

FieldLink[®] for PROFIBUS applications

Characteristics:

- Flame retardant
- Weld splatter resistant
- Highly flexible
- Permanent installation
- Halogen free
- Silicon free
- Sunlight resistant
- Oil resistant
- Cold resistant
- Chemical resistant
- Insulation integrity (90 min)
- Direct burial
- EMC cable for electro-magnetic compatibility
- Festoon cable
- Torsional stress cable
- Trailing cable with up to 5 million bending cycles

In the industrial automation the PROFIBUS is one of the most successful Fieldbus standards worldwide and is especially developed for the communication between automation systems and decentralized peripheral equipments in the field area. PROFIBUS bus cables connect digital field devices at the sensor/actuator level to higher level components. LEONI Special Cables has developed PROFIBUS cables in accordance with the PROFIBUS specifications and the product range comprises shielded twisted pair cables with circular cross-section as standard type; with PE or PUR sheath, halogen-free version, buried or drum cables, cables specially made for hazardous areas or a cable with double jackets separated by a steel-tape armour which offers total rodent protection.

PROFIBUS ES cables (easy to strip) can be quickly and easily cut to length and terminated on site with the PROFIBUS ES system for fast installation. For this LEONI Special Cables offers a stripping tool with the help of which installation time can be reduced.

The PROFIBUS bus cables are developed for PROFIBUS DP and PROFIBUS PA applications. PROFIBUS-DP is optimized for factory automation whereas PROFIBUS PA is made for the process automation in hazardous and intrinsically safe areas.

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**LEONI Special Cables
is a member of PROFIBUS
International**

PROFIBUS DP ES

PROFIBUS DP ES

PROFIBUS DP ES



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| ES cable for permanent installation (easy to strip) UL listed: CMG and PLTC | ES cable for permanent installation (easy to strip, FRNC) UL listed: CM | ES cable for direct burial (easy to strip) | Application |
| Bare copper wire Ø 0.64 mm, insulation of foamed PE with skin Ø 2.55 mm | Bare copper wire Ø 0.64 mm, insulation of foamed PE with skin Ø 2.55 mm | Bare copper wire Ø 0.64 mm, insulation of foamed PE with skin Ø 2.55 mm | Conductor |
| 2 wires twisted to a pair, inner jacket: PVC | 2 wires twisted to a pair, inner jacket: FRNC | 2 wires twisted to a pair, inner jacket: PVC | Core |
| Alulminate foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm | Alulminate foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm | Alulminate foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm | Shield |
| Polyvinylchloride (PVC) violet Ø 8.0 ± 0.4 mm | Thermoplastic Copolymer (FRNC) violet Ø 8.0 ± 0.4 mm | Inner jacket: Polyvinylchloride (PVC) violet Ø 8.0 ± 0.4 mm Outer jacket: Polyethylene (PE) black Ø 10.8 ± 0.5 mm | Jacket |
| Flame retardant acc. to IEC 60332-3-24 and UL 1685 (CSA FT 4), cold bending resistant acc. to IEC 60881-1-4, sunlight resistant acc. to UL 1581, Sec. 1200, UL-File E119100, Vol. 1, Sec. 16, Page 7, UL-File E116441, Vol. 1, Sec. 6, Page 7 | Flame retardant acc. to IEC 60332-1-2, UL-File E119100, Vol. 1, Sec. 11, Page 1, halogen free, sunlight resistant acc. to UL 1581, Sec. 1200, limited oil resistant, UL 1685 (vertical tray), corrosivity of fire gases acc. to IEC 60754-2 | Cold bending resistant acc. to IEC 60881-1-4, sunlight resistant, limited mineral oil and fat resistant | Mechanical Characteristics |
| 02YSY(ST)CY 1x2x0.64/2.55-150 VI KF40 FR | 02YSH(ST)CH 1x2x0.64/2.55-150 VI KF25 FRNC | 02YSY(ST)CY2Y 1x2x0.64/2.55-150 KF40 | Type Designation |
| L45467-G16-C185 | L45467-G16-C286 | L45467-G16-C236 | Order-Number |

