb or 10Gb to 40-100Gb (this depends on distance and chosen fiber type).

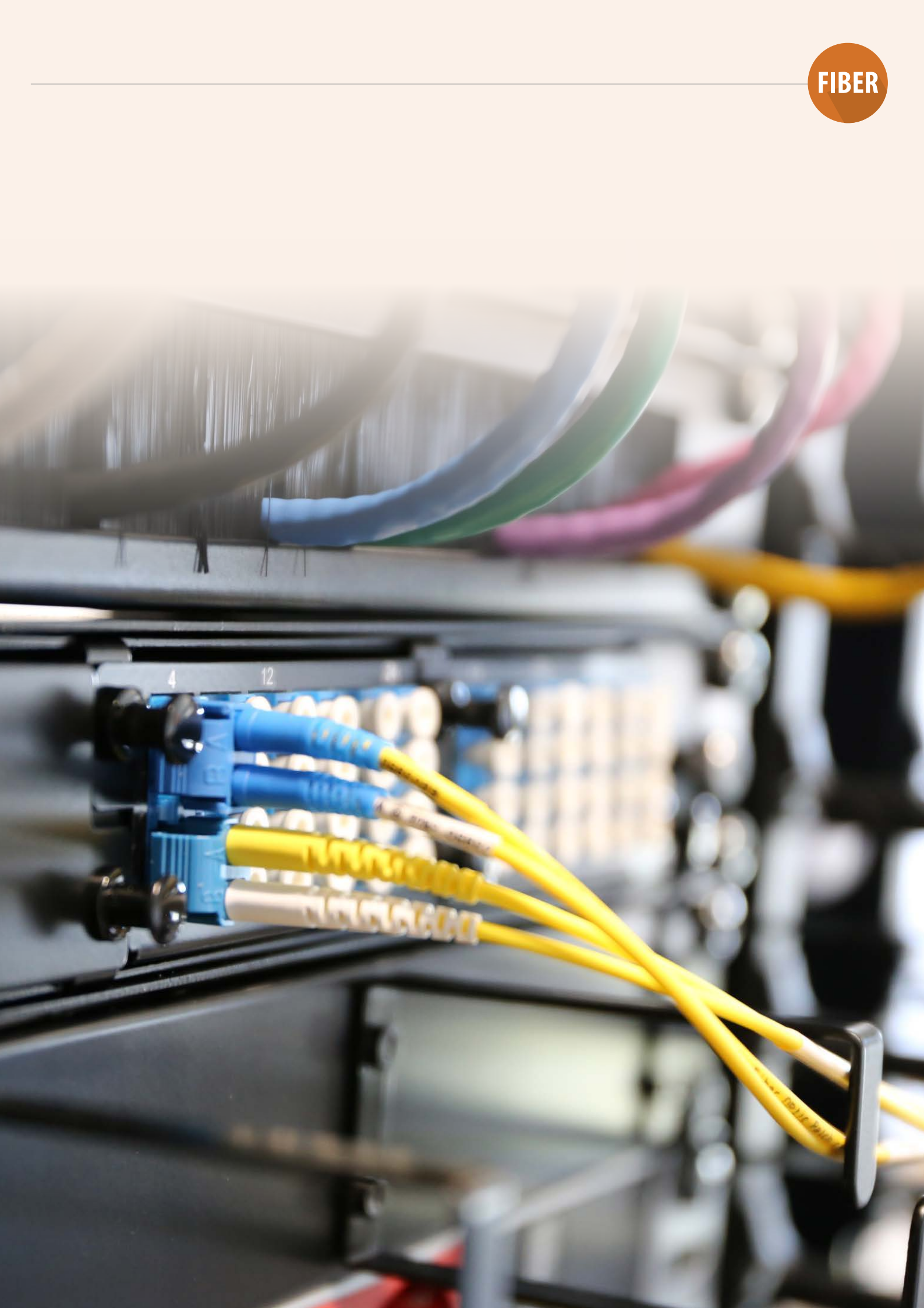
## Individual test report and third party testing facilities

All of our cables are individually tested and have an individual test report so you know every part of your network is tested and can be accounted for.

Besides our own individual testing of fiber optic cables we do provide samples to third party testing facilities who perform their own testing as a double check.

Types of fiber and distances:						
Fiber Optic type	OM1	OM2	OM3	OM4	OM5	OS2
	Multimode					Singlemode
	62,5/125µm	50/125µm				9/125µm
Structuur						
Distance	2000 m	550 m	300 m	400 m	440 - 150 m	10 Km
Used for	10/100 Mb/s	1 Gb/s	10 Gb/s	10 Gb/s	40-400 Gb/s	*
* Maximum length is related to the best suitable speed and depends on the transceiver.						





# ACT Fiber Kit

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## ACT Fiber Kit: pre-terminated fiber optic cables and patch cables custom made and labeled

Would you also like to save time by faster installation of pre-terminated fiber optic cables and patch cables in a data center? Less chance of errors when installing pre-terminated fiber optic cables and patch cables in a data center because all products are packed per corridor?

To help you we have developed an ACT Fiber Kit: pre-terminated fiber optic cables, MTP / MPO cables and patch cables custom made and ready for use.

### What is ACT Fiber Kit?

ACT Fiber Kit consists of multiple cables that are custom made and labeled for you. These can be patch cables but also MTP/MPO cabling or pre-terminated cabling. We make it extra convenient with the possibility to pack per corridor / aisle.

You can choose to have each cable packaged individually or with multiple cables at once for less waste and unpacking time during installation. ACT Fiber Kit is a turnkey tailor-made solution: pre-terminated fiber optic cables, MTP / MPO cables and patch cables custom made and ready for use.

### Why we offer it?

The ACT Fiber Kit not only ensures easy installation, but also provides significant cost savings. You save by faster installation and do not need to invest in special equipment such as a label printer and expertise.

### Where is it applied?

ACT Fiber Kit is suitable for use in a datacenter, server room or PoP and has been developed to relieve datacenter professionals





### Why choose ACT Fiber Kit?

✓ **Time saving**

You save installation time with our turnkey solution.

✓ **Cost savings**

The reduction in installation time also saves labour costs. You don't need to invest in a label printer and expertise.

✓ **Better organised**

ACT Fiber Kit consists of coded (labeled) cables. By using labeled cabling, your cabling is better organised and faults can be traced and resolved faster.

✓ **Exactly the right length**

No more bothering with excess cabling that you have to find a place for in precious space. Cables are made to measure, exactly the length needed.





Use ACT Fiber optic cleaners for the best performance

In order to get the best performance out of our fiber optic network we advise to always clean the ferrule tips of the connectors. Cleaning fibers is essential for an optimal connection as dirt can block the path of light and damages connectors and equipment. With the increase in network speeds we see that the cleaning of fibers is essential in order to prevent failures and degraded performances.

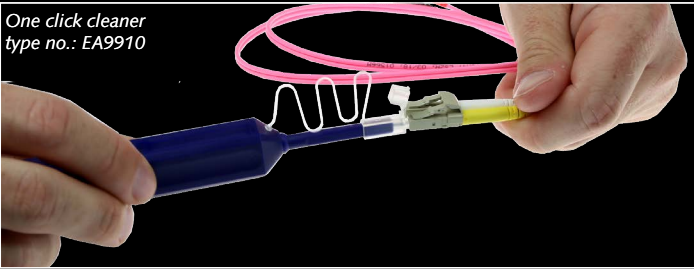
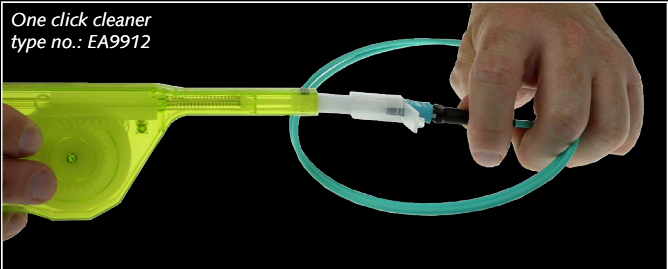
The greatest cause of link failures are issues with connector contamination. This is reported by 98% of installers and 80% of network owners in a study by NTT-Advanced Technology. Cleaning a fiber reduces the chance of contaminating another optical interface or expensive fiber optic equipment.

Cleaners for fiber cables

ACT advises to inspect and clean all connectors before they are plugged into connectors or equipment, this also applies to new cables. It is not necessary to periodically clean connectors that are already mated.

We offer two kind of ACT cleaners for fiber cables, a reel cleaner and one click cleaner. The advantage of a reel cleaner is the possibility to clean connectors with different ferrule sizes. The advantage of a one click cleaner is the possibility to clean both connectors and bulkheads (adapters). They are easy to use, minimizing the risk of clean mistakes.

By cleaning fiber connectors the transceivers will not get dirty either. When they do, we advise to use cleaning sticks. Cleaning sticks have the lowest chance of damaging your equipment.



Fiber optic cleaners			
Type no.	LC/MU	SC/ST/FC/E2000	MPO/MT
One click cleaner	EA9910	EA9911	EA9912
Cleaning sticks	EA9904	EA9905	
Reel Cleaner	EA9901	EA9901	EA9901
Spare reel	EA9902	EA9902	EA9902

ACT fiber optics installation cable - delivered from stock

ACT Installation Cable’s product range consists of fiber optic cables in different lengths (per meter), fiber types and number of fibers. We have these cables in stock and therefore can deliver the next day.

characteristics

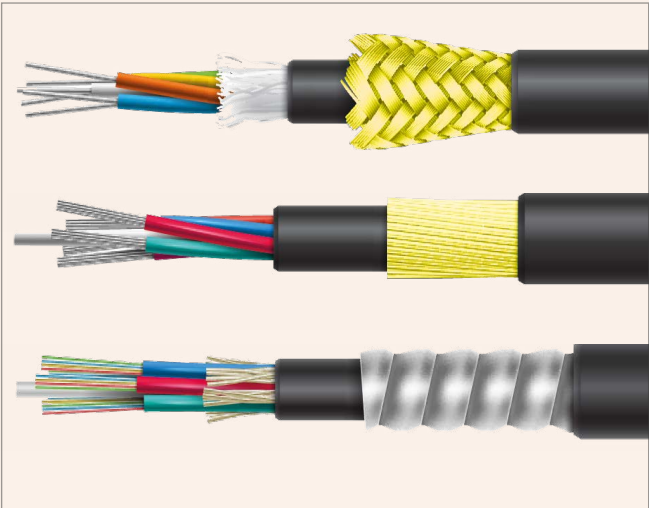
- Fiber optic installation cable in the desired length (per meter), fiber type and number of fibers.
- Suitable for indoor and outdoor use.
- Suitable for horizontal and vertical installation.
- Meets one of the highest CPR fire classes: Cca.
- Cable provides mechanical protection against external influences.

Tailor-made cabling

Permanent cabling, also called installation cable, comes in different types, different lengths and is usually delivered on a roll, therefore it is also called cable on a roll.

In addition to our stock of installation cable, ACT specializes in custom cabling solutions. Almost anything is possible in the field of fiber optic installation cabling.

Please contact our sales department for your requirements.





Flexible



Halogen free



Flame retardant



Rodent protected



Moisture protected



Low smoke emission



Ultraviolet resistance



Low friction



water tight



Totally dielectric




CPR regulation

We have these cables in stock and therefore we can ship out the same day.

ACT


Fiber optic installation cable (in the length you specify)



Colour	Fiber	CPR level	DoP	OM3	OS2
Black	6	Cca	0370-3935	<a href="#">RL4051</a>	<a href="#">RL4011</a>
Black	12	Cca	0370-3935	<a href="#">RL4052</a>	<a href="#">RL4012</a>
Black	24	Cca	0370-3935	<a href="#">RL4053</a>	<a href="#">RL4013</a>

ACT

Pigtails



Connector	LC				SC
Type	1m / 1pcs	1m / 12pcs	2m / 1pcs	2m / 12pcs	1m / 1pcs
OM3	<a href="#">RL9695</a>	<a href="#">RL9680</a>			<a href="#">RL8695</a>
OM4	<a href="#">RL8795</a>	<a href="#">RL3780</a>			<a href="#">RL8795</a>
OS2	<a href="#">RL9995</a>	<a href="#">RL9980</a>	<a href="#">RL9996</a>	<a href="#">RL9982</a>	<a href="#">RL8995</a>



With pre-terminated cables you can easily and quickly install a fiber optic network. There are a number of points to be aware of when installing pre-terminated cables. In this article we explain the most important ones.

