

FSMA 8005



Application

FSMA 8005 connectors can connect most optical fiber for a variety of applications such as :

- computer industry,
- industrial links,
- instrumentation,
- aeronautical and military applications

Standards

MIL-C 83522
UTE CF 02 - NFC 93813
IEC SC 86 B



Description

FSMA 8005 connectors range includes : plugs, in line couplers, thru-bulkhead adapters, and device housings to accommodate led's and photo diodes for printed circuit board mounting.

Jumpers and active device housings can be supplied regarding customer requirement.

Characteristics

- Performances :
typical attenuation at : 850 nm
50/125 μ : 1.5 dB
100/140 μ : 1 dB

Materials

connector in arcap, rust proof material, alignment by precision drilled jewel or fully metallic probe.

Electrical

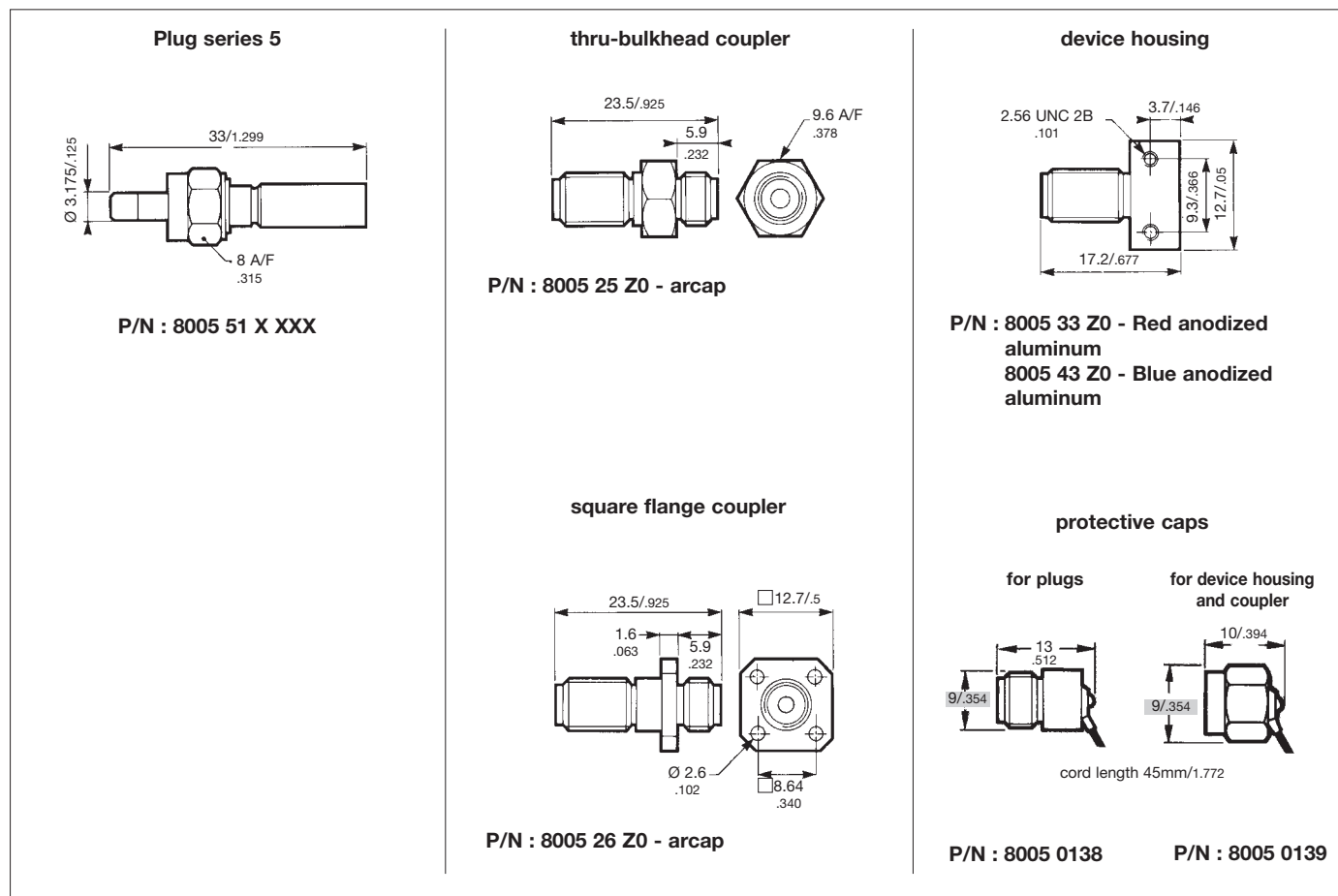
- Temperature range : depends on the cable and fibre used :
- 20 to + 70° C for standard applications
- 40 to + 85° C for military and aeronautical applications

