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01

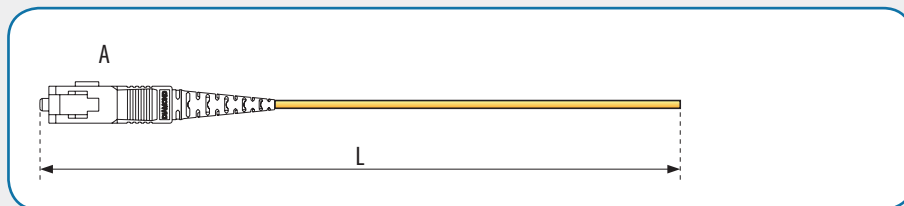
The rapid development of fibre optic technology, the use of next-generation technical solutions in optical telecommunication and the increasing complexity of modern optical fibre communication systems, require application of a very high performance fibre optic connectors and adapters. These components play a very important role, particularly in high connector capacity ODFs and whenever there is a need of frequent reconnections. This is the case in fibre optic access networks, where the optical fibre is deployed from central office through an outside plant network components, to the street cabinets or directly to the subscriber. The linking mechanism in the majority of fibre optic connectors is based on interfacing the fibres fixed in cylindrical zirconia ceramic ferrules mated in high precision alignment sleeves. To ensure precise fibre core positioning in a ferrule, the ideal concentricity of a fibre in a ferrule bore is required. The entire manufacturing process is focused on maintaining a very high precision of fibre positioning in a ferrule bore and a high quality of ferrule endface polishing.

OPTOMER offers fibre optic cable assemblies terminated with DIAMOND connectors equipped with hybrid ferrules using Active Core Alignment technology as well as high performance connectors with fully ceramic ferrules.

PIGTAILS AND PATCHCORDS

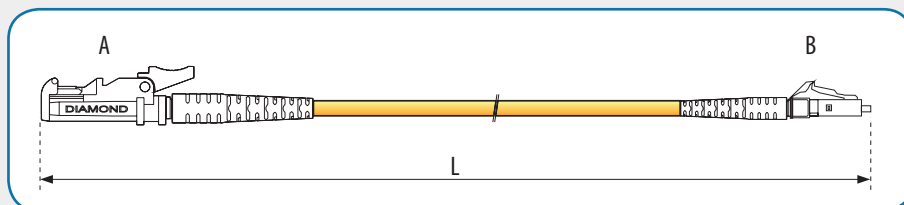
PIGTAIL

cable terminated on one end



PATCHCORD

cable terminated on both ends



CONNECTOR END A	CONNECTOR END B	LENGTH L [m]	CABLE DIAMETER [mm]	CABLE CONFIGURATION	FIBRE TYPE
E28 – E-2000/APC DIAMOND	E28 – E-2000/APC DIAMOND	Specified by customer, e.g.	0,9	SX – Simplex	SMG.652D (SM1)
E20 – E-2000/PC DIAMOND	E20 – E-2000/PC DIAMOND	0,5	2,0	DX – Duplex	SMG.655
E28R – E-2000/APC 0,1 dB DIMAOND	E28R – E-2000/APC 0,1 dB DIMAOND	1,0	2,4**		SMG.657 A1
E2PS – E-2000 High Power	E2PS – E-2000 High Power	2,0	2,8***		SMG.657 A2
F3P – F-3000/APC DIAMOND	F3P – F-3000/APC DIAMOND	3,0	4,0****		MMG.651 62,5 (OM1)
F3A – F-3000/PC DIAMOND	F3A – F-3000/PC DIAMOND	5,0			MMG.651 50 (OM2)
F3AR – F-3000/APC 0,1 dB DIMAOND	F3AR – F-3000/APC 0,1 dB DIMAOND	10,0			MMG.651 50 (OM3)
SCA – SC/APC	SCA – SC/APC	etc.			MMG.651 50 (OM4)
SCP – SC/PC	SCP – SC/PC				LFH
SC8 – SC/APC DIAMOND	SC8 – SC/APC DIAMOND				
SC0 – SC/PC DIAMOND	SC0 – SC/PC DIAMOND				
SC – SC MM	SC – SC MM				
FC8 – FC/APC DIAMOND	FC8 – FC/APC DIAMOND				
FC0 – FC/PC DIAMOND	FC0 – FC/PC DIAMOND				
FCP – FC/PC	FCP – FC/PC				
FCA – FC/APC	FCA – FC/APC				
STP – ST/PC	STP – ST/PC				
ST0 – ST/PC DIAMOND	ST0 – ST/PC DIAMOND				
LCP – LC/PC*	LCP – LC/PC*				
LCA – LC/APC*	LCA – LC/APC*				
MUP – MU/PC	MUP – MU/PC				
	X – no connector				

No connector on end B (choice X) indicates pigtail is ordered. Selection of connectors on end A and B means that patchcord is ordered.
 NOTICE: please check if the desired boot type is available for the selected connector type.

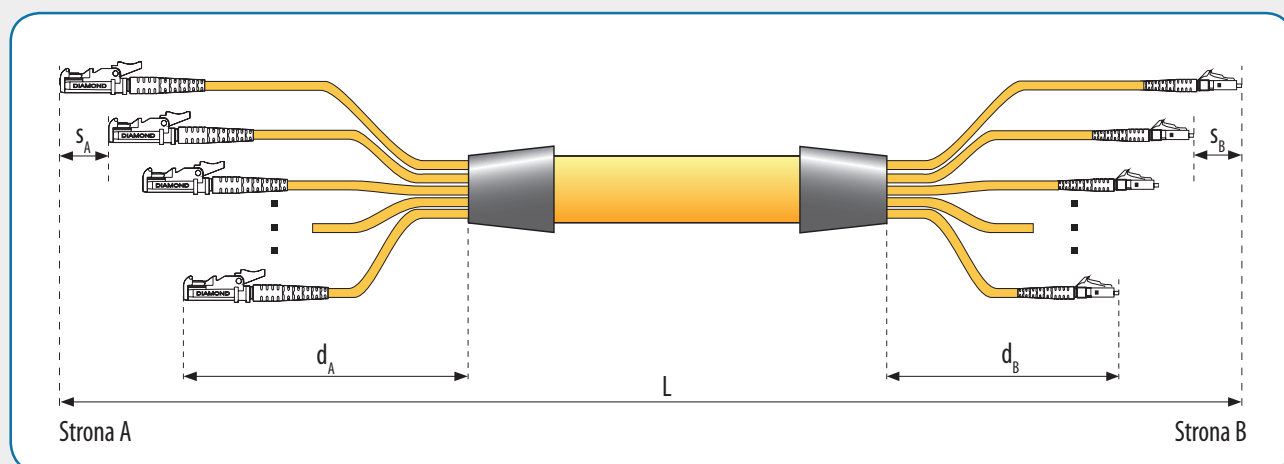
* For LC connectors 45° and 90° boots are available.