### Structure of a pre-terminated cable

A pre-terminated cable is actually a cable assembly, a combination of different cables and connectors into one assembled ready-to-use product. A fiber optic pre-terminated cable nearly almost always contains multiple fibers.

A pre-terminated cable usually consists of the following parts:

- Installation cable: a robust installation cable that is suitable for bridging longer distances and offers good protection against external influences.
- Fanout kit: the transition from the installation cable to the fanout cables.
- Cable gland: is in some cases attached on the fanout kit and aims to fix the cable to, for example, a patch panel or fiber box.
- Fanout cables: are multiple small diameter cables with a fiber optic connector at the end.

### Achieving the right length

In order to calculate the correct pre-terminated cable length, it is essential to consider the following things:

*Straight line distance:* The distance between the two points you want to connect without considering any obstacles.

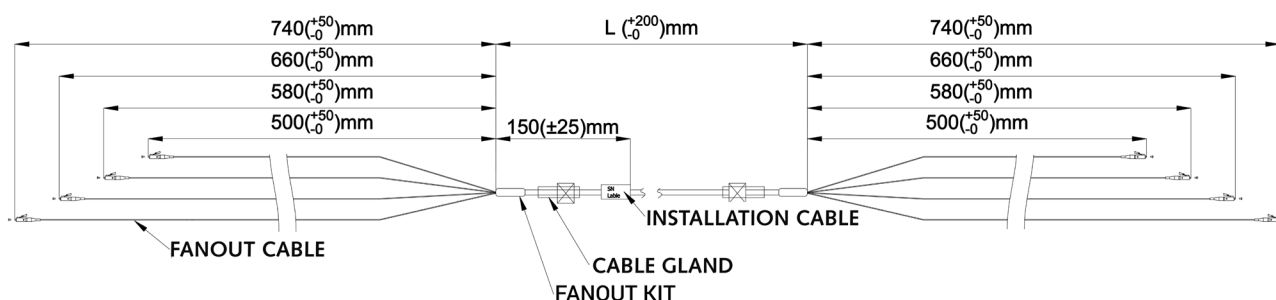
*Horizontal distance:* Usually you cannot move your cable from point a to point b without having to lay the cable around objects. Keep in mind that in datacenters, for example, cables are usually routed through a cable duct / fiber raceway.

*Vertical distance:* It is also important to consider the vertical distance. If the cable has to come out halfway through a 19" cabinet, it is important to count the distance from halfway through the cabinet to the cable duct (which may be in the ceiling or in the floor).

We recommend that you always choose a slightly longer cable than is calculated. Often there is an additional obstacle that has not been taken into account beforehand. Short over lengths are easy to eliminate. If a cable is too short it cannot be extended.

In that case an extra cable has to be connected and this causes an extra transition and optical losses.

*Note: Is the length of the cable specified? This refers only to the installation cable and not to the fanout kit and the fanout cables. For more info, see the technical drawing below.*



# Installing a pre-terminated cable

FIBER

## Protect the fanout cables and connectors

When installing a pre-terminated cable, it is important to protect the fanout cables and connectors. These are the most vulnerable parts that can be damaged without protection. We advise to use a protective conduit during installation. The protection conduit can be removed after installation. ACT pre-terminated cables are standard equipped with a protection conduit on both sides of the cable for optimal protection.

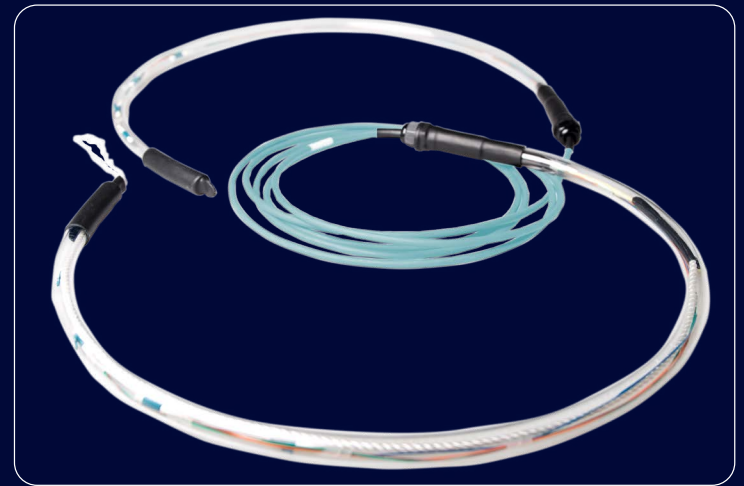
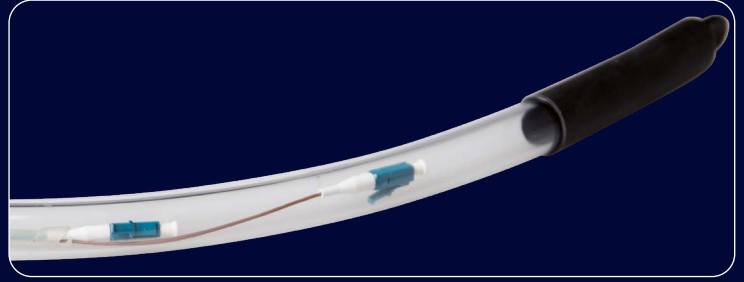
## Preferred installation

We recommend to lay the cable when possible and if installing is not an option then pull the cable. The fibers in a fiber optic cable can be damaged by pulling. Fiber optic cables are designed to withstand tensile load so that the fiber remains protected, this is called strain relief. It is important to strain within the specifications of the cable.

This maximum specified tensile load of a cable applies to the installation cable but not to the fanout cables. Of these, the tensile load is much smaller. To solve this, ACT pre-terminated cables are equipped with a pulling rope on one side at the end of the protection conduit. If this is pulled, the tensile load is placed on the installation cable and not on the fanout cables.

## Conduit for outdoor use

Pre-terminated cables are also suitable for outdoor use. Please note that most variants are not suitable for direct burial without any form of protection. The influences from outside are much greater than with indoor use, especially rodents. For this reason, when using pre-terminated cables outside, a conduit is required. An exception to this are pre-terminated cables with an armoured outer jacket, which offer sufficient protection against external influences because of the armoring.





## Pre-terminated cables - a do it yourself solution

Pre-terminated cables are used by the following target audiences:

- Network installers that are not specialized in termination of fiber optics.
- System integrators.
- Data center.

**By using pre-terminated cables you have the following advantages:**

- Connectors are terminated and tested in a clean room production environment.
- Cables come with individual test reports on insertion loss.
- No need to investment in equipment for splicing or testing.
- Up to 80% less installation time (compared to terminating your own connectors).
- Connectors are protected by protective tubing during installation.

### Stock assortment

We have a stock of pre-terminated cables in lengths from 10 up to 300 meters in both OM3 and OS2. These are Loose tube indoor / outdoor cables with 4 or 8 fibers. All other types will be custom made with very short lead-time.

Our experts are available to help you choose the best option for your case.



### ACT 4 Fibers pre-terminated indoor/outdoor cables OS2, with LC connectors



Colour	10m	20m	30m	40m	50m	60m	70m	80m	90m	100m
Yellow	<a href="#">RL2301</a>	<a href="#">RL2302</a>	<a href="#">RL2303</a>	<a href="#">RL2304</a>	<a href="#">RL2305</a>	<a href="#">RL2306</a>	<a href="#">RL2307</a>	<a href="#">RL2308</a>	<a href="#">RL2309</a>	<a href="#">RL2310</a>
	110m	120m	130m	140m	150m	160m	170m	180m	190m	200m
Yellow	<a href="#">RL2311</a>	<a href="#">RL2312</a>	<a href="#">RL2313</a>	<a href="#">RL2314</a>	<a href="#">RL2315</a>	<a href="#">RL2316</a>	<a href="#">RL2317</a>	<a href="#">RL2318</a>	<a href="#">RL2319</a>	<a href="#">RL2320</a>
	210m	220m	230m	240m	250m	260m	270m	280m	290m	300m
Yellow	<a href="#">RL2321</a>	<a href="#">RL2322</a>	<a href="#">RL2323</a>	<a href="#">RL2324</a>	<a href="#">RL2325</a>	<a href="#">RL2326</a>	<a href="#">RL2327</a>	<a href="#">RL2328</a>	<a href="#">RL2329</a>	<a href="#">RL2330</a>

### ACT 4 Fibers pre-terminated indoor/outdoor cables OM3, with LC connectors



Colour	10m	20m	30m	40m	50m	60m	70m	80m	90m	100m
Aqua	<a href="#">RL2401</a>	<a href="#">RL2402</a>	<a href="#">RL2403</a>	<a href="#">RL2404</a>	<a href="#">RL2405</a>	<a href="#">RL2406</a>	<a href="#">RL2407</a>	<a href="#">RL2408</a>	<a href="#">RL2409</a>	<a href="#">RL2410</a>
	110m	120m	130m	140m	150m	160m	170m	180m	190m	200m
Aqua	<a href="#">RL2411</a>	<a href="#">RL2412</a>	<a href="#">RL2413</a>	<a href="#">RL2414</a>	<a href="#">RL2415</a>	<a href="#">RL2416</a>	<a href="#">RL2417</a>	<a href="#">RL2418</a>	<a href="#">RL2419</a>	<a href="#">RL2420</a>
	210m	220m	230m	240m	250m	260m	270m	280m	290m	300m
Aqua	<a href="#">RL2421</a>	<a href="#">RL2422</a>	<a href="#">RL2423</a>	<a href="#">RL2424</a>	<a href="#">RL2425</a>	<a href="#">RL2426</a>	<a href="#">RL2427</a>	<a href="#">RL2428</a>	<a href="#">RL2429</a>	<a href="#">RL2430</a>

### ACT 8 Fibers pre-terminated indoor/outdoor cables OS2, with LC connectors



Colour	10m	20m	30m	40m	50m	60m	70m	80m	90m	100m
Yellow	<a href="#">RL4101</a>	<a href="#">RL4102</a>	<a href="#">RL4103</a>	<a href="#">RL4104</a>	<a href="#">RL4105</a>	<a href="#">RL4106</a>	<a href="#">RL4107</a>	<a href="#">RL4108</a>	<a href="#">RL4109</a>	<a href="#">RL4110</a>
	110m	120m	130m	140m	150m	160m	170m	180m	190m	200m
Yellow	<a href="#">RL4111</a>	<a href="#">RL4112</a>	<a href="#">RL4113</a>	<a href="#">RL4114</a>	<a href="#">RL4115</a>	<a href="#">RL4116</a>	<a href="#">RL4117</a>	<a href="#">RL4118</a>	<a href="#">RL4119</a>	<a href="#">RL4120</a>
	210m	220m	230m	240m	250m	260m	270m	280m	290m	300m
Yellow	<a href="#">RL4121</a>	<a href="#">RL4122</a>	<a href="#">RL4123</a>	<a href="#">RL4124</a>	<a href="#">RL4125</a>	<a href="#">RL4126</a>	<a href="#">RL4127</a>	<a href="#">RL4128</a>	<a href="#">RL4129</a>	<a href="#">RL4130</a>

### ACT 8 Fibers pre-terminated indoor/outdoor cables OM3, with LC connectors



Colour	10m	20m	30m	40m	50m	60m	70m	80m	90m	100m
Aqua	<a href="#">RL4201</a>	<a href="#">RL4202</a>	<a href="#">RL4203</a>	<a href="#">RL4204</a>	<a href="#">RL4205</a>	<a href="#">RL4206</a>	<a href="#">RL4207</a>	<a href="#">RL4208</a>	<a href="#">RL4209</a>	<a href="#">RL4210</a>
	110m	120m	130m	140m	150m	160m	170m	180m	190m	200m
Aqua	<a href="#">RL4211</a>	<a href="#">RL4212</a>	<a href="#">RL4213</a>	<a href="#">RL4214</a>	<a href="#">RL4215</a>	<a href="#">RL4216</a>	<a href="#">RL4217</a>	<a href="#">RL4218</a>	<a href="#">RL4219</a>	<a href="#">RL4220</a>
	210m	220m	230m	240m	250m	260m	270m	280m	290m	300m
Aqua	<a href="#">RL4221</a>	<a href="#">RL4222</a>	<a href="#">RL4223</a>	<a href="#">RL4224</a>	<a href="#">RL4225</a>	<a href="#">RL4226</a>	<a href="#">RL4227</a>	<a href="#">RL4228</a>	<a href="#">RL4229</a>	<a href="#">RL4230</a>

## Pre-terminated cables – minimize installation time and labor in your datacenter or server room

For fast and easy installation of installation and backbone cabling in your datacenter choose ACT pre-terminated cabling

### ACT for all your MAC (Moves Adds and Changes)

Unique is that ACT keeps stock of pre-terminated fiber cabling.

