Certificate Number UL-US-L28476-1124-72509002-12

Report Reference 40TE28476-20090527

Date 29-Nov-2023

Issued to: TYCO Electronics Corp

2901 Fulling Mill Rd Middletown, PA 17057

United States

This is to certify that representative samples of

ECBT2 - Connectors for Use in Data, Signal, Control and

Power Applications - Component

See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete

in certain constructional features or restricted in

performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety: UL 1977, Edition 4, Issue Date 2022-12-07

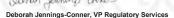
Additional Information: See the UL Online Certifications Directory at

https://iq.ulprospector.com for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.









Certificate Number UL-US-L28476-1124-72509002-12

Report Reference 40TE28476-20090527

Date 29-Nov-2023

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
1-2303812-1	Connectors
1-2303812-2	Connectors
1-2303812-3	Connectors
1-2303812-4	Connectors
1-2303813-1	Connectors
1-2303813-2	Connectors
1-2303813-3	Connectors
1-2303813-4	Connectors
1-2303815-1	Connectors
1-2303815-2	Connectors
1-2303815-3	Connectors
1-2303815-4	Connectors
1-2303816-1	Connectors
1-2303816-2	Connectors
1-2303816-3	Connectors
1-2303816-4	Connectors
1-2322907-1	Connectors
1-2322907-2	Connectors
2-2303812-1	Connectors
2-2303812-2	Connectors
2-2303812-3	Connectors
2-2303812-4	Connectors
2-2303813-1	Connectors
2-2303813-2	Connectors
2-2303813-3	Connectors
2-2303813-4	Connectors
2-2303815-1	Connectors
2-2303815-2	Connectors
2-2303815-3	Connectors
2-2303815-4	Connectors
2-2303816-1	Connectors
2-2303816-2	Connectors
2-2303816-3	Connectors
2-2303816-4	Connectors
2-2322907-2	Connectors
2298173-1	Connectors
2298173-2	Connectors
2298173-3	Connectors
2298173-4	Connectors

Oldrah Jennings-Counce

Certificate Number UL-US-L28476-1124-72509002-12

Report Reference 40TE28476-20090527

Date 29-Nov-2023

2303454-1	Connectors
2323768-1	Connectors
2323768-2	Connectors
2323768-3	Connectors
2323768-4	Connectors
2332444-1	Connectors
2332444-2	Connectors
2375997-1	Connectors
2375997-2	Connectors
2375997-3	Connectors
2375997-4	Connectors
Model Series DT, followed by 04 or 06, followed by 2, 3, 4, 6, 08, or 12, followed by S or P. May be followed by alphanumeric suffixes.	Connectors
X- 2448100-Y, X = 1, 2 and Y = 1, 2	Connectors
X- 2448102-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448104-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448106-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448108-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448110-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448112-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448114-Y, X = 1, 2 and Y = 1, 2	Connectors

Octob Jennings-Course

Deborah Jennings-Conner, VP Regulatory Services



Certificate Number Report Reference

UL-CA-2215593-4 40TE28476-20090527

Date

29-Nov-2023

Issued to:

TYCO Electronics Corp 2901 Fulling Mill Rd Middletown, PA 17057

United States

This is to certify that representative samples of

ECBT8 - Connectors for Use in Data, Signal, Control and Power Applications Certified for Canada - Component See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete

in certain constructional features or restricted in

performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety:

CSA C22.2 No. 182.3, 2nd Ed., Issue Date: 2016-07,

Revision Date: 2021-5

Additional Information:

See the UL Online Certifications Directory at

https://iq.ulprospector.com for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.

Deborah Jennings-Conner, VP Regulatory Services





Certificate Number UL-CA-2215593-4

Report Reference 40TE28476-20090527

Date 29-Nov-2023

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
1-2303812-1	Connectors
1-2303812-2	Connectors
1-2303812-3	Connectors
1-2303812-4	Connectors
1-2303813-1	Connectors
1-2303813-2	Connectors
1-2303813-3	Connectors
1-2303813-4	Connectors
1-2303815-1	Connectors
1-2303815-2	Connectors
1-2303815-3	Connectors
1-2303815-4	Connectors
1-2303816-1	Connectors
1-2303816-2	Connectors
1-2303816-3	Connectors
1-2303816-4	Connectors
1-2322907-1	Connectors
1-2322907-2	Connectors
2-2303812-1	Connectors
2-2303812-2	Connectors
2-2303812-3	Connectors
2-2303812-4	Connectors
2-2303813-1	Connectors
2-2303813-2	Connectors
2-2303813-3	Connectors
2-2303813-4	Connectors
2-2303815-1	Connectors
2-2303815-2	Connectors
2-2303815-3	Connectors
2-2303815-4	Connectors
2-2303816-1	Connectors
2-2303816-2	Connectors
2-2303816-3	Connectors
2-2303816-4	Connectors
2-2322907-2	Connectors
2298173-1	Connectors
2298173-2	Connectors
2298173-3	Connectors
2298173-4	Connectors

