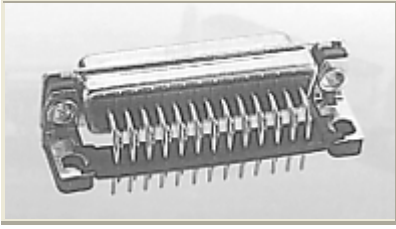


Technical Data For D-Sub Connectors

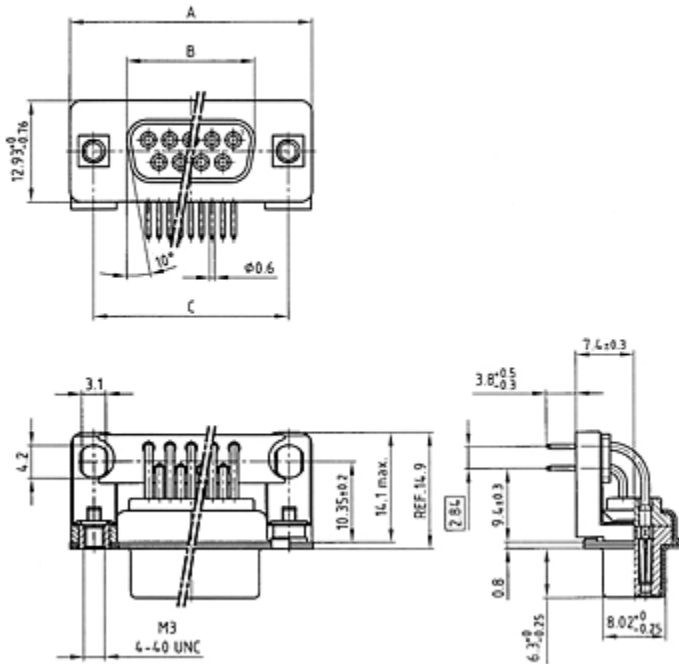
Technical Data	D-Subminiature Standard 9, 15, 25, 37 and 50 position	D-Subminiature High Density 15, 25, 44, 62 and 78 position
Insulators	Polyester GF UL 94 V-0	
Contacts	Copper alloy	
Contact finish	hard-gold-plated over nickel	
Shell	tin plated or yellow chromate	
Test voltage V.r.m.s./NM	1000 V	
Working voltage	125 V ≈	60 V ≈
	depending on isolation coordination (refer to DIN VDE 0110 / IEC 664-1)	
Current Rating	7.5 A UL 5 A CSA 5 A VDE	3.0 A UL 2.5 A CSA 3 A VDE
Contact resistance	max. 10 mΩ initially, ΔR max. 10 mΩ after load in accordance DIN 41652, Part 2	
Insulation resistance	≥ 5 GΩ	
Clearance and creepage distance	contact - contact 1.0 mm contact - ground 1.2 mm	≥0.6 mm
Operating temperature	- 55 °C to + 125 °C	
Mating/Unmating forces	9-pol. ≤ 30 N 15-pol. ≤ 50 N 25-pol. ≤ 83 N 37-pol. ≤ 123 N 50-pol. ≤ 167 N	15-pol. ≤ 50 N 26-pol. ≤ 84 N 44-pol. ≤ 120 N 62-pol. ≤ 170 N 78-pol. ≤ 200 N
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles J = Quality class 1 ≥ 500 mating cycles (telecom quality)	



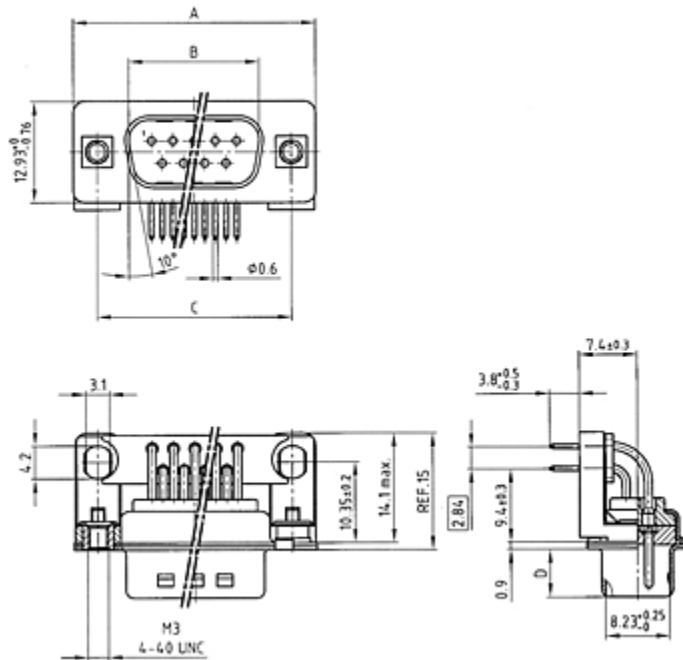
Solder pin angled .370" with mounting, grounding bracket and threaded insert

Directive 2002/95/EC
"RoHS"
Compliant

Socket connector



Plug connector



Socket Connector

No. of pos.	A ^{-0,76}	B ^{-0,25}	C
09	31,19	16,46	25,00 ^{+0,12 - 0,13}
15	39,52	24,79	33,30 ^{+0,15 - 0,10}
25	53,42	38,50	47,04 ^{±0,13}
37	69,70	54,96	63,50 ^{±0,13}

Plug Connector

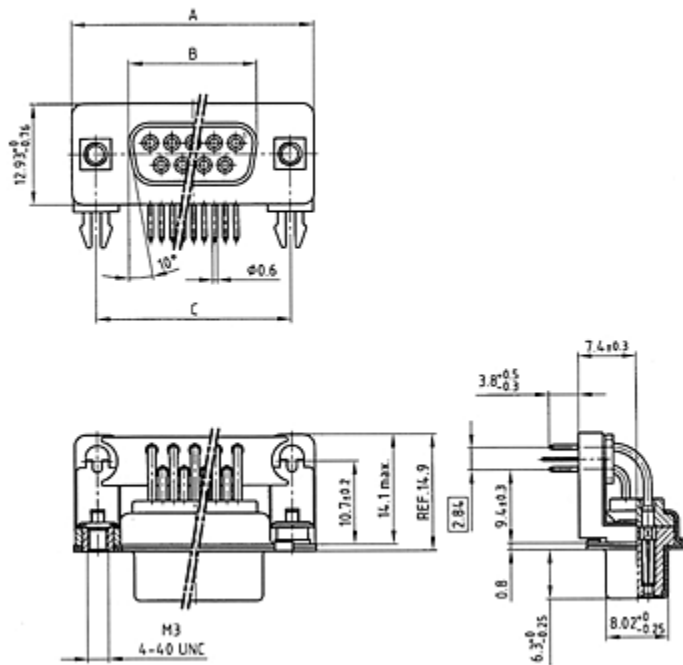
No. of pos.	A ^{-0,76}	B ^{+0,25}	C	D ^{-0,30}
09	31,19	16,79	25,00 ^{+0,12 - 0,13}	6,12
15	39,52	25,12	33,30 ^{+0,15 - 0,10}	6,12
25	53,42	38,84	47,04 ^{±0,13}	5,99
37	69,70	55,30	63,50 ^{±0,13}	5,99



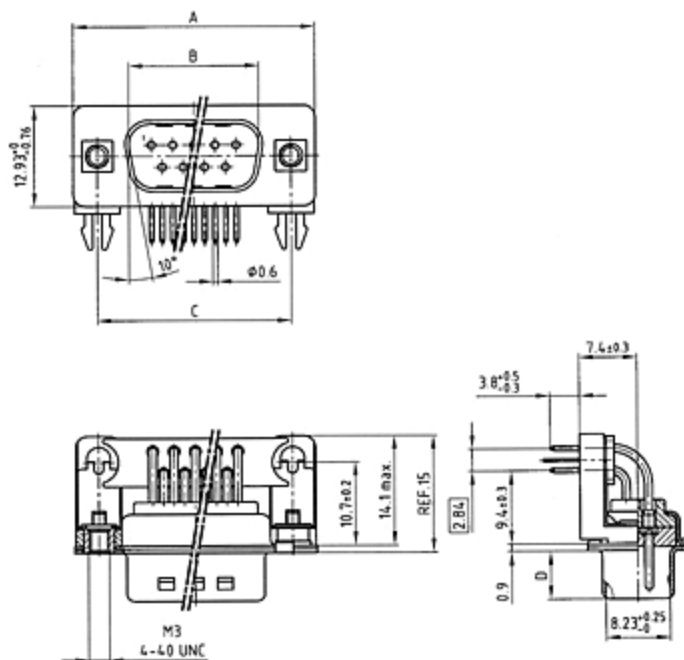
Solder pin angled .370"
with mounting bracket
threaded insert and grounding clip

