

ODU-BUS

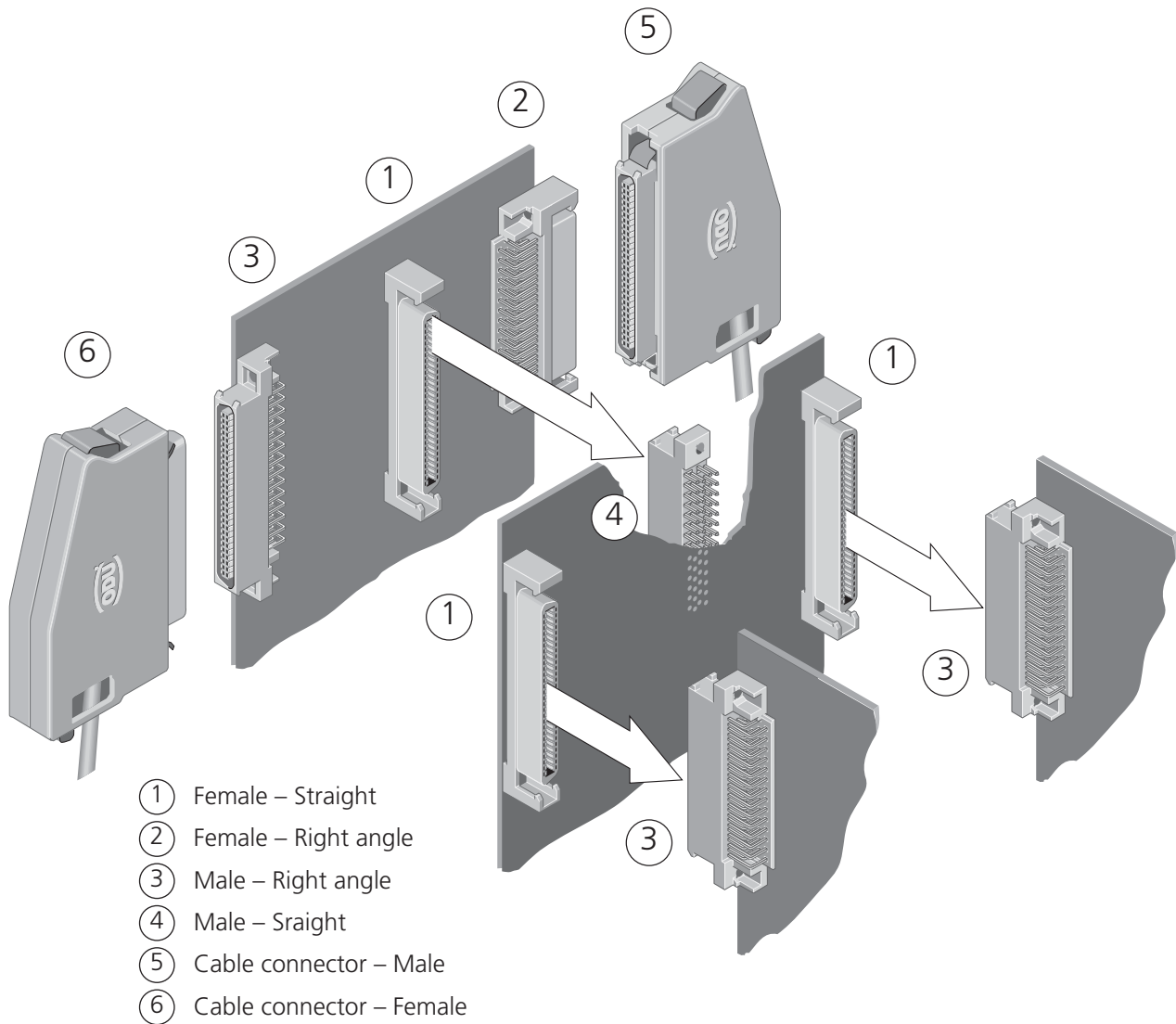
Miniaturre High-Density Connector
for Small Computersystems Interface (SCSI)



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Examples of ODU-BUS Interconnection



Straight or right-angle PCB solder-in version, unshielded.

Insulation body has hold-down clips which snap into the PCB.

