## ODU AMC ${ }^{\circledR}$

## Threaded connector

## 1. Cable assembly



ODU assembly tool (on request)


| Size | max. cable $\varnothing$ <br> mm |
| :---: | :---: |
| 1.5 | 8.5 |
| 3 | 12.5 |

Note: Cable with foil shield such as foiled twisted pair-cable (FTP) not suitable for shield termination mentioned below.

1. Slide crimp sleeve and backshell over the cable. The crimp sleeve is not needed if a metal band is used for fastening the shield to the backshell.
2. Strip the cable and conductors ${ }^{11}$. Fold back the shield and use fastening tape to fasten it temporarily to the cable jacket. Tin-plate this wires if needed.
3. Solder the wires, noting the placement of each wire according to your wiring chart.
Clean the solder area with Isopropylalcohol and brush.
4. Screw the crimp adapter on so that it is flush, observing torque values (see page 3).
Secure the screw thread with adhesive ${ }^{2)}$.
5. Remove the fastening tape and lay the shield braid on to the backshell.


Sealing surface for cable overmolding
6. Fasten the shield braid to the backshell by means of crimping or by using a metal band. More information see page 4.
Encapsulate the interior of the backshell to secure the soldered points (ODU advise WEVO-2K-casting resin PU552FL)
7. Bend relief: This can be implemented by means of Overmolding or by using shrink boot. More information see page 5 .

## 2. Cable Preparation - straight cable exit

The following table provides recommended guidelines for cable preparation.
The according stripping measures have to be checked before assembly!


|  |  | Straight cable <br> assembly |  |  | Right angle cable <br> assembly |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Size | Contact $\varnothing$ | L | A | S | L | A | S |
| 1.5 | 0.5 | 11 | 3.5 | 8 | 15 | 3.5 | 15 |
|  | 0.6 | 11 | 3.5 | 8 | 15 | 3.5 | 15 |
|  | 0.7 | 11 | 3.7 | 8 | 15 | 3.7 | 15 |
| 3 | 0.5 | 13 | 3.5 | 8 | 30 | 3.5 | 25 |
|  | 0.7 | 13 | 3.7 | 8 | 30 | 3.7 | 25 |
|  | 0.9 | 13 | 3.7 | 8 | 30 | 3.7 | 25 |
|  | 2.0 | 13 | 5.4 | 8 | 30 | 5.4 | 25 |


| Stripping lengths cable jacket (L) |  |
| :---: | :---: |
| Length in mm | Tolerance in mm |
| $<20$ | $\pm 1$ |
| $>20-50$ | $\pm 2$ |
| $50-100$ | $\pm 3$ |


| Stripping length braided shield (S) |  |
| :---: | :---: |
| Length in mm | Tolerance in mm |
| $<10$ | $\pm 1$ |
| $>10-20$ | $\pm 2$ |
| Stripping lengths single conductor (A) |  |
| Length in mm | Tolerance in mm |
| $<5$ | $\pm 0.5$ |
| $5-10$ | $\pm 1$ |
| $>10-20$ | $\pm 2$ |

Exceptions are noted on special instructions.

## Note for data-rate-connectors

Before soldering, twist the strands back slightly in the original direction. If a shield is available for the separately pairs of wires (e.g. STP-Cables), wrap it around the pairs as far as possible.

## ASSEMBLY INSTRUCTION

## Threaded connector

3. Assembly crimp adapter

| Size | Torque <br> Nm | Reference <br> Dimension x <br> mm |
| :---: | :---: | :---: |
| 1.5 | 1.5 | 34.1 |
| 3 | 2.5 | 41.6 |



### 3.1 Spann wrench

| Size | Part number | Wrench <br> size |
| :---: | :---: | :---: |
| 1.5 | 598.700 .001 .012 .000 | 11 |
| 3 | 598.700 .001 .007 .000 | 16 |



### 3.2 Assembly tool

| Size | Part number |
| :---: | :---: |
| 1.5 | 715.645 .900 .320 .100 |
| 3 | 703.645 .900 .320 .100 |



# ASSEMBLY INSTRUCTION 

## Threaded connector

4. Assembly crimp sleeve

### 4.1 Crimp tool ODU

| Hand-crimp tool |  |
| :---: | :---: |
| Size | Part number |
| all | 080.000 .026 .000 .000 |


| Crimp dies |  |
| :---: | :---: |
| Size | Part number |
| 1.5 | 080.000 .026 .715 .000 |
| 3 | 080.000 .026 .703 .000 |



To connect the shielding with the crimp.

### 4.2 Band-It Bands

| Hand-crimp tool |  |
| :---: | :---: |
| Size | Part number |
| all | 080.000 .058 .000 .000 |


| Tie-Dex Micro Bands |  |
| :---: | :---: |
| Size | Part number |
| 1.5 | 921.000 .004 .000 .248 |
| 3 | 921.000 .004 .000 .248 |



To connect the shielding with the backshell, using a Tie-Dex Micro Band.

## ASSEMBLY INSTRUCTION

## Threaded connector

## 5. Cable interface

ODU connectors are designed for overmolding. A heatshrinkable bend relief is also possible.
The used backshell is designed for overmolding and heatshrinkable solution.

### 5.1 ODU overmolding

We provide complete solution with straight overmolding.


### 5.2 Heatshrinkable straight solution

| Size | Part number |  |  |
| :---: | :---: | :---: | :---: |
|  | ODU | Hellermann | TE Connectivity |
| 1.5 | 921.000 .010 .008 .085 | $\mathbf{4 0 1 - 5 2 7 8 0}$ | $202 \mathrm{~K} 121-25-01$ |
| 3 | 921.000 .010 .008 .084 | $\mathbf{4 0 1 - 5 2 8 8 0}$ | $202 \mathrm{D} 121-3-60$ |



The image can vary depending on size and variant of this shrinking tube.
ODU stock parts are the bold numbers.

### 5.2 Heatshrinkable right-angle solution

| Size | Part number |  |
| :---: | :---: | :---: |
|  | ODU | Hellermann |
| 1.5 | 921.000 .010 .008 .087 | $411-52480$ |
| 3 | 921.000 .010 .008 .087 | $411-52480$ |



The image can vary depending on size and variant of this shrinking tube.

To a better adhesion of the heatshrink boots on housing and cable, ODU recommend to work with anepoxydadhesion e.g. Hellermann V9500, TE connectivity S1125.
(Take care of Hellermann/TE Connectivity work instruction)

