

**Product Family:** LANscape® Field installable connectors

**Product:** UniCam® ST, SC, LC, FC & MT-RJ connectors

**Fibre:** InfiniCor® SX+ OM3, InfiniCor® 600 OM2, InfiniCor® 300 OM1, SMF-28e™ OS1/OS2

## Description

The UniCam® Connector is the ideal solution for all your field-installable fibre optic connector requirements. The quick installation reduces the total installed cost of connectorization, making the UniCam Connector cost-effective for all fibre applications, from the main cross-connect to the workstation. The UniCam Connector can best be described as a mini pigtail. It incorporates a factory-installed fibre stub that is fully bonded in the ferrule. The other end is precisely cleaved and placed into the patented alignment mechanism of a mechanical splice. Both the field fibre and fibre stub are fully protected from environmental factors. Unlike other no epoxy, field-installable connectors, the UniCam Connector requires no polishing.

The unique features of the Unicam are the accuracy of the factory polished endface process, 100% quality control of every connector and the visual feedback system during field installation.

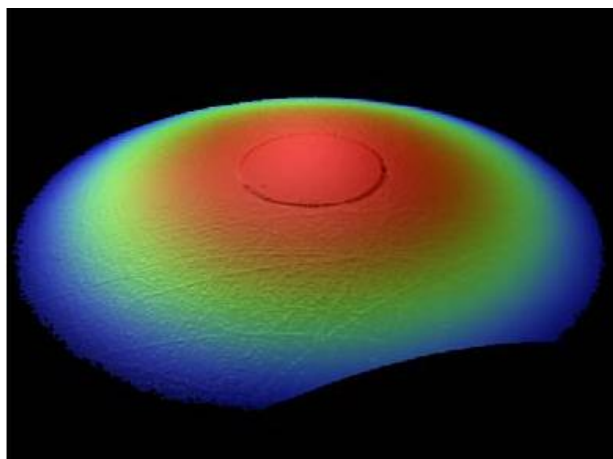
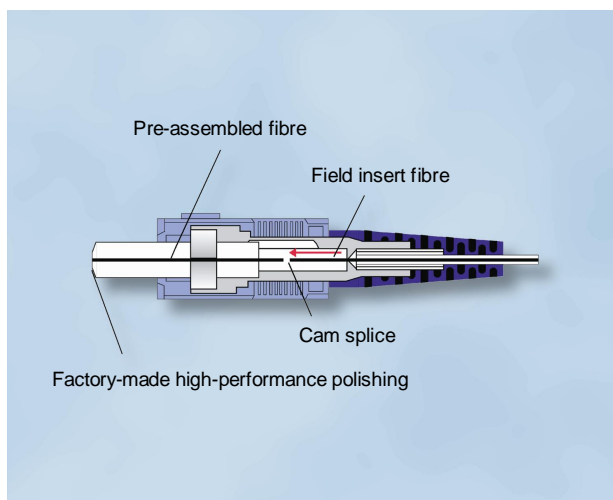
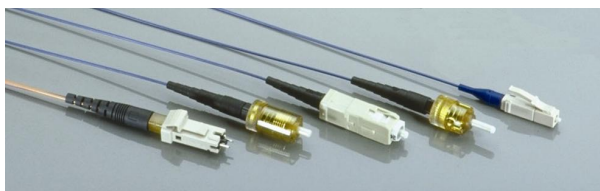
## Applications

The field-installable UniCam® connectors provide high-quality, quick and reliable installation on site. Unicam connectors can be installed on 900µm tight buffers or central-loose tube 250µm fibre cables, furcated to 900µm, 2.0mm and 2.9 single fibre cables.

The installation time can be less than 1min. per fibre. The high quality, controlled endface process performed as part of the production process in the factory, reduces field technician influence to a minimum. On site, the stripped and cleaved field fibres are inserted into the UniCam connectors and retained. A mechanical splice inside the connector establishes the low-loss connection between the field fibre and the preinstalled fibre inside the connector.

