

I/O systemsSIMATIC ET 200 systems without control cabinet
SIMATIC ET 200AL**Interface modules > IM 157-1 DP****Technical specifications** (continued)

Article number	6ES7157-1AA00-0AB0 ET 200AL, IM 157-1 DP
Degree and class of protection	
Degree of protection acc. to EN 60529	
• IP65	Yes
• IP67	Yes
Ambient conditions	
Ambient temperature during operation	
• min.	-25 °C
• max.	55 °C

Article number	6ES7157-1AA00-0AB0 ET 200AL, IM 157-1 DP
Connection method	
Power supply	M8, 4-pole
ET-Connection	
• ET-Connection	M8, 4-pin, shielded
Dimensions	
Width	45 mm
Height	159 mm
Depth	46 mm
Weights	
Weight, approx.	211 g

Ordering data

Ordering data	Article No.	Ordering data	Article No.
IM 157-1 DP interface module	6ES7157-1AA00-0AB0	M8 power cable	
For connecting ET 200AL to PROFIBUS		4-pin	
Accessories		Pre-assembled at both ends, M8 connector and M8 socket	
Bus cable for backplane bus (ET connection)		0.19 m	6ES7194-2LH02-1AA0
4-pin, shielded		0.3 m	6ES7194-2LH03-1AA0
Pre-assembled at both ends, 2 M8 connectors		1 m	6ES7194-2LH10-1AA0
0.19 m	6ES7194-2LH02-0AA0	2 m	6ES7194-2LH20-1AA0
0.3 m	6ES7194-2LH03-0AA0	5 m	6ES7194-2LH50-1AA0
1 m	6ES7194-2LH10-0AA0	10 m	6ES7194-2LN10-1AA0
2 m	6ES7194-2LH20-0AA0	15 m	6ES7194-2LN15-1AA0
5 m	6ES7194-2LH50-0AA0	Pre-assembled at both ends, angled M8 connector and angled M8 socket	
10 m	6ES7194-2LN10-0AA0	0.3 m	6ES7194-2LH03-1AB0
15 m	6ES7194-2LN15-0AA0	1 m	6ES7194-2LH10-1AB0
Pre-assembled at both ends, 2 M8 connectors, angled		2 m	6ES7194-2LH20-1AB0
0.3 m	6ES7194-2LH03-0AB0	5 m	6ES7194-2LH50-1AB0
1 m	6ES7194-2LH10-0AB0	10 m	6ES7194-2LN10-1AB0
2 m	6ES7194-2LH20-0AB0	15 m	6ES7194-2LN15-1AB0
5 m	6ES7194-2LH50-0AB0	Pre-assembled at one end, M8 socket	
10 m	6ES7194-2LN10-0AB0	2 m	6ES7194-2LH20-1AC0
15 m	6ES7194-2LN15-0AB0	5 m	6ES7194-2LH50-1AC0
Pre-assembled at one end, 1 M8 connector		10 m	6ES7194-2LN10-1AC0
2 m	6ES7194-2LH20-0AC0	15 m	6ES7194-2LN15-1AC0
5 m	6ES7194-2LH50-0AC0	M8 connector for ET connection	6ES7194-2AB00-0AA0
10 m	6ES7194-2LN10-0AC0	4-pin, shielded	
15 m	6ES7194-2LN15-0AC0	M8 power connector	
		Male contact insert, 4-pin	6ES7194-2AA00-0AA0
		Female contact insert, 4-pin	6ES7194-2AC00-0AA0
		ET connection FastConnect stripping tool	6ES7194-2KA00-0AA0
		Stripping tool for stripping the ET connection bus cable	
		Labels	6ES7194-2BA00-0AA0
		10 x 5 mm, RAL 9016; 5 frames with 40 labels each	

I/O systemsSIMATIC ET 200 systems without control cabinet
SIMATIC ET 200AL**Interface modules > IM 157-1 PN****Technical specifications** (continued)

