## SIEMENS

## Data sheet

## 6XV1830-3EH10

product type designation	PROFIBUS FC Trailing Cable	
product description	Highly flexible bus cable (2-core), sold by the meter, unassembled	
	PROFIBUS FC Trailing Cable, PROFIBUS trailing cable, max. Acceleration 4 m/QS min. 3 million bending cycles min. Bending radius approx. 120 mm 2-wire shielded, sold by the meter delivery unit max. 1000 m minimum order quantity 20 m.	
suitability for use	Continuous motion control in a cable carrier	
cable designation	02YY (ST) C11Y 1x2x0,65/2,56-150 LI KF 40 FR petrol	
electrical data		
attenuation factor per length		
• at 9.6 kHz / maximum	0.003 dB/m	
• at 38.4 kHz / maximum	0.004 dB/m	
• at 4 MHz / maximum	0.025 dB/m	
• at 16 MHz / maximum	0.049 dB/m	
impedance		
rated value	150 Ω	
• at 9.6 kHz	270 Ω	
• at 38.4 kHz	185 Ω	
• at 3 MHz 20 MHz	150 Ω	
relative symmetrical tolerance		
<ul> <li>of the characteristic impedance at 9.6 kHz</li> </ul>	10 %	
<ul> <li>of the characteristic impedance at 38.4 kHz</li> </ul>	10 %	
• of the characteristic impedance at 3 MHz 20 MHz	10 %	
loop resistance per length / maximum	133 mΩ/m	
shield resistance per length / maximum	14 Ω/km	
capacity per length / at 1 kHz	28 pF/m	
operating voltage		
RMS value	80 V	
mechanical data		
number of electrical cores	2	
design of the shield	Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires	
type of electrical connection / FastConnect	Yes	
outer diameter		
of inner conductor	0.67 mm	
of the wire insulation	2.56 mm	
<ul> <li>of the inner sheath of the cable</li> </ul>	5.4 mm	
of cable sheath	8 mm	
symmetrical tolerance of the outer diameter / of cable sheath	0.4 mm	
material		
of the wire insulation	polyethylene (PE)	
<ul> <li>of the inner sheath of the cable</li> </ul>	PVC	
• of cable sheath	PUR (TPE-U)	
color		

of the insulation of data wires     of cable sheath     petrol     bending radius     with single bend / minimum permissible     40 mm     with continuous bending     120 mm     100 N     weight per length     77 kg/km     ambient conditions     ambient temperature     ouring operation     -40 +60 °C     ouring installation     ouring installation     ouring installation     ouring installation     ouring installation     ouring installation     fire behavior     fire behavior     fire behaviour / according to EN 13501-6     Eca     chemical resistance     to mineral oli     oil resistant according to IEC 60811-2-1 (7x24h/90°C)     vis grease     to water     conditional resistance     radiological resistance / to UV radiation     resistant     roduct features     halogen-free     No     silicon-free     Yes	
bending radius       40 mm         • with single bend / minimum permissible       40 mm         • with continuous bending       120 mm         number of bending cycles       3000000; Drag chain suitable for 3 million bending cycles at a bending 120 mm (15x D), a speed of 4 m/s and an acceleration of 4 m/s <sup>2</sup> tensile load / maximum       100 N         weight per length       77 kg/km         ambient conditions       -40 +60 °C         • during storage       -40 +60 °C         • during storage       -40 +60 °C         • during installation       -40 +60 °C         • during installation       -40 +60 °C         • during installation       -40 +60 °C         • note       Electrical properties measured at 20 °C, tests according to DIN 47250         respectively DIN VDE 0472       minimus desemanual for PROFIBUS networks)         fire behavior       flame resistant according to IEC 6032-1-2         class of burning behaviour / according to EN 13501-6       Eca         • to mineral oil       oil resistant according to IEC 60811-2-1 (7x24h/90°C)         • to grease       resistant         • to water       conditional resistance         radiological resistance / to UV radiation       resistant         product feature       halogen-free	
