



Halogen-free, unarmoured mud resistant instrumentation cable RU(i) 250V, S11

Flame retardant halogen-free instrumentation cable. Mud resistant

RU(i) 250V

EPR/EVA

NEK 606 CodeS11



Operating temperature : 90°C
 Operating Voltage : 250V

Application

Fixed installation for instrumentation, communication, Control and alarm systems in both EX- (Zone 2) and safe areas. Meets the mud resistant requirements in NEK 606.

Standards applied

| | |
|-------------------------|-------------------|
| IEC 60092-376 (2003-05) | - Design |
| IEC 60228 class 2 | - Conductor |
| IEC 60092-351 | - Insulation |
| IEC 60092-359 | - Sheath |
| IEC 60332-1 | - Flame Retardant |
| IEC 60332-3-22 | - Flame Retardant |
| IEC 600754-1,2 | - Halogen Free |
| IEC 61034-1,2 | - Low Smoke |

Construction

| | Code Letter | |
|--------------------------------------|-------------|--|
| Conductor | | Tinned annealed stranded circular copper (STCC), IEC 60228 class 2 |
| Insulation | R | EP-rubber, IEC 60092-351 (EPR) |
| Pair / Triple / Quad twisting | | Color coded cores twisted together. Pairs/Triples are screened by copper backed polyester tape with tinned copper drain wire. Each pair/triple is wrapped with polyester tape to prevent electrical contact with adjacent pairs/triples. Pairs/triples are identified by numbers printed directly on the insulated conductors. |
| Lay up / Shielding | | Individually shielded pairs/triples/quads are laid up in concentric layers and wrapped with a PETP tape. |
| Inner covering | | No inner covering. (Additional tapes may be applied) |
| Armour/screen | | No armour. |
| Outer sheath | U | Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-359) |
| Marking text | | E.g. "meter" "year" DRAKA NORSK KABEL RU(i) 250V S11 2 pair 0,75 mm2 IEC 60092-376 IEC 60332-3-22 |
| Outer sheath colour | | Grey or Blue |



Core identification instrumentation cables

Pair Black - Light Blue
 Triple Black - Light Blue - Brown
 Quad Black - Light Blue - Brown - Grey