Article number	6ES7157-1AB00-0AB0 ET 200AL, IM 157-1 PN
Diagnostics indication LED	
• RUN LED	Yes; Green LED
• ERROR LED	Yes; Red LED
• MAINT LED	Yes; yellow LED
• Connection display LINK TX/RX	Yes; 2x green LED
Potential separation	
between the load voltages	Yes
between PROFINET and all other circuits	Yes
Isolation	
Isolation tested with	707 V DC (type test)
Degree and class of protection	
Degree of protection acc. to EN 60529	
• IP65	Yes
• IP67	Yes

Article number	6ES7157-1AB00-0AB0 ET 200AL, IM 157-1 PN
Ambient conditions	
Ambient temperature during operation	
• min.	-25 °C
• max.	55 °C
Connection method	
Power supply	M8, 4-pole
ET-Connection	
• ET-Connection	M8, 4-pin, shielded
Dimensions	
Width	45 mm
Height	159 mm
Depth	40 mm
Weights	
Weight, approx.	263 g

Ordering data**Article No.**

IM 157-1 PN interface module	6ES7157-1AB00-0AB0
For connecting ET 200AL to PROFINET	
Accessories	
Bus cable for backplane bus (ET connection)	
4-pin, shielded	
Pre-assembled at both ends, 2 M8 connectors	
0.19 m	6ES7194-2LH02-0AA0
0.3 m	6ES7194-2LH03-0AA0
1 m	6ES7194-2LH10-0AA0
2 m	6ES7194-2LH20-0AA0
5 m	6ES7194-2LH50-0AA0
10 m	6ES7194-2LN10-0AA0
15 m	6ES7194-2LN15-0AA0
Pre-assembled at both ends, 2 M8 connectors, angled	
0.3 m	6ES7194-2LH03-0AB0
1 m	6ES7194-2LH10-0AB0
2 m	6ES7194-2LH20-0AB0
5 m	6ES7194-2LH50-0AB0
10 m	6ES7194-2LN10-0AB0
15 m	6ES7194-2LN15-0AB0
Pre-assembled at one end, 1 M8 connector	
2 m	6ES7194-2LH20-0AC0
5 m	6ES7194-2LH50-0AC0
10 m	6ES7194-2LN10-0AC0
15 m	6ES7194-2LN15-0AC0

Article No.

M8 power cable	
4-pin	
Pre-assembled at both ends, M8 connector and M8 socket	
0.19 m	6ES7194-2LH02-1AA0
0.3 m	6ES7194-2LH03-1AA0
1 m	6ES7194-2LH10-1AA0
2 m	6ES7194-2LH20-1AA0
5 m	6ES7194-2LH50-1AA0
10 m	6ES7194-2LN10-1AA0
15 m	6ES7194-2LN15-1AA0
Pre-assembled at both ends, angled M8 connector and angled M8 socket	
0.3 m	6ES7194-2LH03-1AB0
1 m	6ES7194-2LH10-1AB0
2 m	6ES7194-2LH20-1AB0
5 m	6ES7194-2LH50-1AB0
10 m	6ES7194-2LN10-1AB0
15 m	6ES7194-2LN15-1AB0
Pre-assembled at one end, M8 socket	
2 m	6ES7194-2LH20-1AC0
5 m	6ES7194-2LH50-1AC0
10 m	6ES7194-2LN10-1AC0
15 m	6ES7194-2LN15-1AC0
M8 connector for ET connection	6ES7194-2AB00-0AA0
4-pin, shielded	
M8 power connector	
Male contact insert, 4-pin	6ES7194-2AA00-0AA0
Female contact insert, 4-pin	6ES7194-2AC00-0AA0
ET connection FastConnect stripping tool	6ES7194-2KA00-0AA0
Stripping tool for stripping the ET connection bus cable	
Labels	6ES7194-2BA00-0AA0
10 x 5 mm, RAL 9016; 5 frames with 40 labels each	