**For multimode cables.

*** For LFH colour cables available.

**** For LFH only white colour is available.

MULTIPIGTAILS AND MULTIPATCHCORDS



CONNECTOR END A	CONNECTOR END B	FIBRE COUNT	LENGTH L [M]	FIBRE TYPE	CABLE TYPE
E28 – E-2000/APC DIAMOND	E28 – E-2000/APC DIAMOND	4J – 4 SM fibres	specified by customer, e.g.	SMG.652D (SM1)	INDOOR
E20 – E-2000/PC DIAMOND	E20 – E-2000/PC DIAMOND	6J – 6 SM fibres	10	SMG.655	A – Mini Breakout with 0.9 mm buffered fibres
E28R – E-2000/APC 0,1 dB DIAMOND	E28R – E-2000/APC 0,1 dB DIAMOND	12J – 12 SM fibres	25	SMG.657 A1	B – Breakout with 2.0 mm cables
SCA – SC/APC	SCA – SC/APC	18J – 18 SM fibres	30	SMG.657 A2	C – indoor cable bundle in protective conduit with cable gland
SCP – SC/PC	SCP – SC/PC	24J – 24 SM fibres	50	MMG.651 62,5 (OM1)	UNIVERSAL INDOOR/OUTDOOR
SC8 – SC/APC DIAMOND	SC8 – SC/APC DIAMOND	48J – 48 SM fibres	100	MMG.651 50 (OM2)	D – with 2.0 mm cables
SC0 – SC/PC DIAMOND	SC0 – SC/PC DIAMOND		etc.	MMG.651 50 (OM3)	E – with R-07 fan-out and 2.0 mm cables
SC – SC MM	SC – SC MM			MMG.651 50 (OM4)	F – with 0.9 mm buffered fibres
FC8 – FC/APC DIAMOND	FC8 – FC/APC DIAMOND				TACTICAL
FC0 – FC/PC DIAMOND	FC0 – FC/PC DIAMOND				
FCP – FC/PC	FCP – FC/PC				
FCA – FC/APC	FCA – FC/APC				
STP – ST/PC	STP – ST/PC				
ST0 – ST/PC DIAMOND	ST0 – ST/PC DIAMOND				
LCP – LC/PC	LCP – LC/PC				
LCA – LC/APC	LCA – LC/APC				
MUP – MU/PC	MUP – MU/PC				
	X – no connector				

 $d_A + (n-1)s_A$ - the longest lead on end A

 $d_B + (n-1)s_B$ - the longest lead on end B

 $L > d_A + d_B + (n-1)(s_A + s_B)$

L – total length

 d_A – the shortest lead on end A

 d_B – the shortest lead on end B

 s_A – staggered fanout lead length increment on end A

 s_B – sfanout lead length increment on end B

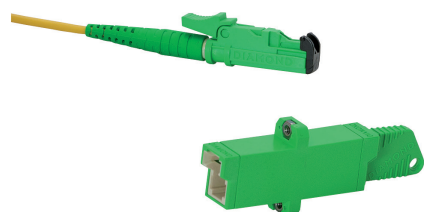
n – fibre count

Notice: the lengths of the shortest leads d_A , d_B and stagger increments s_A , s_B to be added to the configured code

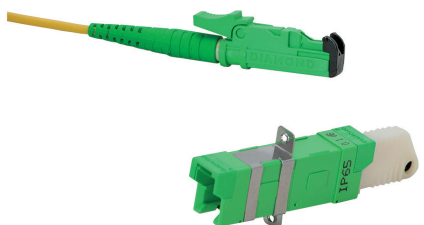
No connector on B end (choise X) means fanout pigtail is ordered, selected connectors on ends A and B means fanout patchcord is ordered.

Notice: sum of the lengths of the longest leads on opposite ends must not be longer than the total length L.

E-2000 DIAMOND CONNECTORS AND ADAPTERS



E-2000 DIAMOND connectors and adapters



Connectors and adapters E-2000 IP65

FEATURES:

- assembled according to Active Core Alignment technology
- high performance of 0.1 dB APC connectors due to the light emission angle control and application of high precision adapter sleeves
- adapters E-2000 IP65 designed to meet binding requirements, reliability and safety in uncontrolled environments
- adapters E-2000 IP65 recommended for use in mining and petrochemical industries as well as in telecommunication systems located in harsh environments, guarantees splash-proof and dust-proof connections
- comply with the standards: EN60825-1, EN60825-2 (eye protection), IEC61754-15, ZN-05/TP S.A.-044
- available in MM, SM, PC, APC and in duplex versions

TECHNICAL SPECIFICATIONS:

connector type	E-2000 DIAMOND			E-2000 0,1dB DIAMOND	test conditions
	MM PC 0°	SM PC 0°	SM APC 8°	SM APC 8°	
insertion loss IL [dB]		0,15		0,1	IEC 61300-3-4; λ=1300/1550 nm
return loss RL [dB]	40	50	70	85	IEC 61300-3-6; λ=1300/1550 nm
repeatability of IL [dB]	±0,1				over service life
service life	over 1000 mate/demate cycles				
operating temperature [°C]	- 40 do +85				depending on cable specification
ferrule diameter [mm]	2,5				
short code	E2	E20	E28	E28R	

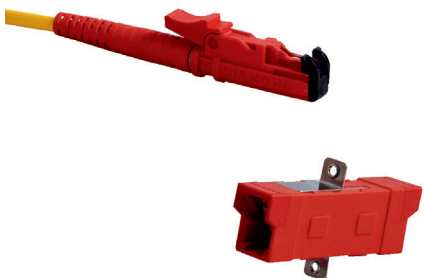
ORDERING:

E-2200.2-22 - adapter simplex E-2000/APC SM

E2A/02.5/SM/T/1J - pigtail E-2000/APC SM L=2.5 m cable 900 μm SM

E2AIP - adapter simplex E-2000/APC SM IP65

E-2000 PS DIAMOND CONNECTORS AND ADAPTERS



E-2000 PS DIAMOND connectors and adapters

FEATURES:

- the E-2000 PS System is designed for high power applications up to 3 Watts optical power
- developed to support the continuous rise of higher bit rates and longer transmission distances, within DWDM technology, and is based on expanded beam technology
- a section of graded index fibre is introduced as a collimating lens, which enlarges the beam diameter and reduces power density at the connector interface
- all of the features of the E-2000 family, are available from the E-2000 PS, including: ease of installation, integrated protection caps, color coding, mechanical keying and excellent vibration resistance
- angle of polishing is 4°
- comply with the standards: EN60825-1, EN60825-2 (eye protection), IEC61754-15, ZN-05/TP S.A.-044

TECHNICAL SPECIFICATIONS:

connector type	E-2000 PS DIAMOND	test conditions
	SM APC 4°	
insertion loss IL [dB]	0,2	IEC 61300-3-4; λ=1300/1550 nm
return loss RL [dB]	85	IEC 61300-3-6; λ=1300/1550 nm
repeatability of IL [dB]	±0,1	over service life
service life	over 1000 mate/demate cycles	
operating temperature [°C]	- 40 do +85	depending on cable specification
ferrule diameter [mm]	2,5	
short code	E2APS	

ORDERING:

E-2201.2 PS - adapter simplex E-2000/APC PS



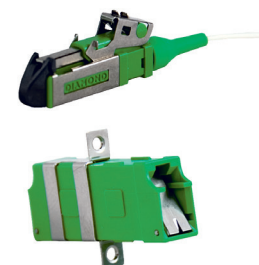
F-3000 PS DIAMOND CONNECTORS AND ADAPTERS

FEATURES:

- assembled according to Active Core Alignment technology
- small-form-factor construction, ferrule 1.25 mm
- provide the highest transmission and operating parameters
- comply with the standards: EN60825-1, EN60825-2 (eye protection), IEC61754-20, ZN-05/TP S.A.-044
- available in PC and APC versions, and in duplex construction
- fully LC standard compatible

TECHNICAL SPECIFICATIONS:

connector type	F-3000 DIAMOND		F-3000 0,1dB DIAMOND		test conditions
	SM PC 0°	SM APC 8°	SM PC 0°	SM APC 8°	
insertion loss IL [dB]	0,15				IEC 61300-3-4; λ=1300/1550 nm
return loss RL [dB]	50	70	50	85	IEC 61300-3-6; λ=1300/1550 nm
repeatability of IL [dB]	±0,1				over service life
service life	over 1000 mate/demate cycles				
operating temperature [°C]	- 40 do +85				depending on cable specification
ferrule diameter [mm]	1,25				
short code	F3P	F3A	F3PR	F3AR	



F-3000 PS DIAMOND connectors and adapters

LC CONNECTORS AND ADAPTERS

FEATURES:

- small-form-factor construction, ferrule 1.25 mm
- comply with the standards: IEC 61754-20, PN-EN50377-7-4, ZN-05/TP S.A.-044, ZN-05/TP S.A.-044
- available in PC and APC versions, and in duplex construction
- available with 45° or 90° angular boots

TECHNICAL

connector type	LC			test conditions
	MM PC 0°	SM PC 0°	SM APC 8°	
insertion loss IL [dB]	0,2			IEC 61300-3-4; λ=1300/1550 nm
return loss RL [dB]	50		70	IEC 61300-3-6; λ=1300/1550 nm
repeatability of IL [dB]	±0,1			over service life
service life	over 1000 mate/demate cycles			
operating temperature [°C]	- 40 do +85			depending on cable specification
ferrule diameter [mm]	1,25			
short code	LC	LCP	LCA	



LC connectors and adapters

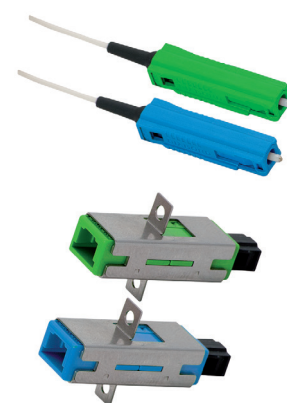
MU CONNECTORS AND ADAPTERS

FEATURES:

- small-form-factor construction, ferrule 1.25 mm
- comply with the standards: IEC 61754-6
- available in PC and APC versions, and in duplex construction

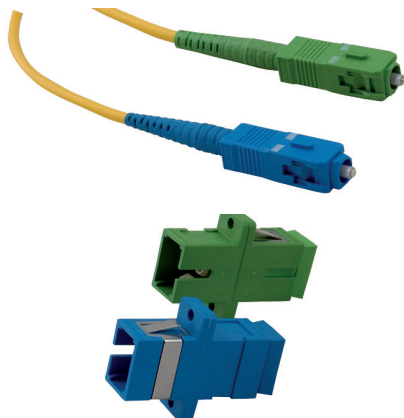
TECHNICAL

connector type	MU			test conditions
	MM PC 0°	SM PC 0°	SM APC 8°	
insertion loss IL [dB]	0,15	0,2		IEC 61300-3-4; λ=1300/1550 nm
return loss RL [dB]	40	50	70	IEC 61300-3-6; λ=1300/1550 nm
repeatability of IL [dB]	±0,1			over service life
service life	over 1000 mate/demate cycles			
operating temperature [°C]	- 40 do +85			depending on cable specification
ferrule diameter [mm]	1,25			
short code	MU	MUP	MUA	



MU connectors and adapters

SC DIAMOND CONNECTORS AND ADAPTERS



SC DIAMOND connectors and Adapters

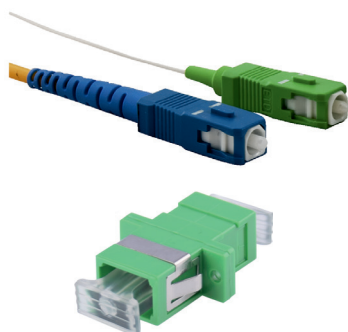
FEATURES:

- assembled according to Active Core Alignment technology
- provide the highest transmission and operating parameters
- comply with the standards: IEC-61754-4, PN-EN186260:2000, ZN-05/TP S.A. -044
- available in MM, SM, PC, APC and in duplex versions