Oldrah Jennings-Counce

Certificate Number UL-CA-2215593-4
Report Reference 40TE28476-20090527

Date 29-Nov-2023

2303454-1	Connectors
2323768-1	Connectors
2323768-2	Connectors
2323768-3	Connectors
2323768-4	Connectors
2332444-1	Connectors
2332444-2	Connectors
2375997-1	Connectors
2375997-2	Connectors
2375997-3	Connectors
2375997-4	Connectors
Model Series DT, followed by 04 or 06, followed by 2, 3, 4, 6, 08, or 12, followed by S or P. May be followed by alphanumeric suffixes.	Connectors
X- 2448100-Y, X = 1, 2 and Y = 1, 2	Connectors
X- 2448102-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448104-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448106-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448108-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448110-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448112-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448114-Y, X = 1, 2 and Y = 1, 2	Connectors

Deborah Jennings-Conner, VP Regulatory Services



Certificate Number
Report Reference

UL-CA-2219676-7 40TE28476-20090527

Date

29-Nov-2023

Issued to:

TYCO Electronics Corp 2901 Fulling Mill Rd Middletown, PA 17057 United States

< >=

This is to certify that representative samples of

ECBT8 - Connectors for Use in Data, Signal, Control and Power Applications Certified for Canada - Component See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety: CSA C22.2 No. 182.3, 2nd Ed., Issue Date: 2016-07,

Revision Date: 2021-5

Additional Information: See the UL Online Certifications Directory at

https://iq.ulprospector.com for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.

Deborah Jennings-Conner, VP Regulatory Services



Certificate Number UL-CA-2219676-7

Report Reference 40TE28476-20090527

Date 29-Nov-2023

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
1-2303812-1	Connectors
1-2303812-2	Connectors
1-2303812-3	Connectors
1-2303812-4	Connectors
1-2303813-1	Connectors
1-2303813-2	Connectors
1-2303813-3	Connectors
1-2303813-4	Connectors
1-2303815-1	Connectors
1-2303815-2	Connectors
1-2303815-3	Connectors
1-2303815-4	Connectors
1-2303816-1	Connectors
1-2303816-2	Connectors
1-2303816-3	Connectors
1-2303816-4	Connectors
1-2322907-1	Connectors
1-2322907-2	Connectors
2-2303812-1	Connectors
2-2303812-2	Connectors
2-2303812-3	Connectors
2-2303812-4	Connectors
2-2303813-1	Connectors
2-2303813-2	Connectors
2-2303813-3	Connectors
2-2303813-4	Connectors
2-2303815-1	Connectors
2-2303815-2	Connectors
2-2303815-3	Connectors
2-2303815-4	Connectors
2-2303816-1	Connectors
2-2303816-2	Connectors
2-2303816-3	Connectors
2-2303816-4	Connectors
2-2322907-2	Connectors
2298173-1	Connectors
2298173-2	Connectors
2298173-3	Connectors
2298173-4	Connectors

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Certificate Number UL-CA-2219676-7 **Report Reference** 40TE28476-20090527 **Date**

29-Nov-2023

2303454-1	Connectors
2323768-1	Connectors
2323768-2	Connectors
2323768-3	Connectors
2323768-4	Connectors
2332444-1	Connectors
2332444-2	Connectors
2375997-1	Connectors
2375997-2	Connectors
2375997-3	Connectors
2375997-4	Connectors
20090527 , Model Series DT	Connectors
X- 2448100-Y, X = 1, 2 and Y = 1, 2	Connectors
X- 2448102-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448104-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448106-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448108-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448110-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448112-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448114-Y, X = 1, 2 and Y = 1, 2	Connectors

Olbrah Jennings-Course-Deborah Jennings-Conner, VP Regulatory Services



Certificate Number Report Reference

UL-US-2216293-4 40TE28476-20090527

Date

29-Nov-2023

Issued to:

TYCO Electronics Corp 2901 Fulling Mill Rd Middletown, PA 17057

United States

This is to certify that representative samples of

ECBT2 - Connectors for Use in Data, Signal, Control and

Power Applications - Component

See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete

in certain constructional features or restricted in

performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety:

UL 1977, Edition 4, Issue Date 2022-12-07

Additional Information:

See the UL Online Certifications Directory at

https://iq.ulprospector.com for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.

Deborah Jennings-Conner, VP Regulatory Services

Certificate Number UL-US-2216293-4

Report Reference 40TE28476-20090527

Date 29-Nov-2023

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
1-2303812-1	Connectors
1-2303812-2	Connectors
1-2303812-3	Connectors
1-2303812-4	Connectors
1-2303813-1	Connectors
1-2303813-2	Connectors
1-2303813-3	Connectors
1-2303813-4	Connectors
1-2303815-1	Connectors
1-2303815-2	Connectors
1-2303815-3	Connectors
1-2303815-4	Connectors
1-2303816-1	Connectors
1-2303816-2	Connectors
1-2303816-3	Connectors
1-2303816-4	Connectors
1-2322907-1	Connectors
1-2322907-2	Connectors
2-2303812-1	Connectors
2-2303812-2	Connectors
2-2303812-3	Connectors
2-2303812-4	Connectors
2-2303813-1	Connectors
2-2303813-2	Connectors
2-2303813-3	Connectors
2-2303813-4	Connectors
2-2303815-1	Connectors
2-2303815-2	Connectors
2-2303815-3	Connectors
2-2303815-4	Connectors
2-2303816-1	Connectors
2-2303816-2	Connectors
2-2303816-3	Connectors
2-2303816-4	Connectors
2-2322907-2	Connectors
2298173-1	Connectors
2298173-2	Connectors
2298173-3	Connectors
2298173-4	Connectors

