# SIEMENS

### Data sheet

## 6AG1972-0BB42-7XA0

#### product type designation

product description



#### **PROFIBUS** connector

PROFIBUS bus connector, RS 485, screw, with programming port, 35°

SIPLUS DP PROFIBUS plug with R - with PG - inclined based on 6ES7972-0BB42-0XA0 with conformal coating, -40...+70 °C, connection plug for PROFIBUS up to 12 Mbps, with inclined cable outlet, terminating resistor with isolating function, with PG socket

Figure similar

suitability for use

4.....

For connecting PROFIBUS stations to the PROFIBUS bus cable

transfer rate / with PROFIBUS DP     9.6 kbit/s 12 Mbit/s       intorfaces       number of electrical connections     2       • for PROFIBUS cables     2       • for network components or terminal equipment     1       type of electrical connection     9-pin sub D connector       • for network components or terminal equipment     9-pin sub D connector       type of electrical connection / FastConnect     No       mechanical data     Resistor combination integrated and connectable via slide switch plastic       cocking mechanism design     Screwed joint       design, dimensions and weights     Screwed joint       type of cable outlet     35 degree cable outlet       width     15.8 mm       height     35 mm       height     64 mm       depth     39.5 mm       net weight     67 g       ambient temperature     40 +70 °C       • during torage     40 +70 °C       • during storage     40 +70 °C       • iuring storage and transport     70 40 °C       • in bottoration monting position / during operation     70 40 °C       • iuring storage and transport     70 40 °C       • with condensation / maximum     Tmin	transfer rate	
number of electrical connections       2         • for PROFIBUS cables       2         • for network components or terminal equipment       1         type of electrical connection       9-pin sub D connector         • for PROFIBUS cables       Screw         • for network components or terminal equipment       9-pin sub D connector         type of electrical connection / FastConnect       No         material / of the enclosure       plastic         locking mechanism design       Screwed joint         design, dimensions and weights       55 degree cable outlet         width       15.8 mm         height       54 mm         depth       39.5 mm         net weight       67 g         ambient conditions       40 +70 °C         • during storage       -40 +70 °C         • during storage       -40 +70 °C         • during storage and transport       7040 °C         • installation altitude / at height above sea level / maximum       5000 m         mrax at 1 140 hPa 795 hPa (-1 000 m +2 000 m) // Tmin       770 ·°C         • during storage and transport       5000 m         installation altitude / at height above sea level / maximum       100 %; RH incl. condensation/frost permitted (no commissioning in bedewed state)	transfer rate / with PROFIBUS DP	9.6 kbit/s 12 Mbit/s
• or PROFIBUS cables         2           • for network components or terminal equipment         1           type of electrical connection         5           • for PROFIBUS cables         Screw           • for network components or terminal equipment         9-pin sub D connector           type of electrical connection / FastConnect         No           mechanical data         Gesign of terminating resistor           design of terminating resistor         Resistor combination integrated and connectable via slide switch plastic           locking mechanism design         Screwed joint           design, dimensions and weights         type of cable outlet           type of cable outlet         35 degree cable outlet           width         15.8 mm           height         54 mm           depth         39.5 mm           net weight         67 g           ambient temperature         -40 +70 °C           • during torage         -40 +70 °C           • during torage and transport         -40 +70 °C           installation altitude / at height above sea level / maximum         5000 m           ambient condition / relating to ambient temperature - air         70 40 °C           installation altitude / at height above sea level / maximum         5000 m	interfaces	
<ul> <li>For network components or terminal equipment type of electrical connection</li> <li>for PROFIBUS cables</li> <li>for network components or terminal equipment type of electrical connection / FastConnect</li> <li>Ppin sub D connector</li> <li>Ppin sub D connector</li> <li>No</li> <li>mechanical data</li> <li>design of terminating resistor</li> <li>material / of the enclosure</li> <li>locking mechanism design</li> <li>Screwed joint</li> <li>design, dimensions and weights</li> <li>type of cable outlet</li> <li>width</li> <li>15.8 mm</li> <li>height</li> <li>gate cable outlet</li> <li>width</li> <li>for encoditions</li> <li>ambient conditions</li> <li>aution transport</li> <li>during storage</li> <li>during storage and transport</li> <li>nstallation altitude / at height above sea level / maximum ambient condition / relating to ambient temperature - air pressure - installation altitude</li> <li>with condensation / reaktion altitude</li> <li>with condensation / maximum</li> <li>with condensation / according to IEC 60068-2-38 / maximum</li> </ul>	number of electrical connections	
type of electrical connection <ul> <li>for PROFIBUS cables</li> <li>for network components or terminal equipment</li> <li>type of electrical connection / FastConnect</li> <li>No</li> </ul> mechanical data <ul> <li>design of terminating resistor</li> <li>mathematical data</li> </ul> design of terminating resistor       Resistor combination integrated and connectable via slide switch plastic         locking mechanism design       Screwed joint         design, dimensions and weights           type of cable outlet       35 degree cable outlet         width       15.8 mm         height       54 mm         depth       39.5 mm         net weight       67 g         ambient temperature <ul> <li>during torage</li> <li>40 +70 °C</li> <li>5000 m</li> <li>matialation altitude / at height above sea level / maximum</li> <li>ambient condition / relating to ambient temperature - air pressure - installation altitude</li> <li>maximum</li> <li>with condensation / maximum</li> <li>with condensation / maximum</li> <li>with condensation / according to IEC 60066-2-38 / maximum</li> </ul>	<ul> <li>for PROFIBUS cables</li> </ul>	2