TECHNICAL SPECIFICATIONS:

connector type	SC DIAMOND		test conditions
	SM PC 0°	SM APC 8°	
insertion loss IL [dB]	0,15	0,1	IEC 61300-3-4; λ=1300/1550 nm
return loss RL [dB]	50	70	IEC 61300-3-6; λ=1300/1550 nm
repeatability of IL [dB]	±0,1		over service life
service life	over 1000 mate/demate cycles		
operating temperature [°C]	-40 do +85		depending on cable specification
ferrule diameter [mm]	2,5		
short code	SC0	SC8	

SC MONOBLOK CONNECTORS AND ADAPTERS



SC Monoblok Connectors and Adapter

FEATURES:

- monoblock connector with zirconia ceramic ferrule
- comply with the standards: IEC-61754-4, PN-EN186260:2000, ZN-05/TP S.A. -044
- available in MM, SM, PC, APC and in duplex versions

TECHNICAL SPECIFICATIONS:

connector type	SC			test conditions
	MM PC 0°	SM PC 0°	SM APC 8°	
insertion loss IL [dB]	0,2		0,15	IEC 61300-3-4; λ=1300/1550 nm
return loss RL [dB]	40	55	65	IEC 61300-3-6; λ=1300/1550 nm
repeatability of IL [dB]	±0,1			over service life
service life	over 1000 mate/demate cycles			
operating temperature [°C]	-40 do +85			depending on cable specification
ferrule diameter [mm]	2,5			
short code	SC	SCP	SCA	

SC ADAPTERS WITH INTEGRATED SWING SHUTTER



SC Adapter with integrated swing shutter

FEATURES:

- effective eye protection against laser radiation
- effective protection of adapter inner parts against dirt and dust
- automatic opening and closing of the shutter
- available in PC and APC versions with blue or green outer bodies respectively
- outer bodies with flange for screw fixing or without flange
- clip fixing option
- operating temperature range -40°C to +85°C
- fire safety grade UL94 V-0
- compliant with IEC 60874-14
- free from harmful substances, compliant with RoHS directive
- 500 mate-demate cycles durability

OBSZARY ZASTOSOWAŃ:

- FTTH networks
- FTTH optical wall outlets
- polluted environments

TECHNICAL SPECIFICATIONS:

	SC SM PC 0°	SC SM APC 8°
insertion loss IL [dB]	0,2	0,15
return loss RL [dB]	55	65
repeatability of IL [dB]	±0,1	

SC PREMIUM PLUS CONNECTORS

FEATURES:

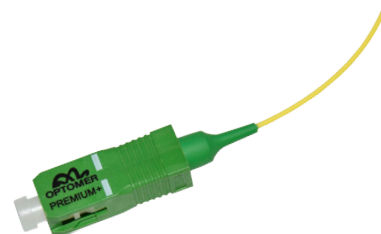
- high quality
- precise fibre positioning, machine polished ferrule end face
- ferrule endface geometry compliant with IEC standards
- highest transmission parameters and performance characteristics
- compliant with: IEC-61754-4, PN-EN186260, ZN-05/TP S.A. -044, TELCORDIA GR-326-CORE
- available in SM PC and APC versions
- each plug is flagged with IL, RL values and manufacturing date

APPLICATIONS:

- long range telecom networks
- backbone networks, central office applications
- WDM, CWDM, DWDM networks
- networks with low attenuation budget

TECHNICAL SPECIFICATIONS:

connector type	SC Premium Plus		test conditions
	SM PC 0°	SM APC 8°	
insertion loss IL [dB]	0,15	0,1	IEC 61300-3-4; λ=1300/1550 nm
return loss RL [dB]	min. 55	min. 80	IEC 61300-3-6; λ=1300/1550 nm
repeatability of IL [dB]	±0,1		over service life
service life	ponad 1000 mate/demate cycles		
operating temperature [°C]	- 40 do +85		depending on cable specification
ferrule diameter [mm]	2,5		
short code	SCP/P	SCA/P	



SC Premium Plus Connector

SC PREMIUM PLUS ADAPTERS

FEATURES:

- fully compliant with SC/APC standard, new one piece adapter technology
- low insertion loss IL, typically 0.05 dB, IL max ≤ 0.15 dB
- precise ceramic ferrule
- dedicated for backbone networks and when low insertion loss is required
- full manufacturer identification thanks to OPTOMER logo embossed on the adapter body
- higher mechanical strength, outer body made of PBT plastic with better resistance to high temperatures
- tight, transparent dust cap with excellent protection of the adapter interior against dirt and dust allowing fibre identification with visible light
- clip or screw mounted
- SC Premium Plus adapters and connectors are compliant with the following standards and recommendations: IEC-61754-4, PN-EN186260:2000, ZN-05/TP S.A., TELCORDIA GR-326-CORE

APPLICATIONS:

- long range telecom networks
- backbone networks, central office applications
- WDM, CWDM, DWDM networks
- networks with low insertion loss budget

TECHNICAL SPECIFICATIONS:

	SC Premium Plus Adapters
insertion loss IL [dB]	typ. ≤ 0,05 , maks. ≤ 0,15
service life [dB]	ponad 1000 cykli połączeniowych
operating temperature [°C]	- 40 do +85
rodzaj tulei centrującej	ceramic

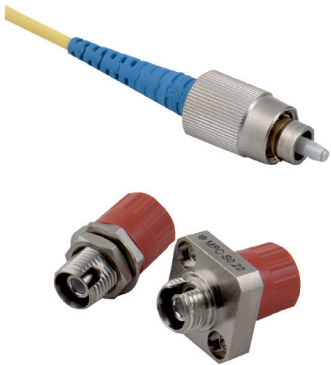
NOTICE:

SC Premium Plus adapters are recommended to be used with SC Premium Plus connectors in order to maintain the highest transmission performance



SC Premium Plus Adapter

FC DIAMOND CONNECTORS AND ADAPTERS



FC DIAMOND connectors and adapters

FEATURES:

- assembled according to Active Core Alignment technology
- provide the highest transmission and operating parameters
- comply with the standards: IEC 61754-13, PN-EN50377-2-1, ZN-05/TP S.A.-044
- available in PC and APC versions, and in duplex construction

TECHNICAL

connector type	FC DIAMOND		test conditions
	SM PC 0°	SM APC 8°	
insertion loss IL [dB]	0,2		IEC 61300-3-4; l=1300/1550 nm
return loss RL [dB]	50	70	IEC 61300-3-6; l=1300/1550 nm
repeatability of IL [dB]	±0,1		over service life
service life	over 1000 mate/demate cycles		
operating temperature [°C]	- 40 do +85		depending on cable specification
ferrule diameter [mm]	2,5		
short code	FC0	FC8	