Technical specifications (continued)

Article number	6ES7143-5BF00-0BA0 ET 200AL, DIQ 4+DQ 4X24VDC/0.5A, 8XM8	6ES7143-5AF00-0BA0 ET 200AL, DIQ 4+DQ 4X24VDC/0.5A, 4XM12	6ES7143-5AH00-0BA0 ET 200AL, DIQ 16x24VDC/0.5A, 8xM12
Connection method			
Design of electrical connection for the inputs and outputs	M8, 3-pole	M12, 5-pole	M12, 5-pole
Power supply	M8, 4-pole	M8, 4-pole	M8, 4-pole
ET-Connection			
• ET-Connection	M8, 4-pin, shielded	M8, 4-pin, shielded	M8, 4-pin, shielded
Dimensions			
Width	30 mm	30 mm	45 mm
Height	159 mm	159 mm	159 mm
Depth	40 mm	40 mm	40 mm
Weights			
Weight, approx.	145 g	145 g	195 g

Ordering data

Ordering data	Article No.	Ordering data	Article No.
Digital input modules		M8 power cable	
DI 8X24VDC, 8XM8	6ES7141-5BF00-0BA0	4-pin	
DI 8X24VDC, 4XM12	6ES7141-5AF00-0BA0	Pre-assembled at both ends, M8 connector and M8 socket	
DI 16X24VDC, 8XM12	6ES7141-5AH00-0BA0	0.19 m	6ES7194-2LH02-1AA0
Digital output modules		0.3 m	6ES7194-2LH03-1AA0
DQ 8X24VDC/2A, 8XM12	6ES7142-5AF00-0BA0	1 m	6ES7194-2LH10-1AA0
Digital input/output modules		2 m	6ES7194-2LH20-1AA0
4 DIO / 4 DO, 24 V DC, 0.5 A	6ES7143-5BF00-0BA0	5 m	6ES7194-2LH50-1AA0
DIQ 4+DQ 4X24VDC/0.5A, 4XM12	6ES7143-5AF00-0BA0	10 m	6ES7194-2LN10-1AA0
DIQ 16X24VDC/0.5A, 8XM12	6ES7143-5AH00-0BA0	15 m	6ES7194-2LN15-1AA0
Accessories		Pre-assembled at both ends, angled M8 connector and angled M8 socket	
Bus cable for backplane bus (ET connection)		0.3 m	6ES7194-2LH03-1AB0
4-pin, shielded		1 m	6ES7194-2LH10-1AB0
Pre-assembled at both ends, 2 M8 connectors		2 m	6ES7194-2LH20-1AB0
0.19 m	6ES7194-2LH02-0AA0	5 m	6ES7194-2LH50-1AB0
0.3 m	6ES7194-2LH03-0AA0	10 m	6ES7194-2LN10-1AB0
1 m	6ES7194-2LH10-0AA0	15 m	6ES7194-2LN15-1AB0
2 m	6ES7194-2LH20-0AA0	Pre-assembled at one end, M8 socket	
5 m	6ES7194-2LH50-0AA0	2 m	6ES7194-2LH20-1AC0
10 m	6ES7194-2LN10-0AA0	5 m	6ES7194-2LH50-1AC0
15 m	6ES7194-2LN15-0AA0	10 m	6ES7194-2LN10-1AC0
Pre-assembled at both ends, two M8 connectors, angled		15 m	6ES7194-2LN15-1AC0
0.3 m	6ES7194-2LH03-0AB0	M8 connector for ET connection	6ES7194-2AB00-0AA0
1 m	6ES7194-2LH10-0AB0	4-pin, shielded	
2 m	6ES7194-2LH20-0AB0	M8 power connector	
5 m	6ES7194-2LH50-0AB0	Male contact insert, 4-pin	6ES7194-2AA00-0AA0
10 m	6ES7194-2LN10-0AB0	Female contact insert, 4-pin	6ES7194-2AC00-0AA0
15 m	6ES7194-2LN15-0AB0	ET connection FastConnect stripping tool	6ES7194-2KA00-0AA0
Pre-assembled at one end, one M8 connector		Stripping tool for stripping the ET connection bus cable	
2 m	6ES7194-2LH20-0AC0	Labels	6ES7194-2BA00-0AA0
5 m	6ES7194-2LH50-0AC0	10 x 5 mm, RAL 9016;	
10 m	6ES7194-2LN10-0AC0	5 frames with 40 labels each	
15 m	6ES7194-2LN15-0AC0		