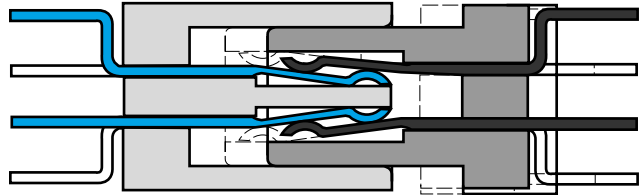
Cable connector can be used for cable-to-cable connections.

The ODU-BUS I/O connector is available in straight or right-angle PCB solder mount (unshielded) or in insulation displacement (IDC) termination.

The beam contact with two contact points (see Fig. 1) in 1,27 mm (.050") pitch offers significant advantages:

- High density with small dimensions
- Excellent contact protection with contacts in cavities.
- Many 1,000 mating cycles (see Fig. 2)
- Low insertion and withdrawal force
- Low cost connection

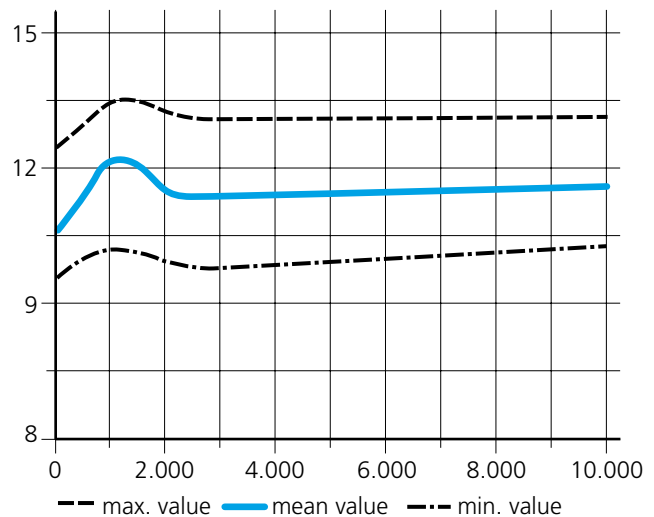
Fig 1: Two point beam contact



A significant feature of the ODU-BUS is that it can be supplied with integral power contacts for power supply transmission. The ODU-BUS is available in:

- Only with signal contacts
- With a mix of signal and power contact

Fig 2: Contact resistance as a function of mating cycles.



Technical Data:

Electrical

Current load: signal contact 0,5 A
power contact 3 A
Test voltage: 750 V AC for 1 minute
Contact resistance: 15 m Ohm (max.)
Insulation resistance: 1000 M-Ohm (1G-Ohm) / 500 V DC

Mechanical

Op. temperature: -65 °C to +145 °C
Insertion force: 0,4 N (med. / contact)
Withdrawal force: 0,2 N (med. / contact)

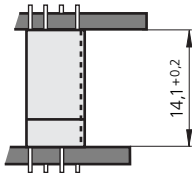
Material & Finish

Material contact: copper alloy
Plugging area: gold over nickel
Solder area: tinned
Insulation body: Glass-filled Polyester (UL 94 V-0)

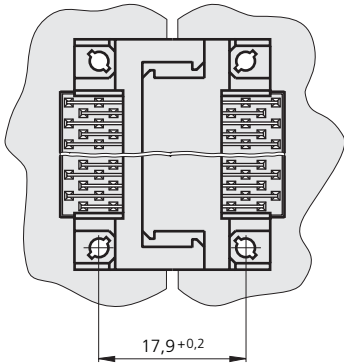
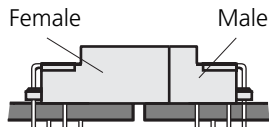
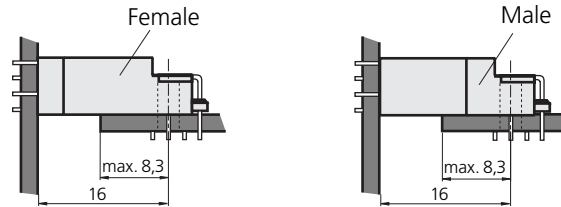
Installation Options and Dimensions

The connectors can be separated in the mated condition by up to 3 mm without loss of contact.