Directive 2002/95/EC
"RoHS"
Compliant

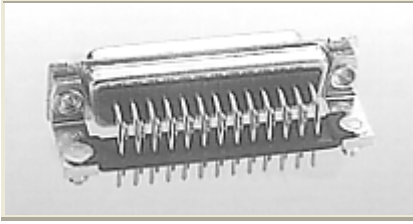
Socket connector



Plug connector



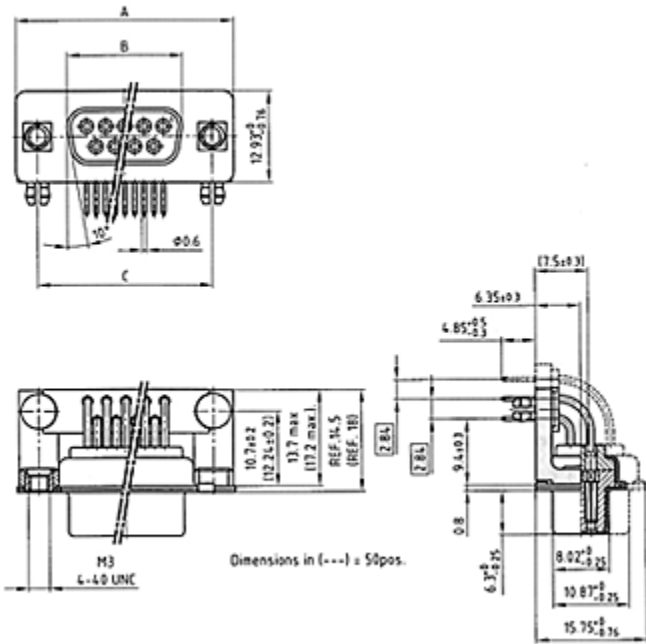
Socket Connector				
No. of pos.	A -0,76	B -0,25	C	
09	31,19	16,46	25,00 +0,12 - 0,13	
15	39,52	24,79	33,30 +0,15 - 0,10	
25	53,42	38,50	47,04 ±0,13	
37	69,70	54,96	63,50 ±0,13	
Plug Connector				
No. of pos.	A -0,76	B +0,25	C	D -0,30
09	31,19	16,79	25,00 +0,12 - 0,13	6,12
15	39,52	25,12	33,30 +0,15 - 0,10	6,12
25	53,42	38,84	47,04 ±0,13	5,99
37	69,70	55,30	63,50 ±0,13	5,99



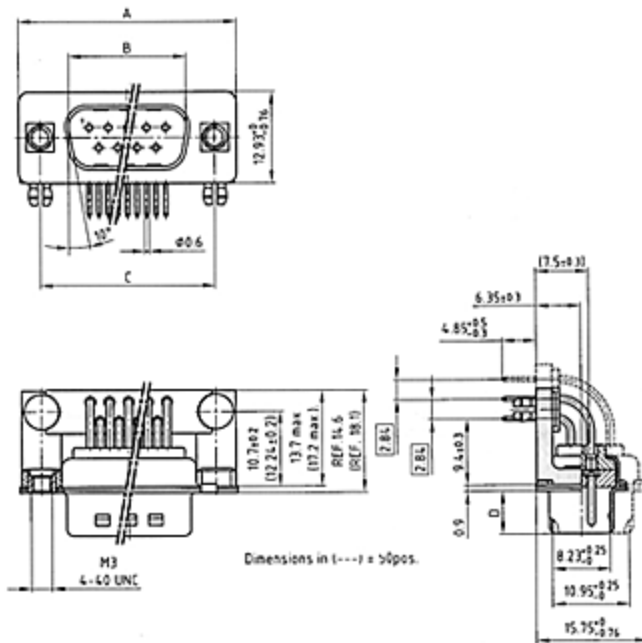
D-Sub Connector
 Solder pin angled .370"
 with metal bracket
 threaded insert and clip
 connector with flush bracket

Directive 2002/95/EC
 "RoHS"
 Compliant

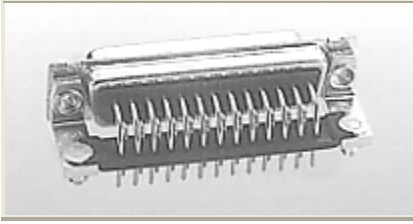
Socket connector



Plug connector



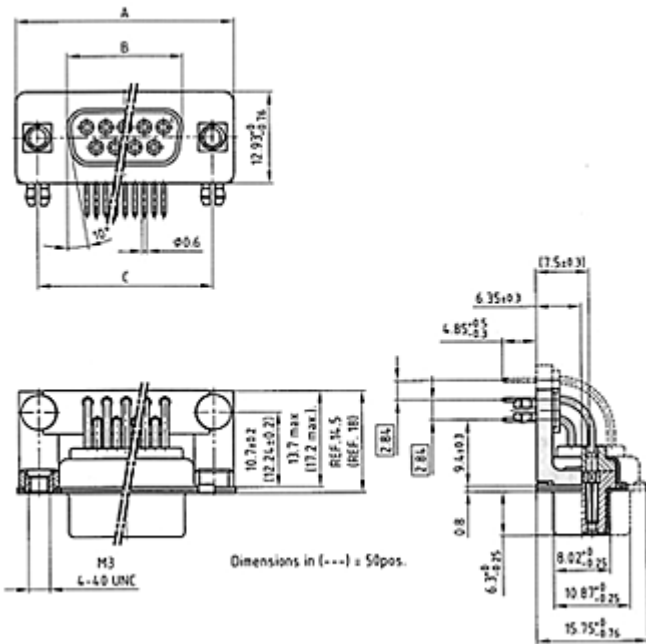
Socket Connector				
No. of pos.	A - 0,76	B - 0,25	C	
09	31,19	16,46	25,00 + 0,12 - 0,13	
15	39,52	24,79	33,30 + 0,15 - 0,10	
25	53,42	38,50	47,04 ± 0,13	
37	69,70	54,96	63,50 ± 0,13	
50	67,31	52,55	61,10 + 0,14 - 0,11	
Plug Connector				
No. of pos.	A - 0,76	B + 0,25	C	D - 0,30
09	31,19	16,79	25,00 + 0,12 - 0,13	6,12
15	39,52	25,12	33,30 + 0,15 - 0,10	6,12
25	53,42	38,84	47,04 ± 0,13	5,99
37	69,70	55,30	63,50 ± 0,13	5,99
50	67,31	52,68	61,10 + 0,14 - 0,11	5,99



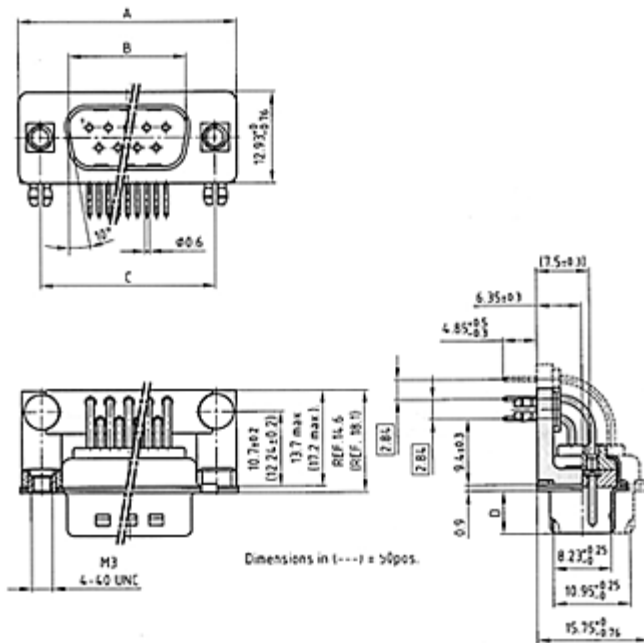
D-Sub Connector
 Solder pin angled .370"
 with metal bracket
 threaded insert and clip
 connector with flush bracket

Directive 2002/95/EC
 „RoHS“
 Compliant

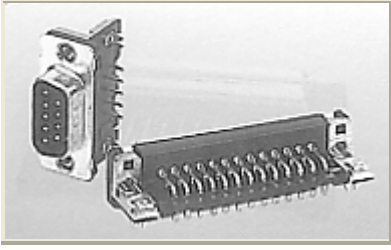
Socket connector



Plug connector



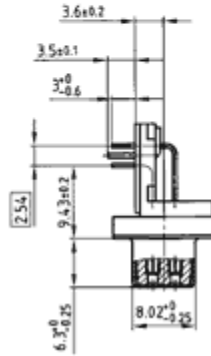
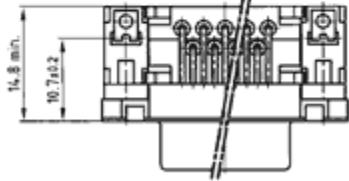
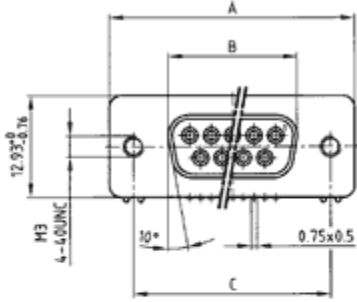
Socket Connector				
No. of pos.	A - 0,76	B - 0,25	C	
09	31,19	16,46	25,00 + 0,12 - 0,13	
15	39,52	24,79	33,30 + 0,15 - 0,10	
25	53,42	38,50	47,04 ± 0,13	
37	69,70	54,96	63,50 ± 0,13	
50	67,31	52,55	61,10 + 0,14 - 0,11	
Plug Connector				
No. of pos.	A - 0,76	B + 0,25	C	D - 0,30
09	31,19	16,79	25,00 + 0,12 - 0,13	6,12
15	39,52	25,12	33,30 + 0,15 - 0,10	6,12
25	53,42	38,84	47,04 ± 0,13	5,99
37	69,70	55,30	63,50 ± 0,13	5,99
50	67,31	52,68	61,10 + 0,14 - 0,11	5,99