Ordering information

| basic series | | 8005 | 5 | 1 | G | 0 | 2 | 7 |
|--|--|---|---|---|---|---|---|---|
| plugs | | 51 - gluing / polishing (silica fibre) 53 - crimping / polishing (plastic fibre) 59 - sealed version plug | | | | | | |
| Couplers | Arcap | 25 - thru-bulkhead / coupler 26 - square flange / coupler | | | | | | |
| device housings | AU4G Anodized | 33 - PC red receptacle (Emitter) 43 - PC blue receptacle (Receiver) | | | | | | |
| fiber type | G - 50/125 - 62.5/125 μ silica fibre H - 100/140/250 to 500 μ silica fibre R - 200/230/500 μ HCS J - 1000 μ plastic fibre Z - for device housings and couplers | | | | | | | |
| other fiber : | consult us | | | | | | | |
| modification code * depending on the version : please consult us | | | | | | | | |
| cables type | | | | | | | | |
| Cable diameters (mm) | 61 \varnothing 1.5 62 \varnothing 2.2 (Plastic fiber) 27 \varnothing 2.7 23 \varnothing 3 36 \varnothing 6 (reinforcement plastic fiber \varnothing 2.2) | | | | | | | |
| For other cable types, consult us | | | | | | | | |
| For adapters, leave blank. | | | | | | | | |
| Device housings details Centering rings depend on component type, please consult us for the part number. | | | | | | | | |



Dimensions



Fibre termination

• Technology

- gluing / polishing for fibre types G, H, R
- crimping and polishing for fibre type J.

• Tool kit

P/N : 80 MG-0018

The tool kit contains all necessary tools to terminate plugs in gluing / polishing technic :

- stripping pliers
- polishing tools (coarse and final)
- curing oven
- miscellaneous tool.

NB : the crimping tool must be ordered separately depending on the cable diameter (type 23, 27 or 61).

• Tool kit

P/N : 80-MS0002

The tool kit contains all necessary tools to terminate plugs for plastic fiber (type J) such as :

- stripping pliers
- polishing tool
- miscellaneous tool.

NB : the crimping tool must be ordered separately depending on the cable diameter (type 62 or 36).

• Options can be ordered separately to complete the tool kit :

- | | | |
|--|------|-----------------|
| - microscope/high magnification | X200 | P/N : 80-WL0007 |
| | X400 | P/N : 80-WL0001 |
| - microscope adapter | | P/N : 80-WL0020 |
| - crimping plier for cable type 23 or 27 | | P/N : 80-WS0003 |
| - crimping plier for cable type 62 or 36 | | P/N : 80-WS0019 |
| - crimping plier for cable type 61 | | P/N : 80-WS0002 |

• Consumable kit

P/N : 80-KG0009

The consumable kit contains all necessary materials to terminate about 50 plugs such as :

- polishing disks
- glue
- syringes and needles
- ethanol
- dry air canned
- miscellaneous.

• Cleaning kit

P/N : 80-KN0002

The cleaning Kit contains all necessary items to clean either plugs, couplers or device housings such as :

- ecological cleaning spray
- dry air canned
- ethanol
- paper sticks
- cleaning paper.



8011 Series (ST*II)

Applications

LAN
 datacom network computer link
 computer industrial link

Standards

ST* Compatible
 IEC 86 B



Description

- Connector fully compatible with all the existing ST* connectors
- Low insertion loss
- Bayonet coupling
- Repeatable performances (plug indexing)
- Different types of fibers and cables available
- Jumpers and active device housings can be supplied regarding customer requirement

Characteristics

Performances

- Insertion loss : mean value ≤ 0.3 dB
- Standard deviation ≤ 0.15 dB
 (at : 850 nm with a 62.5/125 fiber)
- Temperature range : - 40° C to + 85° C
- Loss repeat :
 < 0,1 dB for 500 reconnections
- cabling time per connector : 15 mn/1
 5 mn/12
- Retention force cable/plug : ≥ 100 N

Materials

| plug series | ferule | nut and body |
|-------------|----------|--------------|
| 8011-72 | Ceramic | |
| 8011-75 | Metallic | |

• boot : Tefabloc

| coupler | alignment sleeve | body |
|---------|------------------|------------------|
| 8011-22 | Bronze | Ni Plated Zamack |

