SIEMENS

Data sheet 6XV1870-8AH20

product type designation

product description

IE Connecting Cable M12-180/M12-180

Flexible plug-in cable (4-wire), preferred length, prefabricated with two 4-pole M12 connectors (D-coded, 180° cable outlet)

Industrial Ethernet connecting Cable M12-180/M12-180, pre-assembled IE FC Trailing cable GP, with 2 M12 plugs (D-coded) length 2.0 m.



suitability for use	For connecting Industrial Ethernet stations (e.g. SIMATIC ET200 and SCALANCE XP-200) in IP 65/67 degree of protection
cable designation	2YY (ST) CY 2x2x0,75/1,5-100 LI GN
wire length	2 m
electrical data	
number of electrical connections	2
attenuation factor per length	
• at 10 MHz / maximum	0.063 dB/m
• at 100 MHz / maximum	0.213 dB/m
impedance	
• at 1 MHz 100 MHz	100 Ω
relative symmetrical tolerance	
 of the characteristic impedance at 1 MHz 100 MHz 	5 %
near-end crosstalk per length	
● at 1 MHz 100 MHz	0.5 dB/m
transfer impedance per length / at 10 MHz	20 mΩ/m
loop resistance per length / maximum	120 mΩ/m
operating voltage	
RMS value	80 V
NVP value in percent	66 %
mechanical data	
number of electrical cores	4
design of the shield	Overlapped aluminum-clad foil, sheathed in a braided screen of tin- plated copper wires
core diameter	
 of AWG22 insulated conductor 	0.75 mm
outer diameter	
 of inner conductor 	0.75 mm
 of the wire insulation 	1.5 mm
 of the inner sheath of the cable 	3.9 mm
of cable sheath	6.5 mm
symmetrical tolerance of the outer diameter / of cable sheath	0.2 mm
material	
 of the wire insulation 	polyethylene (PE)
 of the inner sheath of the cable 	PVC

 of cable sheath 	PVC
	1 10
color	white/volley/hlue/grange
of the insulation of data wires of cable sheath	white/yellow/blue/orange
of cable sheath bonding radius	green
bending radius	22.5 mm
with single bend / minimum permissible	32.5 mm
with multiple bends / minimum permissible	49 mm
with continuous bending	100 mm
number of bending cycles	3000000; Drag chain suitable for 3 million bending cycles at a bending radius of 100 mm, a speed of 4 m/s and an acceleration of 4 m/s²
tensile load / maximum	150 N
weight per length	68 kg/km
ambient conditions	
ambient temperature	
during operation	-25 +75 °C
during storage	-25 +75 °C
during transport	-25 +75 °C
during installation	-10 +60 °C
• note	Electrical properties measured at 20 °C, tests according to DIN VDE 0472
fire behavior	flame resistant according to UL 1685 (CSA FT 4)
chemical resistance	5 2 22 333 (35, (1 1 4)
to mineral oil	conditional resistance
to mineral oil to grease	Conditional resistance Conditional resistance
	resistant
radiological resistance / to UV radiation	
protection class IP	IP65, IP67
product features, product functions, product components	/ general
product feature	Ne
• halogen-free	No
• silicon-free	Yes
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; c(ETL)us, CMG FT4 / (ETL)us PLTC / Sun Res / OIL RES
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating	Yes; c(ETL)us, CMG FT4 / (ETL)us PLTC / Sun Res / OIL RES Yes; cRUus AWM 21694 AWM I A/B 60°C 600V FT2
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability	Yes; cRUus AWM 21694 AWM I A/B 60°C 600V FT2
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval	Yes; cRUus AWM 21694 AWM I A/B 60°C 600V FT2 Yes
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UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking • RoHS conformity	Yes; cRUus AWM 21694 AWM I A/B 60°C 600V FT2 Yes Yes Yes
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UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking • RoHS conformity	Yes; cRUus AWM 21694 AWM I A/B 60°C 600V FT2 Yes Yes Yes
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking • RoHS conformity standard for structured cabling	Yes; cRUus AWM 21694 AWM I A/B 60°C 600V FT2 Yes Yes Yes
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability	Yes; cRUus AWM 21694 AWM I A/B 60°C 600V FT2 Yes Yes Yes Cat5e
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking • RoHS conformity standard for structured cabling Marine classification association • American Bureau of Shipping Europe Ltd. (ABS)	Yes; cRUus AWM 21694 AWM I A/B 60°C 600V FT2 Yes Yes Yes Cat5e No
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