For you this means you can start directly if you want to change or expand your backbone cabling.

### Cabling on stock

We have stock in Singlemode and Multimode cabling with 24 fibers and LC connectors lengths up to 100 meters. These are ultra-compact cables with uniboot connectors for the smallest possible fanout.

The most requested lengths are also available in MTP / MPO trunk cables up to 100 meters.

This range includes cables with 1,2 or 4 MTP / MPO connectors per side in both polarity A as B in Multimode.



### ACT 24 fibers pre-terminated OS2 indoor, with LC polarity twist connectors



Colour	3m	5m	10m	15m	20m	25m	30m	35m	40m	45m	50m	60m	70m	80m	90m	100m
Yellow	<a href="#">DC5550</a>	<a href="#">DC5551</a>	<a href="#">DC5552</a>	<a href="#">DC5553</a>	<a href="#">DC5554</a>	<a href="#">DC5555</a>	<a href="#">DC5556</a>	<a href="#">DC5557</a>	<a href="#">DC5558</a>	<a href="#">DC5559</a>	<a href="#">DC5560</a>	<a href="#">DC5561</a>	<a href="#">DC5562</a>	<a href="#">DC5563</a>	<a href="#">DC5564</a>	<a href="#">DC5565</a>

### ACT 24 fibers pre-terminated OM4 (OM3) indoor, with LC polarity twist connectors



Colour	3m	5m	10m	15m	20m	25m	30m	35m	40m	45m	50m	60m	70m	80m	90m	100m
Erika violet	<a href="#">DC5500</a>	<a href="#">DC5501</a>	<a href="#">DC5502</a>	<a href="#">DC5503</a>	<a href="#">DC5504</a>	<a href="#">DC5505</a>	<a href="#">DC5506</a>	<a href="#">DC5507</a>	<a href="#">DC5508</a>	<a href="#">DC5509</a>	<a href="#">DC5510</a>	<a href="#">DC5511</a>	<a href="#">DC5512</a>	<a href="#">DC5513</a>	<a href="#">DC5514</a>	<a href="#">DC5515</a>

### ACT 1x 12 fibers trunkcable OM4 (OM3), with 1x MTP/MPO connector each side



Colour	25m	30m	35m	40m	45m	50m	60m	70m	80m	90m	100m
Polarity A											
Erika violet	<a href="#">DC5000</a>	<a href="#">DC5001</a>	<a href="#">DC5002</a>	<a href="#">DC5003</a>	<a href="#">DC5004</a>	<a href="#">DC5005</a>	<a href="#">DC5006</a>	<a href="#">DC5007</a>	<a href="#">DC5008</a>	<a href="#">DC5009</a>	<a href="#">DC5010</a>
Polarity B											
Erika violet	<a href="#">DC5020</a>	<a href="#">DC5021</a>	<a href="#">DC5022</a>	<a href="#">DC5023</a>	<a href="#">DC5024</a>	<a href="#">DC5025</a>	<a href="#">DC5026</a>	<a href="#">DC5027</a>	<a href="#">DC5028</a>	<a href="#">DC5029</a>	<a href="#">DC5030</a>

### ACT 2x 12 fibers trunkcable OM4 (OM3), with 2x MTP/MPO connectors each side



Colour	5m	7m	10m	12m	15m	20m	25m	30m	35m	40m	45m	50m	60m	70m	80m	90m	100m
Polarity A																	
Erika violet	<a href="#">DC5200</a>	<a href="#">DC5201</a>	<a href="#">DC5202</a>	<a href="#">DC5203</a>	<a href="#">DC5204</a>	<a href="#">DC5205</a>	<a href="#">DC5206</a>	<a href="#">DC5207</a>	<a href="#">DC5208</a>	<a href="#">DC5209</a>	<a href="#">DC5210</a>	<a href="#">DC5211</a>	<a href="#">DC5212</a>	<a href="#">DC5213</a>	<a href="#">DC5214</a>	<a href="#">DC5215</a>	<a href="#">DC5216</a>
Polarity B																	
Erika violet	<a href="#">DC5250</a>	<a href="#">DC5251</a>	<a href="#">DC5252</a>	<a href="#">DC5253</a>	<a href="#">DC5254</a>	<a href="#">DC5255</a>	<a href="#">DC5256</a>	<a href="#">DC5257</a>	<a href="#">DC5258</a>	<a href="#">DC5259</a>	<a href="#">DC5260</a>	<a href="#">DC5261</a>	<a href="#">DC5262</a>	<a href="#">DC5263</a>	<a href="#">DC5264</a>	<a href="#">DC5265</a>	<a href="#">DC5266</a>

### ACT 4x 12 fibers trunkcable OM4 (OM3), with 4x MTP/MPO connectors each side



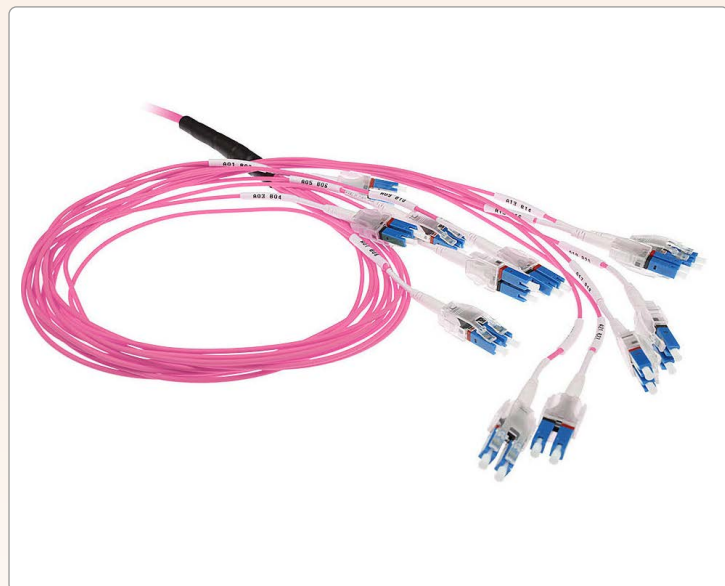
Colour	5m	7m	10m	12m	15m	20m	25m	30m	35m	40m	45m	50m	60m	70m	80m	90m	100m
Polarity A																	
Erika violet	<a href="#">DC5400</a>	<a href="#">DC5401</a>	<a href="#">DC5402</a>	<a href="#">DC5403</a>	<a href="#">DC5404</a>	<a href="#">DC5405</a>	<a href="#">DC5406</a>	<a href="#">DC5407</a>	<a href="#">DC5408</a>	<a href="#">DC5409</a>	<a href="#">DC5410</a>	<a href="#">DC5411</a>	<a href="#">DC5412</a>	<a href="#">DC5413</a>	<a href="#">DC5414</a>	<a href="#">DC5415</a>	<a href="#">DC5416</a>
Polarity B																	
Erika violet	<a href="#">DC5450</a>	<a href="#">DC5451</a>	<a href="#">DC5452</a>	<a href="#">DC5453</a>	<a href="#">DC5454</a>	<a href="#">DC5455</a>	<a href="#">DC5456</a>	<a href="#">DC5457</a>	<a href="#">DC5458</a>	<a href="#">DC5459</a>	<a href="#">DC5460</a>	<a href="#">DC5461</a>	<a href="#">DC5462</a>	<a href="#">DC5463</a>	<a href="#">DC5464</a>	<a href="#">DC5465</a>	<a href="#">DC5466</a>

### Pre-terminated fiber optic installation cables on stock.

ACT pre-terminated cables, also called pre-terminated fiber cables, are fiber optic installation cables with connectors already attached. The pre-terminated cables are used in Point to Point cabling and structured fiber optic cabling. No tooling is required for the installation. ACT pre-terminated fiber optic installation cables are available in the following variants:

- 4/8 fibers with LC connectors suitable for indoor / outdoor use.
- 24 fibers with LC Polarity Twist connectors for indoor data center applications.
- 12/24/48 fibers with MTP/MPO connectors for indoor data center applications.

Our ACT Pre-terminated cables are available from stock so you can get start your installation right away. The last two variants are for data center applications. What does this mean and why are these cables suitable for data centers? Read the rest of this article to find out.



### Suitable for point-to-point and structured cabling

ACT fiber optic installation cables, pre-terminated cables, are suitable for both Point-to-point and structured cabling.

Point-to-point cabling involves connecting equipment directly to each other.

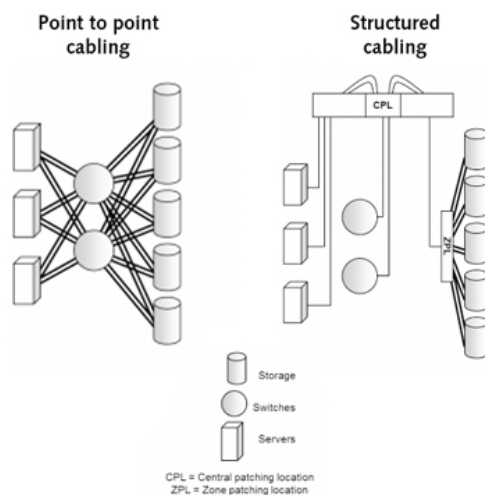
Structured cabling, also called fixed cabling, involves the use of panels, installation cabling and patch cabling. By using a staggered fanout, the pre-terminated fiber optic cables are easy to connect to both patch panels and equipment such as switches, servers and storage.



### ACT pre-terminated fiber optic installation cables: flexible, scalable and suitable for fast MAC (Moves, Adds and Changes)

When designing a cabling system in a data center, flexibility and scalability of installation cables are of great important. Expansions or changes (Moves, Adds and Changes) regularly occur in a data center or server room.

Use of pre-terminated fiber optic installation cables is an excellent solution because of its compact shape and Polarity Twist connectors. The range of ACT pre-terminated fiber optic installation cables consists of the multiple pre-terminated cables with 24 fibers and MTP/MPO trunk cables.



Bron: EN 50600

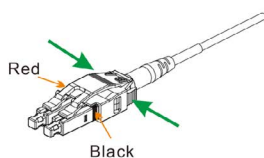


Polarity Twist connectors



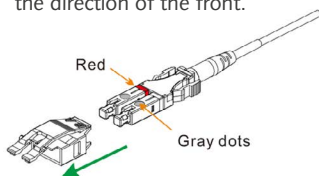
1.

Press both sides to unlock the triggermodule.



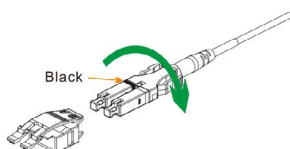
2.

Remove the triggermodule in the direction of the front.



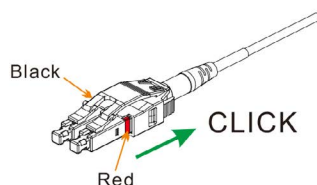
3.

Flip the connection module upside down, gray dots are facing down.



