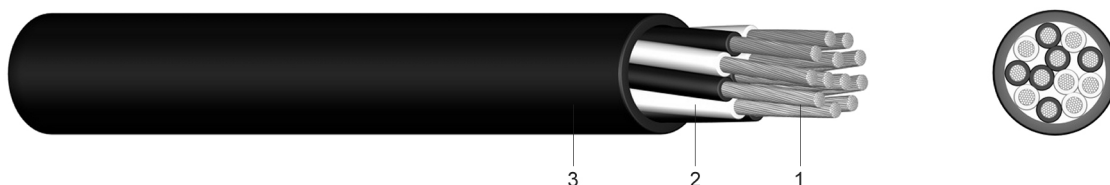


90 E/N/P/C PVC Insulated Compensating and Extension Cable

Application:

These cables are suitable for installations in dry, humid and wet locations as temperature measuring cables for areas such as the plastic industry in machine engineering, industrial oven construction as well as blast furnace plants in the steel industry. PVC-, fibre-glass- and asbestos-substitute insulated or sheathed compensating and extension cables are not suitable for open-air use except for the PVC-sheathed solid conductor type which can be used for underground laying, too.



Construction:

- 1 solid or fine-stranded conductor
conductor material, depending on the kind of elements
- 2 core insulation of polyvinylchloride (PVC)
- 3 outer sheath of polyvinylchloride (PVC)

Standards:

IEC 60584 (core identification)
Core identification and temperature ranges as download at: www.meinhart.at/service/download

Technical data:

Temperature range

in motion
fixed

-5°C till +70°C
-25°C till +70°C
EN 60332-1-2

Flammability

standard

| Type | Number of cores | Materials per DIN 60584 | for thermo-couple | Conductor construct. appr. value mm | Form | Overall diameter appr. mm | Weight appr. kg/km |
|---------|-----------------|-------------------------|-------------------|-------------------------------------|-------|---------------------------|--------------------|
| 90E 9L | 2 x 1,5 | Fe-CuNi | Typ L | 48 x 0,20 | round | 7,0 | 79 |
| 90N 9L | 2 x 1,5 | SoNiCr-SoNi | Typ K | 48 x 0,20 | round | 7,0 | 79 |
| 90P 9L | 2 x 1,5 | SoPtRh-SoPt | Typ S | 48 x 0,20 | round | 7,0 | 79 |
| 90C 9L | 2 x 1,5 | Cu-CuNi | Typ U | 48 x 0,20 | round | 7,0 | 79 |
| 90E 9L | 2 x 0,22 | Fe-CuNi | Typ L | 7 x 0,20 | round | 4,0 | 22 |
| 90N 9L | 2 x 0,22 | SoNiCr-SoNi | Typ K | 7 x 0,20 | round | 4,0 | 22 |
| 90P 9L | 2 x 0,22 | SoPtRh-SoPt | Typ S | 7 x 0,20 | round | 4,0 | 22 |
| 90C 9L | 2 x 0,22 | Cu-CuNi | Typ U | 7 x 0,20 | round | 4,0 | 22 |
| 90E 12L | 2 x 1,5 | Fe-CuNi | Typ L | 48 x 0,20 | oval | 4,3 x 7,0 | 69 |
| 90N 12L | 2 x 1,5 | SoNiCr-SoNi | Typ K | 48 x 0,20 | oval | 4,3 x 7,0 | 69 |
| 90P 12L | 2 x 1,5 | SoPtRh-SoPt | Typ S | 48 x 0,20 | oval | 4,3 x 7,0 | 69 |
| 90C 12L | 2 x 1,5 | Cu-CuNi | Typ U | 48 x 0,20 | oval | 4,3 x 7,0 | 69 |
| 90E 12D | 2 x 1,5 | Fe-CuNi | Typ L | 1 x 1,38 | oval | 4,2 x 6,8 | 61 |
| 90N 12D | 2 x 1,5 | SoNiCr-SoNi | Typ K | 1 x 1,38 | oval | 4,2 x 6,8 | 61 |
| 90P 12D | 2 x 1,5 | SoPtRh-SoPt | Typ S | 1 x 1,38 | oval | 4,2 x 6,8 | 61 |
| 90C 12D | 2 x 1,5 | Cu-CuNi | Typ U | 1 x 1,38 | oval | 4,2 x 6,8 | 61 |