<ul> <li>for PROFIBUS cables</li> <li>for network components or terminal equipment type of electrical connection / FastConnect</li> <li>mechanical data</li> <li>design of terminating resistor material / of the enclosure locking mechanism design</li> <li>design, dimensions and weights</li> <li>type of cable outlet</li> <li>width</li> <li>ts8 mm</li> <li>depth</li> <li>absent temperature</li> <li>during storage</li> <li>during storage and transport</li> <li>during torage and transport</li> <li>during transport</li> <li>during torage and transport</li> <li>during transport</li> <li>duri</li></ul>	<ul> <li>for network components or terminal equipment</li> </ul>	1
• for network components or terminal equipment type of electrical connection / FastConnect       9-pin sub D connector No         mechanical data	type of electrical connection	
type of electrical connection / FastConnect         No           mechanical data		Screw
mechanical data         design of terminating resistor material / of the enclosure locking mechanism design       Resistor combination integrated and connectable via slide switch plastic         design, dimensions and weights       Screwed joint         design, dimensions and weights       St degree cable outlet         type of cable outlet width       35 degree cable outlet         height       54 mm         depth       39.5 mm         net weight       67 g         ambient conditions       -40 +70 °C         ambient temperature       -40 +70 °C         • during operation       -40 +70 °C         • during storage       -40 +70 °C         • during storage and transport       -40 +70 °C         • during storage and transport       -40 +70 °C         • during storage and transport       7040 °C         • during storage and transport       5000 m         mabient condition / relating to ambient temperature - air pressure - installation altitude       70 +350 Pa (-1 000 m +2 000 m) // Tmin (Tmax - 10 K) at 795 hPa 563 hPa (+2 000 m +3 500 m) // Tmin (Tmax - 20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m)         • with condensation / maximum       100 %; RH incl. condensation/frost permitted (no commissioning in bedewed state), horizontal installation		
design of terminating resistor material / of the enclosure locking mechanism design       Resistor combination integrated and connectable via slide switch plastic         type of cable outlet width       Screwed joint         type of cable outlet width       35 degree cable outlet         height       54 mm         depth       39.5 mm         net weight       67 g         ambient conditions       -40 +70 °C         ambient temperature       -40 +70 °C         • during operation       -40 +70 °C         • during storage       -40 +70 °C         • during storage       -40 +70 °C         • during storage and transport       7040 °C         • ressure - installation altitude		No
material / of the enclosure locking mechanism designplastic Screwed jointdesign, dimensions and weightsScrewed jointtype of cable outlet width35 degree cable outlet 15.8 mmheight depth net weight39.5 mm 67 gamblent conditions-40 +70 °C - 40 +70 °C 	mechanical data	
locking mechanism design       Screwed joint         design, dimensions and weights       35 degree cable outlet         type of cable outlet       35 degree cable outlet         width       15.8 mm         height       54 mm         depth       39.5 mm         net weight       67 g         ambient conditions       67 g         ambient conditions       -40 +70 °C         autring operation       -40 +70 °C         • during operation       -40 +70 °C         • during storage       -40 +70 °C         • during storage and transport       -40 °C         installation altitude / at height above sea level / maximum       5000 m         mabient condition / relating to ambient temperature - air pressure - installation altitude       Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax -10 K) at 795 hPa 580 hPa (+3 500 m +3 500 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m)         relative humidity       • with condensation / maximum       100 %; RH incl. condensation/frost permitted (no commissioning in bedewed state)         • with condensation / according to IEC 60068-2-38 / maximum       100 %; RH incl. condensation / frost (no commissioning in bedewed state)	0	-
design, dimensions and weights         type of cable outlet       35 degree cable outlet         width       15.8 mm         height       54 mm         depth       39.5 mm         net weight       67 g         ambient conditions         ambient temperature       40 +70 °C         • during storage       -40 +70 °C         • during transport       -40 +70 °C         • during storage and transport       7040 °C         • during storage and transport       7040 °C         • during storage and transport       7040 °C         installation altitude / at height above sea level / maximum       5000 m         ambient condition / relating to ambient temperature - air       Trmin Trmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m) // Trmin         (Tmax - 10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Trmin       (Tmax - 20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m)         relative humidity       • with condensation / maximum       100 %; RH incl. condensation/frost permitted (no commissioning in bedewed state)         • with condensation / according to IEC 60068-2-38 / maximum       100 %; RH incl. condensation / frost (no commissioning in bedewed state)		