Technical specifications (continued)

Article number	6ES7145-5ND00-0BA0 ET 200AL, AQ 4xU/I, 4xM12
Isolation	
Isolation tested with	707 V DC (type test)
Degree and class of protection	
Degree of protection acc. to EN 60529	
• IP65	Yes
• IP67	Yes
Ambient conditions	
Ambient temperature during operation	
• min.	-25 °C
• max.	55 °C

Article number	6ES7145-5ND00-0BA0 ET 200AL, AQ 4xU/I, 4xM12
Connection method	
Design of electrical connection for the inputs and outputs	M12, 5-pole
Power supply	M8, 4-pole
ET-Connection	
• ET-Connection	M8, 4-pin, shielded
Dimensions	
Width	30 mm
Height	159 mm
Depth	40 mm
Weights	
Weight, approx.	175 g

Ordering data

Ordering data	Article No.
Analog input modules	
AI 4xU/I/RTD, 4XM12	6ES7144-5KD00-0BA0
AQ 4xU/I, 4xM12	6ES7145-5ND00-0BA0
Accessories	
Bus cable for backplane bus (ET connection)	
4-pin, shielded	
Pre-assembled at both ends, 2 M8 connectors	
0.19 m	6ES7194-2LH02-0AA0
0.3 m	6ES7194-2LH03-0AA0
1 m	6ES7194-2LH10-0AA0
2 m	6ES7194-2LH20-0AA0
5 m	6ES7194-2LH50-0AA0
10 m	6ES7194-2LN10-0AA0
15 m	6ES7194-2LN15-0AA0
Pre-assembled at both ends, 2 M8 connectors, angled	
0.3 m	6ES7194-2LH03-0AB0
1 m	6ES7194-2LH10-0AB0
2 m	6ES7194-2LH20-0AB0
5 m	6ES7194-2LH50-0AB0
10 m	6ES7194-2LN10-0AB0
15 m	6ES7194-2LN15-0AB0
Pre-assembled at one end, 1 M8 connector	
2 m	6ES7194-2LH20-0AC0
5 m	6ES7194-2LH50-0AC0
10 m	6ES7194-2LN10-0AC0
15 m	6ES7194-2LN15-0AC0

Ordering data	Article No.
M8 power cable	
4-pin	
Pre-assembled at both ends, M8 connector and M8 socket	
0.19 m	6ES7194-2LH02-1AA0
0.3 m	6ES7194-2LH03-1AA0
1 m	6ES7194-2LH10-1AA0
2 m	6ES7194-2LH20-1AA0
5 m	6ES7194-2LH50-1AA0
10 m	6ES7194-2LN10-1AA0
15 m	6ES7194-2LN15-1AA0
Pre-assembled at both ends, angled M8 connector and angled M8 socket	
0.3 m	6ES7194-2LH03-1AB0
1 m	6ES7194-2LH10-1AB0
2 m	6ES7194-2LH20-1AB0
5 m	6ES7194-2LH50-1AB0
10 m	6ES7194-2LN10-1AB0
15 m	6ES7194-2LN15-1AB0
Pre-assembled at one end, M8 socket	
2 m	6ES7194-2LH20-1AC0
5 m	6ES7194-2LH50-1AC0
10 m	6ES7194-2LN10-1AC0
15 m	6ES7194-2LN15-1AC0
M8 connector for ET connection	6ES7194-2AB00-0AA0
4-pin, shielded	
M8 power connector	
Male contact insert, 4-pin	6ES7194-2AA00-0AA0
Female contact insert, 4-pin	6ES7194-2AC00-0AA0
ET connection FastConnect stripping tool	6ES7194-2KA00-0AA0
Stripping tool for stripping the ET connection bus cable	
Labels	6ES7194-2BA00-0AA0
10 x 5 mm, RAL 9016; 5 frames with 40 labels each	