PROFIBUS DP ES



PROFIBUS DP ES



PROFIBUS DP ES



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| Application | ES trailing cable (easy to strip) UL listed: CMX | ES sturdy cable for chemical and mechanical stress (easy to strip) UL listed: CMX | ES cable for food industry (easy to strip) |
| Conductor | Stranded bare copper wire 19x0.14, Ø 0.65 mm, insulation of foamed PE Ø 2.56 mm | Bare copper wire Ø 0.64 mm, insulation of foamed PE with skin Ø 2.55 mm | Bare copper wire Ø 0.64 mm, insulation of foamed PE with skin Ø 2.55 mm |
| Core | 2 wires twisted to a pair, inner jacket: PVC | 2 wires twisted to a pair, inner jacket: PVC | 2 wires twisted to a pair, inner jacket: PVC |
| Shield | Aluminum foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm | Aluminum foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm | Aluminum foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm |
| Jacket | Polyurethane (PUR) petrol Ø 8.0 ± 0.4 mm | Polyurethane (PUR) violet Ø 8.0 ± 0.4 mm | Polyethylene (PE) black Ø 8.0 ± 0.4 mm |
| Mechanical Characteristics | Flame retardant acc. to IEC 60332-1-2, cold bending resistant acc. to IEC 60811-1-4, UL-File E119100, Vol. 1, Sec. 8, Page 1, limited mineral oil and fat resistant also available as a CMG version | Flame retardant acc. to IEC 60332-1-2, cold bending resistant acc. to IEC 60811-1-4, UL-File E119100, Vol. 1, Sec. 8, Page 1, sunlight resistant, limited mineral oil and fat resistant | Cold bending resistant acc. to IEC 60811-1-4, sunlight resistant, limited mineral oil and fat resistant |
| Type Designation | 02YY(ST)C11Y 1x2x0.65/2.56-150 LI KF40 FR petrol | 02YSY(ST)C11Y 1x2x0.64/2.55-150 VI KF40 FR | 02YSY(ST)C2Y 1x2x0.64/2.55-150 KF40 |
| Order-Number | L45467-G16-C98 | L45467-G16-C118 | L45467-G16-C246 |

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| Cable for permanent installation UL listed: CMG and PLTC | Cable for flexible installation UL listed: CMG 2x24 AWG 7 | Cable for permanent installation (FRNC) UL listed: CM | Application |
| Bare copper wire Ø 0.64 mm, insulation of foamed PE with skin Ø 2.55 mm | Stranded bare copper wire 7x0.2, Ø 0.64 mm | Bare copper wire Ø 0.64 mm, insulation of foamed PE with skin Ø 2.55 mm | Conductor |
| 2 wires twisted to a pair with fillers in gaps | 2 wires twisted to a pair with fillers in gaps | 2 wires twisted to a pair with fillers in gaps | Core |
| Alulamine foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm | Alulamine foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm | Alulamine foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm | Shield |
| Polyvinylchloride (PVC) violet Ø 8.0 ± 0.4 mm | Polyvinylchloride (PVC) violet Ø 7.8 ± 0.2 mm | Thermoplastic copolymer (FRNC) violet Ø 8.0 ± 0.4 mm | Jacket |
| Flame retardant acc. to IEC 60332-3-24 and UL 1685 (CSA FT 4), cold bending resistant acc. to IEC 60811-1-4 (-40 °C), UL-File E119100, Vol. 1, Sec. 16, Page 7, UL-File E116441, Vol. 1, Sec. 6, Page 7, sunlight resistant acc. to UL 1581, Sec. 1200, limited mineral oil and fat resistant | UL-File E 119100, Vol. 1, Sec. 8, Page 1 | Flame retardant acc. to IEC 60332-3-24, halogen free, sunlight resistant acc. to UL 1581, Sec. 1200, smoke density acc. to IEC 61034 | Mechanical Characteristics |
| 02YS(ST)CY 1x2x0.64/2.55-150 VI KF40 FR | 02YS(ST)CY 1x2x0.64/2.55-150 LI VI KF 40 FR | 02YS(ST)CH 1x2x0.64/2.55-150 VI FRNC KF 25 | Type Designation |
| L45467-G16-C145 | L45467-G16-C345 | L45467-G16-C206 | Order- Number |