## Features / Benefits

- Fastest termination time in the industry: less than 1 min with single fibre connector possible
- Fastest 2 fibre termination time in the industry: less than 2 min with MTRJ connector possible
- Continuity- Test-Set gives immediate go/no go feedback of successful termination
- Minimal tool kit, reduced setup time; universal assembly tool terminates all single- and 2-fiber UniCam Connector styles
- Dimensions for fibre preparation are printed on the connector kit package



3-D view from polished endface of a Unicam connector

## Characteristics

Connector type	ST	SC	LC	FC	MTRJ/f
Ferrule	Ceramic	Ceramic	Ceramic	Ceramic	Composite
Connector body	Composite	Composite	Composite	Composite	Composite
Insertion loss, typical (dB) MM*	0.1	0.1	0.1	0.3	0.3
Insertion loss, Max. (dB) MM*	0.5	0.5	0.5	0.75	0.75
Reflectance Multimode typical (dB) MM PC OM1/OM2	≤ -20	≤ -20	≤ -20	≤ -20	≤ -20
Reflectance Multi Mode typical (dB) MM PC OM3	≤ -26	≤ -26	≤ -26	≤ -26	≤ -20
Insertion loss, typical (dB) SM*	0.2	0.2	0.2	0.3	-
Insertion loss, Max. (dB) SM*	0.5	0.5	0.5	0.75	-
Reflectance Single-Mode typical (dB) MM UPC OS1/OS2	≤ -55	≤ -55	≤ -55	≤ -55	-
Reflectance Single-Mode typical (dB) MM SPC OS1/OS2	≤ -40	≤ -40	≤ -40	≤ -40	-
Cycling to FOTP-21	≤ 0.2 dB, 500 cycles				
Max. Tensile load Connector	44N on 2.0mm and 2.8mm Legs / Cable with ≤ 0.2 change				
Max. Tensile load Connector	4N on 900µm Legs / Tight Buffer with ≤ 0.2 change				
Max. Tensile load Connector	2N on 250µm Bare fibre with ≤ 0.2 change (only for SC and LC available)				
Temperatur in operation**	-40°C to 75°C	-40°C to 75°C	-0°C to 60°C	-0°C to 60°C	-40°C to 75°C
Temperature cycling to FOTP-3	□IL ≤ 0.3 dB, -40 – +75 °C, 21 cycles				

\* The insertion loss values is only for using Unicam Pretium cleaver. When using the standard cleaver the values are 0,3dB typical and 0.75 maximum.

\*\* Please Note: The reflectance values are for 18° to 26° C

## Connectors according to standard

SC	TAI/EIA 604-3 / IEC 61754-4
ST compatible	TAI/EIA 604-2 / IEC 61754-2
FC	TAI/EIA 604-4 / IEC 61754-13
MT-RJ	TAI/EIA 604-12 / IEC 61754-18
LC	TAI/EIA 604-10A / IEC 61754-20

## Connector Identification according to EIA/TIA-568-C.3 Draft 2006

Colour code:	Housing	Boot
OM3 (50µm)	Black	Aqua
OM2 (50µm)	Black	Black
OM1 (62.5µm)	Beige	Beige
OS1/OS2 (E9) UPC	Blue	Blue
OS1/OS2 (E9) SPC	Blue	White

Please Note: All ST compatible connector housings are Amber

## Contents Single pack

Connector type	Connector sub-assembly	Crimp ring	Boot 900µm	Boot 2.0mm	Boot 2.8mm
SC	X	X	X		X
ST compatible	X	X	X		X
FC	X	X	X		X
MT-RJ	X	X			X
LC	X	X	X	X	X

## Optical Characteristics of fibres:

### **Laser optimised multi-mode fibre 50/125 µm, InfiniCor® SX+ OM3**

Laser bandwidth at 850 nm: 2000 MHz·km

Fibre core diameter:  $50.0 \pm 2.5$  µm

Fibre meets or exceeds standards: TIA/EIA 492AAAC-A, IEC 60793-2-10 Type A1a.2, ISO/IEC 11801 OM3.

Fibre tested using minEMBc method, according to TIA/EIA 455-220, IEC 60793-2-10 Ed 2.0 and IEC 60793-1-49 Ed 2.0.

### **Laser optimised multi-mode fibre 50/125 µm, InfiniCor® 600 OM2**

Laser bandwidth at 850 nm: 585 MHz·km

Fibre core diameter:  $50.0 \pm 2.5$  µm

Fibre meets or exceeds standards: TIA/EIA 492AAAB; IEC 60793-2-10 Type A1a.1; ISO/IEC 11801 OM2.

Fibre tested using RML method, according to TIA/EIA 455-204 and IEC 60793-1-41.