I/O systemsSIMATIC ET 200 systems without control cabinet
SIMATIC ET 200AL

I/O modules > Communication > CM IO-Link

Ordering data	Article No.	Ordering data	Article No.
CM IO-Link		M8 power cable	
CM 4X IO-Link, 4XM12; for the connection of up to 4 IO-Link devices according to IO-Link Specification V1.0 and V1.1 and port Class B	6ES7147-5JD00-0BA0	4-pin	
Accessories		Pre-assembled at both ends, M8 connector and M8 socket	
Bus cable for backplane bus (ET connection)		0.19 m	6ES7194-2LH02-1AA0
4-pin, shielded		0.3 m	6ES7194-2LH03-1AA0
Pre-assembled at both ends, 2 M8 connectors		1 m	6ES7194-2LH10-1AA0
0.19 m	6ES7194-2LH02-0AA0	2 m	6ES7194-2LH20-1AA0
0.3 m	6ES7194-2LH03-0AA0	5 m	6ES7194-2LH50-1AA0
1 m	6ES7194-2LH10-0AA0	10 m	6ES7194-2LN10-1AA0
2 m	6ES7194-2LH20-0AA0	15 m	6ES7194-2LN15-1AA0
5 m	6ES7194-2LH50-0AA0	Pre-assembled at both ends, angled M8 connector and angled M8 socket	
10 m	6ES7194-2LN10-0AA0	0.3 m	6ES7194-2LH03-1AB0
15 m	6ES7194-2LN15-0AA0	1 m	6ES7194-2LH10-1AB0
Pre-assembled at both ends, 2 M8 connectors, angled		2 m	6ES7194-2LH20-1AB0
0.3 m	6ES7194-2LH03-0AB0	5 m	6ES7194-2LH50-1AB0
1 m	6ES7194-2LH10-0AB0	10 m	6ES7194-2LN10-1AB0
2 m	6ES7194-2LH20-0AB0	15 m	6ES7194-2LN15-1AB0
5 m	6ES7194-2LH50-0AB0	Pre-assembled at one end, M8 socket	
10 m	6ES7194-2LN10-0AB0	2 m	6ES7194-2LH20-1AC0
15 m	6ES7194-2LN15-0AB0	5 m	6ES7194-2LH50-1AC0
Pre-assembled at one end, 1 M8 connector		10 m	6ES7194-2LN10-1AC0
2 m	6ES7194-2LH20-0AC0	15 m	6ES7194-2LN15-1AC0
5 m	6ES7194-2LH50-0AC0	M8 connector for ET connection	6ES7194-2AB00-0AA0
10 m	6ES7194-2LN10-0AC0	4-pin, shielded	
15 m	6ES7194-2LN15-0AC0	M8 power connector	
		Male contact insert, 4-pin	6ES7194-2AA00-0AA0
		Female contact insert, 4-pin	6ES7194-2AC00-0AA0
		ET connection FastConnect stripping tool	6ES7194-2KA00-0AA0
		Stripping tool for stripping the ET connection bus cable	
		Labels	6ES7194-2BA00-0AA0
		10 x 5 mm, RAL 9016; 5 frames with 40 labels each	

Overview

- Pre-assembled cables in various designs and lengths:
 - For connecting the interface modules and I/O modules via the internal backplane bus (ET connection)
 - For power supply.