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| Application | Underground cable for direct burial | Trailing Cable UL listed: CMX | Cable for permanent installation (FE 90: insulation integrity 90 minutes) |
| Conductor | Bare copper wire Ø 0.64 mm, insulation of foamed PE with skin Ø 2.55 mm | Stranded bare copper wire 19x0.14, Ø 0.64 mm, insulation of foamed PE with skin Ø 2.55 mm | Bare copper wire Ø 0.64 mm, insulation of foamed PE with skin Ø 2.55 mm, flame protection foil overlapped Ø 2.75 mm |
| Core | 2 wires twisted to a pair | 2 wires twisted to a pair with fillers in gaps | 2 wires twisted to a pair with fillers in gaps |
| Shield | Alulamine foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm | Alulamine foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm | Alulamine foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm, flame protection foil overlapped |
| Jacket | Inner jacket: Polyvinylchloride (PVC) grey Outer jacket: Polyethylene (PE) black Ø 10.2 ± 0.5 mm | Polyurethane (PUR) petrol Ø 8.5 ± 0.4 mm | Thermoplastic copolymer (FRNC) grey Ø 8.8 ± 0.4 mm |
| Mechanical Characteristics | Cold bending resistant acc. to IEC 60811-1-4, sunlight resistant, limited mineral oil and fat resistant | Flame retardant acc. to IEC 60332-1-2, halogen free, oil resistant acc. to DIN EN 60811-2-1, sunlight resistant acc. to UL 1581, Sec. 1200, smoke density acc. to IEC 61034, UL-Style E119100, Vol. 1, Sec. 8, Page 1 | Insulation effect under fire conditions acc. to IEC 60331, halogen free |
| Type Designation | 02YS(ST)CY2Y 1x2x0.64/2.55-150 KF40 | 02YS(ST)C11Y 1x2x0.64/2.55-150 LI FRNC petrol | 02YS(ST)CH 1x2x0.64/2.55-150 GR FRNC FE 90 |
| Order-Number | V45467-G16-C46 | L45467-G16-C88 | L45467-G16-C266 |

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| High temperature cable for permanent installation | Festoon cable UL listed: CMG and PLTC | Torsional stress cable UL listed: CMX | Application |
| Bare copper wire Ø 0.64 mm, insulation of foamed FEP Ø 2.55 mm | Stranded bare copper wire 19x0.14, Ø 0.65 mm, insulation of foamed PE with skin Ø 2.56 mm | Stranded bare copper wire 19x0.16, Ø 0.8 mm, insulation of foamed PE with skin Ø 2.56 mm | Conductor |
| 2 wires twisted to a pair with fillers in gaps | 2 wires twisted to a pair with fillers in gaps | 2 wires twisted to a pair with fillers in gaps | Core |
| Alulaminat foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm | Alulaminat foil overlapped, shield braiding of tinned copper wires Ø 0.1 mm | 2 layers of plastic tape conductive, shield braiding of tinned copper wires Ø 0.15 mm | Shield |
| Perfluorethylenpropylen (FEP), violet Ø 7.2 ± 0.25 mm | Polyvinylchloride (PVC) petrol Ø 8.0 ± 0.3 mm | Polyurethane (PUR) violet Ø 8.0 ± 0.4 mm | Jacket |
| Oil resistant, sunlight resistant, high temperature range (up to 180 °C) | Flame retardant acc. to UL 1685 (CSA FT 4), oil resistant acc. to UL 758, Sec. 15, sunlight resistant acc. to UL 1581, Sec. 1200, UL-File E119100, Vol. 1, Sec. 16, Page 6 | Flame retardant acc. to IEC 60332-1-2, sunlight resistant, oil resistant acc. to IEC 60811-2-1 and UL 1581 VW 1, UL-File E119100, Vol. 1, Sec. 8, Page 1 | Mechanical Characteristics |
| 06Y(ST)C6Y 1x2x0.64/2.55-150 VI | 02YS(ST)CY 1x2x0.65/2.56 LI petrol FR | 02YS(ST)C11Y 1x2x0.8/2.56-150 LI FR VI | Type Designation |
| L45467-G16-N17 | L45467-G16-C255 | L45467-G18-C18 | Order-Number |

