

# ETFE, FEP, PFA CABLES

## TD 842 (ST) F FEP insulated connection cable with wider temperature range, colored conductors and electrostatic screen



Marking for TD 842 (ST) F 38420320:  
SAB BRÖCKSKES · D-VIERSEN · TD 842 (ST) F 20/7 AWG/3c AWM Style 20229 150°C 300V CE

TD 842 (ST) F is a UL approved shielded 300 V, 150°C multi conductor US color coded FEP data cable which is suitable for various applications due to its thin construction as well as good chemical resistance. TD 842 (ST) F is a non-outgassing product which makes it possible to be applied in clean rooms as well as wherever a large temperature range exists. An overall tinned copper braid is recommended whenever electrical interference distorts signal transmission, or when EMI emissions need to be suppressed.

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | tinned copper strands acc. to ASTM B 286 |
| <b>Insulation:</b>      | FEP, 6Y11 acc. to DIN VDE 0207 part 6    |
| <b>Color code:</b>      | acc. to color code US 4 see page N/24    |
| <b>Stranding:</b>       | in layers                                |
| <b>Wrapping:</b>        | PETP foil                                |
| <b>Drain wire:</b>      | tinned copper strands acc. to ASTM B 286 |
| <b>Wrapping:</b>        | alu foil                                 |
| <b>Slitting cord:</b>   | Kevlar-therad 1580 dtex under the jacket |
| <b>Jacket material:</b> | FEP, 6YM1 acc. to DIN VDE 0207 part 6    |
| <b>Jacket color:</b>    | tan                                      |

### Outstanding features:

- excellent resistance against chemicals and solvents
- excellent temperature resistance and flexibility at low temperatures
- excellent electrical insulating characteristics with low, nearly frequency-independent dielectric characteristics

### Technical data:

|   |   |
|---|---|
| <b>Voltage:</b>   | <b>UL:</b> 300 V  |
| <b>Peak operating voltage:</b>  | max. 900 V  |
| <b>Testing voltage:</b>   | conductor/conductor 2000 V<br>conductor/shield 600 V (ST)   |
| <b>Min. bending radius</b><br><i>fixed installation:</i><br><i>free movement:</i> | 5 x O.D.<br>10 x O.D.   |
| <b>Temperature range</b><br><i>static:</i><br><i>flexing:</i>                     | <b>DIN VDE:</b> -90/+180 °C<br>-55/+180 °C<br><b>UL:</b> up to +150 °C                                    |
| <b>Burning characteristics:</b>   | flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2 and UL VW1                    |
| <b>Oil resistance:</b>  | acc. to UL standard 758, at 80 °C after 80 days   |
| <b>Chem. resistance:</b>  | very good against acids, halogens, bases, chlorinated solvents as well as organic and inorganic compounds |
| <b>Absence of harmful substances:</b>   | acc. to RoHS-guideline 2002/95/EG as well as GefStoffV appendix IV-no. 24, see page N/25                  |