Debrah Jenning-Come

Certificate Number UL-US-2216293-4
Report Reference 40TE28476-20090527

Date 29-Nov-2023

2303454-1	Connectors
2323768-1	Connectors
2323768-2	Connectors
2323768-3	Connectors
2323768-4	Connectors
2332444-1	Connectors
2332444-2	Connectors
2375997-1	Connectors
2375997-2	Connectors
2375997-3	Connectors
2375997-4	Connectors
Model Series DT, followed by 04 or 06, followed by 2, 3, 4, 6, 08, or 12, followed by S or P. May be followed by alphanumeric suffixes.	Connectors
X- 2448100-Y, X = 1, 2 and Y = 1, 2	Connectors
X- 2448102-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448104-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448106-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448108-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448110-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448112-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448114-Y, X = 1, 2 and Y = 1, 2	Connectors

Deborah Jennings-Conner, VP Regulatory Services



Certificate Number UL-CA-2216626-4

Report Reference 40TE28476-20090527

Date 29-Nov-2023

Issued to: TYCO Electronics Corp

2901 Fulling Mill Rd Middletown, PA 17057

United States

This is to certify that representative samples of

ECBT8 - Connectors for Use in Data, Signal, Control and Power Applications Certified for Canada - Component

See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in

performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety: CSA C22.2 No. 182.3, 2nd Ed., Issue Date: 2016-07,

Revision Date: 2021-5

Additional Information: See the UL Online Certifications Directory at

https://ig.ulprospector.com for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.

Deborah Jennings-Conner, VP Regulatory Services



Certificate Number UL-CA-2216626-4

Report Reference 40TE28476-20090527

Date 29-Nov-2023

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
1-2303812-1	Connectors
1-2303812-2	Connectors
1-2303812-3	Connectors
1-2303812-4	Connectors
1-2303813-1	Connectors
1-2303813-2	Connectors
1-2303813-3	Connectors
1-2303813-4	Connectors
1-2303815-1	Connectors
1-2303815-2	Connectors
1-2303815-3	Connectors
1-2303815-4	Connectors
1-2303816-1	Connectors
1-2303816-2	Connectors
1-2303816-3	Connectors
1-2303816-4	Connectors
1-2322907-1	Connectors
1-2322907-2	Connectors
2-2303812-1	Connectors
2-2303812-2	Connectors
2-2303812-3	Connectors
2-2303812-4	Connectors
2-2303813-1	Connectors
2-2303813-2	Connectors
2-2303813-3	Connectors
2-2303813-4	Connectors
2-2303815-1	Connectors
2-2303815-2	Connectors
2-2303815-3	Connectors
2-2303815-4	Connectors
2-2303816-1	Connectors
2-2303816-2	Connectors
2-2303816-3	Connectors
2-2303816-4	Connectors
2-2322907-2	Connectors
2298173-1	Connectors
2298173-2	Connectors
2298173-3	Connectors
2298173-4	Connectors

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Certificate Number UL-CA-2216626-4
Report Reference 40TE28476-20090527

Date 29-Nov-2023

2303454-1	Connectors
2323768-1	Connectors
2323768-2	Connectors
2323768-3	Connectors
2323768-4	Connectors
2332444-1	Connectors
2332444-2	Connectors
2375997-1	Connectors
2375997-2	Connectors
2375997-3	Connectors
2375997-4	Connectors
Model Series DT, followed by 04 or 06, followed by 2, 3, 4, 6, 08, or 12, followed by S or P. May be followed by alphanumeric suffixes.	Connectors
X- 2448100-Y, X = 1, 2 and Y = 1, 2	Connectors
X- 2448102-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448104-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448106-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448108-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448110-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448112-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448114-Y, X = 1, 2 and Y = 1, 2	Connectors

Deborah Jennings-Conner, VP Regulatory Services

(U)

Certificate Number
Report Reference

UL-US-2217254-4 40TE28476-20090527

Date 29-Nov-2023

Issued to:

TYCO Electronics Corp 2901 Fulling Mill Rd Middletown, PA 17057 United States

This is to certify that representative samples of

ECBT2 - Connectors for Use in Data, Signal, Control and

Power Applications - Component

See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete

in certain constructional features or restricted in

performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety:

UL 1977, Edition 4, Issue Date 2022-12-07

Additional Information:

See the UL Online Certifications Directory at

https://ig.ulprospector.com for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.

Octob Jenning Corne

(III)

Certificate Number UL-US-2217254-4 **Report Reference** 40TE28476-20090527 Date

29-Nov-2023

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements Mil. Vii. Vii. Mil. Mil. Mil. Mil. Mil. Mil. Mil.