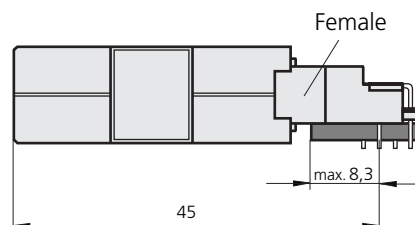
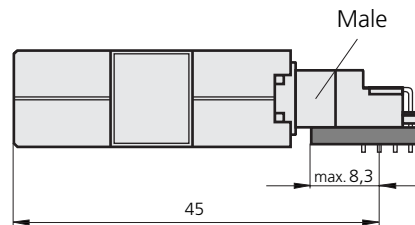
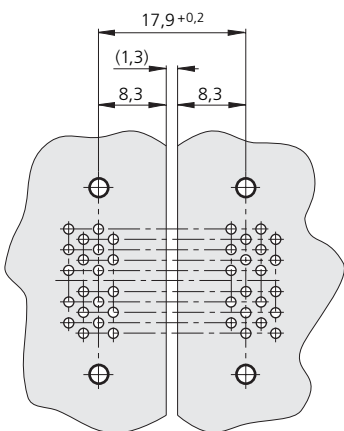
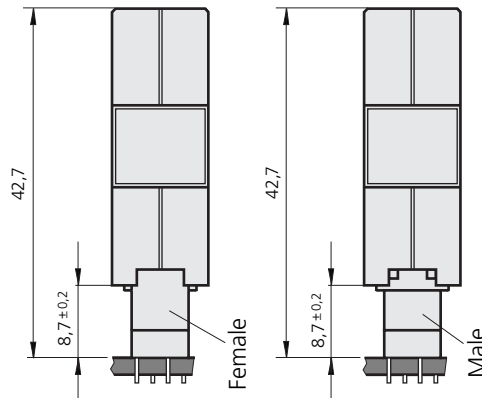
Straight version



Right-angle version

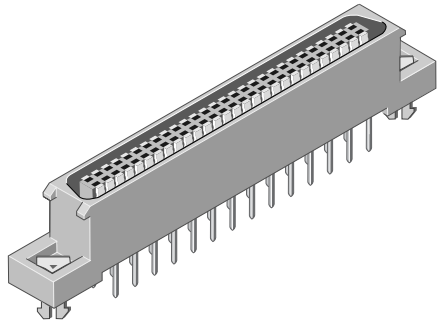


Cable connector



Header (Male)

Solder-in, straight, unshielded

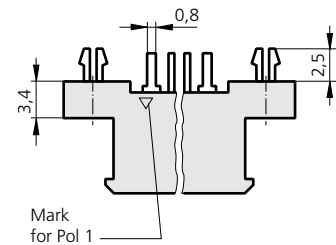
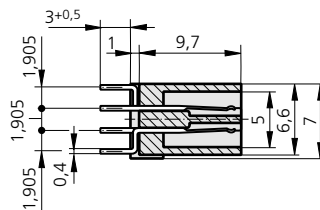
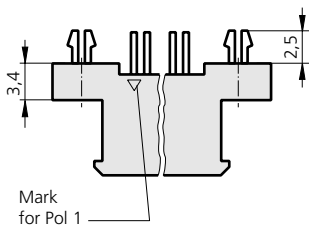
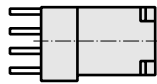
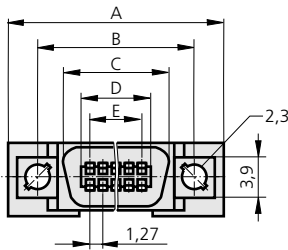


Features

- 1,27mm x 1,905 mm grid
- Power contacts to 3 A

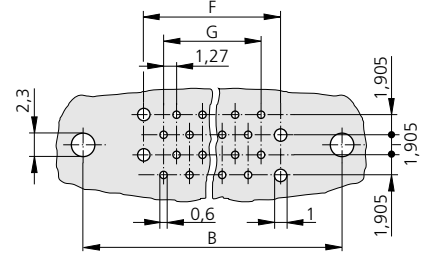
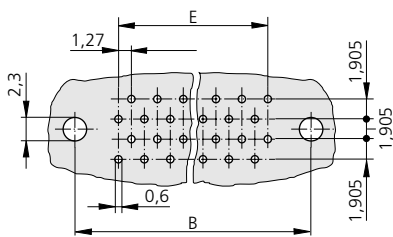
Only signal contacts