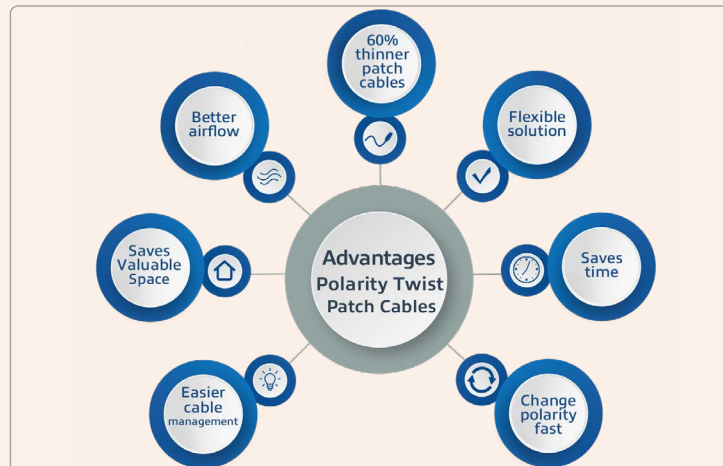
4.

Return the trigger until you hear a CLICK.



## Save space with prefabs: Up to 50% more capacity thanks to ultracompact cable

Due to their small diameter, ACT pre-terminated cables are suitable for High density solutions in data centers and server rooms. Our design of ultracompact thin diameter cables allows you to fit up to 50% more cables in the fiber raceway / cable tray or in your 19" cabinet. This provides better scalability and flexibility for future network expansions.



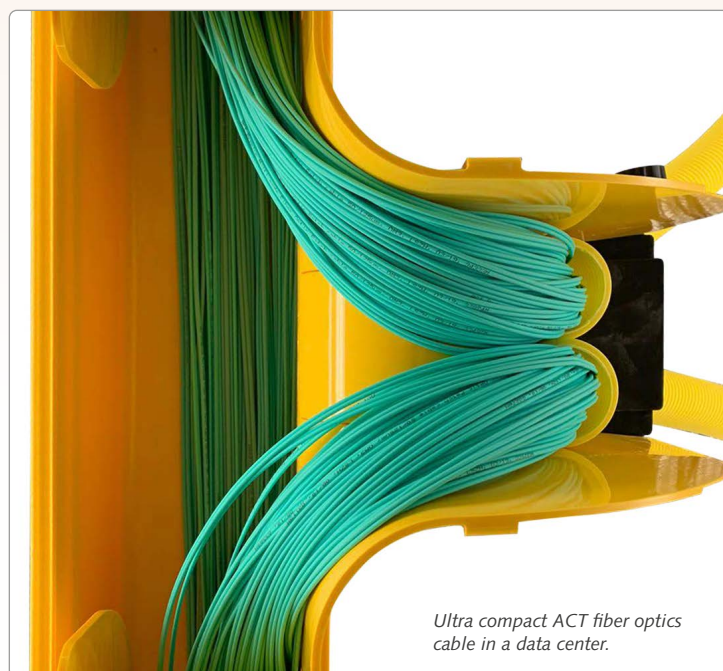
## ACT multiple pre-terminated cables with 24 fibers and Polarity Twist connectors

With ACT multiple pre-terminated cables with 24 fibers, your data center is prepared for the future. The multiple pre-terminated fiber optic cables are equipped with Polarity Twist connectors.

Polarity Twist connectors offer several advantages:

- The polarity of the two fibers can be adjusted within seconds by rotating the outside of the connector.
- Halving the number of fanout cables by having two fibers instead of one fiber per connector.
- Thinner fanout cables, 2mm instead of 3mm thick a savings of 33%.

In addition to the Polarity Twist connectors, a divisible gland is also available for ACT 24-fold pre-terminated cables. For direct connection of equipment, point-to-point, in most cases no gland is needed. In 19" panels, however, a gland is often used to secure fiber optic cable. With the divisible gland you can easily add a gland. A diameter of 6.5mm and the fanouts of 2mm makes the installation cable compact and robust.



Ultra compact ACT fiber optics cable in a data center.

ACT solutions for patching fiber and more

ACT has a wide range of solutions for patching fiber optic cabling. In this overview we present our 19" patch panels and enclosures in both standard as Multifunctional HD series. We also present our patch boxes in a variety of formfactors. You can find the different options and advantages to help you chose the best patching solution for your need.

ACT fiber optic patch panel enclosures

ACT fiber optic panel enclosures are designed for convenience and a complete solution for patching your fibers.

ACT panel enclosures come with the following accessories:

- 2 splice cassettes,
- 2 M20 glands,
- Management spools,
- Ty wraps and adhesive ty wrap cable mounts.



Fiber panels enclosures loaded

- Loaded
- Installation time: 2-5 minutes
- Customization: Low

Advantage of a preloaded panel is the short installation time. The adapters and accessories are already installed to save installation time. For pre-terminated cabling you do not need any extra's, for installation cable without connectors pigtails can be added. For an overview of ACT pigtails see the end of this chapter.



ACT Fiber panels loaded					
Fiber connector	OM3LC	OM4LC	OS2LC	OM3SC	OS2SC
24 Ports	<a href="#">FA2037</a>	<a href="#">FA2040</a>	<a href="#">FA2036</a>	<a href="#">FA2039</a>	<a href="#">FA2038</a>

Fiber panels enclosures unloaded

- Unloaded
- Installation time: 7-10 minutes
- Customization: High

ACT unloaded fiber optic patch panel enclosures are a flexible solution that can be equipped with a range of different kind of fiber optic adapters. Main advantage is the flexibility in choice of fiber optic adapters. If you only need a few adapters or a combination of different type of fiber optic adapters this is the panel of choice.



ACT Fiber panels unloaded	
24 Ports	<a href="#">FA2044</a>
48 Ports	<a href="#">FA2095</a>

## ACT fiber optic patch panels

### ACT fiber optic patch panels

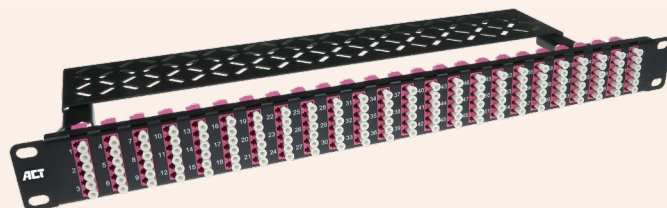
ACT patch panels are a lightweight solution which are used for pre-terminated cabling. Patch panels save space and cost because they don't have an enclosure. Instead of an enclosure the panels have a smaller cable management bar. Cabling can be fastened to the bar with Hook & Loop (velcro) cable ties.



## Fiber panels loaded

- Loaded
- Installation time: 2-5 minutes
- Customization: Low

The loaded fiber optic patch panels are high density panels with 96 ports / 192 fibers per U. The panels are a lightweight solution and come with a cable management panel at the rear end.



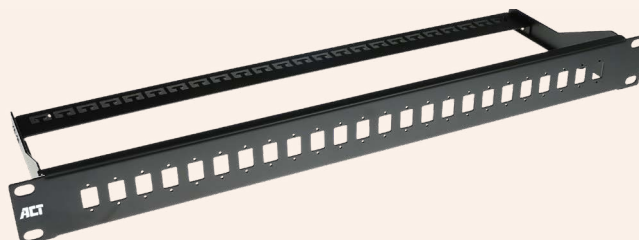
### ACT Fiber panel loaded

Fiber connector	OM4LC	OS2LC
96 Ports	<a href="#">FA2100</a>	<a href="#">FA2101</a>

## Fiber panels unloaded

- Unloaded
- Installation time: 7-10 minutes
- Customization: High

ACT unloaded fiber optic patch panel are a flexible and lightweight solution that can be equipped with a range of different kind of fiber optic adapters. Main advantage is the flexibility in choice of fiber optic adapters. If you only need a few adapters or a combination of different type of fiber optic adapters this is the panel of choice. The unloaded fiber optic panels come in standard density (FA2047) and double density (FA2095). At the end of the chapter there is an overview of the different adapters and which adapter fits in which panel.



### ACT Fiber panel unloaded

24 Ports	<a href="#">FA2047</a>
48 Ports	<a href="#">FA2095</a>



ACT fiber patch boxes

ACT fiber patch boxes are smaller enclosures that are not for 19" use. The enclosures are unloaded, you can easily add adapters and the pigtails you need.



ACT Fiber patch boxes

Number of ports	8 Ports	16 Ports	12 Ports DIN RAIL	2 Ports
Type	<a href="#">FA2033</a>	<a href="#">FA2034</a>	<a href="#">FA2043</a>	<a href="#">FA2032</a>

ACT fiber optic adapters

Here is an overview of the ACT fiber optic adapters and in which panels they fit. An LC connector is half of the size of SC, ST, MTP and FC connector. That's why duplex LC has the same dimensions as simplex SC.



Panels and boxes that fit duplex LC / simplex SC:

Unloaded 19" fiber	<a href="#">FA2044</a>	<a href="#">FA2047</a>		
Unloaded patchboxes fiber	<a href="#">FA2033</a>	<a href="#">FA2034</a>	<a href="#">FA2043</a>	<a href="#">FA2032</a>

ACT Fiber optic adapters

Description	OM1	OM2	OM3	OM4	OM5	OS1/2	OS1/2 APC	Metal
MTP(MPO)-MTP(MPO) flange	<a href="#">EA9010</a>	<a href="#">EA9010</a>	<a href="#">EA9010</a>	<a href="#">EA9010</a>	<a href="#">EA9010</a>	<a href="#">EA9010</a>	<a href="#">EA9010</a>	
LC-LC duplex flange	<a href="#">EA1005</a>	<a href="#">EA1005</a>	<a href="#">EA9005</a>	<a href="#">EA9006</a>	<a href="#">EA1016</a>	<a href="#">EA1004</a>	<a href="#">EA9007</a>	
SC-SC simplex flange	<a href="#">EA1023</a>	<a href="#">EA1023</a>	<a href="#">EA1024</a>	<a href="#">EA1025</a>	<a href="#">EA1026</a>	<a href="#">EA2003</a>	<a href="#">EA3005</a>	
LC-SC simplex flange								<a href="#">EA8001</a>
SC-ST simplex flange	<a href="#">EA1036</a>	<a href="#">EA1036</a>	<a href="#">EA1036</a>	<a href="#">EA1036</a>	<a href="#">EA1036</a>	<a href="#">EA1036</a>		
LC-FC simplex flange	<a href="#">EA1041</a>	<a href="#">EA1041</a>	<a href="#">EA1041</a>	<a href="#">EA1041</a>	<a href="#">EA1041</a>	<a href="#">EA1041</a>		
SC-FC simplex flange	<a href="#">EA1042</a>	<a href="#">EA1042</a>	<a href="#">EA1042</a>	<a href="#">EA1042</a>	<a href="#">EA1042</a>	<a href="#">EA1042</a>		

Panels that fit Quad LC, Duplex SC:

Unloaded 19" patch panels	<a href="#">FA2095</a>	<a href="#">FA2097</a>
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ACT Fiber optic adapters

Description	OM1	OM2	OM3	OM4	OM5	OS1/2	OS1/2 APC
LC-LC quad flange	<a href="#">EA1018</a>	<a href="#">EA1018</a>	<a href="#">EA9008</a>	<a href="#">EA9009</a>	<a href="#">EA1019</a>	<a href="#">EA1020</a>	<a href="#">EA1021</a>
SC-SC duplex flange	<a href="#">EA1006</a>	<a href="#">EA1006</a>	<a href="#">EA3003</a>	<a href="#">EA3004</a>	<a href="#">EA1027</a>	<a href="#">EA3002</a>	<a href="#">EA1028</a>
SC-ST duplex flange	<a href="#">EA2002</a>	<a href="#">EA2002</a>	<a href="#">EA2002</a>	<a href="#">EA2002</a>	<a href="#">EA2002</a>	<a href="#">EA2002</a>	

Adapters with other mounting:

ACT Fiber optic adapters

Description	Metal
ST-ST simplex round	<a href="#">EA1001</a>
Description	Multimode
LC-LC duplex square	<a href="#">EA9002</a>

### Pre-terminated cabling

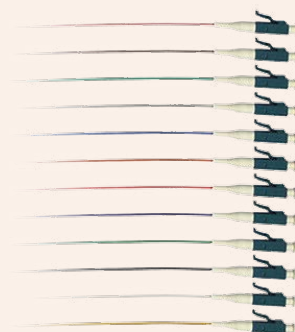
For pre-terminated cabling you only need the right adapters, for installation cable without connectors pigtailed can be added. For an overview of the ACT adapters and pigtailed see the end of this chapter.