• with single bend / minimum permissible       40 mm         • with continuous bending       120 mm         number of bending cycles       3000000; Drag chain suitable for 3 million bending cycles at a bending 120 mm (15x D), a speed of 4 m/s and an acceleration of 4 m/s <sup>2</sup> tensile load / maximum       100 N         weight per length       77 kg/km         ambient conditions       -40 +60 °C         • during storage       -40 +60 °C         • during installation       -40 +60 °C         • during installation       -40 +60 °C         • note       Electrical properties measured at 20 °C, tests according to DIN 47250         expectively DIN VDE 0472       ambient condition / for operation         fire behavior       flame resistant according to IEC 6032-1-2         class of burning behaviour / according to EN 13501-6       Eca         • to mineral oil       oil resistant according to IEC 60811-2-1 (7x24h/90°C)         • to grease       resistant         • to water       conditional resistance         • to water       conditional resistant         reducing classing to UV radiation       resistant         product feature       nalogen-free         No       No	
• with continuous bending       120 mm         number of bending cycles       3000000; Drag chain suitable for 3 million bending cycles at a bending 120 mm (15x D), a speed of 4 m/s and an acceleration of 4 m/s <sup>4</sup> tensile load / maximum       100 N         weight per length       77 kg/km         ambient temperature       -         • during operation       -40 +60 °C         • during storage       -40 +60 °C         • during installation       -40 +60 °C         • note       Electrical properties measured at 20 °C, tests according to DIN 47250         respectively DIN VDE 0472       ambient condition / for operation         fire behavior       flame resistant according to IEC 60332-1-2         class of burning behaviour / according to EN 13501-6       Eca         chemical resistance       oil resistant according to IEC 60811-2-1 (7x24h/90°C)         • to mineral oil       oil resistant according to IEC 60811-2-1 (7x24h/90°C)         • to water       conditional resistance         radiological resistance / to UV radiation <td></td>	
number of bending cycles       3000000; Drag chain suitable for 3 million bending cycles at a bending 120 mm (15x D), a speed of 4 m/s and an acceleration of 4 m/s <sup>2</sup> tensile load / maximum       100 N         weight per length       77 kg/km         ambient conditions       -40 +60 °C         autring operation       -40 +60 °C         • during transport       -40 +60 °C         • during installation       -40 +60 °C         • note       Electrical properties measured at 20 °C, tests according to DIN 47250 respectively DIN VDE 0472         ambient condition / for operation       Limited segment length (see manual for PROFIBUS networks)         fire behavior       fiame resistant according to IEC 60312-1-2         class of burning behaviour / according to EN 13501-6       Eca         • to mineral oil       oil resistant according to IEC 60811-2-1 (7x24h/90°C)         • to grease       resistant         • to water       conditional resistance         radiological resistance / to UV radiation       resistant         product features       product feature         • halogen-free       No	
120 mm (15x D), a speed of 4 m/s and an acceleration of 4 m/s <sup>2</sup> tensile load / maximum       100 N         weight per length       77 kg/km         ambient conditions	
weight per length       77 kg/km         ambient conditions       -40 +60 °C         ambient temperature       -40 +60 °C         • during operation       -40 +60 °C         • during storage       -40 +60 °C         • during installation       -40 +60 °C         • during installation       -40 +60 °C         • note       Electrical properties measured at 20 °C, tests according to DIN 47250         ambient condition / for operation       Limited segment length (see manual for PROFIBUS networks)         fire behavior       flame resistant according to IEC 60332-1-2         class of burning behaviour / according to EN 13501-6       Eca         chemical resistance       oil resistant according to IEC 60811-2-1 (7x24h/90°C)         • to mineral oil       oil resistant according to IEC 60811-2-1 (7x24h/90°C)         • to grease       conditional resistance         • to water       conditional resistance         radiological resistance / to UV radiation       resistant         product features       product feature         • halogen-free       No	part 4
ambient conditions         ambient temperature         • during operation         • during storage         • during storage         • during installation         • note         Electrical properties measured at 20 °C, tests according to DIN 47250         ambient condition / for operation         fire behavior         flame resistant according to EN 13501-6         chemical resistance         • to mineral oil         • to water         • to water         radiological resistance / to UV radiation         resistant         • to water         radiological resistance / to UV radiation         resistant         • to water         radiological resistance / to UV radiation         resistant         • to water         radiological resistance / to UV radiation         resistant         • halogen-free         No	part 4