Technical specifications

Article number	6ES7194-2LH02-0AA0	6ES7194-2LH03-0AA0	6ES7194-2LH10-0AA0	6ES7194-2LH20-0AA0
	CONNECTING CABLE ET-CONNECTION, 0.19M	CONNECTING CABLE ET-CONNECTION, 0.3M	CONNECTING CABLE ET-CONNECTION, 1.0M	CONNECTING CABLE ET-CONNECTION, 2.0M
General information				
Product type designation	BUS CABLE ET CONNECTION, 0.19M	BUS CABLE ET-CONNECTION, 0.3M	BUS CABLE ET-CONNECTION, 1.0M	BUS CABLE ET-CONNECTION, 2.0M
Product description	Flexible cable (4-core), preassembled at both ends with 2x M8 plugs, 4-pin, shielded	Flexible cable (4-core), preassembled at both ends with 2x M8 plugs, 4-pin, shielded	Flexible cable (4-core), preassembled at both ends with 2x M8 plugs, 4-pin, shielded	Flexible cable (4-core), preassembled at both ends with 2x M8 plugs, 4-pin, shielded
Suitability for use	for connecting ET-CONNECTION node (e.g. SIMATIC ET 200AL) in degree of protection IP65 / 67	for connecting ET-CONNECTION nodes (e.g. SIMATIC ET 200AL) in degree of protection IP65 / 67	for connecting ET-CONNECTION nodes (e.g. SIMATIC ET 200AL) in degree of protection IP65 / 67	for connecting ET-CONNECTION nodes (e.g. SIMATIC ET 200AL) in degree of protection IP65 / 67
Degree and class of protection				
Degree of protection acc. to EN 60529				
• IP65	Yes	Yes	Yes	Yes
• IP67	Yes	Yes	Yes	Yes
Ambient conditions				
Ambient temperature during assembly, min.	-30 °C	-30 °C	-30 °C	-30 °C
Ambient temperature during assembly, max.	80 °C	80 °C	80 °C	80 °C
Ambient temperature during storage/transportation				
• min.	-40 °C	-40 °C	-40 °C	-40 °C
• max.	80 °C	80 °C	80 °C	80 °C
Cables				
Cable designation	2Y(ST)CY 1x4x0.5/1.0-100-GN	2Y(ST)CY 1x4x0.5/1.0-100-GN	2Y(ST)CY 1x4x0.5/1.0-100-GN	2Y(ST)CY 1x4x0.5/1.0-100-GN
Design of shield	Overlapped aluminum-clad foil, sheathed in a braid of tin-plated copper wires	Overlapped aluminum-clad foil, sheathed in a braid of tin-plated copper wires	Overlapped aluminum-clad foil, sheathed in a braid of tin-plated copper wires	Overlapped aluminum-clad foil, sheathed in a braid of tin-plated copper wires
Cable length	0.19 m	0.3 m	1 m	2 m
Number of electrical cores	4	4	4	4
Outer diameter of inner conductor	0.5 mm	0.5 mm	0.5 mm	0.5 mm
Outer diameter of core insulation	1 mm	1 mm	1 mm	1 mm
Outer diameter of cable sheath	5 mm	5 mm	5 mm	5 mm
Number of bending cycles	1 000 000; Cable carrier compliant for 1 million bending cycles with a bending radius of 100 mm, a speed of 4 m/s and an acceleration of 4 m/s ²	1 000 000; Cable carrier compliant for 1 million bending cycles with a bending radius of 100 mm, a speed of 4 m/s and an acceleration of 4 m/s ²	1 000 000; Cable carrier compliant for 1 million bending cycles with a bending radius of 100 mm, a speed of 4 m/s and an acceleration of 4 m/s ²	1 000 000; Cable carrier compliant for 1 million bending cycles with a bending radius of 100 mm, a speed of 4 m/s and an acceleration of 4 m/s ²
Permissible bending radius, single bend, min.	20 mm	20 mm	20 mm	20 mm
Permissible bending radius, multiple bends, min.	40 mm	40 mm	40 mm	40 mm
Bending radius for continuous bending	100 mm	100 mm	100 mm	100 mm
Color of cable sheath	Green	Green	Green	Green
Color of core insulation of data cores	white / yellow / blue / orange	white / yellow / blue / orange	white / yellow / blue / orange	white / yellow / blue / orange
Weight per length	34 kg/km	34 kg/km	34 kg/km	34 kg/km