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| Application | Cable with rodent protection | EMC cable for permanent installation (electromagnetic compatibility) or for direct burial | Hybrid Cable for trailing application UL listed: CMG |
| Conductor | Bare copper wire Ø 0.64 mm, insulation of foamed PE with skin Ø 2.55 mm | Bare copper wire Ø 0.64 mm, insulation of foamed PE with skin Ø 2.55 mm | Wire LIY 1.5/2.4 Stranded bare copper wire 84x0.15, Ø 1.6 mm, insulation of PVC Ø 2.4 mm Wire 02Y 0.65/2.56 LI Stranded bare copper wire 19x0.14, Ø 0.65 mm, insulation of foamed PE Ø 2.56 mm Screened pair 2 wires twisted to a pair, alulamine foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm |
| Core | 2 wires twisted to a pair with fillers in gaps | 2 wires twisted to a pair with fillers in gaps, tinned copper drain wire | 1 screened pair, 4 wires |
| Shield | Alulamine foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm, inner jacket: PVC violet Ø 8.0 mm ± 0.4 mm, armoring: 2 layers of galvanized steel tape, intercalated tapes | Alulamine foil overlapped, copper tape longitudinal welded and spiral corrugated | |
| Jacket | Polyethylen (PE) black Ø 10.8 ± 0.5 mm | Polyvinylchloride (PVC) violet Ø 11.1 ± 0.3 mm | Polyvinylchloride (PVC) violet Ø 11.0 ± 0.3 mm |
| Mechanical Characteristics | Sunlight resistant, limited mineral oil and fat resistant | Flame retardant acc. to IEC 60332-1-2, sunlight resistant | Flame retardant acc. to UL 1685 (CSA FT 4), sunlight resistant acc. to UL 1581, Sec. 1200, oil resistant acc. to 1581, Sec. 480, UL File E119100, Vol. 1, Sec. 16, Page 1, UL File E116441, Vol. 1, Sec. 6, Page 1 |
| Type Designation | 02YS(ST)CYB2Y 1x2x0.64/2.55-150 (2B0.1VZK) | 02YS(ST)WKY 1x2x0.64/2.55-150 VI KF40 FR | 02Y(ST)C 1x2x0.65/2.56-150 LI LIY-ZY 4x1x1.5 VI |
| Order-Number | L45467-G16-C276 | L45467-G16-C355 | L45467-G116-W45 |

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PROFIBUS DP-ET 200X

PROFIBUS DP-ET 200C



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| <p>Hybrid cable for trailing application UL recognized: AWM</p> | <p>Hybrid trailing cable UL recognized: AWM</p> | <p>Hybrid cable for permanent and flexible installation UL recognized: AWM</p> | <p>Application</p> |
| <p>Wire LIY 1.5/2.4 Stranded bare copper wire 84x0.15, Ø 1.55 mm, insulation of FRNC Ø 2.4 mm</p> <p>Screened pair Stranded bare copper wire 19x0.14, Ø 0.65 mm, insulation of foamed PE Ø 2.56 mm, 2 wires twisted to a pair, aluminated foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm</p> | <p>Wire LIY 0.75/1.7 Stranded bare copper wire 24x0.2, Ø 1.15 mm, insulation of PVC Ø 1.7 mm</p> <p>Wire 02Y 0.65/2.56 LI Stranded bare copper wire 19x0.13, Ø 0.65 mm, insulation of foamed PE Ø 2.56 mm</p> <p>Pair 02Y(ST)C 2 wires twisted to a pair, aluminated foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm</p> | <p>Wire LIY 0.75/1.7 Stranded bare copper wire 24x0.2, Ø 1.15 mm, insulation of PVC Ø 1.7 mm</p> <p>Wire 02YS 0.25/2.56 LI Stranded bare copper wire 19x0.13, Ø 0.65 mm, insulation of foamed PE Ø 2.56 mm</p> <p>Pair LI02Y 2 wires twisted to a pair</p> | <p>Conductor</p> |
| <p>1 screened pair, 4 wires</p> | <p>1 pair twisted, 3 wires</p> | <p>1 pair twisted, 3 wires</p> | <p>Core</p> |
| | | <p>Shield braiding of tinned copper wires Ø 0.15 mm</p> | <p>Shield</p> |
| <p>Polyurethane (PUR) violet Ø 11.0 ± 0.3 mm</p> | <p>Polyurethane (PUR) petrol Ø 9.5 ± 0.5 mm, also available with PVC jacket for permanent installation</p> | <p>Polyvinylchloride (PVC) petrol Ø 8.0 ± 0.4 mm, also available with PUR jacket for trailing applications</p> | <p>Jacket</p> |
| <p>Flame retardant acc. to IEC 60332-1-2, halogen free, oil resistant acc. to IEC 60811-2-1, sunlight resistant, UL-Style 20233</p> | <p>Flame retardant acc. to IEC 60332-1-2, oil resistant acc. to IEC 60811-2-1, UL-Style 20351</p> | <p>UL-Style 20433A</p> | <p>Mechanical Characteristics</p> |
| <p>02Y(ST)C 1x2x0.65/2.56-150 LI LIY-Z 11Y 4x1x1.5 VI FRNC</p> | <p>02Y(ST)C 1x2x0.65/2.56-150 LI LIY-J 11Y 3x1x0.75 petrol</p> | <p>02Y 1x2x0.65/2.56-150 LI LIY-J CY 3x1x0.75 petrol</p> | <p>Type Designation</p> |
| <p>L45467-G116-W58</p> | <p>L45467-G116-W38</p> | <p>L45551-W59-W15</p> | <p>Order-Number</p> |