Model	Category Description
1-2303812-1	Connectors
1-2303812-2	Connectors
1-2303812-3	Connectors
1-2303812-4	Connectors
1-2303813-1	Connectors
1-2303813-2	Connectors
1-2303813-3	Connectors
1-2303813-4	Connectors
1-2303815-1	Connectors
1-2303815-2	Connectors
1-2303815-3	Connectors
1-2303815-4	Connectors
1-2303816-1	Connectors
1-2303816-2	Connectors
1-2303816-3	Connectors
1-2303816-4	Connectors
1-2322907-1	Connectors
1-2322907-2	Connectors
2-2303812-1	Connectors
2-2303812-2	Connectors
2-2303812-3	Connectors
2-2303812-4	Connectors
2-2303813-1	Connectors
2-2303813-2	Connectors
2-2303813-3	Connectors
2-2303813-4	Connectors
2-2303815-1	Connectors
2-2303815-2	Connectors
2-2303815-3	Connectors
2-2303815-4	Connectors
2-2303816-1	Connectors
2-2303816-2	Connectors
2-2303816-3	Connectors
2-2303816-4	Connectors
2-2322907-2	Connectors
2298173-1	Connectors
2298173-2	Connectors
2298173-3	Connectors
2298173-4	Connectors

Certificate Number UL-US-2217254-4
Report Reference 40TE28476-20090527

Date 29-Nov-2023

2303454-1	Connectors
2323768-1	Connectors
2323768-2	Connectors
2323768-3	Connectors
2323768-4	Connectors
2332444-1	Connectors
2332444-2	Connectors
2375997-1	Connectors
2375997-2	Connectors
2375997-3	Connectors
2375997-4	Connectors
Model Series DT, followed by 04 or 06, followed by 2, 3, 4, 6, 08, or 12, followed by S or P. May be followed by alphanumeric suffixes.	Connectors
X- 2448100-Y, X = 1, 2 and Y = 1, 2	Connectors
X- 2448102-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448104-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448106-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448108-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448110-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448112-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448114-Y, X = 1, 2 and Y = 1, 2	Connectors

Deborah Jennings-Conner, VP Regulatory Services



Certificate Number UL-US-2230522-2 Report Reference 40TE28476-20090527

Date 29-Nov-2023

TYCO Electronics Corp Issued to:

> 2901 Fulling Mill Rd Middletown, PA 17057

United States

This is to certify that representative samples of ECBT2 - Connectors for Use in Data, Signal, Control and

Power Applications - Component

See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete

in certain constructional features or restricted in

performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

UL 1977, Edition 4, Issue Date 2022-12-07 Standard(s) for Safety:

Additional Information: See the UL Online Certifications Directory at

https://ig.ulprospector.com for additional information

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Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.

Deborah Jennings-Conner, VP Regulatory Services

contact a local UL Customer Service Representative at http://ul.co

and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For question



Certificate Number UL-US-2230522-2

Report Reference 40TE28476-20090527

Date 29-Nov-2023

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
1-2303812-1	Connectors
1-2303812-2	Connectors
1-2303812-3	Connectors
1-2303812-4	Connectors
1-2303813-1	Connectors
1-2303813-2	Connectors
1-2303813-3	Connectors
1-2303813-4	Connectors
1-2303815-1	Connectors
1-2303815-2	Connectors
1-2303815-3	Connectors
1-2303815-4	Connectors
1-2303816-1	Connectors
1-2303816-2	Connectors
1-2303816-3	Connectors
1-2303816-4	Connectors
1-2322907-1	Connectors
1-2322907-2	Connectors
2-2303812-1	Connectors
2-2303812-2	Connectors
2-2303812-3	Connectors
2-2303812-4	Connectors
2-2303813-1	Connectors
2-2303813-2	Connectors
2-2303813-3	Connectors
2-2303813-4	Connectors
2-2303815-1	Connectors
2-2303815-2	Connectors
2-2303815-3	Connectors
2-2303815-4	Connectors
2-2303816-1	Connectors
2-2303816-2	Connectors
2-2303816-3	Connectors
2-2303816-4	Connectors
2-2322907-2	Connectors
2298173-1	Connectors
2298173-2	Connectors
2298173-3	Connectors
2298173-4	Connectors

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Certificate Number UL-US-2230522-2 **Report Reference** 40TE28476-20090527 **Date**

29-Nov-2023

2303454-1	Connectors
2323768-1	Connectors
2323768-2	Connectors
2323768-3	Connectors
2323768-4	Connectors
2332444-1	Connectors
2332444-2	Connectors
2375997-1	Connectors
2375997-2	Connectors
2375997-3	Connectors
2375997-4	Connectors
20090527 , Model Series DT	Connectors
X- 2448100-Y, X = 1, 2 and Y = 1, 2	Connectors
X- 2448102-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448104-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448106-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448108-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448110-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448112-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448114-Y, X = 1, 2 and Y = 1, 2	Connectors

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Deborah Jennings-Conner, VP Regulatory Services



Certificate Number
Report Reference

UL-CA-2229861-2 40TE28476-20090527

Date

29-Nov-2023

Issued to:

TYCO Electronics Corp 2901 Fulling Mill Rd Middletown, PA 17057

United States

This is to certify that representative samples of

ECBT8 - Connectors for Use in Data, Signal, Control and Power Applications Certified for Canada - Component See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety: CSA C22.2 No. 182.3, 2nd Ed., Issue Date: 2016-07,

Revision Date: 2021-5

Additional Information: See the UL Online Certifications Directory at

https://iq.ulprospector.com for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.