Range and dimensions

| Number of elements | No of cores in element | Cross section core, mm ² | Conductor Diameter, mm | Insulation Thickness, mm | Thickness Outer Sheath, mm | Diameter outer sheath, mm | Weight of Cable Approx. (Kg/Km) | Copper content Approx. (kg/km) |
|--------------------|------------------------|-------------------------------------|------------------------|--------------------------|----------------------------|---------------------------|---------------------------------|--------------------------------|
| 1 | 2 | 0.75 | 1.1 | 0.6 | 1 | 6.5 ± 0.5 | 85 | 18.5 |
| 1 | 2 | 0.75 | 1.1 | 0.6 | 1 | 6.5 ± 0.5 | 85 | 18.5 |
| 2 | 2 | 0.75 | 1.1 | 0.6 | 1.1 | 10 ± 0.8 | 145 | 37 |
| 2 | 2 | 0.75 | 1.1 | 0.6 | 1.1 | 10 ± 0.8 | 145 | 37 |
| 4 | 2 | 0.75 | 1.1 | 0.6 | 1.2 | 11.5 ± 0.8 | 240 | 74 |
| 8 | 2 | 0.75 | 1.1 | 0.6 | 1.3 | 16 ± 0.8 | 450 | 147 |
| 12 | 2 | 0.75 | 1.1 | 0.6 | 1.5 | 19 ± 0.8 | 630 | 220 |
| 16 | 2 | 0.75 | 1.1 | 0.6 | 1.5 | 21 ± 1 | 790 | 293 |
| 24 | 2 | 0.75 | 1.1 | 0.6 | 1.7 | 25.5 ± 1 | 1160 | 439 |
| 1 | 3 | 0.75 | 1.1 | 0.6 | 1 | 7 ± 0.5 | 100 | 26 |
| 2 | 3 | 0.75 | 1.1 | 0.6 | 1.2 | 11 ± 0.8 | 185 | 51 |
| 4 | 3 | 0.75 | 1.1 | 0.6 | 1.2 | 13 ± 0.8 | 300 | 102 |
| 8 | 3 | 0.75 | 1.1 | 0.6 | 1.4 | 17.5 ± 0.8 | 580 | 203 |
| 12 | 3 | 0.75 | 1.1 | 0.6 | 1.6 | 21.5 ± 1 | 810 | 305 |
| 16 | 3 | 0.75 | 1.1 | 0.6 | 1.6 | 23.5 ± 1 | 1030 | 406 |
| 24 | 3 | 0.75 | 1.1 | 0.6 | 1.9 | 29.5 ± 1 | 1540 | 609 |
| 1 | 2 | 1.5 | 1.6 | 0.7 | 1 | 8 ± 0.5 | 120 | 35 |
| 1 | 2 | 1.5 | 1.6 | 0.7 | 1 | 8 ± 0.5 | 120 | 35 |
| 2 | 2 | 1.5 | 1.6 | 0.7 | 1.2 | 12 ± 0.8 | 220 | 69 |
| 2 | 2 | 1.5 | 1.6 | 0.7 | 1.2 | 12 ± 0.8 | 220 | 69 |
| 4 | 2 | 1.5 | 1.6 | 0.7 | 1.3 | 14.5 ± 0.8 | 370 | 137 |
| 8 | 2 | 1.5 | 1.6 | 0.7 | 1.5 | 19.5 ± 0.8 | 710 | 274 |
| 12 | 2 | 1.5 | 1.6 | 0.7 | 1.6 | 23.5 ± 1 | 980 | 411 |
| 16 | 2 | 1.5 | 1.6 | 0.7 | 1.7 | 26.5 ± 1 | 1270 | 548 |
| 24 | 2 | 1.5 | 1.6 | 0.7 | 2 | 32.5 ± 1.5 | 1900 | 822 |
| 1 | 3 | 1.5 | 1.6 | 0.7 | 1 | 8.5 ± 0.5 | 140 | 49 |
| 2 | 3 | 1.5 | 1.6 | 0.7 | 1.3 | 14 ± 0.8 | 285 | 97 |
| 4 | 3 | 1.5 | 1.6 | 0.7 | 1.3 | 16 ± 0.8 | 470 | 194 |
| 8 | 3 | 1.5 | 1.6 | 0.7 | 1.6 | 22 ± 1 | 920 | 387 |
| 16 | 3 | 1.5 | 1.6 | 0.7 | 1.9 | 30 ± 1.5 | 1710 | 774 |
| 24 | 3 | 1.5 | 1.6 | 0.7 | 2.2 | 37 ± 1.5 | 2540 | 1161 |

Electrical values instrumentation cables

| Type | Capacitance, approx. (nF/km) | Inductance, approx. (mH/km) | Resistance at 20°C, max. (Ohm/km) | L/R ratio, (microH/Ohm) |
|--------------------------------------|------------------------------|-----------------------------|-----------------------------------|-------------------------|
| Shielded pair 0,75 mm ² | 110 | 0,67 | 24,8 | 14,3 |
| Shielded triple 0,75 mm ² | 110 | 0,67 | 24,8 | 14,3 |
| Shielded pair 1,5 mm ² | 125 | 0,63 | 12,2 | 26,6 |
| Shielded triple 1,5 mm ² | 125 | 0,63 | 12,2 | 26,6 |
| Shielded pair 2,5 mm ² | 145 | 0,59 | 7,56 | 39,0 |
| Shielded triple 2,5 mm ² | 145 | 0,59 | 7,56 | 39,0 |



