



# RS 485 Industrial BUS ARM SHF2

**AWG 22/7, Flexible**

**Armoured**

**SHF2, UV**

**120 Ω**

**DNV**

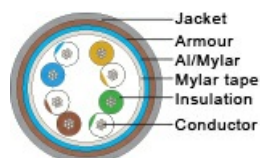
## Application

Armoured marine cable for monitoring oil wells and linking POS terminals, to alarm systems, motion control and HVAC controls. Extended capability transceivers offer data rates up to 100Mbps and up to 256 nodes, as well as 2500 VRMS isolation and fault protection up to ± 60V. Installations up to 1200m.



## Construction

|                |                                                                                                                          |
|----------------|--------------------------------------------------------------------------------------------------------------------------|
| Conductor      | Stranded tinned Cu 7 x 0.254 [mm] AWG 22/7                                                                               |
| Insulation     | Foam PE Ø = 1.50 ± 0.05 [mm]                                                                                             |
| No. of pairs   | 2 or 4                                                                                                                   |
| Colour code    | pair 1: white/blue - blue<br>pair 2: white/orange - orange<br>pair 3: white/green - green<br>Pair 4: white/brown - brown |
| Tape           | Mylar tape                                                                                                               |
| Screen         | Al/Mylar                                                                                                                 |
| Screen 2       | Tinned Cu braid ≥ 60 [% optical coverage]                                                                                |
| Inner jacket   | SHF1<br>Ø = 2x2xAWG22/7: 8.6 ± 0.6 [mm]<br>Ø = 4x2xAWG22/7: 9.3 ± 0.6 [mm]                                               |
| Armour         | Galvanised steel wire braid ≥ 60 [% optical cover]                                                                       |
| Outer Jacket   | Grey SHF2                                                                                                                |
| O.D.           | 2x2xAWG22/7: 11.6 ± 0.6 [mm]<br>4x2xAWG22/7: 12.5 ± 0.6 [mm]                                                             |
| Weight         | 2x2xAWG22/7: 196 [kg/km]<br>4x2xAWG22/7: 211 [kg/km]                                                                     |
| Jacket marking | NEK Kabel – RS485 Industrial BUS – nx2xAWG22/7 –<br>GSWB – SHF2 – DNV – IEC 60332-3-22 – batch.no – dd/mm/yy – ****m     |





## Specifications

|                              |                          |
|------------------------------|--------------------------|
| Operating temperature normal | -40 – +80 [°C]           |
| Temperature @ installation   | -20 – +60 [°C]           |
| Dielectric strength          | DC 2kV for 1 min.        |
| Characteristic impedance     | 120 ± 15 [Ω @ 1 MHz]     |
| Conductor DC resistance      | ≤ 55 [Ω/km]              |
| Attenuation                  | ≤ 20.0 [dB/km @ 1MHz]    |
| Mutual capacitance           | Nom. 42 [pF/m at 800 Hz] |

## Norms

|                                                    |                           |
|----------------------------------------------------|---------------------------|
| Halogenfree, max content corrosive and toxic gases | IEC 60754-1 & IEC 60754-2 |
| Material properties, insulation and sheath         | IEC 60092-360             |
| Flame resistance                                   | IEC 60332-3-22            |
| Flame retardant                                    | IEC 60332-1-2             |
| Smoke emission                                     | IEC 61034-2               |
| Oil and fuel resistant                             | IRM 902 100°C x 24h       |
| UV-resistant                                       | UL 1581 (300H)            |
| Certification                                      | DNV                       |



|          |                                              |
|----------|----------------------------------------------|
| Prod.no. | 2x2xAWG24/7: 2040053<br>4x2xAWG24/7: 2040054 |
|----------|----------------------------------------------|

## Updated

| Date       | Rev. | Description       |
|------------|------|-------------------|
| 26.08.2025 | 1    | Added 2x2xAWG22/7 |