I/O systemsSIMATIC ET 200 systems without control cabinet
SIMATIC ET 200AL**Accessories > Cables and connectors****Technical specifications (continued)**

Article number	6ES7194-2LH02-0AA0 CONNECTING CABLE ET-CONNECTION, 0.19M	6ES7194-2LH03-0AA0 CONNECTING CABLE ET-CONNECTION, 0.3M	6ES7194-2LH10-0AA0 CONNECTING CABLE ET-CONNECTION, 1.0M	6ES7194-2LH20-0AA0 CONNECTING CABLE ET-CONNECTION, 2.0M
Mechanics/material				
Type of cable outlet	180 degree cable outlet	180 degree cable outlet	180 degree cable outlet	180 degree cable outlet
Material of housing	metal	metal	metal	metal
Material of cable sheath	PVC	PVC	PVC	PVC
Material of core insulation	PE	PE	PE	PE
Article number	6ES7194-2LH50-0AA0 CONNECTING CABLE ET-CONNECTION, 5.0M	6ES7194-2LN10-0AA0 BUS CABLE ET-CONNECTION, 10M	6ES7194-2LN15-0AA0 BUS CABLE ET-CONNECTION, 15M	
General information				
Product type designation	BUS CABLE ET-CONNECTION, 5.0M	BUS CABLE ET-CONNECTION, 10M	BUS CABLE ET CONNECTION, 15M	
Product description	Flexible cable (4-core), preassembled at both ends with 2x M8 plugs, 4-pin, shielded	Flexible cable (4-core), preassembled at both ends with 2x M8 plugs, 4-pin, shielded	Flexible cable (4-core), preassembled at both ends with 2x M8 plugs, 4-pin, shielded	
Suitability for use	for connecting ET-CONNECTION nodes (e.g. SIMATIC ET 200AL) in degree of protection IP65 / 67	for connecting ET-CONNECTION nodes (e.g. SIMATIC ET 200AL) in degree of protection IP65 / 67	for connecting ET-CONNECTION nodes (e.g. SIMATIC ET 200AL) in degree of protection IP65 / 67	
Degree and class of protection				
Degree of protection acc. to EN 60529				
• IP65	Yes	Yes		Yes
• IP67	Yes	Yes		Yes
Ambient conditions				
Ambient temperature during assembly, min.	-30 °C	-30 °C		-30 °C
Ambient temperature during assembly, max.	80 °C	80 °C		80 °C
Ambient temperature during storage/transportation				
• min.	-40 °C	-40 °C		-40 °C
• max.	80 °C	80 °C		80 °C
Cables				
Cable designation	2Y(ST)CY 1x4x0.5/1.0-100-GN	2Y(ST)CY 1x4x0.5/1.0-100-GN	2Y(ST)CY 1x4x0.5/1.0-100-GN	
Design of shield	Overlapped aluminum-clad foil, sheathed in a braid of tin-plated copper wires	Overlapped aluminum-clad foil, sheathed in a braid of tin-plated copper wires	Overlapped aluminum-clad foil, sheathed in a braid of tin-plated copper wires	
Cable length	5 m	10 m		15 m
Number of electrical cores	4	4		4
Outer diameter of inner conductor	0.5 mm	0.5 mm		0.5 mm
Outer diameter of core insulation	1 mm	1 mm		1 mm
Outer diameter of cable sheath	5 mm	5 mm		5 mm
Number of bending cycles	1 000 000; Cable carrier compliant for 1 million bending cycles with a bending radius of 100 mm, a speed of 4 m/s and an acceleration of 4 m/s ²	1 000 000; Cable carrier compliant for 1 million bending cycles with a bending radius of 100 mm, a speed of 4 m/s and an acceleration of 4 m/s ²		
Permissible bending radius, single bend, min.	20 mm	20 mm		20 mm
Permissible bending radius, multiple bends, min.	40 mm	40 mm		40 mm
Bending radius for continuous bending	100 mm	100 mm		100 mm
Color of cable sheath	Green	Green		Green
Color of core insulation of data cores	white / yellow / blue / orange	white / yellow / blue / orange		white / yellow / blue / orange
Weight per length	34 kg/km	34 kg/km		34 kg/km
Mechanics/material				
Type of cable outlet	180 degree cable outlet	180 degree cable outlet		180 degree cable outlet
Material of housing	metal	metal		metal
Material of cable sheath	PVC	PVC		PVC
Material of core insulation	PE	PE		PE