Deborah Jennings-Conner, VP Regulatory Services



Certificate Number UL-CA-2229861-2

Report Reference 40TE28476-20090527

Date 29-Nov-2023

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description		
1-2303812-1	Connectors		
1-2303812-2	Connectors		
1-2303812-3	Connectors		
1-2303812-4	Connectors		
1-2303813-1	Connectors		
1-2303813-2	Connectors		
1-2303813-3	Connectors		
1-2303813-4	Connectors		
1-2303815-1	Connectors		
1-2303815-2	Connectors		
1-2303815-3	Connectors		
1-2303815-4	Connectors		
1-2303816-1	Connectors		
1-2303816-2	Connectors		
1-2303816-3	Connectors		
1-2303816-4	Connectors		
1-2322907-1	Connectors		
1-2322907-2	Connectors		
2-2303812-1	Connectors		
2-2303812-2	Connectors		
2-2303812-3	Connectors		
2-2303812-4	Connectors		
2-2303813-1	Connectors		
2-2303813-2	Connectors		
2-2303813-3	Connectors		
2-2303813-4	Connectors		
2-2303815-1	Connectors		
2-2303815-2	Connectors		
2-2303815-3	Connectors		
2-2303815-4	Connectors		
2-2303816-1	Connectors		
2-2303816-2	Connectors		
2-2303816-3	Connectors		
2-2303816-4	Connectors		
2-2322907-2	Connectors		
2298173-1	Connectors		
2298173-2	Connectors		
2298173-3	Connectors		
2298173-4	Connectors		

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Certificate Number UL-CA-2229861-2 **Report Reference** 40TE28476-20090527 **Date**

29-Nov-2023

2303454-1	Connectors
2323768-1	Connectors
2323768-2	Connectors
2323768-3	Connectors
2323768-4	Connectors
2332444-1	Connectors
2332444-2	Connectors
2375997-1	Connectors
2375997-2	Connectors
2375997-3	Connectors
2375997-4	Connectors
20090527 , Model Series DT	Connectors
X- 2448100-Y, X = 1, 2 and Y = 1, 2	Connectors
X- 2448102-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448104-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448106-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448108-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448110-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448112-Y, X = 1, 2 and Y = 1, 2	Connectors
X-2448114-Y, X = 1, 2 and Y = 1, 2	Connectors

Olbrah Jennings-Course Deborah Jennings-Conner, VP Regulatory Services

File E28476 Service Request: 1181364

May 27, 2009

REPORT

on

TYCO ELECTRONICS CORP MIDDLETOWN, PA

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File E28476	Vol. 124	Sec. 3	Page 1	Issued:	2009-05-27
	Vol. 165	Sec. 1		Revised:	2023-11-22
	Vol. 166	Sec. 1			
	Vol. 169	Sec. 1			
		and Report			

DESCRIPTION

PRODUCT COVERED:

USR, CNR - Component Connectors, Models DT, followed by 04 or 06, followed by 2, 3, 4, 6, 08, or 12, followed by S or P. May be followed by alphanumeric suffixes.

USR, CNR - Component Connectors Cat. Nos. X-2298173-Y, X-2303454-Y, x-2303812-y, x-2303813-y, x-2303815-y, x-2303816-y, X-2322907-Y, X-2323768-Y, X-2332444-Y, X-2375997-Y where x = 1, 2 and y = 1-4

USR, CNR - 2, 3, 4, or 6 position Component Connectors Cat No. X- 2448100-Y, X- 2448102-Y, X-2448104-Y, X-2448106-Y, X-2448108-Y, X-2448110-Y, X-2448112-Y, X-2448114-Y, where X = 1, 2 and Y = 1, 2, 3

GENERAL:

These devices are multi-pole connectors intended for factory assembly on stranded copper conductors where the acceptability of combinations is determined by UL LLC. The devices are identified as follows:

RATINGS: 250V, no current rating.

Disconnecting Use - see Sec Gen for required marking.

File E28476 Vol. 124 Sec. 3 Page 2 Issued: 2009-05-27 Vol. 165 Sec. 1 Revised: 2023-03-28

Vol. 166 Sec. 1 Vol. 169 Sec. 1 and Report

NOMENCLATURE:

DT 04- 3 S __ - __ I II III IV V VI

I - Designates Deutsch DT Series.

II - Indicates Connector Type.

04 - Receptacle (male) 06 - Plug (female)

III - Indicates Number of Contacts.

12 max.

IV - Indicates Contact Type.

S - Socket P - Pin

V - Polarizing Position (if applicable) A, B, C, D.