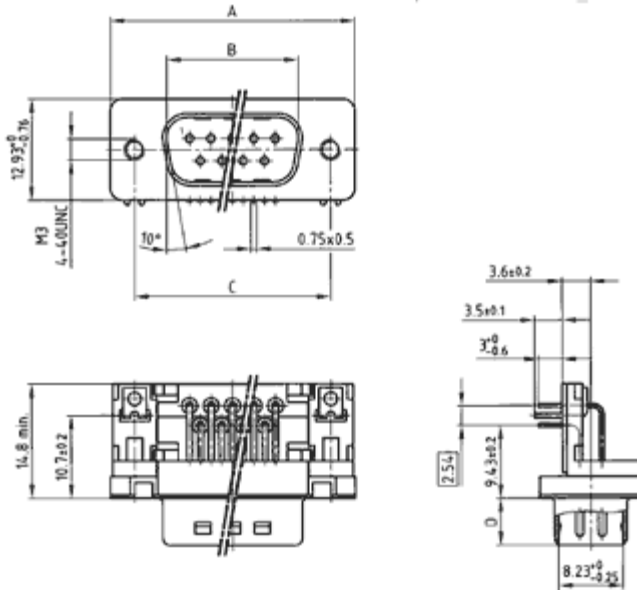
Socket connector

D-Sub Connector
Eurostyle
Solder pin angled
.370"
with metal bracket
threaded insert and
clip

Directive 2002/95/EC
"RoHS"
Compliant



Plug connector



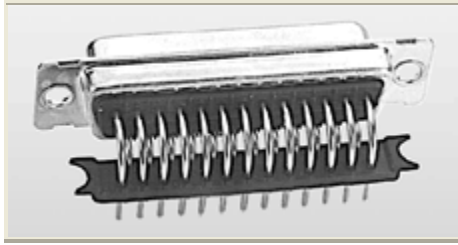
Note:
Pitch 2.54 mm

Socket Connector

No. of pos.	A -0,76	B -0,25	C
09	31,19	16,46	25,00 +0,12 - 0,13
15	39,52	24,79	33,30 +0,15 - 0,10
25	53,42	38,50	47,04 ±0,13
37	69,70	54,96	63,50 ±0,13

Plug Connector

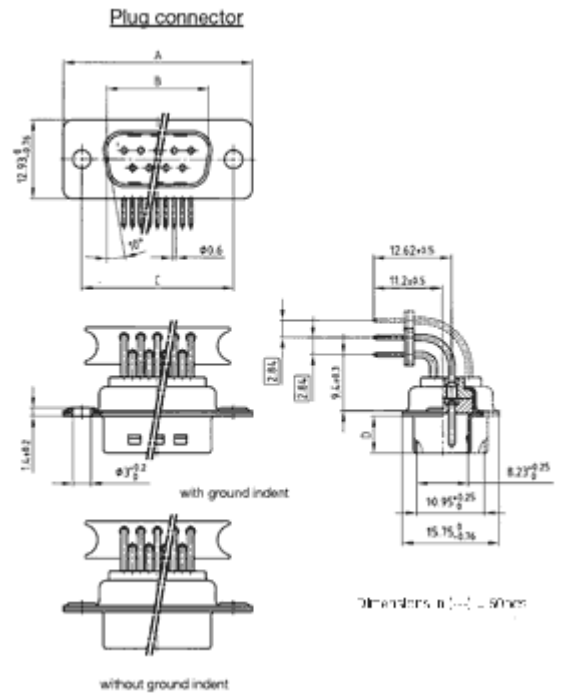
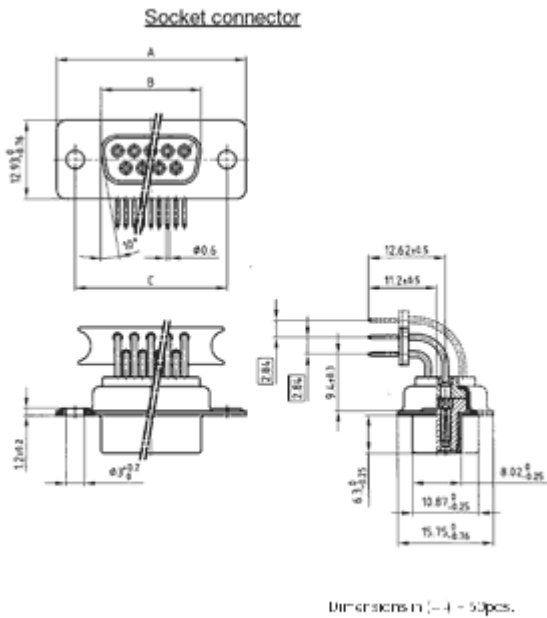
No. of pos.	A -0,76	B +0,25	C	D -0,30
09	31,19	16,79	25,00 +0,12 - 0,13	6,12
15	39,52	25,12	33,30 +0,15 - 0,10	6,12
25	53,42	38,84	47,04 ±0,13	5,99
37	69,70	55,30	63,50 ±0,13	5,99



D-Sub Connector
Solder pin angled .370"
with through hole

Directive 2002/95/EC
"RoHS"
Compliant

Note: Only tin-plated version
is RoHS compliant.



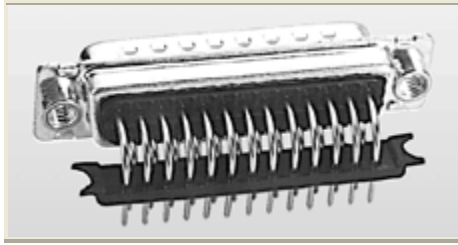
Socket connector:

No. of pos.	A -0,76	B-0,25	C
9	31,19	16,46	25,00 ^{+0,12} _{-0,13}
15	39,52	24,79	33,30 ^{+0,15} _{-0,10}
25	53,42	38,50	47,04 ^{±0,13}
37	69,70	54,96	63,50 ^{±0,13}

50	67,31	52,55	61,10 ^{+0,14} _{-0,11}
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Plug connector:

No. of pos.	A -0,76	B+0,25	C	D -0,30
9	31,19	16,79	25,00 ^{+0,12} _{-0,13}	6,12
15	39,52	25,12	33,30 ^{+0,15} _{-0,10}	6,12
25	53,42	38,84	47,04 ^{+0,13}	5,99
37	69,70	55,30	63,50 ^{+0,13}	5,99
50	67,31	52,68	61,10 ^{+0,14} _{-0,11}	5,99