Ordering information

| Part number | Description | Sheath Colour | Stock item | EAN No. DNK | EL No. |
|-------------|---|---------------|------------|---------------|--------|
| 895000 | RU(I) 250V 1PAIR 0.75mm ² S11 | GREY | - | 7021528950007 | - |
| 895001 | RU(I) 250V 1PAIR 0.75mm ² S11 | BLUE | - | 7021528950014 | - |
| 895006 | RU(I) 250V 2PAIR 0.75mm ² S11 | GREY | - | 7021528950069 | - |
| 895007 | RU(I) 250V 2PAIR 0.75mm ² S11 | BLUE | - | 7021528950076 | - |
| 895018 | RU(I) 250V 4PAIR 0.75mm ² S11 | GREY | - | 7021528950182 | - |
| 895030 | RU(I) 250V 8PAIR 0.75mm ² S11 | GREY | - | 7021528950304 | - |
| 895036 | RU(I) 250V 12PAIR 0.75mm ² S11 | GREY | - | 7021528950366 | - |
| 895042 | RU(I) 250V 16PAIR 0.75mm ² S11 | GREY | - | 7021528950427 | - |
| 895048 | RU(I) 250V 24PAIR 0.75mm ² S11 | GREY | - | 7021528950489 | - |
| 895060 | RU(I) 250V 1TRIP 0.75mm ² S11 | GREY | - | 7021528950601 | - |
| 895066 | RU(I) 250V 2TRIP 0.75mm ² S11 | GREY | - | 7021528950663 | - |
| 895078 | RU(I) 250V 4TRIP 0.75mm ² S11 | GREY | - | 7021528950786 | - |
| 895090 | RU(I) 250V 8TRIP 0.75mm ² S11 | GREY | - | 7021528950908 | - |
| 895096 | RU(I) 250V 12TRIP 0.75mm ² S11 | GREY | - | 7021528950960 | - |
| 895102 | RU(I) 250V 16TRIP 0.75mm ² S11 | GREY | - | 7021528951028 | - |
| 895108 | RU(I) 250V 24TRIP 0.75mm ² S11 | GREY | - | 7021528951080 | - |
| 895200 | RU(I) 250V 1PAIR 1.5mm ² S11 | GREY | - | 7021528952001 | - |
| 895201 | RU(I) 250V 1PAIR 1.5mm ² S11 | BLUE | - | 7021528952018 | - |
| 895206 | RU(I) 250V 2PAIR 1.5mm ² S11 | GREY | - | 7021528952063 | - |
| 895207 | RU(I) 250V 2PAIR 1.5mm ² S11 | BLUE | - | 7021528952070 | - |
| 895218 | RU(I) 250V 4PAIR 1.5mm ² S11 | GREY | - | 7021528952186 | - |
| 895230 | RU(I) 250V 8PAIR 1.5mm ² S11 | GREY | - | 7021528952308 | - |
| 895236 | RU(I) 250V 12PAIR 1.5mm ² S11 | GREY | - | 7021528952360 | - |
| 895242 | RU(I) 250V 16PAIR 1.5mm ² S11 | GREY | - | 7021528952421 | - |
| 895248 | RU(I) 250V 24PAIR 1.5mm ² S11 | GREY | - | 7021528952483 | - |
| 895260 | RU(I) 250V 1TRIP 1.5mm ² S11 | GREY | - | 7021528952605 | - |
| 895266 | RU(I) 250V 2TRIP 1.5mm ² S11 | GREY | - | 7021528952667 | - |
| 895278 | RU(I) 250V 4TRIP 1.5mm ² S11 | GREY | - | 7021528952780 | - |
| 895290 | RU(I) 250V 8TRIP 1.5mm ² S11 | GREY | - | 7021528952902 | - |
| 895302 | RU(I) 250V 16TRIP 1.5mm ² S11 | GREY | - | 7021528953022 | - |
| 895308 | RU(I) 250V 24TRIP 1.5mm ² S11 | GREY | - | 7021528953084 | - |

Installation recommendations

| Minimum Bending Radius during Installation | Minimum Bending Radius Fixed Installed | Maximum Tensile Load During Installation | Minimum Installation Temperature |
|--|--|--|----------------------------------|
| 8 x D | 6 x D | 50 N /mm ² | -20°C |