VI - Special Modifications.

The following table lists Cat. Nos. that are identical in construction

Cat. No.	Identical	Identical	Identical
	Construction	Construction	Construction
1-2303812-1	DT04-2P-TE31	DT04-2P-CE01	
1-2303812-2	DT04-2P-TN31	DT04-2P-E003	DT04-2P-EP04
1-2303812-3	DT04-2P-TN32	DT04-2P-E005	
1-2303812-4	DT04-2P-TE32	DT04-2P-CE03	
2-2303812-1	DT04-2P-TE81	DT04-2P-CE04	
2-2303812-2	DT04-2P-TN81	DT04-2P-E008	
2-2303812-3	DT04-2P-TN82	DT04-2P-EE01	
2-2303812-4	DT04-2P-TE82	DT04-2P-CE09	
1-2303813-1	DT04-3P-TE31	DT04-3P-CE01	
1-2303813-2	DT04-3P-TN31	DT04-3P-E003	DT04-3P-EP04
1-2303813-3	DT04-3P-TN32	DT04-3P-E005	
1-2303813-4	DT04-3P-TE32	DT04-3P-CE03	
2-2303813-1	DT04-3P-TE81	DT04-3P-CE04	
2-2303813-2	DT04-3P-TN81	DT04-3P-E008	
2-2303813-3	DT04-3P-TN82	DT04-3P-EE01	
2-2303813-4	DT04-3P-TE82	DT04-3P-CE09	
1-2303815-1	DT06-2S-TE31	DT06-2S-CE01	
1-2303815-2	DT06-2S-TN31	DT06-2S-E003	DT06-2S-EP04
1-2303815-3	DT06-2S-TN32	DT06-2S-E005	DT06-2S-EP06

File E28476 Vol. 124 Sec. 3 Page 2A Issued: 2009-05-27 Vol. 165 Sec. 1 Revised: 2023-11-22 Vol. 166 Sec. 1 Vol. 169 Sec. 1 and Report

The following table lists Cat. Nos. that are identical in construction

Cat. No.	Identical	Identical	Identical
	Construction	Construction	Construction
1-2303815-4	DT06-2S-TE32	DT06-2S-CE03	DT06-2S-CE05
2-2303815-1	DT06-2S-TE81	DT06-2S-CE04	
2-2303815-2	DT06-2S-TN81	DT06-2S-E008	
2-2303815-3	DT06-2S-TN82	DT06-2S-EP11	
2-2303815-4	DT06-2S-TE82	DT06-2S-CE13	
1-2303816-1	DT06-3S-TE31	DT06-3S-CE01	
1-2303816-2	DT06-3S-TN31	DT06-3S-E003	DT06-3S-EP04
1-2303816-3	DT06-3S-TN32	DT06-3S-E005	DT06-3S-EP06
1-2303816-4	DT06-3S-TE32	DT06-3S-CE05	
2-2303816-1	DT06-3S-TE81	DT06-3S-CE04	
2-2303816-2	DT06-3S-TN81	DT06-3S-E008	
2-2303816-3	DT06-3S-TN82	DT06-3S-EP11	
2-2303816-4	DT06-3S-TE82	DT06-3S-CE13	
2298173-1	DT04-08PA-P089		
2298173-2	DT04-08PB-P089		
2298173-3	DT04-08PC-P089		
2298173-4	DT04-08PD-P089		
2303454-1	DT04-6P-LE14		
2323768-1	DT04-12PA-CE04		
2323768-2	DT04-12PB-CE04		
2323768-3	DT04-12PC-CE04		
2323768-4	DT04-12PD-CE04		
1-2322907-1	DT04-2P-TR32-100K		
1-2322907-2	DT04-2P-TR31-4700		
2-2322907-2	DT04-2P-TR31-750		
2332444-1	DT04-3P-EP10-120		
2332444-2	DT04-3P-P006-120		
2375997-1	DT04-08PA-P093		
2375997-2	DT04-08PB-P093		
2375997-3	DT04-08PC-P093		
2375997-4	DT04-08PD-P093		
1-2448100-1	DT06-2S-TE09		
1-2448100-2	DT06-2S-TE03		
1-2448100-3	DT06-2S-TE07		
2-2448100-1	DT06-2S-TN09		
2-2448100-2	DT06-2S-TN03		
2-2448100-3	DT06-2S-TN07		
1-2448102-1	DT06-3S-TE09		
1-2448102-2	DT06-3S-TE03		

File E28476 Vol. 124 Sec. 3 Page 2B Issued: 2009-05-27 Vol. 165 Sec. 1 New: 2023-11-22 Vol. 166 Sec. 1