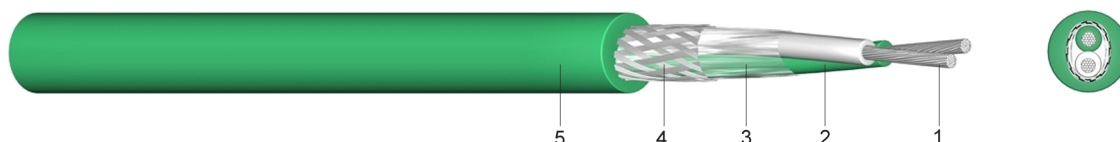
| Type | Number of cores cross section mm ² | Materials per DIN 60584 | for thermo- couple | Conductor construct. appr.value mm | Form | Overall diameter appr. mm | Weight appr. kg/km |
|-----------|-----------------------------------------------------|-------------------------------|--------------------------|---------------------------------------------|-------|------------------------------------|--------------------------|
| 90. 9-4L | 4 x 1,5 | E / N / P / C | | 48 x 0,20 | round | 8,1 | 119 |
| 90. 9-6L | 6 x 1,5 | E / N / P / C | | 48 x 0,20 | round | 10,1 | 184 |
| 90. 9-12L | 12 x 1,5 | E / N / P / C | | 48 x 0,20 | round | 13,2 | 312 |
| 90. 9-16L | 16 x 1,5 | E / N / P / C | | 48 x 0,20 | round | 15,1 | 419 |
| 90. 9-20L | 20 x 1,5 | E / N / P / C | | 48 x 0,20 | round | 16,7 | 520 |
| 90. 9-24L | 24 x 1,5 | E / N / P / C | | 48 x 0,20 | round | 19,0 | 614 |
| 90. 9-32L | 32 x 1,5 | E / N / P / C | | 48 x 0,20 | round | 20,9 | 793 |
| 90. 9-36L | 36 x 1,5 | E / N / P / C | | 48 x 0,20 | round | 22,1 | 904 |
| 90. 9-40L | 40 x 1,5 | E / N / P / C | | 48 x 0,20 | round | 24,1 | 1.032 |

Further cross-sections and core-quantities as well as standards and configurations upon request

90 E/N/P/C PVC Insulated Compensating and Extension Cable with Screening

Application:

These cables are suitable for installations in dry, humid and wet locations as temperature measuring cables for areas such as the plastic industry in machine engineering, industrial oven construction as well as blast furnace plants in the steel industry. PVC-, fibre-glass- and asbestos-substitute insulated or sheathed compensating and extension cables are not suitable for open-air use except for the PVC-sheathed solid conductor type which can be used for underground laying, too.



Construction:

- 1 solid or fine-stranded conductor, conductor material, depending on the kind of elements
- 2 core insulation of polyvinylchloride (PVC)
- 3 layer of plastic foil
- 4 screening of tinned copper braiding
- 5 outer sheath of polyvinylchloride (PVC)

Standards:

IEC 60584 (core identification)
Core identification and temperatur ranges as download at: www.meinhart.at/service/download

Technical data:

Temperature range

in motion
fixed

-5°C till +70°C
-25°C till +70°C
EN 60332-1-2

Flammability

standard

| Type | Materials per DIN 60584 | for thermo-couple | Conductor construct. appr. value mm | Form | Overall diameter appr. mm | Weight appr. kg/km |
|----------------------------|-------------------------|-------------------|-------------------------------------|-------|---------------------------|--------------------|
| with Copper braid | | | | | | |
| 90E 5L 2 x 1,5 | Fe-CuNi | Typ L | 48 x 0,20 | round | 8,1 | 93 |
| 90N 5L 2 x 1,5 | SoNiCr-SoNi | Typ K | 48 x 0,20 | round | 8,1 | 93 |
| 90P 5L 2 x 1,5 | SoPtRh-SoPt | Typ S | 48 x 0,20 | round | 8,1 | 93 |
| 90C 5L 2 x 1,5 | Cu-CuNi | Typ U | 48 x 0,20 | round | 8,1 | 93 |
| with Aluminium foil | | | | | | |
| 90E 5-022 2 x 0,22 | Fe-CuNi | Typ L | 7 x 0,20 | round | 4,0 | 31 |
| 90N 5-022 2 x 0,22 | SoNiCr-SoNi | Typ K | 7 x 0,20 | round | 4,0 | 31 |
| 90P 5-022 2 x 0,22 | SoPtRh-SoPt | Typ S | 7 x 0,20 | round | 4,0 | 31 |
| 90C 5-022 2 x 0,22 | Cu-CuNi | Typ U | 7 x 0,20 | round | 4,0 | 31 |
| with Aluminium foil | | | | | | |
| 90E 20L 2 x 1,5 | Fe-CuNi | Typ L | 48 x 0,20 | round | 8,0 | 75 |
| 90N 20L 2 x 1,5 | SoNiCr-SoNi | Typ K | 48 x 0,20 | round | 8,0 | 75 |
| 90P 20L 2 x 1,5 | SoPtRh-SoPt | Typ S | 48 x 0,20 | round | 8,0 | 75 |
| 90C 20L 2 x 1,5 | Cu-CuNi | Typ U | 48 x 0,20 | round | 8,0 | 75 |

| Type | Number of cores cross section mm ² | Materials per DIN 60584 | for thermo- couple | Conductor construct. appr.value mm | Form | Overall diameter appr. mm | Weight appr. kg/km |
|----------------------------|-----------------------------------------------------|-------------------------------|--------------------------|---------------------------------------------|-------|------------------------------------|--------------------------|
| with Aluminium foil | | | | | | | |
| 90E 20D | 2 x 1,5 | Fe-CuNi | Typ L | 1 x 1,38 | round | 8,2 | 82 |
| 90N 20D | 2 x 1,5 | SoNiCr-SoNi | Typ K | 1 x 1,38 | round | 8,2 | 82 |
| 90P 20D | 2 x 1,5 | SoPtRh-SoPt | Typ S | 1 x 1,38 | round | 8,2 | 82 |
| 90C 20D | 2 x 1,5 | Cu-CuNi | Typ U | 1 x 1,38 | round | 8,2 | 82 |
| 90. 20-4D | 4 x 1,5 | E / N / P / C | | 1 x 1,38 | round | 10,8 | 137 |
| 90. 20-6D | 6 x 1,5 | E / N / P / C | | 1 x 1,38 | round | 12,4 | 186 |
| 90. 20-12D | 12 x 1,5 | E / N / P / C | | 1 x 1,38 | round | 16,3 | 362 |
| 90. 20-16D | 16 x 1,5 | E / N / P / C | | 1 x 1,38 | round | 16,8 | 423 |
| 90. 20-20D | 20 x 1,5 | E / N / P / C | | 1 x 1,38 | round | 20,3 | 542 |
| 90. 20-24D | 24 x 1,5 | E / N / P / C | | 1 x 1,38 | round | 22,5 | 638 |
| 90. 20-28D | 28 x 1,5 | E / N / P / C | | 1 x 1,38 | round | 24,2 | 749 |
| 90. 20-30D | 30 x 1,5 | E / N / P / C | | 1 x 1,38 | round | 24,2 | 788 |
| 90. 20-32D | 32 x 1,5 | E / N / P / C | | 1 x 1,38 | round | 25,1 | 847 |

Further cross-sections and core-quantities as well as standards and configurations upon request