

NP 121E

Belden introduces four new halogen-free DeviceBus® Cables. Two of these are steel wire armored for use in public areas and/or demanding industrial applications.



New Halogen-Free DeviceBus® Cables

Belden's new halogen-free DeviceBus® cables have been designed for use in a global environment, suitable for indoor and outdoor usage, as well as for direct burial applications. The cables comply with IEC 60332-3-24 (formerly IEC 60332-3C), EN 50265-2-1 and NEC/CEC CM CL2 CM FT4 standards and regulations.

When designing these new cables, Belden focused on the electrical and physical requirements as laid down by ODVA. The resulting cables enable flawless communication using the DeviceNet™ protocol and matching all existing connectivity.

Key Features

Belden's halogen-free DeviceBus® 300V Class 2 cables are both FRNC (Flame-Retardant, Non-Corrosive) and LSNH (Low-Smoke, Non-Halogen).

Compared to products containing halogens (such as PVC), these halogen-free cables offers considerable advantages in the event of a fire:

- Less impairment to vision
- Minimal toxic gases
- No release of highly caustic acids
- Greater safety for man, nature and materials

Standard Armoured Versions

For harsh industrial environments where mechanical protection for cables is critical, Belden has developed a standard range of armored

halogen-free DeviceBus® cables. The SWA (Steel Wire Armoured) versions feature an inner-jacket which matches the dimensions of the un-armored types. The physical dimensions of the new halogen-free DeviceBus® cables match those of standard PVC products, thus eliminating the need for special connectivity or cable-glands. The single galvanized steel wires of the armor are applied in a tension free process and are in accordance with EN 50288-1.

Tested for Public Safety

It goes without saying that where public safety is concerned, there can be no short cuts. Safety standards need to be high to ensure minimum damage to life, property and the environment. When it comes to cables, make sure you specify the best products for safety. So you can be confident of performance and quality – even in the event of a calamity.

Belden's four new halogen-free DeviceBus® 300V Class 2 cables meet or exceed the following standards:

- IEC 60332-3-24
- EN50265-2-1
- NEC/CEC CM CL2 CM FT4

These four new products enhance Belden's already impressive DeviceBus® product portfolio and ensure a fitting cable for all environments.

| De- scription | Part No. | UL NEC/ C(UL)/CEC Type IEC | Standard Lengths | | Standard Unit Weight | | Compo- nent | Nominal OD | | Conductor (Stranding) Diameter Nom. DCR | Shielding Material & Nom. DCR | Insulation Material & Colors | Nom. Imp. (Ω) | Nom. Vel. of Prop. | Nom. Insulation OD | |
|------------------|-------------|----------------------------------|---------------------|---|-------------------------|----|----------------|------------|----|--|--|------------------------------------|------------------|-----------------------|-----------------------|----|
| | | | ft. | m | lbs. | kg | | inch | mm | | | | | | inch | mm |

300V Class 2 Thick • 15 AWG and 18 AWG • Stranded Tinned Copper • Beldfoil® • 18 AWG TC Drain Wire • Overall 65% TC Braid

Foam Polyethylene Insulation (Data Pair) • Polyethylene Insulation (Power Pair) • Grey Low Smoke, UV and Oil-Resistant Zero-Halogen Jacket

| | | | | | | | | | | | | | | | | |
|----------------------|---------|---|------|-----|-------|------|-------|-------|-------|----------------------|-------------------------|--------------------|-----|----|-------|------|
| 75°C | 3082ENH | NEC/CEC | 1000 | 305 | 122.5 | 55.6 | Power | 0.480 | 12.20 | 15 AWG | Individual Beldfoil® | PE Red, Black | - | - | 0.118 | 3.00 |
| | | CM CL2 | 1640 | 500 | 200.9 | 91.2 | | | | 1.7 mm (19x28) TC | | | | | | |
| | | CM IEC 60332-3-24 EN 50265-2-4 | | | | | Data | | | 18 AWG | Individual Beldfoil® | FPE Blue, White | 120 | 75 | 0.150 | 3.80 |
| Overall Braid 65% TC | | | | | | | | | | | | | | | | |