| item no.          | no. of conductors | nominal outer-ø inch | mm   | cable weight ≈ lbs/mft | item no.          | no. of conductors | nominal outer-ø inch | mm   | cable weight ≈ lbs/mft | item no.          | no. of conductors | nominal outer-ø inch | mm   | cable weight ≈ lbs/mft |
|-------------------|-------------------|----------------------|------|------------------------|-------------------|-------------------|----------------------|------|------------------------|-------------------|-------------------|----------------------|------|------------------------|
| <b>▶ 24/7 AWG</b> |                   |                      |      |                        | <b>▶ 22/7 AWG</b> |                   |                      |      |                        | <b>▶ 20/7 AWG</b> |                   |                      |      |                        |
| 38422402          | 2                 | 0.146                | 3.7  | 16                     | 38422202          | 2                 | 0.157                | 4.0  | 20                     | 38422002          | 2                 | 0.173                | 4.4  | 25                     |
| 38422403          | 3                 | 0.154                | 3.9  | 19                     | 38422203          | 3                 | 0.177                | 4.5  | 25                     | 38422003          | 3                 | 0.181                | 4.6  | 31                     |
| 38422404          | 4                 | 0.177                | 4.5  | 25                     | 38422204          | 4                 | 0.193                | 4.9  | 31                     | 38422004          | 4                 | 0.185                | 4.7  | 38                     |
| 38422405          | 5                 | 0.193                | 4.9  | 29                     | 38422205          | 5                 | 0.209                | 5.3  | 36                     | 38422005          | 5                 | 0.232                | 5.9  | 47                     |
| 38422406          | 6                 | 0.205                | 5.2  | 33                     | 38422206          | 6                 | 0.224                | 5.7  | 42                     | 38422006          | 6                 | 0.252                | 6.4  | 55                     |
| 38422408          | 8                 | 0.232                | 5.9  | 42                     | 38422208          | 8                 | 0.256                | 6.5  | 54                     | 38422008          | 8                 | 0.287                | 7.3  | 72                     |
| 38422410          | 10                | 0.244                | 6.2  | 44                     | 38422210          | 10                | 0.268                | 6.8  | 57                     | 38422010          | 10                | 0.299                | 7.6  | 76                     |
| 38422412          | 12                | 0.256                | 6.5  | 50                     | 38422212          | 12                | 0.280                | 7.1  | 64                     | 38422012          | 12                | 0.315                | 8.0  | 87                     |
| 38422414          | 14                | 0.268                | 6.8  | 57                     | 38422214          | 14                | 0.295                | 7.5  | 74                     | 38422014          | 14                | 0.335                | 8.5  | 100                    |
| 38422416          | 16                | 0.283                | 7.2  | 64                     | 38422216          | 16                | 0.311                | 7.9  | 82                     | 38422016          | 16                | 0.350                | 8.9  | 112                    |
| 38422418          | 18                | 0.295                | 7.5  | 70                     | 38422218          | 18                | 0.327                | 8.3  | 92                     | 38422018          | 18                | 0.370                | 9.4  | 125                    |
| 38422420          | 20                | 0.307                | 7.8  | 77                     | 38422220          | 20                | 0.343                | 8.7  | 101                    | 38422020          | 20                | 0.386                | 9.8  | 138                    |
| 38422425          | 25                | 0.335                | 8.5  | 89                     | 38422225          | 25                | 0.370                | 9.4  | 117                    | 38422025          | 25                | 0.417                | 10.6 | 161                    |
| 38422430          | 30                | 0.358                | 9.1  | 104                    | 38422230          | 30                | 0.398                | 10.1 | 138                    | 38422030          | 30                | 0.453                | 11.5 | 190                    |
| 38422436          | 36                | 0.374                | 9.5  | 119                    | 38422236          | 36                | 0.413                | 10.5 | 159                    | 38422036          | 36                | 0.469                | 11.9 | 220                    |
| 38422442          | 42                | 0.417                | 10.6 | 138                    | 38422242          | 42                | 0.465                | 11.8 | 184                    | 38422042          | 42                | 0.539                | 13.7 | 263                    |

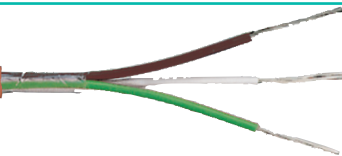
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## TD 842 (ST) F FEP insulated connection cable with wider temperature range, colored conductors and electrostatic screen

842 (ST) F 20/7 AWG/3c AWM Style 20229 150°C 300V CE



Marking for TD 842 (ST) F 38420320:

SAB BRÖCKSKES · D-VIERSEN · TD 842 (ST) F 20/7 AWG/3c AWM Style 20229 150°C 300V CE

TD 842 (ST) F is a UL approved shielded 300 V, 150°C multi conductor US color coded FEP data cable which is suitable for various applications due to its thin construction as well as good chemical resistance. TD 842 (ST) F is a non-outgassing product which makes it possible to be applied in clean rooms as well as wherever a large temperature range exists. An overall tinned copper braid is recommended whenever electrical interference distorts signal transmission, or when EMI emissions need to be suppressed.

### Construction:

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| <b>Conductor:</b>       | tinned copper strands acc. to ASTM B 286 |
| <b>Insulation:</b>      | FEP, 6Y11 acc. to DIN VDE 0207 part 6    |
| <b>Color code:</b>      | acc. to color code US 4 see page N/24    |
| <b>Stranding:</b>       | in layers                                |
| <b>Wrapping:</b>        | PETP foil                                |
| <b>Drain wire:</b>      | tinned copper strands acc. to ASTM B 286 |
| <b>Wrapping:</b>        | alu foil                                 |
| <b>Slitting cord:</b>   | Kevlar-therad 1580 dtex under the jacket |
| <b>Jacket material:</b> | FEP, 6YM1 acc. to DIN VDE 0207 part 6    |
| <b>Jacket color:</b>    | tan                                      |