## Fiber optic pigtailed and splicing

All the ACT patch panel enclosures, both loaded and unloaded and the patch boxes can be used for housing pigtailed that are spliced on an installation cable. The fiber optic patch panels without enclosures are not suited for splicing pigtailed because they don't have anywhere the splice cassettes can be mounted.

### 12 pack of ACT pigtailed.

When in 12 pack they come in different colours. When ordered per piece the colour is the same as colour scheme for the fiber type, so yellow of OS2, aqua for OM3 and Erika Violet for OM4.



### ACT Pigtailed

Connector	LC				SC
Type	1m / 1pcs	1m / 12pcs	2m / 1pcs	2m / 12pcs	1m / 1pcs
OM3	RL9695	<a href="#">RL9680</a>			<a href="#">RL8695</a>
OM4	<a href="#">RL8795</a>	<a href="#">RL3780</a>			<a href="#">RL8795</a>
OS2	<a href="#">RL9995</a>	<a href="#">RL9980</a>	<a href="#">RL9996</a>	<a href="#">RL9982</a>	<a href="#">RL8995</a>

## Fiber optic protection

For protecting splices ACT offers the following splice protectors.



### ACT Splice protectors

Type	Thermo 45mm	Thermo 60mm	ANT crimp 30mm
	<a href="#">FA2028</a>	<a href="#">FA2048</a>	<a href="#">FA2041</a>

ACT also offers the SK121 splice cassette (FA2082) which is both suited for thermo as crimp splice protectors. The SK121 cassettes are stackable and need a cover and have space for 2 splice holders per cassette.

### ACT SK121 splice cassette



Type	Cassette	Cover	Thermo holder 6x	Crimp holder 12x
	<a href="#">FA2082</a>	<a href="#">FA2083</a>	<a href="#">FA2084</a>	<a href="#">FA2081</a>

### ACT Accessoires



ACT Cableguide for fiber optic panel	<a href="#">FA2068</a>
ACT Cableguide with front for fiber optic panel	<a href="#">FA2069</a>

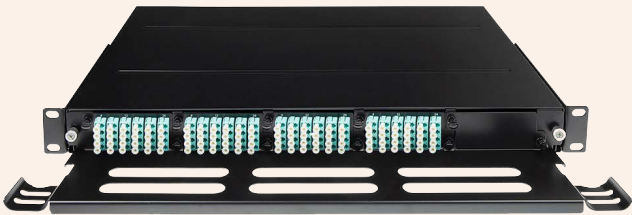
Compatible with: FA2036, FA2037, FA2038, FA2039, FA2040, FA2050, FA2095

ACT Multifunctional HD fiber optic patch panel enclosures

- Installation time: 3-6 minutes
- Customization: High
- Extra: Also suited for twisted pair Cat5E-Cat8 and USB-C, USB-A and HDMI

Multifunctional HD fiber optic patch panel enclosures can be easily equipped with cassettes and adapter plates. The cassettes and adapter plates can be added to the panel in a matter of seconds. The use of ACT Multifunctional HD fiber optic patch panel enclosures provide flexibility, short installation time and high density. For even more flexibility the adapter plates fit products with a keystone formfactor. This means that the panels can be equipped with twisted pair Cat5E up to Cat8 but also USB-A, USB-C and HDMI.

The ACT Multifunctional HD fiber optic patch panel enclosures are high density panel enclosures. This means that it can have up to 60 connections / 120 fibers in the 1U version and 144 connections / 288 fibers in the 2U version.



ACT Multifunctional HD fiber optic patch panel enclosures	
5 slots 1U	12 slots 2U
<a href="#">FA2050</a>	<a href="#">FA2056</a>

Cassettes

Cassettes are made up from an adapter plate with a small enclosure behind it. The enclosure in the ACT cassettes are used for the housing of the MTP to LC cable and the adapter plate is filled with LC duplex adapters.

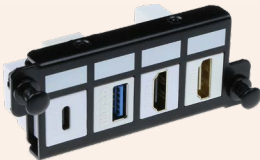


ACT Cassettes		
	OM4	OS2
1x MTP-12xLC	<a href="#">FA2054</a>	<a href="#">FA2055</a>
2x MTP-24xLC	<a href="#">FA2052</a>	<a href="#">FA2053</a>

Adapter plates

ACT provides adapter plates for LC to LC for fiber connections and adapter plates which can be fitted with keystone modules.

Photo: Adapter plate that is equipped with HDMI, USB-A and USB-C adapters



ACT Adapter plates						
	OM4	OS2	OS2 APC		Unshielded	Shielded
24x LC-LC	<a href="#">FA2152</a>	<a href="#">FA2153</a>	<a href="#">FA2151</a>	4x keystone/coupler	<a href="#">FA2057</a>	<a href="#">FA2058</a>
12x LC-LC	<a href="#">FA2155</a>	<a href="#">FA2156</a>	<a href="#">FA2154</a>			
12x SC-SC	<a href="#">FA2158</a>	<a href="#">FA2159</a>	<a href="#">FA2157</a>			
6x SC-SC		<a href="#">FA2162</a>	<a href="#">FA2160</a>			
Blind plate	<a href="#">FA2049</a>					
Adapter plate Brush	<a href="#">FA2148</a>					
Adapter plate 2X20mm slots	<a href="#">FA2149</a>					



## Keystone / Coupler

The keystones and couplers add extra flexibility because the panels can be equipped with twisted pair Cat5E up to Cat8 but also USB-A, USB-C and HDMI.

Keystones and couplers that are compatible with FA2057 and FA2058:



### ACT Keystone / Coupler

	CAT5E	CAT6	CAT6	CAT8	Shielded
Keystone	<a href="#">TD5012</a>	<a href="#">TD6013</a>	<a href="#">TD6012</a>	<a href="#">TD8511</a>	<a href="#">FA2058</a>
	CAT5E	CAT5E	CAT6	CAT6	CAT6A
Coupler	<a href="#">SD5009</a>	<a href="#">SD5019</a>	<a href="#">SD6009</a>	<a href="#">SD6019</a>	<a href="#">SD6519</a>
	LC	HDMI	HDMI 90gr	USB-A	USB-C
Coupler	<a href="#">TD4101</a>	<a href="#">TD4102</a>	<a href="#">TD4103</a>	<a href="#">TD4104</a>	<a href="#">TD4105</a>

## Fiber optic attenuator

### ACT Fiber optic attenuator



Description	1dB	2dB	3dB	5dB	7dB	10dB	15dB
SC	<a href="#">EA4001</a>	<a href="#">EA4002</a>	<a href="#">EA4003</a>	<a href="#">EA4005</a>	<a href="#">EA4007</a>	<a href="#">EA4010</a>	<a href="#">EA4015</a>
LC	<a href="#">EA4021</a>	<a href="#">EA4022</a>	<a href="#">EA4023</a>	<a href="#">EA4025</a>	<a href="#">EA4027</a>	<a href="#">EA4030</a>	<a href="#">EA4035</a>

## Fiber optic attenuator

### ACT Fiber optic tools



Fiber optic cable tester	<a href="#">CX1007</a>
Fiber optic microscope	<a href="#">CX1008</a>

1. When do I use fiber optic patch cable?
2. Which fiber optic patch cable do I choose?
3. What quality checks should I look at?
4. How is a fiber optic patch cable constructed?
5. What fibers are used in fiber optic patch cables?

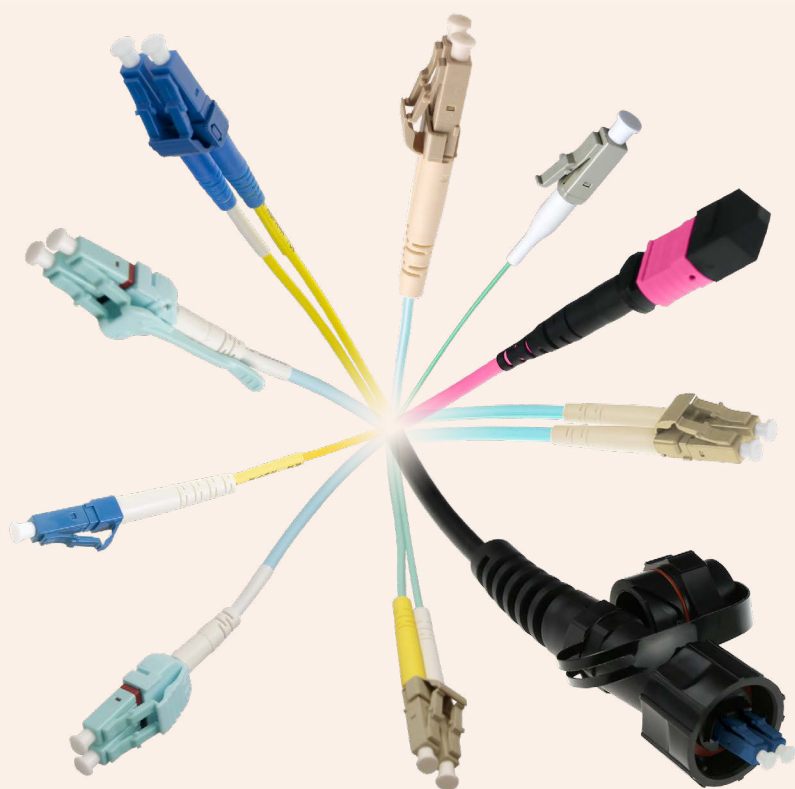
## 1. When do I use fiber optic patch cables?

Fiber optic patch cables are used for connecting active equipment. Fiber optic patch cables are mostly used to patch into 19" cabinets. In some cases you will also find fiber optic patch cables in cable ducts to bridge larger distances.

Fiber optic patch cables are also used to connect to fixed cabling. Fixed cabling (also known as installation cabling) can be cabling inside a building but also outside cabling in e.g. a Fiber to the Home network.

## 2. Which fiber optic patch cable do I choose?

Beside is an overview of the different types of fiber optic patch cables. These different types of fiber optic cables and their applications are explained in more detail in this brochure.



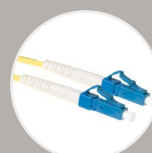
The different types of fiber optics patch cables:



MTP / MPO patch cable



Duplex patch cable



Simplex patch cable



Polarity Twist patch cable



Short boot patch cable



Ruggedized patch cable



Armored patch cable



IP67 patch cable



Mode conditioning cable

### 3. What quality characteristics should I look for as a minimum?

Based on the appearance of a cable, it is impossible to determine the quality of a cable. But how do you determine the quality of a fiber optic patch cable? There are a number of points that you should at least pay attention to in order to determine the quality.

#### Grades

The International Electrotechnical Commission (IEC) has established various grades of quality. Grade A to C, where at Grade A you are assured of the best quality fibers and connectors. For professional applications where reliability is paramount we recommend Grade A.

#### Test report

We also recommend that you choose fiber optic cables that come with an individual test report. This means that each fiber in the cable has been tested for how much light is attenuated. This attenuation has a direct impact on the speed and reliability of your network. By choosing fiber optic patch cables with an individual test report you are assured of a cable that has been tested and you know the attenuation values in your network.

#### Quality control in the production process

Fibre type and an individual test report do not tell the whole story, however. Of great importance is the production process and its quality assurance. An incorrectly polished connector can cause the optical performance of your connector to deteriorate within a short time after installation. This is not visible in the test report because it is measured directly after production. Reduced optical performance can also occur with Grade A parts due to errors in the manufacturing process.

If you choose a reputable brand, the chance of errors in your network is minimal.