FC MONOBLOK CONNECTORS AND ADAPTERS



FC MONOBLOCK connectors and adapters

FEATURES:

- monoblock connector with zirconia ceramic ferrule
- comply with the standards: IEC 61754-13, PN-EN50377-2-1, ZN-05/TP S.A.-044
- available in MM, SM, PC and APC versions

TECHNICAL SPECIFICATIONS:

connector type	FC			test conditions
	MM PC 0°	SM PC 0°	SM APC 8°	
insertion loss IL [dB]	0,2		0,15	IEC 61300-3-4; l=1300/1550 nm
return loss RL [dB]	40	55	65	IEC 61300-3-6; l=1300/1550 nm
repeatability of IL [dB]	±0,1			over service life
service life	over 1000 mate/demate cycles			
operating temperature [°C]	- 40 do +85			depending on cable specification
ferrule diameter [mm]	2,5			
short code	FC	FCP	FCA	

ST DIAMOND CONNECTORS AND ADAPTER



ST DIAMOND connectors and adapters

FEATURES:

- assembled according to Active Core Alignment technology
- provide the highest transmission and operating parameters
- comply with the standards: IEC 61754-2, ZN-05/TP S.A.-044
- available in SM PC version

TECHNICAL SPECIFICATIONS:

connector type	ST DIAMOND	test conditions
	SM PC 0°	
insertion loss IL [dB]	0,2	IEC 61300-3-4; l=1300/1550 nm
return loss RL [dB]	55	IEC 61300-3-6; l=1300/1550 nm
repeatability of IL [dB]	±0,1	over service life
service life	over 1000 mate/demate cycles	
operating temperature [°C]	− 40 do +85	depending on cable specification
ferrule diameter [mm]	2,5	
short code	ST0	

ST MONOBLOK CONNECTORS AND ADAPTERS

FEATURES:

- monoblock connector with zirconia ceramic ferrule
- comply with the standards: IEC 61754-2, ZN-05/TP S.A.-044
- Available in PC and APC versions, and in duplex construction MM

TECHNICAL SPECIFICATIONS:

connector type	ST		test conditions
	MM PC 0°	SM PC 0°	
insertion loss IL [dB]	0,2		IEC 61300-3-4; $\lambda=1300/1550$ nm
return loss RL [dB]	40	55	IEC 61300-3-6; $\lambda=1300/1550$ nm
repeatability of IL [dB]	$\pm 0,1$		over service life
service life	over 1000 mate/demate cycles		
operating temperature [°C]	- 40 do +85		depending on cable specification
ferrule diameter [mm]	2,5		
short code	ST	STP	



ST connectors and adapters

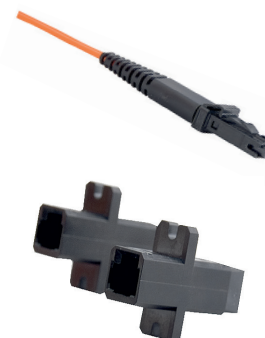
MT-RJ CONNECTORS AND ADAPTERS

FEATURES:

- available in versions: male, female
- comply with the standards: IEC 61754-18, EN 50377-9-1, EN 50377-9-2
- available in MM and SM PC versions

TECHNICAL SPECIFICATIONS:

connector type	MT-RJ		test conditions
	MM PC 0°	SM PC 0°	
insertion loss IL [dB]	0,3		IEC 61300-3-4; $\lambda=1300/1550$ nm
return loss RL [dB]	35	45	IEC 61300-3-6; $\lambda=1300/1550$ nm
repeatability of IL [dB]	$\pm 0,1$		over service life
service life	over 1000 mate/demate cycles		
operating temperature [°C]	- 40 do +85		depending on cable specification
ferrule diameter [mm]	-		
short code	MTRJ	MTRJP	



MT-RJ connectors and adapters

DIN, FSMA CONNECTORS AND ADAPTERS

FEATURES:

- used in measuring, medical and industrial equipment
- comply with the standards: CECC 86 135-801 (PC polished), CECC86 135-802 (APC polished)

TECHNICAL SPECIFICATIONS:

connector type	DIN			FSMA
	MM PC 0°	SM PC 0°	SM APC 8°	MM PC 0°
insertion loss IL [dB]	typ. 0,15; maks. 0,4	typ. 0,2; maks. 0,4		typ. 0,6
return loss RL [dB]	min. 40	typ. 50	min. 70	typ. 12
repeatability of IL [dB]	maks. $\pm 0,1$			$\pm 0,2$

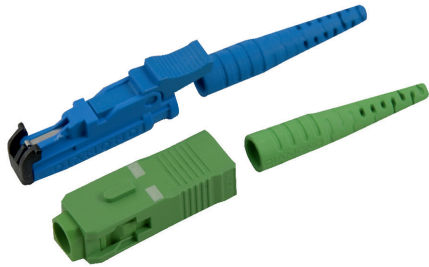


DIN connectors and adapters



FSMA connectors and adapters

FUSION DIAMOND CONNECTORS



FUSION connectors



FUSION ferrule

FEATURES:

- the FUSION connector system allows quick and easy field termination of high performance connectors
- with the performance expect from the highest quality connectors
- the ferrule assembly consists of a factory-terminated fibre endface, fibre stub, and integrated splice protection
- the fibre endface is core-centered via well-known Active Core Alignment process and factory-polished to the company's precise specifications
- the FUSION connector are field terminated via a low loss fusion splice using the new ZEUS D50 Fusion Field Termination Kit
- the FUSION connectors are available for SM and MM fibre (250 µm, 600 µm & 900 µm) and cable (1.6 to 3.1 mm) in both 0° PC or 8° APC versions
- comply with the standards: IEC 61754-20, EN60825-1, EN60825-2 (eye protection), IEC61754 norms

TECHNICAL SPECIFICATIONS:

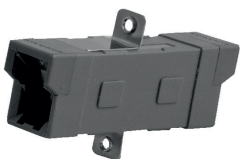
connector type	E-2000, SC, FC, ST* DIAMOND FUSION			test conditions
	MM PC 0°	SM PC 0°	SM APC 8°	
insertion loss IL [dB]	0,2		0,25	IEC 61300-3-4; λ=1300/1550 nm
return loss RL [dB]	40	50	70	IEC 61300-3-6; λ=1300/1550 nm
repeatability of IL [dB]	±0,1			over service life
service life	over 1000 mate/demate cycles			
operating temperature [°C]	-25 do +70			depending on cable specification
ferrule diameter [mm]	2,5			
short code	-			