Signal contacts and 4 power contacts



PCB layout

PCB layout



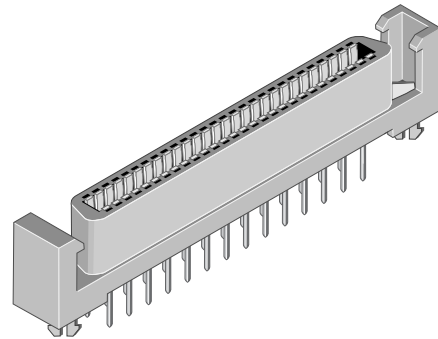
Ordering information and dimensions (All dimensions in mm)

Only signal contacts		Signal contacts & 4 power contacts								
Pos.	Part number	Pos.	Part number	Dim. A ±0,1	Dim. B ±0,05	Dim. C -0,05	Dim. D +0,05	Dim. E	Dim. F	Dim. G
48	515.001.003.048.000	40 + 4	515.011.003.044.000	45,1	39,7	34,7	31,1	29,2	27,9	24,1
56	515.001.003.056.000	48 + 4	515.011.003.052.000	50,2	44,7	39,8	36,2	34,3	33,0	29,2
68	515.001.003.068.000	60 + 4	515.011.003.064.000	57,8	52,4	47,4	43,8	41,9	40,6	38,7
88	515.001.003.088.000	80 + 4	515.011.003.084.000	70,5	65,1	60,1	56,5	54,6	53,3	49,5
108	515.001.003.108.000	100 + 4	515.011.003.104.000	83,2	77,8	72,8	69,2	67,3	66,0	62,2

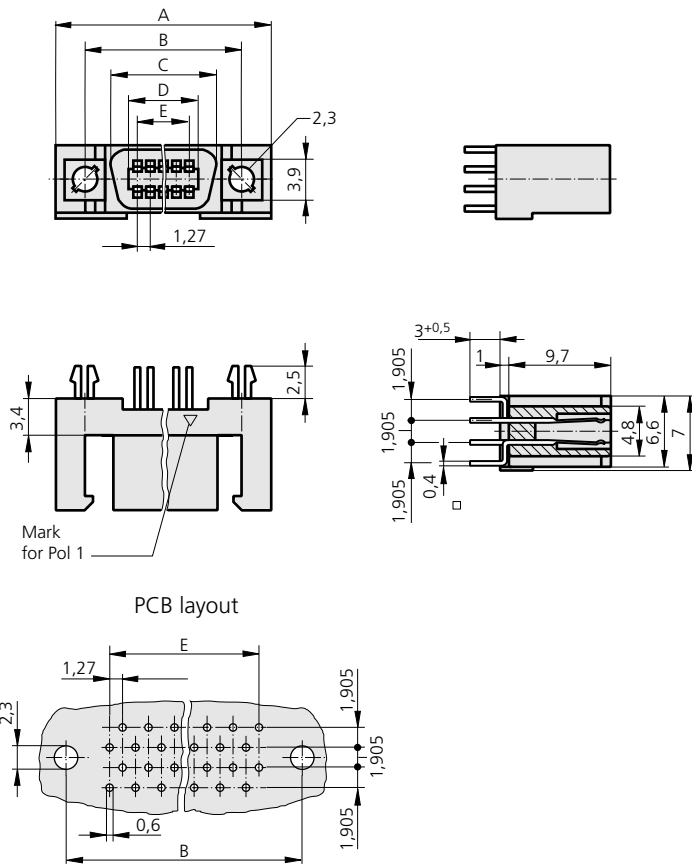
Socket (Female)
Solder-in, straight, unshielded

Features

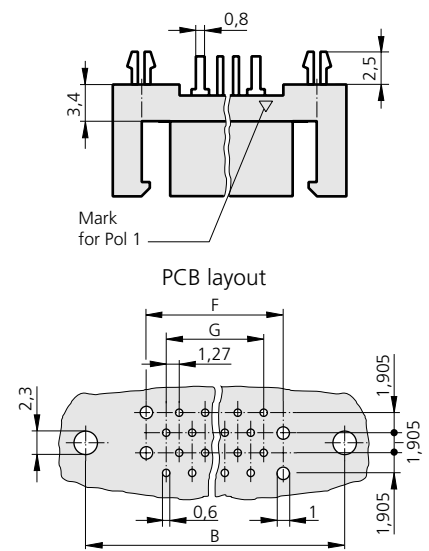
- 1,27mm x 1,905 mm grid
- Power contacts to 3 A