### Outstanding features:

- excellent resistance against chemicals and solvents
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- excellent electrical insulating characteristics with low, nearly frequency-independent dielectric characteristics

### Technical data:

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|--|---|
| <b>Voltage:</b>  | <b>UL:</b> 300 V  |
| <b>Peak operating voltage:</b>                           | max. 900 V  |
| <b>Testing voltage:</b>                                  | conductor/conductor 2000 V<br>conductor/shield 600 V (ST)   |
| <b>Min. bending radius</b><br><i>fixed installation:</i> | 5 x O.D.  |
| <i>free movement:</i>                                    | 10 x O.D.   |
| <b>Temperature range</b><br><i>static:</i>               | <b>DIN VDE:</b> -90/+180 °C   |
| <i>flexing:</i>  | <b>UL:</b> up to +150 °C<br>-55/+180 °C   |
| <b>Burning characteristics:</b>                          | flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2 and UL VW1                    |
| <b>Oil resistance:</b>                                   | acc. to UL standard 758, at 80 °C after 80 days   |
| <b>Chem. resistance:</b>                                 | very good against acids, halogens, bases, chlorinated solvents as well as organic and inorganic compounds |
| <b>Absence of harmful substances:</b>                    | acc. to RoHS-guideline 2002/95/EG as well as GefStoffV appendix IV-no. 24, see page N/25                  |

| item no. | no. of conductors | nominal outer-ø<br>inch | mm | cable weight<br>≈ lbs/mft |
|----------|-------------------|-------------------------|----|---------------------------|
|----------|-------------------|-------------------------|----|---------------------------|

#### ▶ 18/7 AWG

|          |    |       |      |     |
|----------|----|-------|------|-----|
| 38421802 | 2  | 0.193 | 4.9  | 34  |
| 38421803 | 3  | 0.205 | 5.2  | 42  |
| 38421804 | 4  | 0.240 | 6.1  | 54  |
| 38421805 | 5  | 0.264 | 6.7  | 65  |
| 38421806 | 6  | 0.283 | 7.2  | 75  |
| 38421808 | 8  | 0.323 | 8.2  | 97  |
| 38421810 | 10 | 0.343 | 8.7  | 105 |
| 38421812 | 12 | 0.358 | 9.1  | 121 |
| 38421814 | 14 | 0.378 | 9.6  | 139 |
| 38421816 | 16 | 0.402 | 10.2 | 157 |
| 38421818 | 18 | 0.421 | 10.7 | 175 |
| 38421820 | 20 | 0.441 | 11.2 | 194 |
| 38421825 | 25 | 0.492 | 12.5 | 235 |
| 38421830 | 30 | 0.528 | 13.4 | 277 |
| 38421836 | 36 | 0.551 | 14.0 | 322 |
| 38421842 | 42 | 0.618 | 15.7 | 373 |

| item no. | no. of conductors | nominal outer-ø<br>inch | mm | cable weight<br>≈ lbs/mft |
|----------|-------------------|-------------------------|----|---------------------------|
|----------|-------------------|-------------------------|----|---------------------------|

#### ▶ 16/7 AWG

|          |    |       |      |     |
|----------|----|-------|------|-----|
| 38421602 | 2  | 0.209 | 5.3  | 42  |
| 38421603 | 3  | 0.217 | 5.5  | 52  |
| 38421604 | 4  | 0.260 | 6.6  | 67  |
| 38421605 | 5  | 0.283 | 7.2  | 80  |
| 38421606 | 6  | 0.307 | 7.8  | 94  |
| 38421608 | 8  | 0.354 | 9.0  | 123 |
| 38421610 | 10 | 0.370 | 9.4  | 133 |
| 38421612 | 12 | 0.390 | 9.9  | 153 |
| 38421614 | 14 | 0.413 | 10.5 | 177 |
| 38421616 | 16 | 0.433 | 11.0 | 199 |
| 38421618 | 18 | 0.457 | 11.6 | 222 |
| 38421620 | 20 | 0.492 | 12.5 | 253 |
| 38421625 | 25 | 0.535 | 13.6 | 298 |
| 38421630 | 30 | 0.579 | 14.7 | 353 |
| 38421636 | 36 | 0.598 | 15.2 | 411 |
| 38421642 | 42 | 0.665 | 16.9 | 476 |

Other dimensions and colors are possible on request.