ambient temperature       -40 +60 °C         • during operation       -40 +60 °C         • during storage       -40 +60 °C         • during insport       -40 +60 °C         • during installation       -40 +60 °C         • note       Electrical properties measured at 20 °C, tests according to DIN 47250         ambient condition / for operation       Limited segment length (see manual for PROFIBUS networks)         fire behavior       flame resistant according to IEC 60332-1-2         class of burning behaviour / according to EN 13501-6       Eca         • to mineral oil       oil resistant according to IEC 60811-2-1 (7x24h/90°C)         • to grease       resistant         • to water       conditional resistance         radiological resistance / to UV radiation       resistant         product features, product functions, product components / general       product feature         product feature       No	part 4
• during operation-40 +60 °C• during storage-40 +60 °C• during transport-40 +60 °C• during installation-40 +60 °C• noteElectrical properties measured at 20 °C, tests according to DIN 47250 respectively DIN VDE 0472ambient condition / for operationLimited segment length (see manual for PROFIBUS networks)fire behaviorflame resistant according to IEC 60332-1-2class of burning behaviour / according to EN 13501-6Ecachemical resistanceoil resistant according to IEC 60811-2-1 (7x24h/90°C)• to greaseresistant• to waterconditional resistance• product features, product functions, product components / gen-• halogen-freeNo	part 4
• during storage-40 +60 °C• during transport-40 +60 °C• during installation-40 +60 °C• noteElectrical properties measured at 20 °C, tests according to DIN 47250 respectively DIN VDE 0472ambient condition / for operationLimited segment length (see manual for PROFIBUS networks)fire behaviorflame resistant according to IEC 60332-1-2class of burning behaviour / according to EN 13501-6Ecachemical resistanceoil resistant according to IEC 60811-2-1 (7x24h/90°C)• to greaseresistant• to waterconditional resistance• to waterconditional resistanceradiological resistance / to UV radiationresistantproduct features, product functions, product components / generalproduct featureNo	part 4
• during transport-40 +60 °C• during installation-40 +60 °C• noteElectrical properties measured at 20 °C, tests according to DIN 47250 respectively DIN VDE 0472ambient condition / for operationLimited segment length (see manual for PROFIBUS networks)fire behaviorflame resistant according to IEC 60332-1-2class of burning behaviour / according to EN 13501-6Ecachemical resistanceoil resistant according to IEC 60811-2-1 (7x24h/90°C)• to mineral oiloil resistant according to IEC 60811-2-1 (7x24h/90°C)• to waterconditional resistance• product features, product functions, product components / general• halogen-freeNo	part 4
during installation     e during installation     e during installation     e note     e to operation     fire behavior     e to mineral oil     e to mineral oil     e to water     for grease     e to water     radiological resistance / to UV radiation     product features, product functions, product components / general     product feature     e halogen-free     No	part 4
• note         Electrical properties measured at 20 °C, tests according to DIN 47250 respectively DIN VDE 0472           ambient condition / for operation         Limited segment length (see manual for PROFIBUS networks)           fire behavior         flame resistant according to IEC 60332-1-2           class of burning behaviour / according to EN 13501-6         Eca           e to mineral oil         oil resistant according to IEC 60811-2-1 (7x24h/90°C)           • to grease         resistant           • to water         conditional resistance           radiological resistance / to UV radiation         resistant           product features, product functions, product components / general         product feature           • halogen-free         No	part 4