Only signal contacts



Signal contacts and 4 power contacts

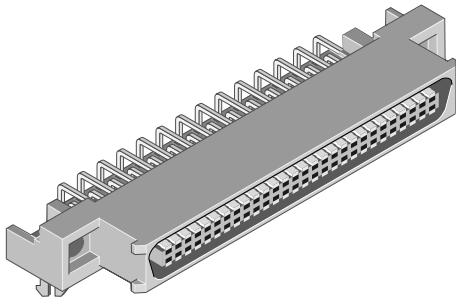


Ordering information and dimensions (All dimensions in mm)

Only signal contacts		Signal contacts & 4 power contacts								
Pos.	Part number	Pos.	Part number	Dim. A ±0,1	Dim. B ±0,05	Dim. C -0,05	Dim. D +0,05	Dim. E	Dim. F	Dim. G
48	525.001.003.048.000	40 + 4	525.011.003.044.000	45,1	39,7	34,7	31,1	29,2	27,9	24,1
56	525.001.003.056.000	48 + 4	525.011.003.052.000	50,2	44,7	39,8	36,2	34,3	33,0	29,2
68	525.001.003.068.000	60 + 4	525.011.003.064.000	57,8	52,4	47,4	43,8	41,9	40,6	38,7
88	525.001.003.088.000	80 + 4	525.011.003.084.000	70,5	65,1	60,1	56,5	54,6	53,3	49,5
108	525.001.003.108.000	100 + 4	525.011.003.104.000	83,2	77,8	72,8	69,2	67,3	66,0	62,2

Header (Male)

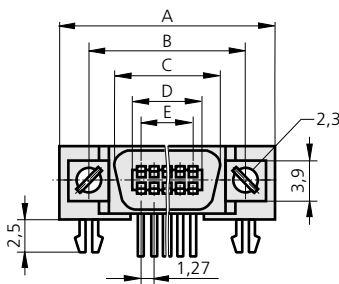
Solder-in, right-angle, unshielded



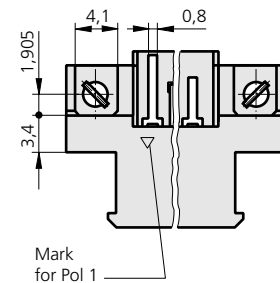
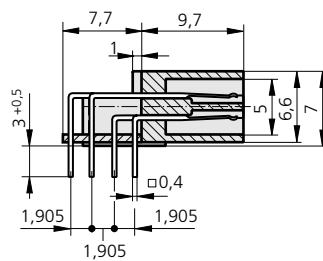
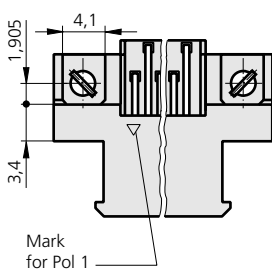
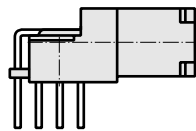
Features

- 1,27mm x 1,905 mm grid
- Power contacts to 3 A

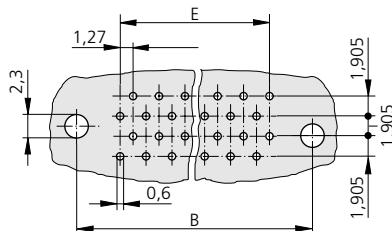
Only signal contacts



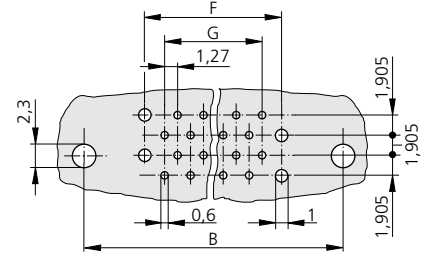
Signal contacts and 4 power contacts



PCB layout



PCB layout



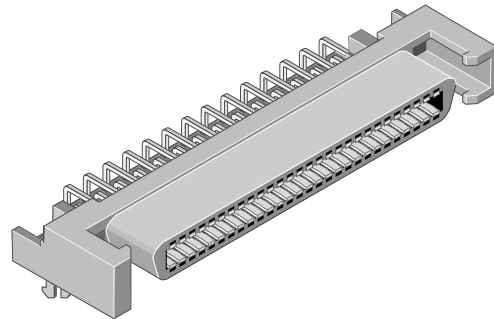
Ordering information and dimensions (All dimensions in mm)