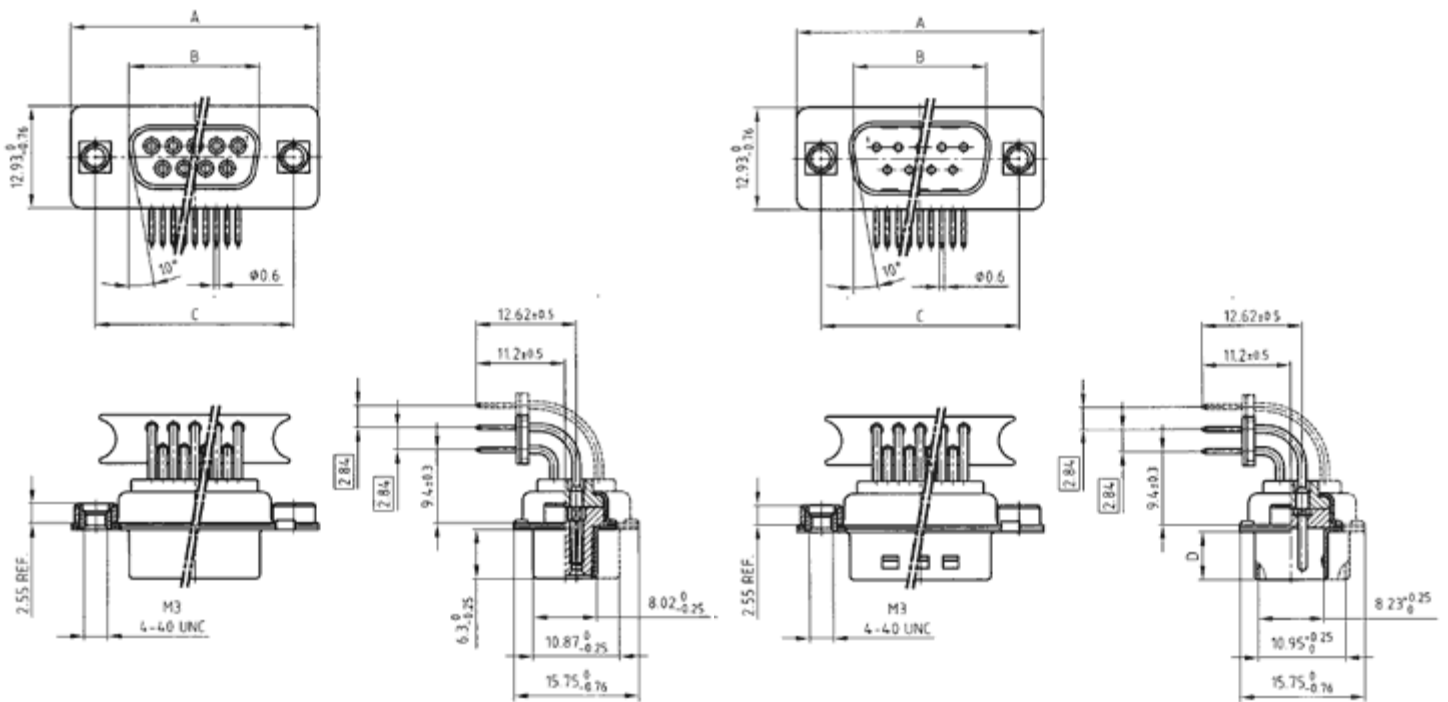


D-Sub Connector
Solder pin angled .370"
with threaded insert

Directive 2002/95/EC
"RoHS"
Compliant

Socket connector

Plug connector

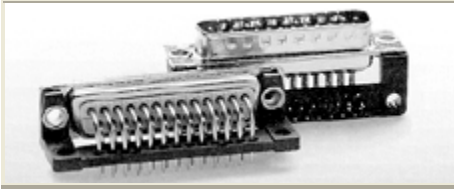


Socket connector:

No. of pos.	A -0,76	B-0,25	C
9	31,19	16,46	25,00 ^{+0,12} _{-0,13}
15	39,52	24,79	33,30 ^{+0,15} _{-0,10}
25	53,42	38,50	47,04 ^{+0,13}
37	69,70	54,96	63,50 ^{+0,13}
50	67,31	52,55	61,10 ^{+0,14} _{-0,11}

Plug connector:

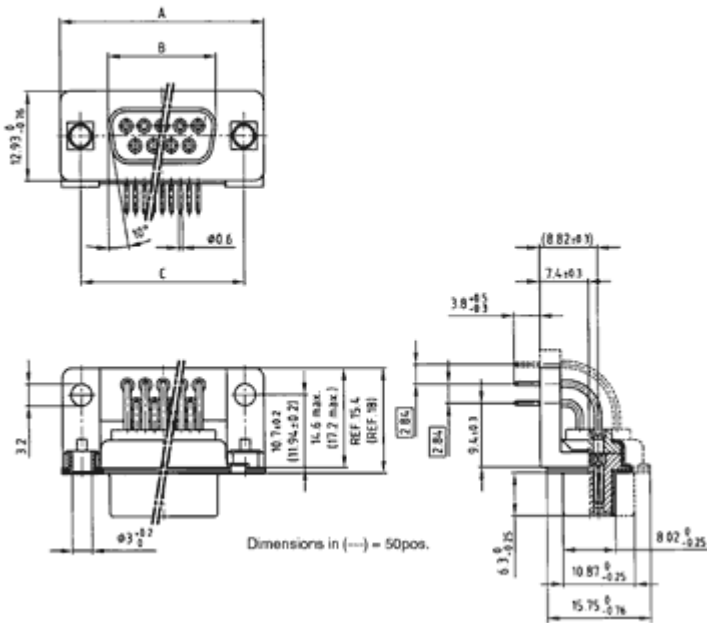
No. of pos.	A -0,76	B+0,25	C	D -0,30
9	31,19	16,79	25,00 ^{+0,12} _{-0,15}	6,12
15	39,52	25,12	33,30 ^{+0,15} _{-0,10}	6,12
25	53,42	38,84	47,04 ^{+0,13}	5,99
37	69,70	55,30	63,50 ^{+0,13}	5,99
50	67,31	52,68	61,10 ^{+0,14} _{-0,11}	5,99



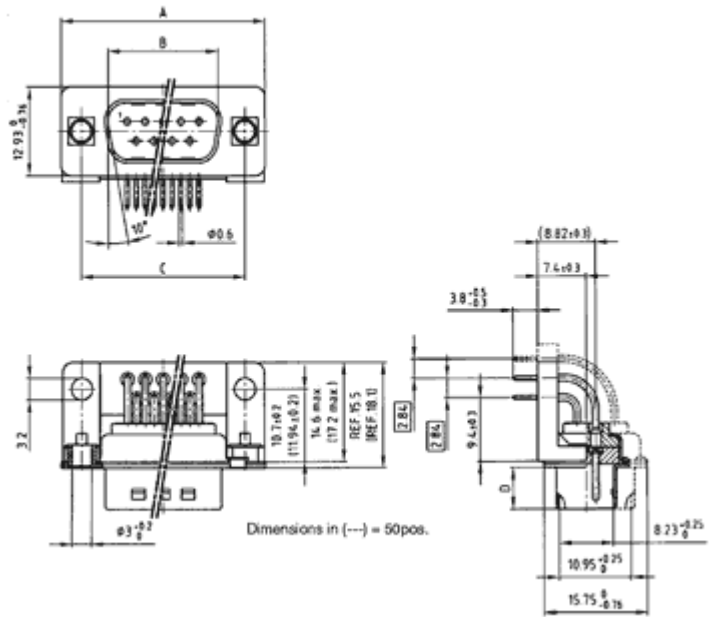
D-Sub Connector
Solder pin angled .370"
with mounting bracket
and through hole

Directive 2002/95/EC
„RoHS“
Compliant

Socket connector



Plug connector

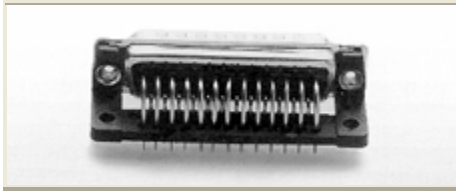


Socket connector:

No. of pos.	A -0,76	B-0,25	C
9	31,19	16,46	25,00 ^{+0,12} _{-0,13}
15	39,52	24,79	33,30 ^{+0,15} _{-0,10}
25	53,42	38,50	47,04 ^{±0,13}
37	69,70	54,96	63,50 ^{±0,13}
50	67,31	52,55	61,10 ^{+0,14} _{-0,11}

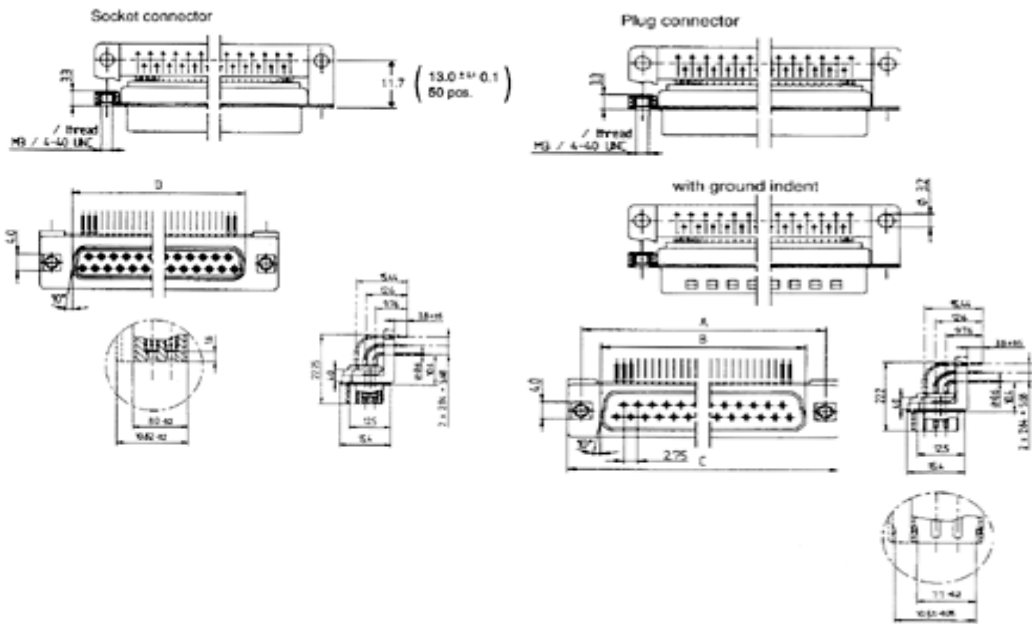
Plug connector:

No. of pos.	A -0,76	B+0,25	C	D -0,30
9	31,19	16,79	25,00 ^{+0,12} _{-0,13}	6,12
15	39,52	25,12	33,30 ^{+0,15} _{-0,10}	6,12
25	53,42	38,84	47,04 ^{±0,13}	5,99
37	69,70	55,30	63,50 ^{±0,13}	5,99
50	67,31	52,68	61,10 ^{+0,14} _{-0,11}	5,99



P.C. solder pin angled with threaded mounting brackets
.370

Directive 2002/95/EC
„RoHS“
Compliant



Socket connector:

No. of pos.	A -0,76	B-0,25	C
9	31,19	16,46	25,00 ^{+0,12} _{-0,13}
15	39,52	24,79	33,30 ^{+0,15} _{-0,10}
25	53,42	38,50	47,04 ^{+0,13}
37	69,70	54,96	63,50 ^{+0,13}
50	67,31	52,55	61,10 ^{+0,14} _{-0,11}

Plug connector:

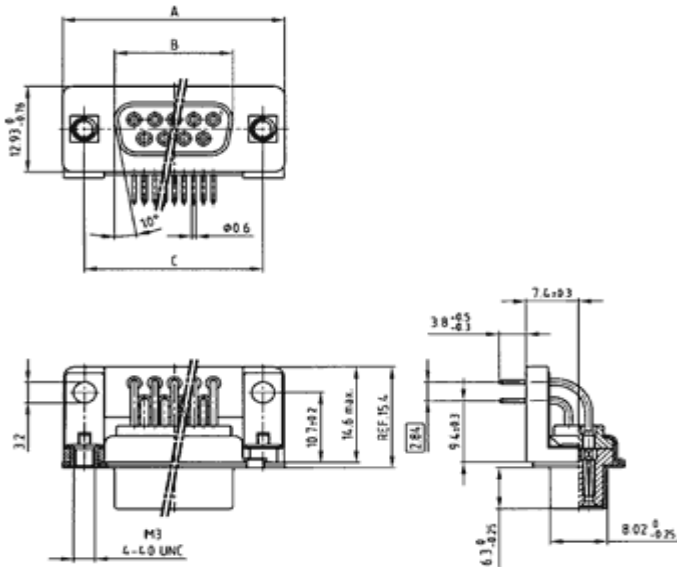
No. of pos.	A -0,76	B+0,25	C	D -0,30
9	31,19	16,79	25,00 ^{+0,12} _{-0,13}	6,12
15	39,52	25,12	33,30 ^{+0,15} _{-0,10}	6,12
25	53,42	38,84	47,04 ^{±0,13}	5,99
37	69,70	55,30	63,50 ^{±0,13}	5,99
50	67,31	52,68	61,10 ^{+0,14} _{-0,11}	5,99



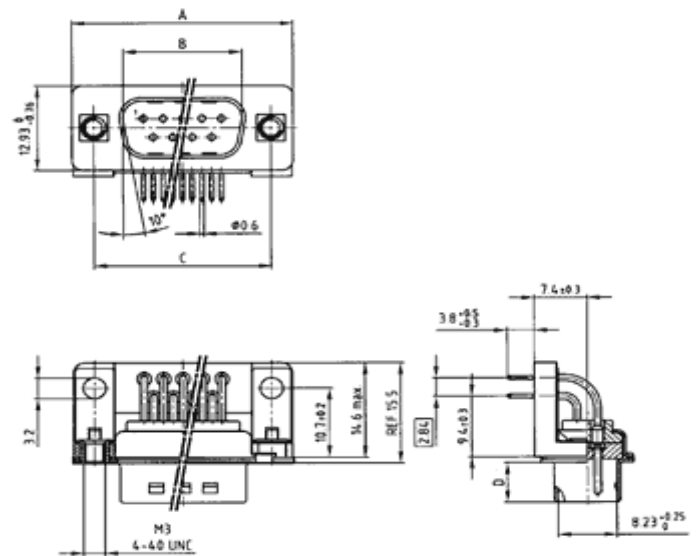
D-Sub Connector
Solder pin angled .370"
with mounting-,
grounding bracket
and threaded insert

Directive 2002/95/EC
„RoHS“
Compliant

Socket connector



Plug connector



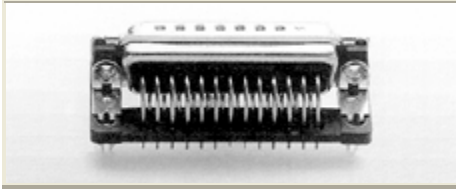
Socket connector:

No. of pos.	A -0,76	B-0,25	C
9	31,19	16,46	25,00 ^{+0,12} _{-0,13}
15	39,52	24,79	33,30 ^{+0,15} _{-0,10}
25	53,42	38,50	47,04 ^{+0,13}
37	69,70	54,96	63,50 ^{+0,13}

50	67,31	52,55	61,10 ^{+0,14} _{-0,11}
----	-------	-------	---

Plug connector:

No. of pos.	A -0,76	B+0,25	C	D -0,30
9	31,19	16,79	25,00 ^{+0,12} _{-0,13}	6,12
15	39,52	25,12	33,30 ^{+0,15} _{-0,10}	6,12
25	53,42	38,84	47,04 ^{+0,13}	5,99
37	69,70	55,30	63,50 ^{+0,13}	5,99
50	67,31	52,68	61,10 ^{+0,14} _{-0,11}	5,99

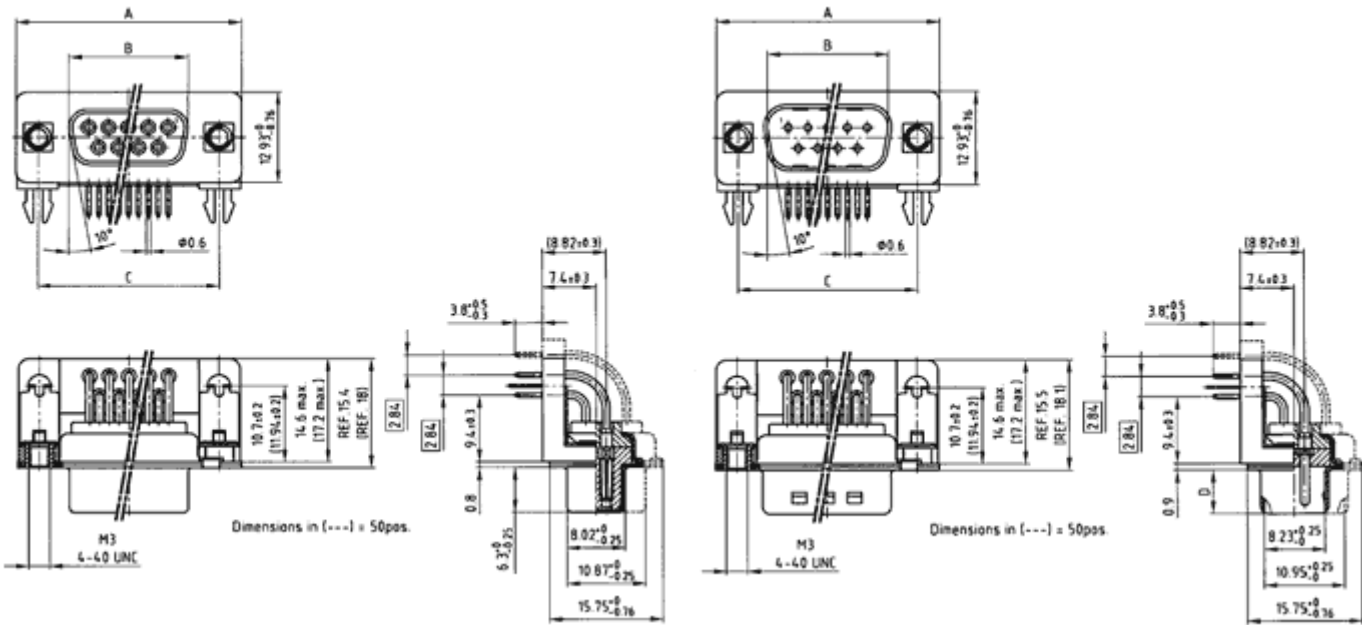


D-Sub Connector
 Solder pin angled .370"
 with mounting bracket,
 threaded insert and grounding clip

Directive 2002/95/EC
 "RoHS"
 Compliant

Socket connector

Plug connector



Socket connector:

No. of pos.	A -0,76	B-0,25	C
9	31,19	16,46	25,00 ^{+0,12} _{-0,13}
15	39,52	24,79	33,30 ^{+0,15} _{-0,10}
25	53,42	38,50	47,04 ^{±0,13}
37	69,70	54,96	63,50 ^{±0,13}