Technical specifications (continued)

Article number	6ES7194-2AA00-0AA0 M8 POWER CONNECTOR	6ES7194-2AC00-0AA0 M8 POWER CONNECTOR, SOCKET
General information		
Product type designation	M8 POWER CONNECTOR	POWER CONNECTOR M8, SOCKET
Product description	M8 plug connector with high degree of protection, 4-pin, plastic version	M8 plug connector with high degree of protection, socket insert, 4-pin, plastic version
Suitability for use	For connection to ET 200AL for 24 V DC power supply	For connection to ET 200AL for 24 V DC power supply
Degree and class of protection		
Degree of protection acc. to EN 60529		
• IP65	Yes	Yes
• IP67	Yes	Yes
Ambient conditions		
Ambient temperature during assembly, min.	-30 °C	-30 °C
Ambient temperature during assembly, max.	85 °C	85 °C
Ambient temperature during storage/transportation		
• min.	-40 °C	-40 °C
• max.	85 °C	85 °C
Mechanics/material		
Type of cable outlet	180 degree cable outlet	180 degree cable outlet
Material of housing	plastic	plastic
Dimensions		
Width	14 mm	14 mm
Depth	47 mm	47 mm

Article number	6ES7194-2AB00-0AA0 M8 CONNECTOR ET-CONNECTION
General information	
Product type designation	M8 PLUG ET-CONNECTION
Product description	M8 plug connector with high degree of protection, 4-pin, metal version
Suitability for use	for connecting ET-CONNECTION nodes (e.g. SIMATIC ET 200AL) in degree of protection IP65 / 67
Degree and class of protection	
Degree of protection acc. to EN 60529	
• IP65	Yes
• IP67	Yes
Ambient conditions	
Ambient temperature during assembly, min.	-30 °C
Ambient temperature during assembly, max.	80 °C

Article number	6ES7194-2AB00-0AA0 M8 CONNECTOR ET-CONNECTION
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	80 °C
Mechanics/material	
Type of cable outlet	180 degree cable outlet
Material of housing	metal
Dimensions	
Width	14 mm
Depth	47 mm

Ordering data**Bus cable for backplane bus (ET connection)**

4-pin, shielded

Pre-assembled at both ends, 2 M8 connectors

	Article No.
0.19 m	6ES7194-2LH02-0AA0
0.3 m	6ES7194-2LH03-0AA0
1 m	6ES7194-2LH10-0AA0
2 m	6ES7194-2LH20-0AA0
5 m	6ES7194-2LH50-0AA0
10 m	6ES7194-2LN10-0AA0
15 m	6ES7194-2LN15-0AA0

PUR line, pre-assembled at both ends, 2 M8 connectors

	Article No.
0.19 m	6ES7194-2MH02-0AA0
0.3 m	6ES7194-2MH03-0AA0
1 m	6ES7194-2MH10-0AA0
2 m	6ES7194-2MH20-0AA0
5 m	6ES7194-2MH50-0AA0
10 m	6ES7194-2MN10-0AA0
15 m	6ES7194-2MN15-0AA0