* ST connectors available in MM PC 0° and SM PC 0°

ORDERING:

E-2000/APC CDR/3000 - E2000/APC for splicing on 3 mm cable

CRIMP&CLEAVE DIAMOND CONNECTORS



CRIMP&CLEAVE DIAMOND connectors

FEATURES:

- the Crimp & Cleave system is designed for field termination connectors E2000, SC, FC, ST of 200/230 micron HCS-fibre
- Typical uses include point to point installations over short distance requiring low data rate transmission, industrial applications such as machine controls or sensors

TECHNICAL SPECIFICATIONS:

connector type	Crimp&Cleave - E-2000, SC, FC, ST	test conditions
	MM PC 0°	
insertion loss IL [dB]	typ. 0,8	IEC 61300-3-4; λ=1300/1550 nm
return loss RL [dB]	-	IEC 61300-3-6; λ=1300/1550 nm
repeatability of IL [dB]	±0,2	over service life
service life	over 1000 mate/demate cycles	
operating temperature [°C]	- 40 do +85	depending on cable specification
ferrule diameter [mm]	2,5	
short code	-	

ORDERING:

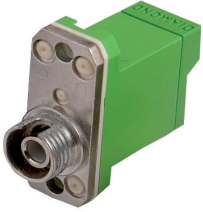
E-2000 Crimp&Cleave connector



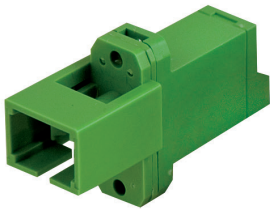
CONNECTOR AND ADAPTER SUMMARY

connector type		insertion loss IL [dB]	return loss RL [dB]	repeatability of IL [dB]	service life	operating temperature [°C]	ferrule diameter [mm]	short code	
E-2000 DIAMOND	MM PC 0°	0,15	40	±0,1	over 1000 mate/ demate cycles	-40 do +85	2,5	E2	
	SM PC 0°		50					E20	
	SM APC 8°		70					E28	
E-2000 0,1 dB DIAMOND	SM APC 8°	0,1	85					E28R	
E-2000 PS DIAMOND	SM APC 4°	0,2						E2APS	
F-3000 DIAMOND	SM PC 0°	0,15	50				1,25	F3P	
	SM APC 8°		70					F3A	
F-3000 0,1 dB DIAMOND	SM PC 0°		50					F3PR	
	SM APC 8°		85					F3AR	
LC	MM PC 0°	0,2	50					LC	
	SM PC 0°		70					LCP	
	SM APC 8°							LCA	
MU	MM PC 0°	0,15	40					MU	
	SM PC 0°	0,2	50					MUP	
	SM APC 8°		70					MUA	
SC DIAMOND	SM PC 0°	0,15	50		2,5		SC0		
	SM APC 8°	0,1	70				SC8		
SC	MM PC 0°	0,2	40				SC		
	SM PC 0°		55				SCP		
	SM APC 8°	0,15	65				SCA		
SC with integrated protective shutter	SM PC 0°	0,2	55				-		
	SM APC 8°	0,15	65				-		
FC DIAMOND	SM PC 0°	0,2	50				over 1000 mate/ demate cycles	FC0	
	SM APC 8°		70					FC8	
FC	MM PC 0°		40					FC	
	SM PC 0°	0,15	55					FCP	
	SM APC 8°		65					FCA	
ST DIAMOND	SM PC 0°	0,2	55					ST0	
ST	MM PC 0°		40					ST	
	SM PC 0°		55					STP	
MT-RJ	MM PC 0°	0,3	35		-			MTRJ	
	SM PC 0°		45		-			MTRJP	
DIN	MM PC 0°	typ. 0,15, maks. 0,4	min. 40		±0,2			2,5	-
	SM PC 0°	typ. 0,2, maks. 0,4	typ. 50						-
	SM APC 8°		min. 70						-
FSMA	MM PC 0°	typ. 0,6	typ. 12					3,175	-
E-2000, SC, FC, ST DIAMOND FUSION	MM PC 0°	0,2	40	±0,1	-25 do +70	2,5		-	
	SM PC 0°		50				-		
	SM APC 8°	0,25	70				-		
"Crimp&Cleave - E-2000, SC, FC, ST"	MM PC 0°	typ. 0,8	-	±0,2	-40 do +85		-		
test conditions		IEC 61300-3-4; l=1300/1550 nm	IEC 61300-3-6; l=1300/1550 nm	over service life		depending on cable specification			

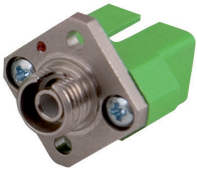
HYBRID ADAPTERS



HYB. E-2000/FC SM APC



HYB. SC/E-2000 SM APC



HYB. FC/SC SM APC



HYB. E-2000/ST SM PC



HYB. E-2000/DIN SM PC

FEATURES:

- hybrid adapters are used to mate various connector standards, while keeping the angle of polishing
- the new generation of ceramic centering sleeves
- also available in male-female versions

TECHNICAL SPECIFICATIONS:

adapter*	E-2000	SC	FC	DIN	ST	LC
adapter - side B	SC	-	SC	SC	-	-
	FC	FC	-	FC	FC	-
	ST	ST	ST	ST	-	-
	DIN	DIN	DIN	-	DIN	MU
type	APC	APC	APC	APC	-	-
	PC	PC	PC	PC	PC	PC
alignment sleeve	ceramic					
housing colour	APC	green	green	nickel-plated bronze		green
	PC	blue	blue			blue
footprint dimensions [mm]	9,2 x 13,3	9,5 x 13,1	ø9,0	4,5 x ø5,5	7,8 x ø9,7	7,1 x 11,7
operating temperature [°C]	- 40 do + 85					

*other hybride adapter type available upon request

ORDERING:

HYB.FC-SC/PC - hybrid adapter FC-SC/PC - fixing acc. FC standard

HYB.SC-FC/APC - hybrid adapter SC-FC/APC - fixing acc. SC standard

TELECOM

ACCESS

CATV

MAN

WAN

LAN

FTTx

PON

xWDM



FIBRE OPTIC ATTENUATORS

FEATURES:

- attenuators are used to adapt the transmitted light power to the characteristics of the implanted receiver
- available in SM, PC and APC versions
- available in male-male and male-female versions