Only signal contacts		Signal contacts & 4 power contacts		Dim. A	Dim. B	Dim. C	Dim. D	Dim. E	Dim. F	Dim. G
Pos.	Part number	Pos.	Part number	$\pm 0,1$	$\pm 0,05$	$-0,05$	$+0,05$			
48	515.201.003.048.000	40 + 4	515.211.003.044.000	45,1	39,7	34,7	31,1	29,2	27,9	24,1
56	515.201.003.056.000	48 + 4	515.211.003.052.000	50,2	44,7	39,8	36,2	34,3	33,0	29,2
68	515.201.003.068.000	60 + 4	515.211.003.064.000	57,8	52,4	47,4	43,8	41,9	40,6	38,7
88	515.201.003.088.000	80 + 4	515.211.003.084.000	70,5	65,1	60,1	56,5	54,6	53,3	49,5
108	515.201.003.108.000	100 + 4	515.211.003.104.000	83,2	77,8	72,8	69,2	67,3	66,0	62,2

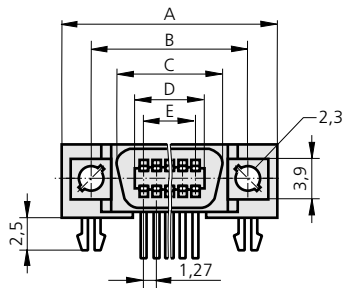
Socket (Female)
Solder-in, right-angle, unshielded

Features

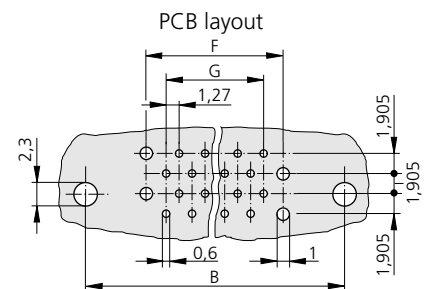
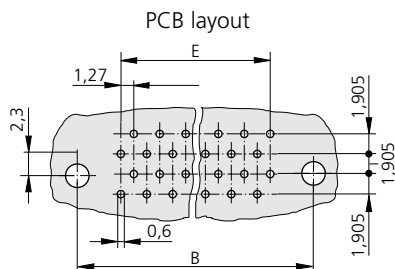
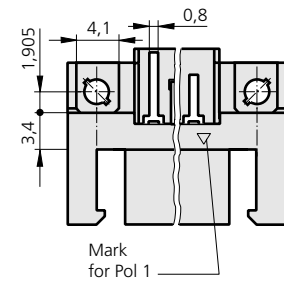
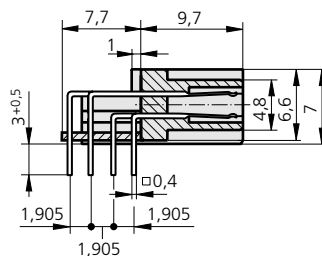
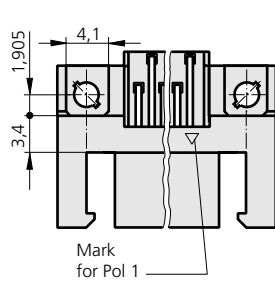
- 1,27mm x 1,905 mm grid
- Power contacts to 3 A



Only signal contacts



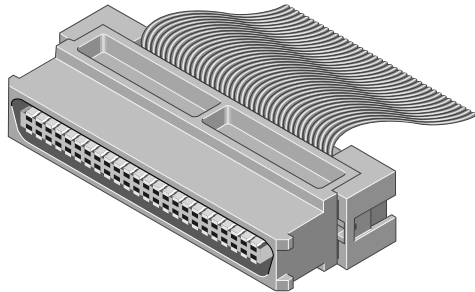
Signal contacts and 4 power contacts



Ordering information and dimensions (All dimensions in mm)