### **Laser optimised multi-mode fibre 62.5/125 µm, InfiniCor® 300 OM1**

Laser bandwidth at 850 nm: 220 MHz·km

Fibre core diameter:  $62.5 \pm 2.5$  µm

Fibre meets or exceeds standards: TIA/EIA 492AAAA; IEC 60793-2-10 Type A1b.1; ISO/IEC 11801 OM1.

Fibre tested using RML method, according to TIA/EIA 455-204 and IEC 60793-1-41.

### **Laser optimised single-mode fibre 9/125 µm, SMF 28e™ OS1/OS2**

Mode-Field diameter at 1310:  $9.2 \pm 0.4$  µm

Mode-Field diameter at 1550:  $10.4 \pm 0.5$  µm

Fibre meets or exceeds standards: TIA/EIA 492-CAAB, IEC 60793-2-50 Type B1.3, ISO/IEC 11801 OS1/OS2, Telcordia GR20.

## Order information

### SC Pretium™

Ordering number	Description <b>SC</b> Connectors	Fibre type
95-000-41	Unicam® SC-Connector with Ceramic ferrule, Multimode 62,5µm	OM1
95-050-41	Unicam SC-Connector with Ceramic ferrule, Multimode 50µm	OM2
95-050-41-X	Unicam SC-Connector with Ceramic ferrule, Multimode 50µm	OM3
95-200-41	Unicam SC/SPC-Connector with Ceramic ferrule, Single-mode 9µm	OS1/OS2
95-200-42	Unicam SC/UPC-Connector with Ceramic ferrule, Single-mode 9µm	OS1/OS2

### ST® compatible Pretium™

Ordering number	Description <b>ST</b> Connectors	Fibre type
95-000-51	Unicam ST®-Connector with Ceramic ferrule, Multimode 62,5µm	OM1
95-050-51	Unicam ST-Connector with Ceramic ferrule, Multimode 50µm	OM2
95-050-51-X	Unicam ST-Connector with Ceramic ferrule, Multimode 50µm	OM3
95-200-51	Unicam ST/SPC-Connector with Ceramic ferrule, Single-mode 9µm	OS1/OS2
95-200-52	Unicam ST/UPC-Connector with Ceramic ferrule, Single-mode 9µm	OS1/OS2

### LC® Pretium™

Ordering number	Description <b>LC</b> Connectors	Fibre type
95-000-99	Unicam LC-Connector with Ceramic ferrule, Multimode 62,5µm	OM1
95-050-99	Unicam LC-Connector with Ceramic ferrule, Multimode 50µm	OM2
95-050-99-X	Unicam LC-Connector with Ceramic ferrule, Multimode 50µm	OM3
95-200-96	Unicam LC/SPC-Connector with Ceramic ferrule, Single-mode 9µm	OS1/OS2
95-200-99	Unicam LC/UPC-Connector with Ceramic ferrule, Single-mode 9µm	OS1/OS2

### FC

Ordering number	Description <b>FC</b> Connectors	Fibre type
95-000-61	Unicam FC-Connector with Ceramic ferrule, Multimode 62,5µm	OM1
95-200-62	Unicam FC-Connector with Ceramic ferrule, Single-mode 9µm	OS1/OS2

**\*Please Note: This Connector may not be used with Unicam Pretium Tool Kit**

### MT-RJ with Pins

Ordering number	Description <b>MT-RJ</b> Connectors with pins	Fibre type
92-001-97-P-E	Unicam MT-RJ Connector with pins Composite ferrule, Multimode 62,5µm	OM1
92-051-97-P-E	Unicam MT-RJ Connector with pins Composite ferrule, Multimode 50µm	OM2
92-051-97-P-E-X	Unicam MT-RJ Connector with pins Composite ferrule, Multimode 50µm	OM3

**\*Please Note: This Connector may not be used with Unicam Pretium Tool Kit**

### MT-RJ without Pins

Ordering number	Description <b>MT-RJ</b> Connectors without pins	Fibre type
92-001-97-NP-E	Unicam MT-RJ Connector without pins Composite ferrule, Multimode 62,5µm	OM1
92-051-97-NP-E	Unicam MT-RJ Connector without pins Composite ferrule, Multimode 50µm	OM2
92-051-97-NP-E-X	Unicam MT-RJ Connector without pins Composite ferrule, Multimode 50µm	OM3

**\*Please Note: This Connector may not be used with Unicam Pretium Tool Kit**

Minimum Order Quantity in multiples of 25 pce