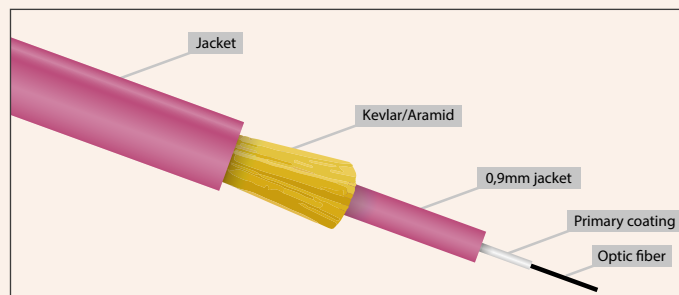
ACT is a reputable brand and has built a reputation over the years for delivering consistent quality. At ACT, we are proud of this and we will do everything to continue to deliver high consistent quality. With ACT cables you are assured of this and you will notice it through a reliable network.

### 4. How is a fiber optic patch cable constructed?

A fiber optic patch cable is composed of the following elements:

- The fiberglass / fiber
- Primary and secondary coating: strengthens the fiber and makes it suitable for installation.
- Kevlar\*: the fiber is protected from tensile stress by the kevlar/ aramid around the secondary coating.
- The outer jacket m(also called jacket): strengthens the construction and protects the cable from external influences.

*\*Kevlar's main property is that it is very strong. For example, kevlar is used in bulletproof vests and high-end speaker systems. It is therefore ideal for protecting the fiber.*



### 5. What fibers and connectors are used in patch cables?

Fiber optic patch cables are available with different types of fibers and connectors.

#### Multimode fiber for short distances

Multimode fibers are used for short distances and have as light source an LED or VCSEL. These fibers are limited in length and speed. There are several generations of multimode fibers available, from OM1 to OM5. Which variant you can best use depends on the application and if you are going to extend an existing network. You can find more information in the table.

#### Single-mode fiber for long distances

Single-mode fibers are used for longer distances and have almost infinite bandwidth. The light source of a singlemode fiber is a laser, therefore it is more powerful and accurate, but also more expensive than an LED or VCSEL. In recent years, however, the price differential has continued to drop, so singlemode is increasingly used for short distances as well.

*Below you can find an overview of different fiber optics types.*

Fiber type	OM1	OM2	OM3	OM4	OM5	OS2
	Multimode					Singlemode
	62,5/125µm	50/125µm				9/125µm
Fiber						
Distance	2000 m	550 m	300 m	400 m	440 - 150 m	*
Used by	10/100 Mb/s	1 Gb/s	10 Gb/s	10 Gb/s	40-400 Gb/s	*
* The maximum length is related to the most suitable speed and depends on the transceiver.						



## MTP / MPO patch cable

If you want to make connections with high speeds (40G and more) an MTP/MPO patchcord is an excellent choice. The connector is able to connect 12 fibers at once over 1 compact cable. This cable is typically applied in situations where the bandwidth is high and the distance short, mostly up to 100 meters making this the high speed cable of choice in datacenters and server rooms. For lengths from 20 meters see our Trunk cables.



### ACT MTP/MPO to MTP/MPO patch cables



Colour	1m	2m	3m	5m	7m	10m	12m	15m	20m
OM4 Polarity A	<a href="#">RL7741</a>	<a href="#">RL7742</a>	<a href="#">RL7743</a>	<a href="#">RL7745</a>	<a href="#">RL7747</a>	<a href="#">RL7750</a>	<a href="#">RL7752</a>	<a href="#">RL7755</a>	<a href="#">RL7760</a>
OM4 Polarity B	<a href="#">RL7761</a>	<a href="#">RL7762</a>	<a href="#">RL7763</a>	<a href="#">RL7765</a>	<a href="#">RL7767</a>	<a href="#">RL7770</a>	<a href="#">RL7772</a>	<a href="#">RL7775</a>	<a href="#">RL7780</a>
OS2 Polarity A	<a href="#">RL7781</a>	<a href="#">RL7782</a>	<a href="#">RL7783</a>	<a href="#">RL7785</a>	<a href="#">RL7787</a>	<a href="#">RL7790</a>	<a href="#">RL7792</a>	<a href="#">RL7795</a>	<a href="#">RL7800</a>

### ACT MTP/MPO to LC fanout cables



Colour	1m	2m	3m	5m
OM4 8 fibers	<a href="#">RL7841</a>	<a href="#">RL7842</a>	<a href="#">RL7843</a>	<a href="#">RL7845</a>
OM4 12 fibers	<a href="#">RL7851</a>	<a href="#">RL7852</a>	<a href="#">RL7853</a>	<a href="#">RL7855</a>
OS2 8 fibers	<a href="#">RL7861</a>	<a href="#">RL7862</a>	<a href="#">RL7863</a>	<a href="#">RL7865</a>
OS2 12 fibers	<a href="#">RL7871</a>	<a href="#">RL7872</a>	<a href="#">RL7873</a>	<a href="#">RL7875</a>

## Duplex patch cable – Most commonly used

Duplex patchcords are the most commonly used patchcords. Duplex patchcords consist of two connected cables with one fiber per cable. The two cables can easily be separated by zipping them apart, for this reason duplex patchcords are also known as zipcords. Duplex patchcords use one fiber for sending and one for receiving, enabling two way communication for applications like internet and interactive tv. Most of the following cables are modern variants of duplex patchcords with an improvement. This applies to uniboot (HD), short boot ruggedized and armored patchcords.



### ACT 50/125µm OM5 Multimode patch cable LSZH



Colour	Connectors	0.5m	1m	1.5m	2m	3m	5m
Lime	LC-LC	<a href="#">RL5800</a>	<a href="#">RL5801</a>	<a href="#">RL5851</a>	<a href="#">RL5802</a>	<a href="#">RL5803</a>	<a href="#">RL5805</a>
Lime	LC-SC	<a href="#">RL5900</a>	<a href="#">RL5901</a>	<a href="#">RL5951</a>	<a href="#">RL5902</a>	<a href="#">RL5903</a>	<a href="#">RL5905</a>

### ACT 50/125µm OM4 Multimode duplex patch cable LSZH



Colour	Connectors	0.25m	0.5m	1m	1.5m	2m	3m	5m	10m	15m	20m	25m	30m	50m
Erika Violet	LC-LC	<a href="#">RL9752</a>	<a href="#">RL9700</a>	<a href="#">RL9701</a>	<a href="#">RL9751</a>	<a href="#">RL9702</a>	<a href="#">RL9703</a>	<a href="#">RL9705</a>	<a href="#">RL9710</a>	<a href="#">RL9715</a>	<a href="#">RL9720</a>	<a href="#">RL9725</a>	<a href="#">RL9730</a>	<a href="#">RL9750</a>
Erika Violet	LC-SC			<a href="#">RL8701</a>	<a href="#">RL8751</a>	<a href="#">RL8702</a>	<a href="#">RL8703</a>	<a href="#">RL8705</a>	<a href="#">RL8710</a>	<a href="#">RL8715</a>	<a href="#">RL8720</a>	<a href="#">RL8725</a>	<a href="#">RL8730</a>	<a href="#">RL8750</a>
Erika Violet	SC-SC			<a href="#">RL3701</a>	<a href="#">RL3751</a>	<a href="#">RL3702</a>	<a href="#">RL3703</a>	<a href="#">RL3705</a>	<a href="#">RL3710</a>	<a href="#">RL3715</a>	<a href="#">RL3720</a>		<a href="#">RL3730</a>	<a href="#">RL3750</a>

### ACT 50/125µm OM3 Multimode duplex patch cable LSZH



Colour	Connectors	0.25m	0.50m	1m	1.5m	2m	2.5m	3m	4m	5m	7m	10m	15m	20m	25m	30m	50m
Aqua	LC-LC	<a href="#">RL9652</a>	<a href="#">RL9600</a>	<a href="#">RL9601</a>	<a href="#">RL9651</a>	<a href="#">RL9602</a>	<a href="#">RL9653</a>	<a href="#">RL9603</a>	<a href="#">RL9604</a>	<a href="#">RL9605</a>	<a href="#">RL9607</a>	<a href="#">RL9610</a>	<a href="#">RL9615</a>	<a href="#">RL9620</a>	<a href="#">RL9625</a>	<a href="#">RL9630</a>	<a href="#">RL9650</a>
Aqua	LC-SC		<a href="#">RL8600</a>	<a href="#">RL8601</a>	<a href="#">RL8651</a>	<a href="#">RL8602</a>		<a href="#">RL8603</a>		<a href="#">RL8605</a>	<a href="#">RL8607</a>	<a href="#">RL8610</a>	<a href="#">RL8615</a>	<a href="#">RL8620</a>		<a href="#">RL8630</a>	<a href="#">RL8650</a>
Aqua	LC-ST			<a href="#">RL7601</a>	<a href="#">RL7651</a>	<a href="#">RL7602</a>		<a href="#">RL7603</a>		<a href="#">RL7605</a>	<a href="#">RL7607</a>	<a href="#">RL7610</a>		<a href="#">RL7620</a>			
Aqua	SC-SC		<a href="#">RL3600</a>	<a href="#">RL3601</a>	<a href="#">RL3651</a>	<a href="#">RL3602</a>		<a href="#">RL3603</a>		<a href="#">RL3605</a>	<a href="#">RL3607</a>	<a href="#">RL3610</a>	<a href="#">RL3615</a>	<a href="#">RL3620</a>		<a href="#">RL3630</a>	<a href="#">RL3650</a>

## ACT 50/125µm OM2 Multimode duplex patch cable LSZH



Colour	Connectors	0.50m	1m	1.5m	2m	3m	5m	10m	15m	20m	25m	30m	50m
Orange	LC-LC	<a href="#">RL9500</a>	<a href="#">RL9501</a>	<a href="#">RL9551</a>	<a href="#">RL9502</a>	<a href="#">RL9503</a>	<a href="#">RL9505</a>	<a href="#">RL9510</a>	<a href="#">RL9515</a>	<a href="#">RL9520</a>	<a href="#">RL9525</a>	<a href="#">RL9530</a>	<a href="#">RL9550</a>
Orange	LC-SC	<a href="#">RL8500</a>	<a href="#">RL8501</a>	<a href="#">RL8551</a>	<a href="#">RL8502</a>	<a href="#">RL8503</a>	<a href="#">RL8505</a>	<a href="#">RL8510</a>	<a href="#">RL8515</a>	<a href="#">RL8520</a>		<a href="#">RL8530</a>	<a href="#">RL8550</a>
Orange	LC-ST		<a href="#">RL7501</a>	<a href="#">RL7551</a>	<a href="#">RL7502</a>	<a href="#">RL7503</a>	<a href="#">RL7505</a>	<a href="#">RL7510</a>	<a href="#">RL7515</a>	<a href="#">RL7520</a>		<a href="#">RL7530</a>	<a href="#">RL7550</a>
Orange	SC-SC	<a href="#">RL3500</a>	<a href="#">RL3501</a>	<a href="#">RL3551</a>	<a href="#">RL3502</a>	<a href="#">RL3503</a>	<a href="#">RL3505</a>	<a href="#">RL3510</a>	<a href="#">RL3515</a>	<a href="#">RL3520</a>		<a href="#">RL3530</a>	<a href="#">RL3550</a>
Orange	SC-ST	<a href="#">RL2500</a>	<a href="#">RL2501</a>	<a href="#">RL2551</a>	<a href="#">RL2502</a>	<a href="#">RL2503</a>	<a href="#">RL2505</a>	<a href="#">RL2510</a>	<a href="#">RL2515</a>	<a href="#">RL2520</a>		<a href="#">RL2530</a>	<a href="#">RL2550</a>
Orange	ST-ST	<a href="#">RL1500</a>	<a href="#">RL1501</a>	<a href="#">RL1551</a>	<a href="#">RL1502</a>	<a href="#">RL1503</a>	<a href="#">RL1505</a>	<a href="#">RL1510</a>	<a href="#">RL1515</a>	<a href="#">RL1520</a>		<a href="#">RL1530</a>	<a href="#">RL1550</a>