50	67,31	52,55	61,10 ^{+0,14} _{-0,11}
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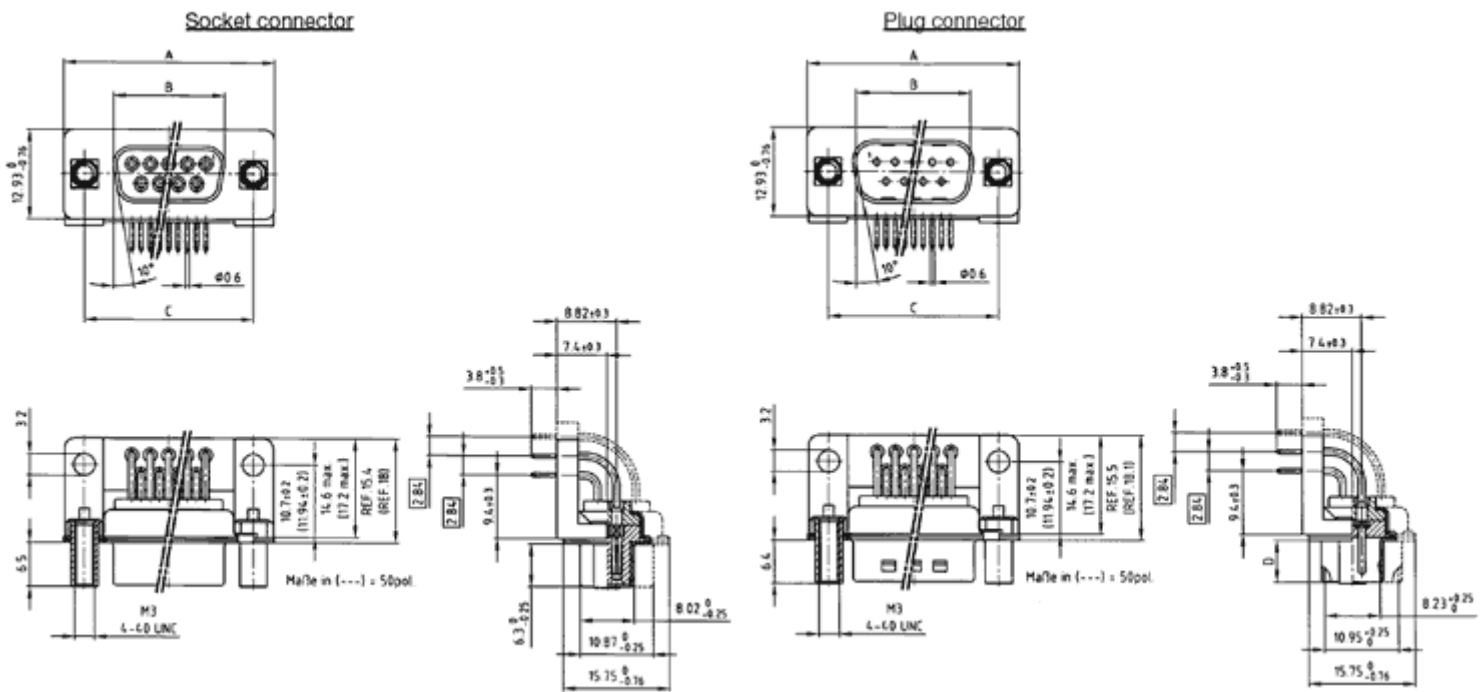
Plug connector:

No. of pos.	A -0,76	B+0,25	C	D -0,30
9	31,19	16,79	25,00 ^{+0,12} _{-0,13}	6,12
15	39,52	25,12	33,30 ^{+0,15} _{-0,10}	6,12
25	53,42	38,84	47,04 ^{±0,13}	5,99
37	69,70	55,30	63,50 ^{±0,13}	5,99
50	67,31	52,68	61,10 ^{+0,14} _{-0,11}	5,99



Solder pin angled .370" with mounting bracket and threaded lock

Directive 2002/95/EC
"RoHS"
Compliant



Socket connector:

No. of pos.	A -0,76	B-0,25	C
9	31,19	16,46	25,00 ^{+0,12} / _{-0,13}
15	39,52	24,79	33,30 ^{+0,15} / _{-0,10}
25	53,42	38,50	47,04 ^{+0,13}
37	69,70	54,96	63,50 ^{+0,13}
50	67,31	52,55	61,10 ^{+0,14} / _{-0,11}

Plug connector:

No. of pos.	A -0,76	B+0,25	C	D -0,30
9	31,19	16,79	25,00 ^{+0,12} _{-0,13}	6,12
15	39,52	25,12	33,30 ^{+0,15} _{-0,10}	6,12
25	53,42	38,84	47,04 ^{+0,13}	5,99
37	69,70	55,30	63,50 ^{+0,13}	5,99
50	67,31	52,68	61,10 ^{+0,14} _{-0,11}	5,99

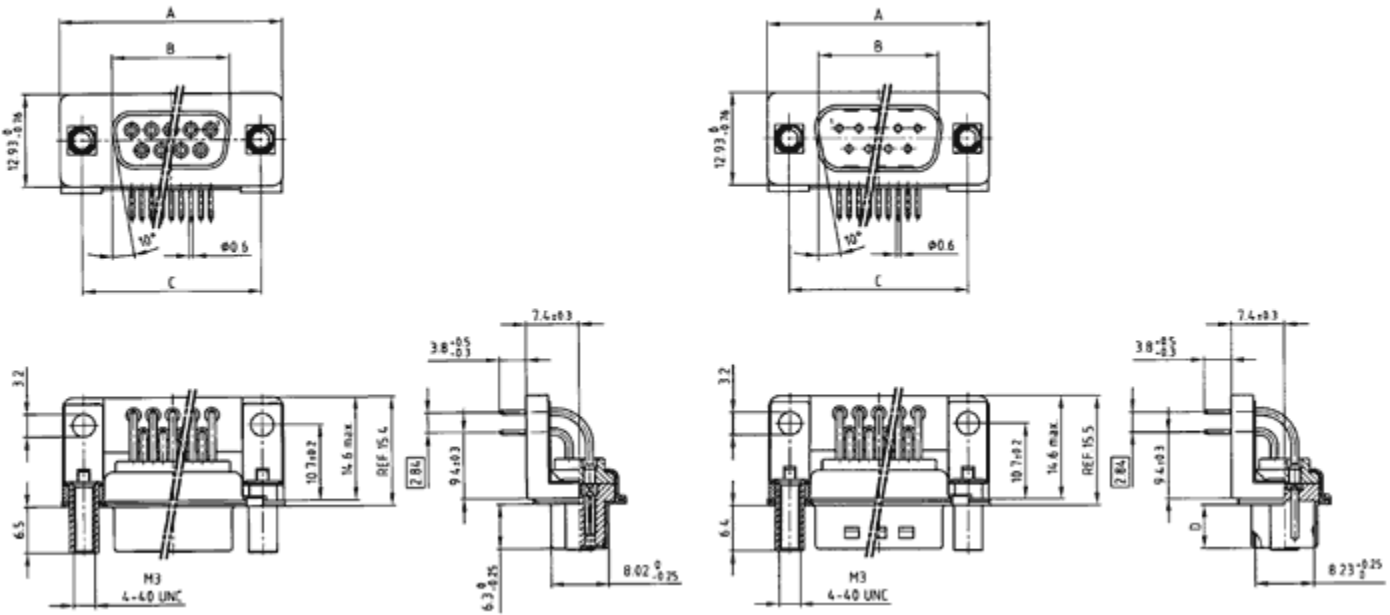


D-Sub Connector
Solder pin angled .370"
with mounting-,
grounding bracket
and threaded lock

Directive 2002/95/EC
"RoHS"
Compliant

Socket connector

Plug connector

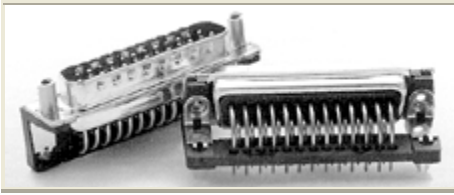


Socket connector:

No. of pos.	A -0,76	B-0,25	C
9	31,19	16,46	25,00 ^{+0,12} _{-0,13}
15	39,52	24,79	33,30 ^{+0,15} _{-0,10}
25	53,42	38,50	47,04 ^{±0,13}
37	69,70	54,96	63,50 ^{±0,13}
50	67,31	52,55	61,10 ^{+0,14} _{-0,11}

Plug connector:

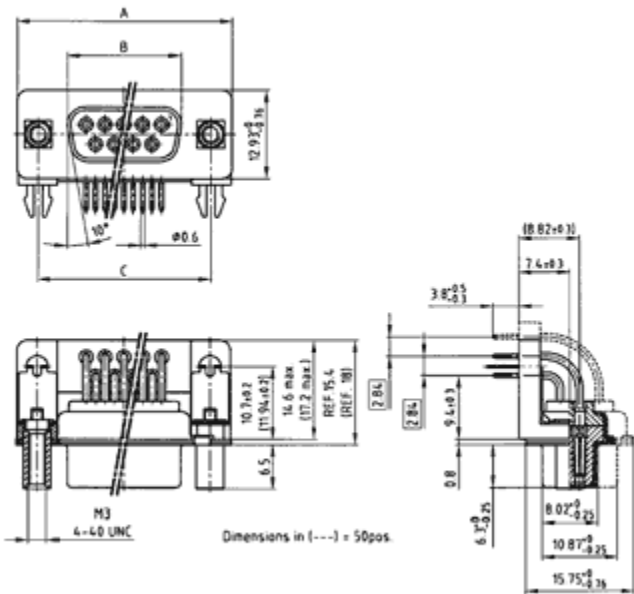
No. of pos.	A -0,76	B+0,25	C	D -0,30
9	31,19	16,79	25,00 ^{+0,12} _{-0,13}	6,12
15	39,52	25,12	33,30 ^{+0,15} _{-0,10}	6,12
25	53,42	38,84	47,04 ^{±0,13}	5,99
37	69,70	55,30	63,50 ^{±0,13}	5,99
50	67,31	52,68	61,10 ^{+0,14} _{-0,11}	5,99



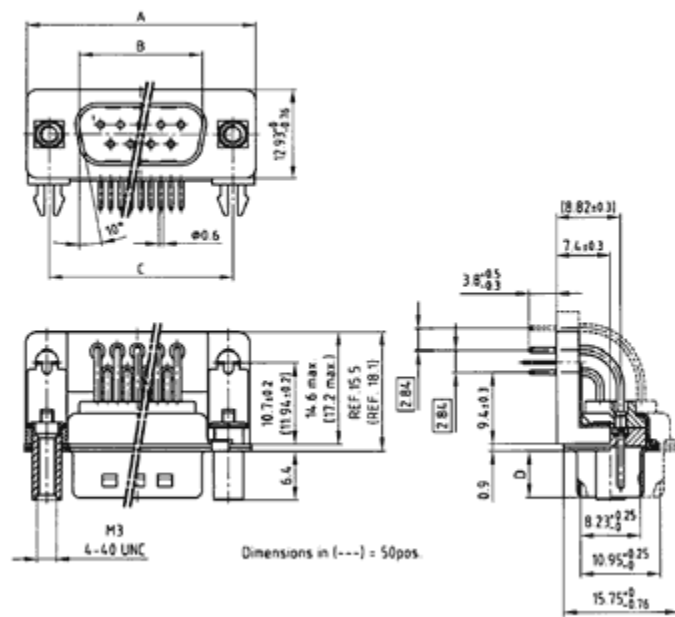
D-Sub Connector
Solder pin angled .370"
with mounting bracket,
threaded lock and grounding clip

Directive 2002/95/EC
"RoHS"
Compliant

Socket connector



Plug connector



Socket connector:

No. of pos.	A -0,76	B-0,25	C
9	31,19	16,46	25,00 ^{+0,12} _{-0,13}
15	39,52	24,79	33,30 ^{+0,15} _{-0,10}
25	53,42	38,50	47,04 ^{+0,13}
37	69,70	54,96	63,50 ^{+0,13}
50	67,31	52,55	61,10 ^{+0,14} _{-0,11}

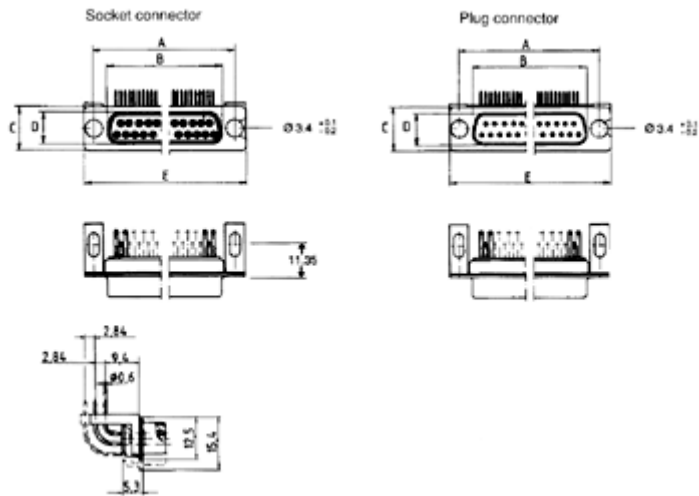
Plug connector:

No. of pos.	A -0,76	B+0,25	C	D -0,30
9	31,19	16,79	25,00 ^{+0,12} _{-0,13}	6,12
15	39,52	25,12	33,30 ^{+0,15} _{-0,10}	6,12
25	53,42	38,84	47,04 ^{±0,13}	5,99
37	69,70	55,30	63,50 ^{±0,13}	5,99
50	67,31	52,68	61,10 ^{+0,14} _{-0,11}	5,99



P.C. solder pin angled with rivetted mounting brackets
.370

Directive 2002/95/EC
"RoHS"
Compliant



No.of Pos.	A	B	C	D	E
9	25,0	16,41	12,5	8,0	30,8
15	33,3	24,74	12,5	8,0	39,1
25	47,0	38,51	12,5	8,0	53,0
37	63,5	54,94	12,5	8,0	69,3

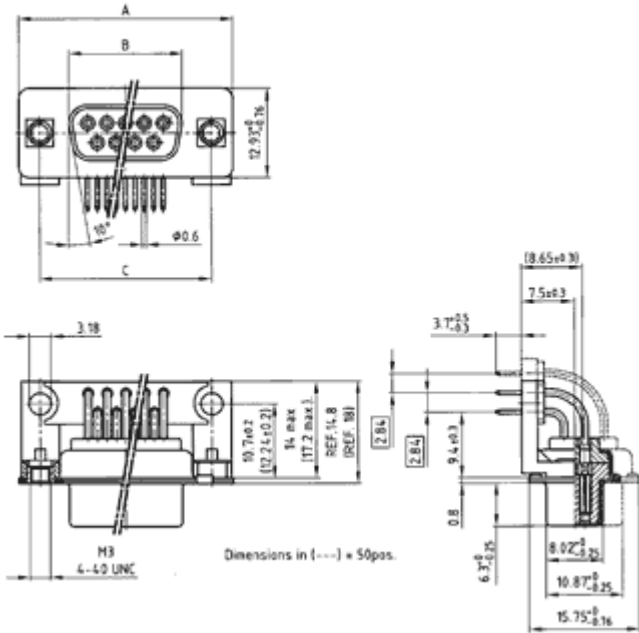
No.of Pos.	A	B	C	D	E
9	25,0	17,84	12,5	8,26	30,8
15	33,3	26,17	12,5	8,26	39,1
25	47,0	39,86	12,5	8,26	53,0
37	63,5	54,30	12,5	8,26	69,3



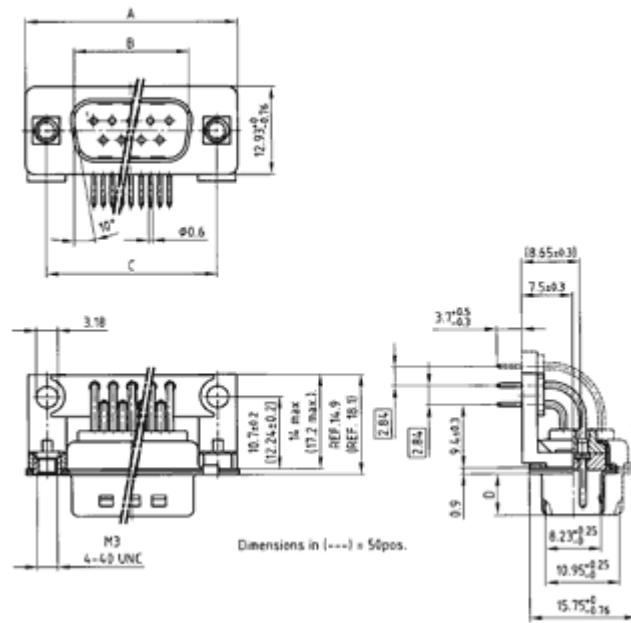
D-Sub Connector
Solder pin angled .370"
with metal bracket
and threaded insert

Directive 2002/95/EC
"RoHS"
Compliant

Socket connector



Plug connector



No. of Pos.	A	B	C	D	E
9	25,0	16,41	12,5	8,0	30,8
15	33,3	24,74	12,5	8,0	39,1
25	47,0	38,51	12,5	8,0	53,0
37	63,5	54,94	12,5	8,0	69,3

No.of Pos.	A	B	C	D	E
9	25,0	17,84	12,5	8,26	30,8
15	33,3	26,17	12,5	8,26	39,1
25	47,0	39,86	12,5	8,26	53,0
37	63,5	54,30	12,5	8,26	69,3