respectively DIN VDE 0472ambient condition / for operationLimited segment length (see manual for PROFIBUS networks)fire behaviorflame resistant according to IEC 60332-1-2class of burning behaviour / according to EN 13501-6Ecachemical resistanceoil resistant according to IEC 60811-2-1 (7x24h/90°C)• to mineral oiloil resistant according to IEC 60811-2-1 (7x24h/90°C)• to waterconditional resistance• to waterconditional resistance• to waterconditional resistanceproduct features, product functions, product components / generalproduct featureNo	part 4
fire behavior       flame resistant according to IEC 60332-1-2         class of burning behaviour / according to EN 13501-6       Eca         chemical resistance       oil resistant according to IEC 60811-2-1 (7x24h/90°C)         • to mineral oil       oil resistant according to IEC 60811-2-1 (7x24h/90°C)         • to grease       resistant         • to water       conditional resistance         radiological resistance / to UV radiation       resistant         product features, product functions, product components / general         product feature       No	
fire behavior       flame resistant according to IEC 60332-1-2         class of burning behaviour / according to EN 13501-6       Eca         chemical resistance       oil resistant according to IEC 60811-2-1 (7x24h/90°C)         • to mineral oil       oil resistant according to IEC 60811-2-1 (7x24h/90°C)         • to grease       resistant         • to water       conditional resistance         radiological resistance / to UV radiation       resistant         product features, product functions, product components / general         product feature       No	
class of burning behaviour / according to EN 13501-6       Eca         chemical resistance       oil resistant according to IEC 60811-2-1 (7x24h/90°C)         • to mineral oil       oil resistant according to IEC 60811-2-1 (7x24h/90°C)         • to grease       resistant         • to water       conditional resistance         radiological resistance / to UV radiation       resistant         product features, product functions, product components / general         product feature       No	
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• to mineral oil     oil resistant according to IEC 60811-2-1 (7x24h/90°C)       • to grease     resistant       • to water     conditional resistance       radiological resistance / to UV radiation     resistant       product features, product functions, product components / general       product feature     No	
to grease     to water     conditional resistance     resistant     conditional resistance     resistant	
• to water     conditional resistance       radiological resistance / to UV radiation     resistant       product features, product functions, product components / general       product feature       • halogen-free   No	
radiological resistance / to UV radiation     resistant       product features, product functions, product components / general       product feature       • halogen-free       No	
product features, product functions, product components / general product feature	
product feature • halogen-free No	
halogen-free     No	
• silicon-tree Yes	
standards, specifications, approvals	
UL/ETL listing / 300 V Rating Yes; c(UL)us / CMX	
UL/ETL style / 600 V Rating Yes; cRU AWM I A/B 80°C 600V FT2	
certificate of suitability	
• EAC approval Yes	
CE marking     Yes	
RoHS conformity Yes	
Marine classification association	
American Bureau of Shipping Europe Ltd. (ABS)     No	
French marine classification society (BV)     No	
Det Norske Veritas (DNV)     No	
Germanische Lloyd (GL)     No	
Lloyds Register of Shipping (LRS)     No	
Nippon Kaiji Kyokai (NK)     No	
Polski Rejestr Statkow (PRS)     No	
reference code	
according to IEC 81346-2     WG	
according to IEC 81346-2:2019     WGB	
further information / internet links	
internet link	
to web page: selection aid TIA Selection Tool <u>http://www.siemens.com/tia-selection-tool</u>	
to website: Industrial communication     to website: Industrial communication	
to website: Industry Mall     https://mall.industry.siemens.com	
to website: Information and Download Center <u>http://www.siemens.com/industry/infocenter</u>	
to website: Selection guide for cables and connectors <u>https://sie.ag/2QdlxcP</u>	
to website: Image database <u>http://automation.siemens.com/bilddb</u>	
to website: CAx-Download-Manager <u>http://www.siemens.com/cax</u>	
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