300V Class 2 Thin • 22 AWG and 24 AWG • Stranded Tinned Copper • Beldfoil® • 22 AWG TC Drain Wire • Overall 65% TC Braid

Foam Polyethylene Insulation (Data Pair) • Polyethylene Insulation (Power Pair) • Grey Low Smoke, UV and Oil-Resistant Zero-Halogen Jacket

| | | | | | | | | | | | | | | | | |
|----------------------|---------|---|------|-----|------|------|-------|-------|------|-----------------------|-------------------------|--------------------|-----|----|-------|------|
| 75°C | 3084ENH | NEC/CEC | 1000 | 305 | 43.8 | 19.9 | Power | 0.280 | 7.10 | 22 AWG | Individual Beldfoil® | PE Red, Black | - | - | 0.072 | 1.83 |
| | | CM CL2 | 1640 | 500 | 71.8 | 32.6 | | | | 0.78 mm (19x34) TC | | | | | | |
| | | CM IEC 60332-3-24 EN 50265-2-4 | | | | | Data | | | 24 AWG | Individual Beldfoil® | FPE Blue, White | 120 | 75 | 0.077 | 1.96 |
| Overall Braid 65% TC | | | | | | | | | | | | | | | | |



300V Class 2 Thick • 15 AWG and 18 AWG • Stranded TC • Beldfoil® • 20 AWG TC Drain Wire • Overall 65% TC Braid • SWA Armoured

Foam Polyethylene Insulation (Data Pair) • Polyethylene Insulation (Power Pair) • Grey Low Smoke, UV and Oil-Resistant Zero-Halogen Jacket

| | | | | | | | | | | | | | | | | |
|----------------------|---------|---|------|-----|-------|-------|---------------|---------------|-------|--------|-------------------------|--------------------|-----|----|-------|------|
| 75°C | 3082ELS | NEC/CEC | 1000 | 305 | 394.9 | 179.3 | Power | Inner jacket: | | 15 AWG | Individual Beldfoil® | PE Red, Black | - | - | 0.118 | 3.00 |
| | | CM CL2 | 1640 | 500 | 647.6 | 294.0 | | 0.480 | 12.20 | | | | | | | |
| | | CM IEC 60332-3-24 EN 50265-2-4 EN 50288-1 | | | | | Outer jacket: | | | | | | | | | |
| | | | | | | | Data | | | 18 AWG | Individual Beldfoil® | FPE Blue, White | 120 | 75 | 0.150 | 3.80 |
| Overall Braid 65% TC | | | | | | | | | | | | | | | | |



300V Class 2 Thin • 22 AWG and 24 AWG • Stranded TC • Beldfoil® • 20 AWG TC Drain Wire • Overall 65% TC Braid • SWA Armoured

Foam Polyethylene Insulation (Data Pair) • Polyethylene Insulation (Power Pair) • Grey Low Smoke, UV and Oil-Resistant Zero-Halogen Jacket

| | | | | | | | | | | | | | | | | |
|----------------------|---------|---|------|-----|-------|-------|---------------|---------------|------|--------|-------------------------|--------------------|-----|----|-------|------|
| 75°C | 3084ELS | NEC/CEC | 1000 | 305 | 174.0 | 79.0 | Power | Inner jacket: | | 22 AWG | Individual Beldfoil® | PE Red, Black | - | - | 0.072 | 1.83 |
| | | CM CL2 | 1640 | 500 | 285.2 | 129.5 | | 0.280 | 7.10 | | | | | | | |
| | | CM IEC 60332-3-24 EN 50265-2-4 EN 50288-1 | | | | | Outer jacket: | | | | | | | | | |
| | | | | | | | Data | | | 24 AWG | Individual Beldfoil® | FPE Blue, White | 120 | 75 | 0.077 | 1.96 |
| Overall Braid 65% TC | | | | | | | | | | | | | | | | |



TC = Tinned Copper • DCR = DC resistance