Ordering information

| basic series | | 8011 | 75 | R | 1 | 63 |
|-----------------------------------|--|------|--|---|---|----|
| plugs | 72 - ceramic probe (zirconia) 75 - rust proof material probe (arcap) | | | | | |
| coupler | 22 - thru bulkhead | | | | | |
| device housing | 62 | | | | | |
| fibre type | G - 50/125 - 62.5/125 μ H - 100/140/500 μ R - 200/230/500 μ - HCS J - 1000 μ plastic fibre Z - For thru bulkhead coupler or device housing | | available in series 72 available in series 75 | | | |
| other fibers | consult us | | | | | |
| plugs | 0 - crimping cleaving technic (R type fibre only), or crimping polishing technic (J type fibre only) 1 - gluing/polishing technic (G, H, and R fibre types) | | | | | |
| coupler and device housing | - leave blank | | | | | |
| cable type plug | maximum admissible cable diameter 61 - cable \varnothing 1.5 mm 62 - cable \varnothing 2.2 mm (plastic fiber \varnothing 1000 μ) 63 - cable \varnothing 2.4 mm to \varnothing 3 mm | | | | | |
| coupler and device housing | 01 | | | | | |
| packaging size | - unit (for plug 8011 15 R 063 only) D - per 10 pieces (for plugs and couplers) C - per 100 pieces (for couplers and caps) | | | | | |
| caps for plug | 8011- 0076 | | | | | |

8011 Series (ST*II)



Fibre termination

Technology

- gluing/polishing for fibre types G, H, R
- crimping/polishing for fibre type J
- crimping/cleaving for fibre type R (field cabling)

Tool kit

P/N : 80-MG0011

The tool kit contains all necessary tools to terminate ST* plugs in gluing/polishing technic (stripping tools for cable and fibre, crimping tool, ...).

Tool kit

P/N : 80-MF0002

The tool kit contains all necessary tools required to terminate ST* plugs in crimping/cleaving technic, particularly used in case of field cabling.

NB : available for HCS 200/230/500 fiber into Ø 2.6 mm cable only

Tool kit

P/N : 80-MS0003

The tool kit contains all necessary tools to terminate ST* plugs for plastic fibre, such as :

- stripping plier
- crimping tool
- polishing tool.

Options can be ordered separately for tool kits

80-MG0011 and 80-MS0003 :

- microscope/high magnification (x 200) P/N : 80-WL0007
- microscope/high magnification (x 400) P/N : 80-WL0001
- ST* adapter for microscope P/N : 80-WL0002

For industrial and aeronautical Applications (-40 to +85°C)

Consumable

P/N : 80-KG0009

The consumable kit contains all necessary materials to terminate about so plugs such as :

- polishing disks
- glue
- syringes and needles
- ethanol
- dry air canned
- miscellaneous.

Cleaning kit

P/N : 80-KN0002

The cleaning kit contains all necessary items to clean either plugs, couplers or device housings, such as :

- ecological cleaning spray
- dry air canned
- ethanol
- paper sticks
- cleaning paper.

Table of available P/N

| Plug | Coupler |
|----------------|---------------|
| 8011 72 G 163D | 8011 22 Z 01D |
| 8011 75 H 161D | 8011 22 Z 01C |
| 8011 75 H 163D | |
| 8011 75 R 063 | |
| 8011 75 R 163D | |
| 8011 75 J 062D | |

* ST is an AT & T registered Trade Mark

8012 Series

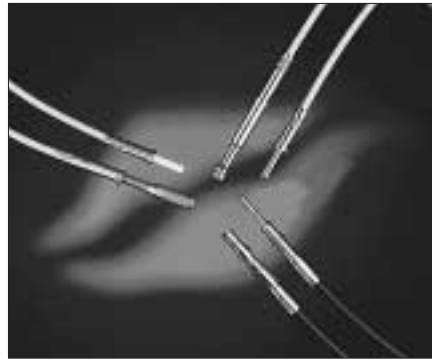


Applications

8012 optical contacts are designed for the integration of optical links inside standard electrical connectors

Standards

MIL-T 29504 when applicable
DIN 41626 when applicable



Description

- Either the pin or socket contact is spring loaded to avoid any air gap between the two optical faces.
- Low insertion loss is provided by high precision pieces.
- Single jumpers, multiways harness and active device housings can be supplied regarding customer requirement.