Vol. 166 Sec. 1 Vol. 169 Sec. 1 and Report

Cat. No.	Identical Construction	Identical Construction	Identical Construction
1-2448102-3	DT06-3S-TE07		
2-2448102-1	DT06-3S-TN09		
2-2448102-2	DT06-3S-TN03		
2-2448102-3	DT06-3S-TN07		
1-2448104-1	DT06-4S-TE09		
1-2448104-2	DT06-4S-TE03		
1-2448104-3	DT06-4S-TE07		
2-2448104-1	DT06-4s-TN09		
2-2448104-2	DT06-4S-TN03		
2-2448104-3	DT06-4S-TN07		
1-2448106-1	DT06-6S-TE09		
1-2448106-2	DT06-6S-TE03		
1-2448106-3	DT06-6S-TE07		
2-2448106-1	DT06-6S-TN09		
2-2448106-2	DT06-6S-TN03		
2-2448106-3	DT06-6S-TN07		
1-2448108-1	DT04-2P-TE09		
L-2448108-2	DT04-2P-TE03		
1-2448108-3	DT04-2P-TE07		
2-2448108-1	DT04-2P-TN09		
2-2448108-2	DT04-2P-TN03		
2-2448108-3	DT04-2P-TN07		
1-2448110-1	DT04-3P-TE09		
1-2448110-2	DT04-3P-TE03		
1-2448110-3	DT04-3P-TE07		
2-2448110-1	DT04-3P-TN09		
2-2448110-2	DT04-3P-TN03		
2-2448110-3	DT04-3P-TN07		
1-2448112-1	DT04-4P-TE09		
1-2448112-2	DT04-4P-TE03		
1-2448112-3	DT04-4P-TE07		
2-2448112-1	DT04-4P-TN09		
2-2448112-2	DT04-4P-TN03		
2-2448112-3	DT04-4P-TN07		
1-2448114-1	DT04-6P-TE09		
1-2448114-2	DT04-6P-TE03		
1-2448114-3	DT04-6P-TE07		
2-2448114-1	DT04-6P-TN09		
2-2448114-2	DT04-6P-TN03		
2-2448114-3	DT04-6P-TN07		

File E28476	Vol. 124	Sec. 3	Page 3	Issued:	2009-05-27
	Vol. 165	Sec. 1		Revised:	2018-05-09
	Vol. 166	Sec. 1			
	Vol. 169	Sec. 1			
		and Report			

TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

*Use - For use only in or with complete equipment where the acceptability of the combination is determined by **UL LLC.**

Conditions of Acceptability - The following are among the considerations to be made when evaluating the device in the end-use product.

Interruption of Current

1. These devices are not suitable for interrupting the flow of current by connecting or disconnecting the mating connector.

Current-Carrying Capability and Current Ratings

2. These devices have not been subjected to the Temperature test and as a result do not have an assigned current rating. The device's current carrying capability is to be reviewed in the end-use by measuring temperatures on the connector housing and/or terminals when current is flowing through the connector under conditions of normal use.

*

Insulating Materials

*

*3. These devices employ insulating materials with properties as tabulated below at the minimum thickness employed in the connector housing, the suitability of the insulating materials based on the documented values shall be determined in the end-use application. Please note the values specified in the table when multiple materials are indicated represent the minimum values for the group of materials.

Vol. 124 File E28476 Sec. 3 Page 4 Issued: 2009-05-27 Vol. 165 Sec. 1 Revised: 2023-11-22

> Vol. 166 Sec. 1 Vol. 169 Sec. 1

and Report

	1 - 7 - 1			77			DITT	Inc. 0
Part	Insulating Material #	Manufacturer	Min Thickness (mm)	Flame Class	HWI	HAI	RTI Elec	Max Operating Temp, ^O C
	A (1) Proprietary Info	Proprietary Info	1.02	(+)	0 (++)	0 (++)	120 (++)	120
TT	C (3) Proprietary Info	Proprietary Info	1.02	(+)	-	-	65 (++)	65
Housing	D Proprietary Info	Proprietary Info	1.02	V-0	0	0	125	125
	F (3) RM# - Proprietary Info	Proprietary Info	1.02	V-0	0	0	65	65
	I Proprietary Info	Proprietary Info	1.02	(+)	0	0	65	65
	A (2) Proprietary Info	Proprietary Info	1.3	##	0 (++)	0 (++)	120 (++)	120
Weld Cap	C (3) Proprietary Info	Proprietary Info	1.3	(+)	-	-	65 (++)	65
_	F (3) RM# - Proprietary Info	Proprietary Info	1.3	V-0	0	0	65	65
	I Proprietary Info	Proprietary Info	1.3	(+)	0	0	65	65
	B Proprietary Info	Proprietary Info	0.56		4	2	130	120
Madaa Dlaa	E Proprietary Info	Proprietary Info	0.56		-	-	75(###)	75(###)
Wedge, Plug	G Proprietary Info (4) (5) (+++)	Proprietary Info	0.56	(+)	-	-	75(###)	75(###)
	H Proprietary Info (4) (5) (+++)	Proprietary Info	0.56	(+)	-	_	75(###)	75(###)
	B Proprietary Info	Proprietary Info	0.56		4	2	130	120
Wedge, Receptacle	E Proprietary Info	Proprietary Info	0.56		-	-	75(###)	75(###)
	G Proprietary Info (4) (5) (+++)	Proprietary Info	0.56	(+)	-	-	75(###)	75(###)
	H Proprietary Info (4) (5) (+++)	Proprietary Info	0.56	(+)	-	-	75(###)	75(###)

Note: (1) Maximum 80% regrind; (2) Maximum 100% regrind (3) Maximum 75% Regrind (4) Maximum 40% regrind (5)Maximum 100% regrind, Orange, Grey, Black, Brown colors only

^{(#) -} Code for Insulating Body Material.