## ACT 62,5/125µm OM1 Multimode duplex patch cable LSZH



Colour	Connectors	0.50m	1m	1.5m	2m	3m	5m	10m	15m	20m	25m	30m	50m
Orange	LC-LC	<a href="#">RL9000</a>	<a href="#">RL9001</a>	<a href="#">RL9051</a>	<a href="#">RL9002</a>	<a href="#">RL9003</a>	<a href="#">RL9005</a>	<a href="#">RL9010</a>	<a href="#">RL9015</a>	<a href="#">RL9020</a>	<a href="#">RL9025</a>	<a href="#">RL9030</a>	<a href="#">RL9050</a>
Orange	LC-SC	<a href="#">RL8000</a>	<a href="#">RL8001</a>	<a href="#">RL8051</a>	<a href="#">RL8002</a>	<a href="#">RL8003</a>	<a href="#">RL8005</a>	<a href="#">RL8010</a>	<a href="#">RL8015</a>	<a href="#">RL8020</a>		<a href="#">RL8030</a>	
Orange	LC-ST		<a href="#">RL7001</a>	<a href="#">RL7051</a>	<a href="#">RL7002</a>	<a href="#">RL7003</a>	<a href="#">RL7005</a>	<a href="#">RL7010</a>	<a href="#">RL7015</a>	<a href="#">RL7020</a>		<a href="#">RL7030</a>	<a href="#">RL7050</a>
Orange	SC-SC	<a href="#">RL3000</a>	<a href="#">RL3001</a>	<a href="#">RL3051</a>	<a href="#">RL3002</a>	<a href="#">RL3003</a>	<a href="#">RL3005</a>	<a href="#">RL3010</a>	<a href="#">RL3015</a>	<a href="#">RL3020</a>			<a href="#">RL3050</a>
Orange	SC-ST	<a href="#">RL2000</a>	<a href="#">RL2001</a>	<a href="#">RL2051</a>	<a href="#">RL2002</a>	<a href="#">RL2003</a>	<a href="#">RL2005</a>	<a href="#">RL2010</a>	<a href="#">RL2015</a>	<a href="#">RL2020</a>		<a href="#">RL2030</a>	<a href="#">RL2050</a>
Orange	ST-ST	<a href="#">RL1000</a>	<a href="#">RL1001</a>	<a href="#">RL1051</a>	<a href="#">RL1002</a>	<a href="#">RL1003</a>	<a href="#">RL1005</a>	<a href="#">RL1010</a>	<a href="#">RL1015</a>	<a href="#">RL1020</a>		<a href="#">RL1030</a>	<a href="#">RL1050</a>

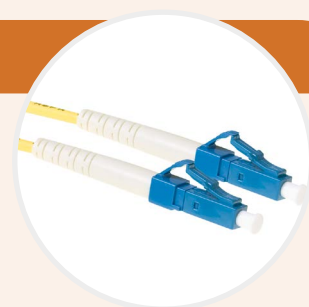
## ACT 9/125µm OS2 Single mode duplex patch cable LSZH



Colour	Connectors	0.25m	0.5m	1m	1.5m	2m	2.5m	3m	4m	5m	7m	10m	15m	20m	25m	30m	50m
Yellow	LC-LC	<a href="#">RL9952</a>	<a href="#">RL9900</a>	<a href="#">RL9901</a>	<a href="#">RL9951</a>	<a href="#">RL9902</a>	<a href="#">RL9953</a>	<a href="#">RL9903</a>	<a href="#">RL9904</a>	<a href="#">RL9905</a>	<a href="#">RL9907</a>	<a href="#">RL9910</a>	<a href="#">RL9915</a>	<a href="#">RL9920</a>	<a href="#">RL9925</a>	<a href="#">RL9930</a>	<a href="#">RL9950</a>
Yellow	LC-SC		<a href="#">RL8900</a>	<a href="#">RL8901</a>	<a href="#">RL8951</a>	<a href="#">RL8902</a>		<a href="#">RL8903</a>		<a href="#">RL8905</a>	<a href="#">RL8907</a>	<a href="#">RL8910</a>	<a href="#">RL8915</a>	<a href="#">RL8920</a>	<a href="#">RL8925</a>	<a href="#">RL8930</a>	<a href="#">RL8950</a>
Yellow	LC-ST			<a href="#">RL7901</a>	<a href="#">RL7951</a>	<a href="#">RL7902</a>		<a href="#">RL7903</a>		<a href="#">RL7905</a>		<a href="#">RL7910</a>	<a href="#">RL7915</a>	<a href="#">RL7920</a>		<a href="#">RL7930</a>	<a href="#">RL7950</a>
Yellow	SC-SC		<a href="#">RL3900</a>	<a href="#">RL3901</a>	<a href="#">RL3951</a>	<a href="#">RL3902</a>		<a href="#">RL3903</a>		<a href="#">RL3905</a>		<a href="#">RL3910</a>	<a href="#">RL3915</a>	<a href="#">RL3920</a>		<a href="#">RL3930</a>	<a href="#">RL3950</a>
Yellow	SC-ST			<a href="#">RL2901</a>	<a href="#">RL2951</a>	<a href="#">RL2902</a>		<a href="#">RL2903</a>		<a href="#">RL2905</a>		<a href="#">RL2910</a>	<a href="#">RL2915</a>	<a href="#">RL2920</a>			
Yellow	LC/APC-LC/APC		<a href="#">RL2600</a>	<a href="#">RL2601</a>	<a href="#">RL2651</a>	<a href="#">RL2602</a>		<a href="#">RL2603</a>		<a href="#">RL2605</a>		<a href="#">RL2610</a>		<a href="#">RL2620</a>			
Yellow	LC/APC-SC/APC			<a href="#">RL2701</a>		<a href="#">RL2702</a>		<a href="#">RL2703</a>		<a href="#">RL2705</a>		<a href="#">RL2710</a>					
Yellow	LC/APC-LC/UPC			<a href="#">RL2801</a>		<a href="#">RL2802</a>		<a href="#">RL2803</a>		<a href="#">RL2805</a>		<a href="#">RL2810</a>					
Yellow	SC/APC8-LC/PC		<a href="#">RL8800</a>	<a href="#">RL8801</a>	<a href="#">RL8851</a>	<a href="#">RL8802</a>		<a href="#">RL8803</a>		<a href="#">RL8805</a>		<a href="#">RL8810</a>	<a href="#">RL8815</a>	<a href="#">RL8820</a>	<a href="#">RL8825</a>	<a href="#">RL8830</a>	<a href="#">RL8850</a>
Yellow	SC/APC8-SC/PC		<a href="#">RL3800</a>	<a href="#">RL3801</a>		<a href="#">RL3802</a>		<a href="#">RL3803</a>		<a href="#">RL3805</a>		<a href="#">RL3810</a>	<a href="#">RL3815</a>	<a href="#">RL3820</a>	<a href="#">RL3825</a>	<a href="#">RL3830</a>	<a href="#">RL3850</a>
Yellow	SC/APC8-SC/APC8		<a href="#">RL1600</a>	<a href="#">RL1601</a>		<a href="#">RL1602</a>		<a href="#">RL1603</a>		<a href="#">RL1605</a>		<a href="#">RL1610</a>	<a href="#">RL1615</a>	<a href="#">RL1620</a>			
Yellow	E2000/APC-SC/UPC			<a href="#">RL3101</a>		<a href="#">RL3102</a>		<a href="#">RL3103</a>		<a href="#">RL3105</a>	<a href="#">RL3107</a>	<a href="#">RL3110</a>					
Yellow	E2000/APC-LC/UPC			<a href="#">RL3201</a>		<a href="#">RL3202</a>		<a href="#">RL3203</a>		<a href="#">RL3205</a>	<a href="#">RL3207</a>	<a href="#">RL3210</a>					

## Simplex patchcords – sending and receiving over a single fiber

You can cut your need of the fibers/cables in half by using simplex patchcords. This works with fiber optic modules that enable two way communication over one fiber. These kind of patchcords are used a lot in FTTH applications for minimizing the usage of fibers. Simplex patchcords are only available in Singlemode and not in Multimode.



## ACT 9/125µm OS2 single mode simplex patch cable LSZH



Colour	Connectors	0.5m	1m	1.5m	2m	3m
Yellow	LC-LC	<a href="#">RL9990</a>	<a href="#">RL9991</a>	<a href="#">RL9999</a>	<a href="#">RL9992</a>	<a href="#">RL9993</a>

Short boot patchcords – When space is limited

When you have limited space for the connector because of a small housing or short distance between the panel and door of a 19" cabinet short boot patchcords are a great solution. Short boot differs from duplex patchcords by having a shorter boot on the connector.



ACT 9/125µm OS2 Single mode duplex patch cable LSZH

Colour	Connectors	0.5m	1m	2m	3m	5m	10m	15m	20m	25m	30m	50m
Yellow	LC-LC short boot	<a href="#">RL1700</a>	<a href="#">RL1701</a>	<a href="#">RL1702</a>	<a href="#">RL1703</a>	<a href="#">RL1705</a>	<a href="#">RL1710</a>	<a href="#">RL1715</a>	<a href="#">RL1720</a>	<a href="#">RL1725</a>	<a href="#">RL1730</a>	<a href="#">RL1750</a>
Yellow	LC short boot -SC	<a href="#">RL1800</a>	<a href="#">RL1801</a>	<a href="#">RL1802</a>	<a href="#">RL1803</a>	<a href="#">RL1805</a>	<a href="#">RL1810</a>	<a href="#">RL1815</a>	<a href="#">RL1820</a>	<a href="#">RL1825</a>	<a href="#">RL1830</a>	<a href="#">RL1850</a>



Polarity Twist patch cables - for high density panels and easy cable management

- Polarity Twist connectors offer several advantages:**
- The polarity of the two fibers can be adjusted within seconds. You do this by twisting the outside of the connector.
  - Halving the number of fanout cables by having two fibers instead of one fiber per connector.
  - Thinner fanout cables, 2mm instead of 3mm thick a savings of 33%.



<b>ACT</b> 50/125µm OM3 Polarity Twist patch cable LSZH																		
Colour	Connectors	0.25m	0.5m	1m	1.5m	2m	3m	5m	7m	10m	12m	15m	17m	20m	22m	25m	27m	30m
Aqua	LC-LC	<a href="#">RL8352</a>	<a href="#">RL8300</a>	<a href="#">RL8301</a>	<a href="#">RL8351</a>	<a href="#">RL8302</a>	<a href="#">RL8303</a>	<a href="#">RL8305</a>	<a href="#">RL8307</a>	<a href="#">RL8310</a>	<a href="#">RL8312</a>	<a href="#">RL8315</a>	<a href="#">RL8317</a>	<a href="#">RL8320</a>	<a href="#">RL8322</a>	<a href="#">RL8325</a>	<a href="#">RL8337</a>	<a href="#">RL8330</a>

<b>ACT</b> 50/125µm OM4 Polarity Twist patch cable LSZH																		
Colour	Connectors	0.25m	0.5m	1m	1.5m	2m	3m	5m	7m	10m	12m	15m	17m	20m	22m	25m	27m	30m
Erika Violet	LC-LC	<a href="#">RL8452</a>	<a href="#">RL8400</a>	<a href="#">RL8401</a>	<a href="#">RL8451</a>	<a href="#">RL8402</a>	<a href="#">RL8403</a>	<a href="#">RL8405</a>	<a href="#">RL8407</a>	<a href="#">RL8410</a>	<a href="#">RL8412</a>	<a href="#">RL8415</a>	<a href="#">RL8417</a>	<a href="#">RL8420</a>	<a href="#">RL8422</a>	<a href="#">RL8425</a>	<a href="#">RL8427</a>	<a href="#">RL8430</a>

<b>ACT</b> 9/125µm OS2 G657A Polarity Twist patch cable LSZH																		
Colour	Connectors	0.25m	0.5m	1m	1.5m	2m	3m	5m	7m	10m	12m	15m	17m	20m	22m	25m	27m	30m
Yellow	LC-LC	<a href="#">RL8252</a>	<a href="#">RL8200</a>	<a href="#">RL8201</a>	<a href="#">RL8251</a>	<a href="#">RL8202</a>	<a href="#">RL8203</a>	<a href="#">RL8205</a>	<a href="#">RL8207</a>	<a href="#">RL8210</a>	<a href="#">RL8212</a>	<a href="#">RL8215</a>	<a href="#">RL8217</a>	<a href="#">RL8220</a>	<a href="#">RL8222</a>	<a href="#">RL8225</a>	<a href="#">RL8227</a>	<a href="#">RL8230</a>



## Ruggedized patchcords – better mechanical protection

You can use ruggedized patchcords for longer distances, 10 meter or more. Normal patchcords are suited for short distances within a 19" cabinet. Ruggedized patchcords have an extra jacket for improved mechanical protection. They are also called Flatoval fiber optic cables because of the oval shape of the extra jacket.