PROFIBUS PA ES



PROFIBUS PA ES



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| Application | ES cable for permanent installation (easy to strip) UL listed: CMG + PLTC | ES cable for permanent installation in EX-applications (easy to strip) UL listed: CMG + PLTC | Cable for permanent installation UL listed: CMX |
| Conductor | Bare copper wire Ø 1.05 mm, insulation of foamed PE with skin Ø 2.55 mm | Bare copper wire Ø 1.05 mm, insulation of foamed PE with skin Ø 2.55 mm | Bare copper wire Ø 1.05 mm, insulation of foamed PE with skin Ø 2.55 mm |
| Core | 2 wires twisted to a pair, inner jacket: PVC | 2 wires twisted to a pair, inner jacket: PVC | 2 wires twisted to a pair with fillers in gaps |
| Shield | Aluminum foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm | Aluminum foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm | Aluminum foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm |
| Jacket | Polyvinylchloride (PVC) black Ø 8.0 ± 0.4 mm | Polyvinylchloride (PVC) blue Ø 8.0 ± 0.4 mm | Polyvinylchloride (PVC) black Ø 7.5 + 0.2 – 0.25 mm |
| Mechanical Characteristics | Flame retardant acc. to IEC 60332-1-2 and UL 1685 (CSA FT 4), oil resistant acc. to. UL 758, Sec. 15, sunlight resistant acc. to UL 1581, Sec. 1200, UL-File 119100, Vol. 1, Sec. 16, Page 6, UL-File 116441, Vol. 1, Sec. 6, Page 6, UL-Style 20201 (600 V) | Flame retardant acc. to IEC 60332-1-2 and UL 1685 (CSA FT 4), oil resistant acc. to. UL 758, Sec. 15, sunlight resistant acc. to UL 1581, Sec. 1200, UL-File 119100, Vol. 1, Sec. 16, Page 6, UL-File 116441, Vol. 1, Sec. 6, Page 6, UL-Style 20201 (600 V) | Flame retardant acc. to IEC 60332-1-2 and UL 1581, Sec. 1080 (VW-1), oil resistant acc. to. UL 758, Sec. 15, sunlight resistant acc. to UL 1581, Sec. 1200, UL-File 119100, Vol. 1, Sec. 8, Page 1 |
| Type Designation | 02YSY(ST)CY 1x2x1.0/2.55-100 OE FR | 02YSY(ST)CY 1x2x1.0/2.55-100 BL OE FR | 02YS(ST)CY 1x2x1.0/2.55-100 OE FR |
| Order-Number | L45467-J20-C105 | L45467-J20-C95 | L45467-J20-C75 |

PROFIBUS PA

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| Cable for permanent installation in EX-applications UL listed: CMX | EMC cable for EX-applications (electromagnetic compatibility) or for direct burial | Application |
| Bare copper wire Ø 1.05 mm, insulation of foamed PE with skin Ø 2.55 mm | Bare copper wire Ø 1.05 mm, insulation of foamed PE with skin Ø 2.55 mm | Conductor |
| 2 wires twisted to a pair with fillers in gaps | 2 wires twisted to a pair with fillers in gaps | Core |
| Alulminate foil overlapped, shield braiding of tinned copper wires Ø 0.15 mm | Alulminate foil overlapped, copper tape longitudinal welded and spiral corrugated | Shield |
| Polyvinylchloride (PVC) blue Ø 7.5 + 0.2 – 0.25 mm | Polyvinylchloride (PVC) blue Ø 11.1 ± 0.3 mm | Jacket |
| Flame retardant acc. to IEC 60332-1-2 and UL 1581, Sec. 1080 (VW-1), oil resistant acc. to UL 758, Sec. 15, sunlight resistant acc. to UL 1581, Sec. 1200, UL-File 119100, Vol. 1, Sec. 8, Page 1 | Flame retardant acc. to IEC 60332-1-2, oil resistant acc. to UL 1581, Sec. 480, sunlight resistant | Mechanical Characteristics |
| 02YS(ST)CY 1x2x1.0/2.55-100 BL OE FR | 02YS(ST)WKY 1x2x1.0/2.55-100 BL OE FR | Type Designation |
| L45467-J20-C85 | L45467-J20-C135 | Order-Number |