^{(##) -} No contact anywhere with the terminals so as such, no Flame testing required. (###): These materials are being used above the regrind percentage allowed by their Component Recognition. These will default to their generic RTI values.

^{(+):} Thickness is less than the minimum Recognized material thickness, as such no assigned Flame class. UL 746C 12mm Flammability test conducted.

^{(++):} These PLCs are based on the minimum Recognized material thickness.

^{(+++):} These materials will use QMQS2 Recognized Color Concentrates at the let-down ratios specified in the table below.

Vol. 124 Sec. 3 Page 4-1 Issued: 2009-05-27 Vol. 165 Sec. 1 Revised: 2023-11-22 Vol. 166 Sec. 1 Vol. 169 Sec. 1 File E28476

and Report

		Color	Concentrate	Colors	Maximum LDR
Material	Grade	Concentrate	Designation	COTOLS	Maximum IDK
Manufacturer	Designation	Manufacturer	Debignacion		
	2021311401011	11011011010101	+	OR, GN	1:33.33
				521, 521	
				GN, BK	1:50
-					
				GY, BL	1:33.3
-				CNI DNI	1:25
				GN, BN, OR, BL,	1.25
				OR, BL,	
-				GR, BK	1:50
				Git, Bit	1.30
-				GY, BL	1:33.3
	Dronrio	tary Info			
	Proprie	tary into			
-					
				BN, OR,	1:25
				BL, GN	
-				GY, BK,	1:20
				GN, BN	1.20
				GIV, BIV	
				BN	1:33.33
_					
				GR	1:25
-				BL	1:25
				ъп	1:43
	1	1	1		1

```
File E28476 Vol. 124 Sec. 3 Page 4-2 Issued: 2009-05-27 Vol. 165 Sec. 1 New: 2023-11-22 Vol. 166 Sec. 1 Vol. 169 Sec. 1 and Report
```

A. Proprietary Info

Housing colors: Brown, Gray, Green, Black, Blue, and Natural (with colorant added as shown in Table)

- 1. Dielectric strength (kV/mm): --
- 2. CTI: 4

Proprietary Info

Housing colors: Natural (with brown, green, and blue colorant added as shown in Table)

- 1. Dielectric strength (kV/mm): --
- 2. CTI: 4

B. Proprietary Info

- 1. Dielectric strength (kV/mm): 30
- 2. CTI: 0

C. Proprietary Info

Housing colors: Brown, Gray, Green, and Black

- 1. Dielectric strength (kV/mm): --
- 2. CTI: --

D. Proprietary Info

Housing colors: Brown, Gray, Green, and Black

- 1. Dielectric strength (kV/mm): 10
- 2. CTI: 2

```
File E28476
                  Vol. 124
                             Sec. 3
                                          Page 4-3
                                                             Issued: 2009-05-27
                  Vol. 165
                             Sec. 1
                                                                 New: 2023-11-22
                   Vol. 166
                              Sec. 1
                   Vol. 169
                              Sec. 1
                              and Report
     Proprietary Info
E.
      Housing colors: Orange, Green
      1. Dielectric strength (kV/mm): --
      2. CTI: --
     Proprietary Info
F.
      Housing colors: Black, and Gray
      1. Dielectric strength (kV/mm): --
      2. CTI: 2
G.
     Proprietary Info
      Housing colors: Grey, Black, Green, Brown, Blue, Orange
      1. Dielectric strength (kV/mm): --
      2. CTI: --
     Proprietary Info
*H.
      Housing colors: Grey, Black, Green, Brown, Blue, Orange
      1. Dielectric strength (kV/mm): --
      2. CTI: --
     Proprietary Info
I.
      Housing colors: Black, Grey
      1. Dielectric strength (kV/mm): 14.3
      2. CTI: 3
```

File E28476	Vol. 124	Sec. 3	Page 4-1A	Issued:	2009-05-27
	Vol. 165	Sec. 1		Revised:	2023-11-22
	Vol. 166	Sec. 1			
	Vol. 169	Sec. 1			
		and Report			

This page replaces page 4-1A.

File E28476 Vol. 124 Sec. 3 Page 4A Issued: 2009-05-27 Vol. 165 Sec. 1 New: 2018-05-09 Vol. 166 Sec. 1 Vol. 169 Sec. 1 and Report

The following crimp contacts have been evaluated for the wire sizes as tabulated below:

Stamped and Formed Type -

Pin/Contact	Wire Size, AWG	Force, lbf
1060-14-0122 / 1062-14-0122	14 - 18	20
1060-16-0122 / 1062-16-0122	14 - 18	20

Solid Type -

Pin/Contact	Wire Size, AWG	Force, lbf
0460-215-16141 / 0462-209-16141	14	20
0460-202-16141 / 0462-201-16141	16, 18	20
	20	8