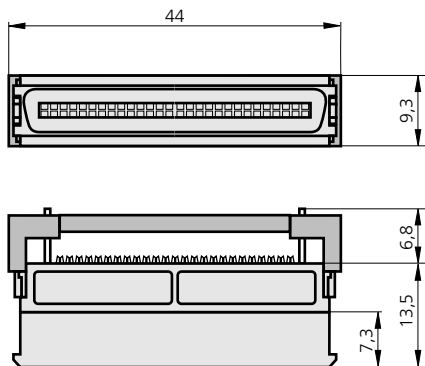
Only signal contacts		Signal contacts & 4 power contacts		Dim. A	Dim. B	Dim. C	Dim. D	Dim. E	Dim. F	Dim. G
Pos.	Part number	Pos.	Part number	$\pm 0,1$	$\pm 0,05$	$-0,05$	$+0,05$			
48	525.201.003.048.000	40 + 4	525.211.003.044.000	45,1	39,7	34,7	31,1	29,2	27,9	24,1
56	525.201.003.056.000	48 + 4	525.211.003.052.000	50,2	44,7	39,8	36,2	34,3	33,0	29,2
68	525.201.003.068.000	60 + 4	525.211.003.064.000	57,8	52,4	47,4	43,8	41,9	40,6	38,7
88	525.201.003.088.000	80 + 4	525.211.003.084.000	70,5	65,1	60,1	56,5	54,6	53,3	49,5
108	525.201.003.108.000	100 + 4	525.211.003.104.000	83,2	77,8	72,8	69,2	67,3	66,0	62,2

**Cable Connector, Header (Male)
for IDC cable connections**



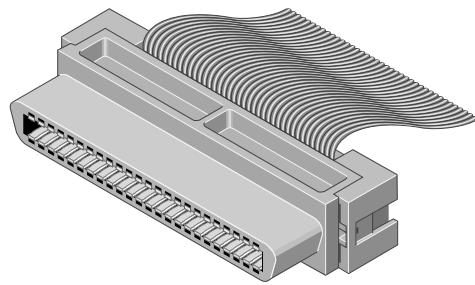
Features

- For flat ribbon cable 0,635 mm (.025") centerline, AWG 30
- With power contacts to 3 A



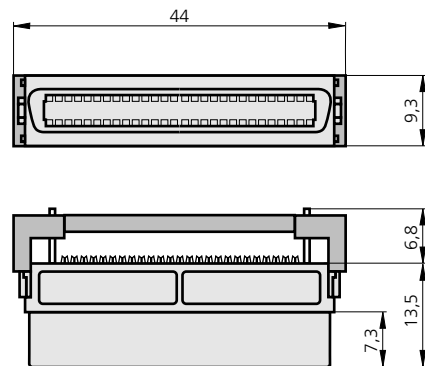
Pos.	Part number	Comments
48	515.061.003.048.000	Only signal contacts
48+4	515.062.003.052.000	Signal + 4 Power contacts.

**Cable Connector, Socket (Female)
for IDC cable connections**



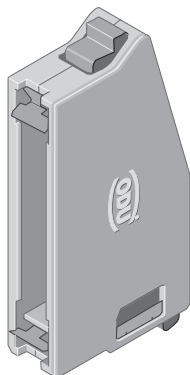
Features

- For flat ribbon cable 0,635 mm (.025") centerline, AWG 30
- With power contacts to 3 A

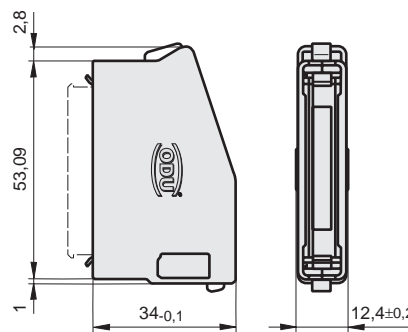


Pos.	Part number	Comments
48	525.061.003.048.000	Only signal contacts
48+4	525.062.003.052.000	Signal + 4 Power contacts.

**Die-cast hood
for male or female connector**



The finished die-cast hood accepts male or female connectors. Latching is achieved with precision clips in the hood activated by finger pressure applied to the top and bottom of hood.



Part number Hood for male connector	Part number Hood for female connector
509.012.056.001.000	509.012.056.002.000

For your notes



ODU's headquarters and factory are located in Mühldorf, at the river Inn, approximately 50 miles east of Munich, at the foothills of the Bavarian Alps.



Photo of City Mühldorf/Inn



Mühldorf, an idyllic small town with its typical Inn-Salzach architecture.



Steckverbindingssysteme

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Otto Dunkel GmbH

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