SIEMENS

Data sheet   **6XV1881-5AH50**

product type designation	**IE Robust Connecting Cable M12-180/M12-180, IP69**
product description	Robust, flexible connection cable (4-core), preferred length, preassembled with two 4-pole M12 connectors (D-coded)
	IE Robust Connecting Cable M12-180/M12-180, IP69, pre-assembled IE FC Robust Food cable 2x2, with 2 M12 plugs (D-coded) length 5.0 m.

Technical Product Detail Page	https://i.siemens.com/1P6XV1881-5AH50
suitability for use	For connecting Industrial Ethernet stations with degree of protection IP65/67/69. Cable with FEP jacket (fluorinated plastic, perfluoroethylene propylene) for use in the food, beverages and tobacco industries (IP69 resistant). Line is water-repellent, weather-proof, resistant to microbes, and extremely resistant to many cleaning agents and disinfectants (such as hypochlorite, chlorine dioxide, peroxyacetic acid, and quaternary ammonium cations).
cable designation	SF/UTP, 2YY(ST)CY6Y 2X2X0.75/1.55 LI VZN
wire length	5 m
electrical data	
number of electrical connections	2
attenuation factor per length	
● at 10 MHz / maximum	0.095 dB/m
● at 100 MHz / maximum	0.32 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	0.353 dB/m
transfer impedance per length / at 10 MHz	80 mΩ/m
loop resistance per length / maximum	120 mΩ/m
operating voltage	
● RMS value	80 V
NVP value in percent	69 %
mechanical data	
number of electrical cores	4
design of the shield	SF/UTP, overlapped aluminum-clad foil, sheathed in a protective braided shield of tinned copper wires
type of electrical connection / FastConnect	Yes
core diameter	
● of AWG22 insulated conductor	0.75 mm
outer diameter	
● of inner conductor	0.75 mm
● of the wire insulation	1.56 mm
● of the inner sheath of the cable	4 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/FEP; FEP transparent
color	
● of the insulation of data wires	white/yellow/blue/orange
● of cable sheath	green
bending radius	
● with single bend / minimum permissible	26 mm
● with multiple bends / minimum permissible	52 mm
● with continuous bending	100 mm
number of bending cycles	1000000; Acceleration 4 m/s²
number of torsion cycles / with torsion by ± 180° on 1 m cable length	1000000
tensile load / maximum	150 N
weight per length	72 kg/km

plug

type of plug interlock	screwed
design of plug-in connection	M12-180
connector coding	M12
● of the M12 circular connector	D-coded

ambient conditions

ambient temperature	
● during operation	-40 ... +80 °C
● during storage	-40 ... +80 °C
● during transport	-40 ... +80 °C
● during installation	-40 ... +80 °C
● note	Electrical properties measured at 20 °C, tests according to DIN VDE 0472
fire behavior	flame resistant according to IEC 60332-1-2
chemical resistance	
● to mineral oil	oil resistant according to IEC 60811-404 (7x24h/90°C)
● to grease	Conditional resistance
● to water	resistant
radiological resistance / to UV radiation	resistant
protection class IP	IP65/67/69

product features, product functions, product components / general

product feature	
● halogen-free	No
● PoE capability	Yes
● PoE+ capability	Yes
● silicon-free	Yes

standards, specifications, approvals

UL/ETL listing / 300 V Rating	Yes; c(ETL)us 3047254 CMG FT4 75°C
UL/ETL style / 600 V Rating	Yes; AWM 22162 AWM I A/B 80°C 600V FT2
certificate of suitability	UL 2238
● EAC approval	Yes
● CE marking	Yes
● RoHS conformity	Yes
standard for structured cabling	Cat5e
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

further information / internet links

internet link	
● to website: Selection guide for cables and connectors	https://support.industry.siemens.com/cs/ww/en/view/109766358
● to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
● to web page: SiePortal	https://sieportal.siemens.com/
● to website: Image database	https://www.automation.siemens.com/bilddb
● to website: CAx-Download-Manager	https://www.siemens.com/cax
● to website: Industry Online Support	https://support.industry.siemens.com

security information

Approvals / Certificates

General Product Approval

CE EG-Konf. UKCA CCC CCC Declaration of Conformity Manufacturer Declaration China RoHS

Industrial Communication

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