TECHNICAL SPECIFICATIONS:

	E-2000, SC, FC, ST, LC, MU attenuators								
	SM PC 0°					SM APC 8°			
wavelength [nm]	1310/1550								
insertion loss IL [dB]*	2	4	5	6	10	15	20	25	30
return loss [dB]	45					70			
service life	over 1000 mate/demate cycles								
operating temperature [°C]	- 40 do +85								

* available attenuations: 1, 2, 3, 4, 5, 10, 15, 20, 25, 30 dB

ORDERING:

TL-SCP-SM-10dB - attenuator SC/PC 10dB

TL-SCA-SM-10dB - attenuator SC/APC 10dB



FIBRE OPTIC TERMINATORS

FEATURES:

- prevent the reflection of light that are present at open end systems

	E-2000, F-3000, SC, FC		test conditions
	SM PC 0°	SM APC 8°	
insertion loss IL [dB]	0,15	0,2	IEC 61300-3-4; λ=1300/1550 nm
return loss [dB]	45	70	IEC 61300-3-6; λ=1300/1550 nm
repeatability of IL [dB]	over 500 mate/demate cycles		
service life	±0,1		over service life
operating temperature [°C]	- 40 do +85		

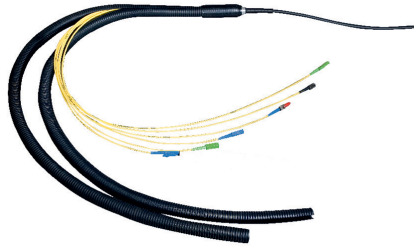
ORDERING:

OTM E-2000/APC - terminator E-2000/APC



SC fibre optic terminators

MULTIPIGTAILS, MULTIPATCHCORDS



6 fibre pigtail fan out, PSKD cable

24 fibre pigtail fan out, MINI
BREAKOUT cable24 fibre patchcord fan out BREAKOUT
cable

FEATURES:

- cable bundles, can be terminated by E-2000, SC, LC, FC or ST connectors
- eliminate the need for splicing or mechanical connecting fibres in the field
- reduction of costs
- cable bundle can be protected by tubes or splittable corrugated tubes
- different configurations of endings - e.g. cascade
- available cable bundles:
- breakout with 2.0 mm cables for indoor use
- mini-breakout with 0.9 mm buffered fibres for indoor use
- universal cable for outdoor use
- PSKD tactical cable with 0.9 mm buffered fibres for outdoor applications

CONFIGURATIONS:

Fan out cable WK	Connector on side A	Connector on side B	Fibre count	Cable length L [m]	FIBRE TYPE	CABLE TYPE
Defined by the customer	E28 E-2000/APC DIAMOND	E28 E-2000/APC DIAMOND	SM MM 4J 4G		INDOOR	
	E20 E-2000/PC DIAMOND	E20 E-2000/PC DIAMOND	6J 6G 8J 8G		SM G.652D (SM1) MMG.651 62,5 (OM1) MMG.651 50 (OM2)	A - mini Breakout with 0.9 mm buffered fibres
	E28R E-2000/APC 0,1 dB DIMAOND	E28R E-2000/APC 0,1 dB DIMAOND	12J 12G 24J 24G 48J 48G		SMG.652D (SM1) MMG.651 62,5 (OM1) MMG.651 50 (OM2)	B - breakout with 2 mm cables
	SCA SC/APC	SCA SC/APC	SM MM 4J 4G 6J 6G 12J 12G		SMG.652D (SM1) SMG.657 A1 SMG.657 A2 MMG.651 62,5 (OM1) MMG.651 50 (OM2) MMG.651 50 (OM3) MMG.651 50 (OM4)	C - patchcord cable bundle in protective corrugated tube with the bushing
	SCP SC/PC	SCP SC/PC			Universal indoor/outdoor	
	SC SC MM	SC SC MM	SM MM 4J 4G 6J 6G		SMG.652D (SM1) MMG.651 62,5 (OM1) MMG.651 50 (OM2)	D - with 2 mm cables
	LCP LC/PC	LCP LC/PC	8J 8G 12J 12G		SMG.652D (SM1) MMG.651 62,5 (OM1) MMG.651 50 (OM2)	E - with 2 mm cables and fibre manifold
	LCA LC/APC	LCA LC/APC	24J 24G 48J 48G		SM G.652D (SM1) MMG.651 62,5 (OM1) MMG.651 50 (OM2)	F - with 0.9 mm buffered fibres
		X – no connector	SM MM 4J 4G 6J 6G 12J 12G		TACTICAL	
					SMG.652D (SM1) MMG.651 62,5 (OM1) MMG.651 50 (OM2)	M - PSKD z with 0.9 mm buffered fibres

Notice: lengths of the shortest leads dA, dB and the sA, sB length increments should be specified in addition to the code created with the configurator from page 7.

ORDERING:

WK/E2A/E2A/24J/25/SMG.652D/B - patchcord fan out, E-2000/APC connectors on both ends, 24 fibres, length 25 m, SM G.652D fibre, BREAKOUT cable

TELECOM

ACCESS

CATV

MAN

WAN

LAN

FTTx

PON

xWDM



MULTIPURPOSE PIGTAIL PW-SM, PW-MM

FEATURES:

- connects bare fibre to test and measuring devices or directly to telecommunication equipment
- low insertion loss
- no need to use fibre cutter
- available with SM or MM fibres with SC, FC, ST connectors PC or APC polished

TECHNICAL SPECIFICATIONS:

	PW-SM	PW-MM
fibre type	singlemode 9/125 µm	multimode 62,5/125 µm
pigtail length [m]	1	
insertion loss IL [dB]	typ. < 0,5	
return loss RL [dB]	< 45	
adaptee standard	SC, FC, ST	
service life	min. 1000	
operating temperature [°C]	-10 do +30	

*PW-SM Multipurpose Pigtail*

PSB FIBRE OPTIC EXTENSION CORDS

FEATURES:

- robust case reel
- safe fibre optic cable operation
- multiple wind-unwind cycles
- resistant to multiple bending
- E-2000, SC, FC, ST, F-3000, LC connector standards
- outer end connectors protected with hermetic corrugated tube, inner end connectors fixed to the reel
- can be pulled into subducts
- 100 m extension range
- PSKD tactical cable with increased tensile strength
- 7 mm cable outer diameter

TECHNICAL SPECIFICATIONS:

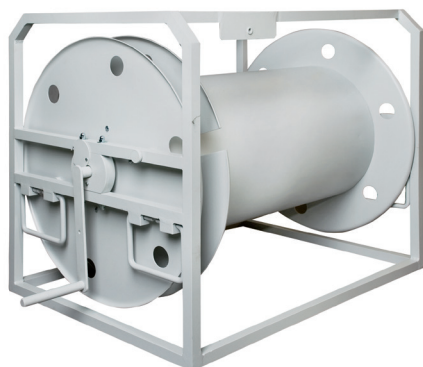
	PB	PSB	
cable length [m] 100	100 - 200	200	500
cable outer diameter [mm]	7	10	7
cable fibre count	12		
connector standards	E-2000, SC, FC, ST, F-3000, LC		
dimensions: width/height/depth. [mm]	370/480/250	510/700/250	

ORDERING:

PSB - fibre optic extension cord, cable length 500 m

*PB-100 fibre optic extension cord**PSB fibre optic extension cord*

BZK FIBRE OPTIC CABLE EXTENSION DRUM

BZK FIBRE OPTIC CABLE EXTENSION
DRUM

FEATURES:

- allows for storage of large length of cable
- can store different cable bundles, multipatchcords, multipigtails
- should be moved by 2 people

TECHNICAL SPECIFICATIONS:

	BZK	
cable length [m]	700	1000
cable outer diameter [mm]	10	7
diensions: width/height/depth. [mm]	800*/580/510	

*width depends on cable length

ORDERING:

BZK - Fibre Optic Extension Cable Drum 1000 m

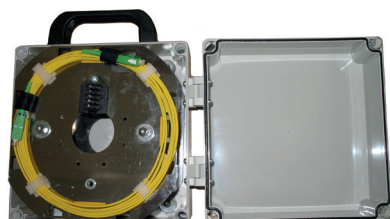


OTDR LAUNCH FIBRE BOX



NEW

Closed OTDR LAUNCH FIBRE BOX



Open OTDR LAUNCH FIBRE BOX

FEATURES:

- box with a reel of 200 m of 900 μ m buffered launch fibre: G.652D, G.657 single mode, OM-1, OM-2, OM-3, OM-4 multimode
- connector standards: E-2000, SC, FC with PC or APC polished ferrule end face
- other launch fibre lengths available upon request
- events in the OTDR dead zone are placed in the launch fibre, this way all events at the beginning of the fibre under test are visible
- carrying handle
- splice protector holder enabling replacement of worn out connectors

EQUIPMENT:

- box
- 200 m of 900 μ m buffered launch fibre terminated with E-2000, SC or FC connectors PC or APC
- 2 adapters

TECHNICAL SPECIFICATIONS:

	OTDR LAUNCH FIBRE BOX	
connector standards	E-2000, SC lub FC	
dimensions width/height/depth [mm]	182/220/90	
fibre lenght [m]	max. 150	max. 500
cable diameter	2 mm	900 μ m

ORDERING:

SKR-SCA/SCA/SP/A/250/S/G652D – reel with 900 μ m buffered G.652D single mode launch fibre terminated with SC/ APC connectors, fibre length 200 m

LAUNCH FIBRE

E-2000 RHA CONNECTOR

- industrial applications such as field bus systems, machine controls and LAN installations requiring high data rate or bandwidth transmission in a harsh environment
- leverages all the mechanical and optical performances as well as safety features
- rugged IP65 rated enclosure
- connector with Active Core Alignment
- integrated caps and shutters
- wide operating range
- self aligning, keyed housing
- connector can be terminated on most types of HCS, MM, and SM fibre

E-2000 RHB CONNECTOR

- typical applications include high data rate transmission, automation control, and offshore device termination in an outdoor, unprotected, and unregulated environment
- RHB can be quickly and reliably field terminated via Fusion or Crimp & Cleave field termination systems
- RHB modular design allows for fibre counts from 6 to 24 (in 6 fibre increments) and can be terminated on most types of HCS, MM, and SM fibre
- connectors are available in both PC and APC finishes providing both low insertion and high return loss
- rugged IP65 rated enclosure
- PG 29 cable entry (16-27.5 mm OD cable)

F-3000 CRB CONNECTOR

- F-3000 CRB CONNECTOR is used for building fibre optic links in the field
- high optical and mechanical performance
- shockproof and splashproof housing fulfilling the requirements of VG 952340
- F-3000 CRB CONNECTOR can be mounted on various cables with multimode or singlemode fibres
- two mated F-3000 connectors provide high service life and high optical and mechanical performance optyczne

X-BEAM CONNECTOR

- X-BEAM is a genderless tactical fibre optic connector which uses lens based expanded beam technology for ease of cleaning and mating in outdoor applications
- X-BEAM expands and collimates the transmission signal at the mating point
- the expanded beam technology reduces the impact of both misalignment as well as endface contamination
- the lens system encloses and protects the fibre end face allowing the connector to be quickly cleaned and mated in the field without special tools

TECHNICAL

	E-2000 RHA			E-2000 RHB			F-3000 CRB			X-BEAM	
	MM PC	SM PC	SM APC	MM PC	SM PC	SM APC	MM PC	SM PC	SM APC	MM	SM
insertion loss IL [dB]	0,15	0,2		0,15	0,2		0,15	0,2		0,7	0,9
return loss RL [dB]	40	50	70	40	50	70	40	50	70	18	30
repeatability of IL [dB]	±0,1						±0,2				
mating durability	over 500 mate/demate cycles									over 2500 mate / demate cycles	
operating temperature [°C]	- 40 do +85										
number of fibre channels	2-4			6,12,18, 24			1, 2			2, 4	
IP class	IP65										

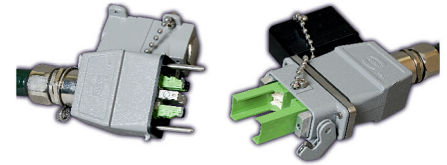
ORDERING:

E-2000 RHA/4 - industrial connector 4 x E-2000/APC SM

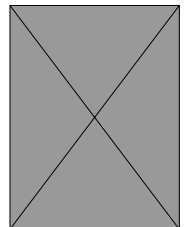
E-2000 RHB/24 - industrial connector 24 x E-2000 SM/APC SM

F-3000 CRB/2 - harsh environment connectors for two F-3000 SM/APC connectors

X-BEAM - lens based connector



E-2000 RHA connector



E-2000 RHB connector



F-3000 CRB connector



X-BEAM connector