type of cable outlet       35 degree cable outlet         width       15.8 mm         height       54 mm         depth       39.5 mm         net weight       67 g         ambient conditions         ambient temperature       4 during operation         • during storage       -40 +70 °C         • during transport       -40 +70 °C         • during storage and transport       -7040 °C         • during storage and transport       7040 °C         • during torage and transport       7040 °C         • during torage to ambient temperature - air       rmax = 1 140 hPa 795 hPa (-1 000 m +2 000 m) // Tmin         (Tmax + 10 K) at 795 hPa 658 hPa 550 hPa (-2000 m +3 500 m) // Tmin       (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m)         relative humidity       • with condensation / maximum       100 %; RH incl. condensation/frost permitted (no commissioning in bedewed state)         • with condensation / according to IEC 60068-2-38 / maximum       100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation	5 5	Screwed joint
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depth net weight39.5 mmambient conditions67 gambient temperature • during operation • during storage • during transport-40 +70 °C • 40 +70 °C • 40 +70 °C • 40 +70 °C • 40 +70 °C • 1n horizontal mounting position / during operation • during storage and transport • installation altitude / at height above sea level / maximum ambient condition / relating to ambient temperature - air pressure - installation altitude-40 +70 °C • C • 10 40 °C • C • 10 40 °C • C • 10 40 °C • C • 10 40 °C • 10 0 m 42 000 m 43 500 m) // Tmin • (Tmax - 10 K) at 795 hPa (-1 000 m +2 000 m) // Tmin • (Tmax - 10 K) at 795 hPa 558 hPa (+2 000 m +3 500 m) // Tmin • (Tmax - 20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m) • In the condensation / maximum• with condensation / maximum100 %; RH incl. condensation/frost permitted (no commissioning in bedewed state) • 100 %; RH incl. condensation / frost (no commissioning in bedewed state)• with condensation / according to IEC 60068-2-38 / maximum100 %; RH incl. conden		
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ambient temperature       -40 +70 °C         • during storage       -40 +70 °C         • during transport       -40 +70 °C         • during transport       -40 +70 °C         • in horizontal mounting position / during operation       7040 °C         • during storage and transport       7040 °C         • during storage and transport       7040 °C         installation altitude / at height above sea level / maximum       5000 m         ambient condition / relating to ambient temperature - air pressure - installation altitude       Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax - 10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m)         relative humidity       • with condensation / maximum       100 %; RH incl. condensation/frost permitted (no commissioning in bedewed state)         • with condensation / according to IEC 60068-2-38 / maximum       100 %; RH incl. condensation / frost (no commissioning in bedewed state)		67 g
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<ul> <li>during storage</li> <li>during transport</li> <li>in horizontal mounting position / during operation</li> <li>during storage and transport</li> <li>during transport</li> <liduri< td=""><td>•</td><td></td></liduri<></ul>	•	
<ul> <li>during transport</li> <li>in horizontal mounting position / during operation</li> <li>during storage and transport</li> <li>during storage and transport</li> <li>installation altitude / at height above sea level / maximum</li> <li>ambient condition / relating to ambient temperature - air</li> <li>pressure - installation altitude</li> <li>with condensation / maximum</li> <li>with condensation / maximum</li> <li>with condensation / according to IEC 60068-2-38 / maximum</li> <li>maximum</li> <li>addition altitude</li> <li></li></ul>		
<ul> <li>in horizontal mounting position / during operation</li> <li>during storage and transport</li> <li>during storage and transport</li> <li>installation altitude / at height above sea level / maximum</li> <li>ambient condition / relating to ambient temperature - air pressure - installation altitude</li> <li>relative humidity</li> <li>with condensation / maximum</li> <li>with condensation / according to IEC 60068-2-38 / maximum</li> <li>with condensation / according to IEC 60068-2-38 / maximum</li> </ul>		
<ul> <li>during storage and transport</li> <li>during storage and transport</li> <li>installation altitude / at height above sea level / maximum</li> <li>ambient condition / relating to ambient temperature - air pressure - installation altitude</li> <li>relative humidity</li> <li>with condensation / maximum</li> <li>with condensation / according to IEC 60068-2-38 / maximum</li> <li>with condensation / according to IEC 60068-2-38 / maximum</li> </ul>	<b>o</b>	
installation altitude / at height above sea level / maximum       5000 m         ambient condition / relating to ambient temperature - air       5000 m         pressure - installation altitude       795 hPa (-1 000 m +2 000 m) // Tmin         (Tmax - 10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmin       (Tmax - 20 K) at 658 hPa 540 hPa (+3 500 m +3 500 m) // Tmin         relative humidity       • with condensation / maximum       100 %; RH incl. condensation/frost permitted (no commissioning in bedewed state)         • with condensation / according to IEC 60068-2-38 / maximum       100 %; RH incl. condensation / frost (no commissioning in bedewed state)		
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pressure - installation altitude       (Tmax - 10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m)         relative humidity       • with condensation / maximum       100 %; RH incl. condensation/frost permitted (no commissioning in bedewed state)         • with condensation / according to IEC 60068-2-38 / maximum       100 %; RH incl. condensation / frost (no commissioning in bedewed state)	•	
<ul> <li>with condensation / maximum</li> <li>with condensation / according to IEC 60068-2-38 / maximum</li> <li>maximum</li> <li>100 %; RH incl. condensation/frost permitted (no commissioning in bedewed state)</li> <li>100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation</li> </ul>		(Tmax - 10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmin
with condensation / according to IEC 60068-2-38 / maximum     bedewed state)     100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation	relative humidity	
maximum state), horizontal installation	<ul> <li>with condensation / maximum</li> </ul>	
resistance to biologically active substances		
	resistance to biologically active substances	