### ACT 50/125µm OM3 Duplex ruggedized patch cable LSZH



Colour	Connectors	10m	20m	30m	40m	50m
Aqua	LC-LC	<a href="#">RL5101</a>	<a href="#">RL5102</a>	<a href="#">RL5103</a>	<a href="#">RL5104</a>	<a href="#">RL5105</a>
Aqua	LC-SC	<a href="#">RL5201</a>	<a href="#">RL5202</a>	<a href="#">RL5203</a>	<a href="#">RL5204</a>	<a href="#">RL5205</a>
Aqua	SC-SC	<a href="#">RL5301</a>	<a href="#">RL5302</a>	<a href="#">RL5303</a>	<a href="#">RL5304</a>	<a href="#">RL5305</a>

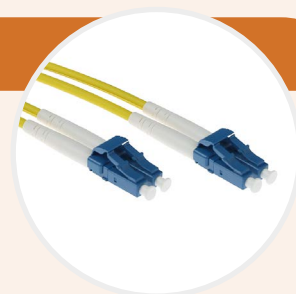
### ACT 9/125µm OS2 duplex ruggedized patch cable LSZH



Colour	Connectors	10m	20m	30m	40m	50m
Yellow	LC-LC	<a href="#">RL5401</a>	<a href="#">RL5402</a>	<a href="#">RL5403</a>	<a href="#">RL5404</a>	<a href="#">RL5405</a>
Yellow	LC-SC	<a href="#">RL5601</a>	<a href="#">RL5602</a>	<a href="#">RL5603</a>	<a href="#">RL5604</a>	<a href="#">RL5605</a>
Yellow	SC-SC	<a href="#">RL5701</a>	<a href="#">RL5702</a>	<a href="#">RL5703</a>	<a href="#">RL5704</a>	<a href="#">RL5705</a>

## Armored patchcords – the best mechanical protection

When your patchcords are exposed to extreme conditions in harsh environments you can chose armored patchcords. These are patchcords with a metal armor offering the best protection. This type of patchcord is commonly used in industrial or offshore environments.



### ACT 9/125µm OS2 duplex armored fiber patch cable



Colour	Connectors	0.5m	1m	1.5m	2m	3m	5m	7m	10m	15m	20m	25m	30m	40m	50m
Yellow	LC-LC	<a href="#">RL3300</a>	<a href="#">RL3301</a>	<a href="#">RL3351</a>	<a href="#">RL3302</a>	<a href="#">RL3303</a>	<a href="#">RL3305</a>	<a href="#">RL3307</a>	<a href="#">RL3310</a>	<a href="#">RL3315</a>	<a href="#">RL3320</a>	<a href="#">RL3325</a>	<a href="#">RL3330</a>	<a href="#">RL3340</a>	<a href="#">RL3350</a>

### ACT 50/125µm OM3 duplex armored fiber patch cable



Colour	Connectors	0.5m	1m	1.5m	2m	3m	5m	7m	10m	15m	20m	25m	30m	40m	50m
Aqua	LC-LC	<a href="#">RL3400</a>	<a href="#">RL3401</a>	<a href="#">RL3451</a>	<a href="#">RL3402</a>	<a href="#">RL3403</a>	<a href="#">RL3405</a>	<a href="#">RL3407</a>	<a href="#">RL3410</a>	<a href="#">RL3415</a>	<a href="#">RL3420</a>	<a href="#">RL3425</a>	<a href="#">RL3430</a>	<a href="#">RL3440</a>	<a href="#">RL3450</a>

## IP67 patch cable

For outside use there are patchcords with an extra housing for IP67 water- and dust resistance. These cables are commonly used for connecting antenna's in mobile base stations to ground cabling for wireless applications like wifi and mobile internet.



### ACT OM3



Colour	Connectors	1m	2m	5m	10m	15m	20m	30m	40m	50m
Black	LC(IP67)-LC	<a href="#">RL7101</a>	<a href="#">RL7102</a>	<a href="#">RL7105</a>	<a href="#">RL7110</a>	<a href="#">RL7115</a>	<a href="#">RL7120</a>	<a href="#">RL7130</a>	<a href="#">RL7140</a>	<a href="#">RL7150</a>

### ACT OM3



Colour	Connectors	1m	2m	5m	10m	15m	20m	30m	40m	50m
Black	LC(IP67)-LC (IP67)	<a href="#">RL7201</a>	<a href="#">RL7202</a>	<a href="#">RL7205</a>	<a href="#">RL7210</a>	<a href="#">RL7215</a>	<a href="#">RL7220</a>	<a href="#">RL7230</a>	<a href="#">RL7240</a>	<a href="#">RL7250</a>

### ACT OS2



Colour	Connectors	1m	2m	5m	10m	15m	20m	30m	40m	50m
Black	LC(IP67)-LC	<a href="#">RL7301</a>	<a href="#">RL7302</a>	<a href="#">RL7305</a>	<a href="#">RL7310</a>	<a href="#">RL7315</a>	<a href="#">RL7320</a>	<a href="#">RL7330</a>	<a href="#">RL7340</a>	<a href="#">RL7350</a>

### ACT OS2



Colour	Connectors	1m	2m	5m	10m	15m	20m	30m	40m	50m
Black	LC(IP67)-LC (IP67)	<a href="#">RL7401</a>	<a href="#">RL7402</a>	<a href="#">RL7405</a>	<a href="#">RL7410</a>	<a href="#">RL7415</a>	<a href="#">RL7420</a>	<a href="#">RL7430</a>	<a href="#">RL7440</a>	<a href="#">RL7450</a>

## Mode conditioning cable

- Applied by Single Mode Gigabit ethernet equipment over Multimode installed fiber optic cabling.
- Developed for Longwave (-LX) Multi Mode applications for Gigabit ethernet in accordance with IEEE-802.3Z.
- Masks Differential Mode Delay (DMD) signal quality reduction.



### ACT Mode conditioning 2x LC 50/125 µm - 1x LC 50/125 µm + 1x LC 9/125 µm patch cable



Colour	Connectors	2m
Yellow Aqua	LC-LC	<a href="#">RL9998</a>

### SFP modules

Nowadays, more and more devices are equipped with a port for an SFP module. To discover what SFP module you need and what to pay attention to read the following article.

### What is an SFP module?

An SFP module is a plug-in module for in a device that provides fiber optic communication. The SFP module is equipped with both a light source, LED or laser, and a sensor that detects light.

A traditional network cable with an RJ45 connector is connected directly to the device. With fiber optics, there is an extra step, the cable connects to the SFP module, which plugs into the device as shown below:



On the right, a network cable connected directly to the media converter.  
On the left, a fiber optic patch cable connected to the SFP module, the SFP module is plugged into the media converter.

The SFP module serves as an interface between the cable and the equipment and is responsible for optical communication.

### 3 advantages of SFP modules

The 3 biggest advantages of using SFP fiber modules are:

1. Standardization
2. Flexibility
3. Continuity

#### 1. SFP modules are the standard for fiber optic communication

Manufacturers of network equipment support the SFP, SFP+ and QSFP standards. SFP modules are used in different devices such as switches, routers, firewalls, servers, media converters and storage devices. The equipment has a port where an SFP module can be plugged in. The abbreviation SFP stands for Small Form Factor Pluggable.

The standard for the use of SFP modules was established in cooperation with the various manufacturers. This standard is therefore called an MSA, which stands for Multi-Source Agreement.

#### 2. SFP modules ensure maximum flexibility in a fiber optic network

A fiber optic cable is connected to an SFP module, which is placed in the switch. The SFP module serves as an interface between the fiber optic cable and the equipment. This ensures maximum flexibility because the SFP can be adapted without having to modify or replace the equipment.

**Situations in which only the SFP module can be changed, instead of replacing the entire equipment:**

- Transition to a network with a different type of fiber; for example, from single-mode to multimode.
- Changing distance; for example, from 100 meters to 80 kilometers.
- Change to another speed; for example, if the speed of the switch changes from 1G to 10G.
- LC, an SC connector is placed on the cabling.

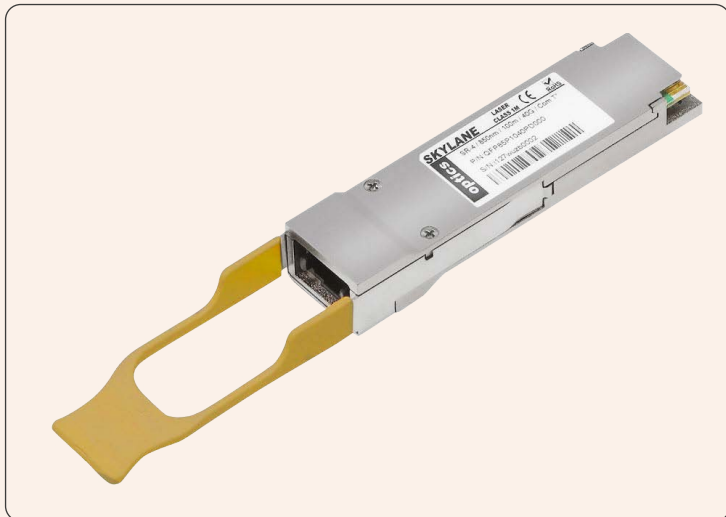
#### 3. Network continuity through the use of hot swappable SFP modules

In case of changes in fiber type, distance, speed and connector, the SFP module will be adapted. An important advantage is that the equipment does not have to be switched off or restarted when the SFP modules are installed, which ensures network continuity.

Keeping equipment operational while placing and/or replacing fiber optic (SFP) modules is called 'hot swappable'.

## What are the different types and names of SFP modules?

There are two common formats of SFP modules, these formats are also called form factor. **The SFP form factor and the QSFP form factor.**



A 100G QSFP28 module with the QSFP form factor.



A 1G SFP module with the SFP form factor.

### The SFP form factor includes:

- SFP module - 100Mb or 1Gb
- SFP+ module - 10Gb
- SFP28 module - 25Gb
- SFP56 module - 50Gb
- The QSFP form factor includes:
  - QSFP+ - 40Gb
  - QSFP28 - 100Gb
  - QSFP56 - 200Gb
  - QSFP-DD - 200/400Gb

Because SFP modules are responsible for optical communication they are also called optics. Another term is transceiver, which is a combination of the words transmitter and receiver.

## What do I need to consider when buying an SFP module? / How do I choose the right SFP module?

### • Speed What about different speeds?

Just because an SFP module physically fits into a port on a device does not mean that the speed of the transceiver matches the speed of the port. Check the device specifications to see what speed is supported and choose an SFP module with the same speed.

### • Encoding Do I need another SFP module for a Cisco switch?

Well-known big brands in the field of network and telecom equipment often do require coding for an SFP module to be compatible with the brand. For 100% brand compatibility, ACT offers encoded SFP modules. Many other manufacturers including ACT work with open coding; SFP modules with open coding are interchangeable. Open coding is also called generic coding.

### • Fiber type What about SFP's and multimode/singlemode cables?

It is important to use the appropriate SFP module for the type of fiber. The ACT modules SFP SX and SFP+ SR are suitable for multimode. The SFP LX and SFP+ LR are suitable for singlemode cabling.

### • Support Where do I turn for technical support?

It is important to choose a brand with knowledge and support in the field of optics. Choose a brand with a good reputation such as ACT. If you have any questions, please contact our support team.

### • Distance What distance can I cover?

Think about how long the connection needs to be. The distance that can be covered differs per type of SFP and fiber type. With multimode the maximum distance is 550 metres, for longer distances it is better to choose single mode.