Characteristics

Performances

- Typical attenuation at 850 nm
 - 1.5 dB with 50/125 fiber (metal probe)
 - 1.0 dB with 100/140 fiber (metal probe)
 - 0.8 dB with HCS 200/230 fiber (metal probe)
 - 0.5 dB with 100/140 fiber (ceramic version)

Materials of contact

- All- arcap materials (rust proof)
- ceramic probe when applicable
- stainless steel : spring

Main fibers used

- 50/125 - 62,5/125
- 100/140
- HCS 200/230
- polymer fibre 1 mm

Fibre termination

Technology

- gluing / polishing for G, D, R fibre types
- crimping / polishing for J fibre type

Tool kit

Gluing / polishing technic

P/N : 80-MG0027

The tool kit contains common tools whatever P/N the contact series or cable diameter is, to terminate contacts :

- stripping pliers for cable and fibre
- polishing plate
- curing oven
- polymerization supports
- miscellaneous tools.

Crimping plier and polishing tool must be ordered separately following the contact series and cable diameter

- crimping plier for cable type 61 P/N : 80-WS0002
- crimping plier for cable type 68 P/N : 80-WS0004
- polishing tool for series 11 P/N : 80-WP0012
- polishing tools for series 42, 43, 54 and 55

- coarse polishing P/N : 80-WP0003
- final polishing P/N : 80-WP0004

Crimping / polishing technic (plastic fibre 1 mm)

The tool kit contains all necessary tools to terminate contacts for plastic fibre, such as :

- stripping plier
- crimping plier
- polishing plate and tool
- miscellaneous

- contacts for plastic fibre series 14 P/N : 80-MS0004
- contact for plastic fibre series 32 and 33 P/N : 80-MS0006

Options can be ordered separately

- microscope/high magnification x200 P/N : 80-WL0007
- x400 P/N : 80-WL0001
- microscope adapter for series 11 P/N : 80-WL0008
- microscope adapter for series 42, 43, 54 and 55 P/N : 80-WL0002

Consumable kit

P/N : 80-KG0009

The consumable kit contains all necessary materials to terminate about 50 plugs such as :

- polishing disks
- glue
- syringes and needles
- ethanol
- dry air canned
- miscellaneous.

Cleaning kit

P/N : 80-KN0002

The cleaning kit contains all necessary items to clean either plugs, couplers or device housings such as :

- ecological cleaning spray
- dry air canned
- ethanol
- paper sticks
- cleaning paper.

8012 Series



Ordering information

| basic series | | 8012 | P | 11 | G | 5 | 61 |
|--|---|---|--|----|---|---|----|
| P - fixed male contact S - spring - loaded mobile female contact C - fixed - active device M - spring - loaded mobile male contact F - fixed female contact | | } only for plastic fibre in D.SUB or DIN 41612 connectors | | | | | |
| index number | Optical standard | Type of FCI connector | Standards or specifications of multiway connectors | | | | |
| 11 for connectors cavity size 16 | MIL T 29504 | { 8 LT 8 D | HE 308 MIL-C 38999 Series I-III-IV | | | | |
| 14 for connectors cavity size 16 | | { 8 P- 8 PM 8291 TRIM-TRIO | DIN 43651 HE 621-HE 622 | | | | |
| 32 for coaxial cavity | } plastic fibre only | 8609 | DIN 41612 | | | | |
| 33 for coaxial cavity | | DMW | HE 501-MIL-C 24308 D-SUB | | | | |
| 42 for coaxial cavity metallic probe contact | DIN 41626 | 8609 | DIN 41612 | | | | |
| 43 for coaxial cavity metallic probe contact | DIN 41626 | DMW | D-SUB HE 501 MIL-C 24308 | | | | |
| 54 for coaxial cavity ceramic probe contact | DIN 41626 | 8609 | DIN 41612 | | | | |
| 55 for coaxial cavity ceramic probe contact | DIN 41626 | DMW | D-SUB - HE 501 - MIL-C 24308 | | | | |
| fibre type | G - 50/125 μ -62,5/125 μ (for index number 11 only) D - 100/140 μ (for index number 42, 43, 54, 55) R - 200/230 HCS (for index number 11, 42, 43) J - 1000 μ plastic fiber (for index number 14, 32, 33) | | | | | | |
| others fibers | consult us | | | | | | |
| modification code | O - depending on the version : please consult us | | | | | | |
| cable type | 62 - cable dia. 2.2 mm (plastic fibre for index number 14, 32, 33) 61 - cable dia. 1.5 mm (for index number 11, 42, 43, 54 and 55) 68 - cable dia. 2.6 mm (for index number 42, 43, 54, 55) | | | | | | |
| device housing | Blank Active devices are also available to fit coaxial cavities of PCB connectors (D-SUB/DIN 41612) as well as pig-tailed active device housings. Please consult us to define electro optic characteristics | | | | | | |