<ul> <li>conformity according to EN 60721-3-3</li> </ul>	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
<ul> <li>conformity according to EN 60721-3-6</li> </ul>	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
resistance to chemically active substances	
<ul> <li>conformity according to EN 60721-3-3</li> </ul>	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52
	(severity degree 3); *
<ul> <li>conformity according to EN 60721-3-6</li> </ul>	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
resistance to mechanically active substances	
<ul> <li>conformity according to EN 60721-3-3</li> </ul>	Yes; Class 3S4 incl. sand, dust, *
<ul> <li>conformity according to EN 60721-3-6</li> </ul>	Yes; Class 6S3 incl. sand, dust; *
environmental category / according to IEC 60721 / note	* The supplied plug covers must remain in place over the unused interfaces during operation!
coating / for equipped printed circuit board / according to EN 61086	Yes; Class 2 for high reliability
type of coating	
<ul> <li>protection against pollution according to EN 60664- 3</li> </ul>	Yes; Type 1 protection
<ul> <li>for electronic devices in railway applications according to EN 50155</li> </ul>	Yes; protective coating of the Class PC2 according to EN 50155:2025
type of test / of the coating / according to MIL-I-46058C	Yes; Discoloration of coating possible during service life
product conformity / of the coating / Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A
protection class IP	IP20
product features, product functions, product components	/ general
product feature	. 50.000
silicon-free	Yes
product component	
PG connection socket	Yes
strain relief	Yes
standards, specifications, approvals	
certificate of suitability	
RoHS conformity	Yes
UL approval	Yes
reference code	105
according to IEC 81346-2	XG
further information / internet-Links	
Internet-Link	
to web page: selection aid TIA Selection Tool     to website: Industrial communication	http://www.siemens.com/snst
to website: Industrial communication	http://www.siemens.com/simatic-net
to website: Industry Mall     to website: Industry Mall	https://mall.industry.siemens.com
to website: Information and Download Center     to website: Celection guide for eaching and	http://www.siemens.com/industry/infocenter
<ul> <li>to website: Selection guide for cables and connectors</li> </ul>	https://sie.ag/2QdlxcP
to website: Image database	http://automation.siemens.com/bilddb
<ul> <li>to website: Mage database</li> <li>to website: CAx-Download-Manager</li> </ul>	
6	http://w/w/w/siemens.com/cay
• to website: Industry Opline Support	http://www.siemens.com/cax
to website: Industry Online Support	http://www.siemens.com/cax https://support.industry.siemens.com