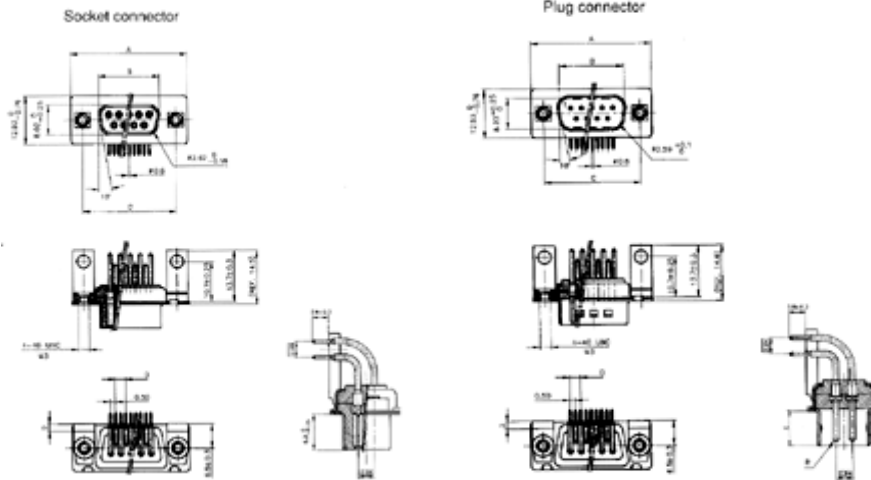
Plug connector:

No. of pos.	A -0,76	B+0,25	C	D -0,30
9	31,19	16,79	25,00 ^{+0,12} _{-0,13}	6,12
15	39,52	25,12	33,30 ^{+0,15} _{-0,10}	6,12
25	53,42	38,84	47,04 ^{±0,13}	5,99
37	69,70	55,30	63,50 ^{±0,13}	5,99
50	67,31	52,68	61,10 ^{+0,14} _{-0,11}	5,99



P.C. solder pin angled with riveted metal brackets
 smaller version: connector with metal bracket flush
 .370

Directive 2002/95/EC
 „RoHS“
 Compliant



Socket connector:

No. of pos.	A -0,76	B-0,25	C
9	31,19	16,46	25,00 ^{+0,12} _{-0,13}
15	39,52	24,79	33,30 ^{+0,15} _{-0,10}
25	53,42	38,50	47,04 ^{+0,13}
37	69,70	54,96	63,50 ^{+0,13}
50	67,31	52,55	61,10 ^{+0,14} _{-0,11}

Plug connector:

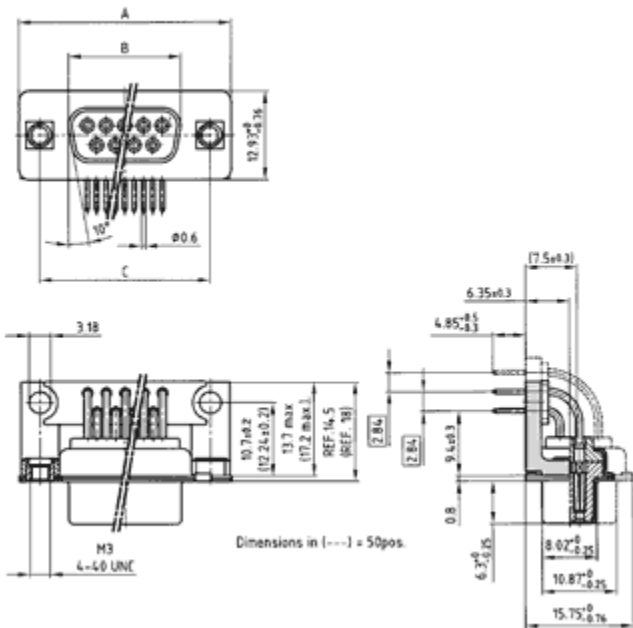
No. of pos.	A -0,76	B+0,25	C	D -0,30
9	31,19	16,79	25,00 ^{+0,12} _{-0,13}	6,12
15	39,52	25,12	33,30 ^{+0,15} _{-0,10}	6,12
25	53,42	38,84	47,04 ^{+0,13}	5,99
37	69,70	55,30	63,50 ^{+0,13}	5,99
50	67,31	52,68	61,10 ^{+0,14} _{-0,11}	5,99



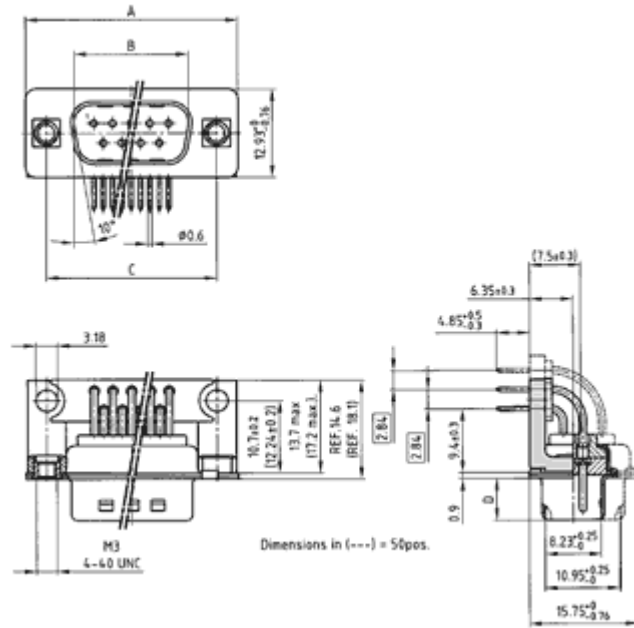
D-Sub Connector
Solder pin angled .370"
with metal bracket
and threaded insert
connector with flush bracket

Directive 2002/95/EC
„RoHS“
Compliant

Socket connector



Plug connector



Socket connector:

No. of pos.	A -0,76	B-0,25	C
9	31,19	16,46	25,00 ^{+0,12} _{-0,13}
15	39,52	24,79	33,30 ^{+0,15} _{-0,10}
25	53,42	38,50	47,04 ^{±0,13}
37	69,70	54,96	63,50 ^{±0,13}
50	67,31	52,55	61,10 ^{+0,14} _{-0,11}

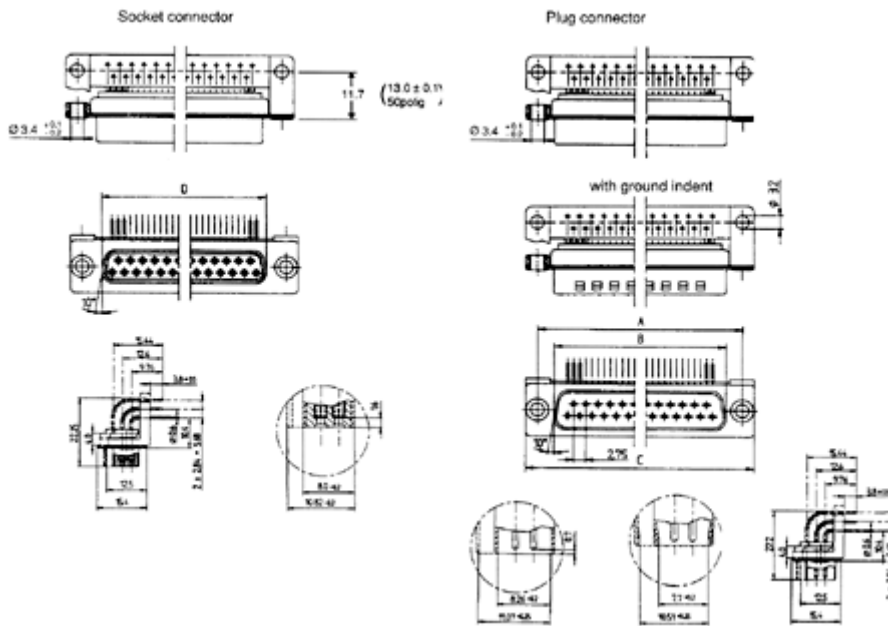
Plug connector:

No. of pos.	A -0,76	B+0,25	C	D -0,30
9	31,19	16,79	25,00 ^{+0,12} _{-0,13}	6,12
15	39,52	25,12	33,30 ^{+0,15} _{-0,10}	6,12
25	53,42	38,84	47,04 ^{+0,13}	5,99
37	69,70	55,30	63,50 ^{+0,13}	5,99
50	67,31	52,68	61,10 ^{+0,14} _{-0,11}	5,99



P.C. solder pin angled stamped contacts with riveted mounting bracket .370

Directive 2002/95/EC
 „RoHS“
 Compliant

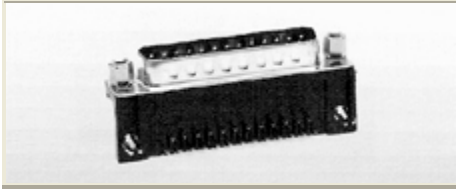


Socket connector:

No. of pos.	A -0,76	B-0,25	C
9	31,19	16,46	25,00 ^{+0,12} _{-0,13}
15	39,52	24,79	33,30 ^{+0,15} _{-0,10}
25	53,42	38,50	47,04 ^{±0,13}
37	69,70	54,96	63,50 ^{±0,13}
50	67,31	52,55	61,10 ^{+0,14} _{-0,11}

Plug connector:

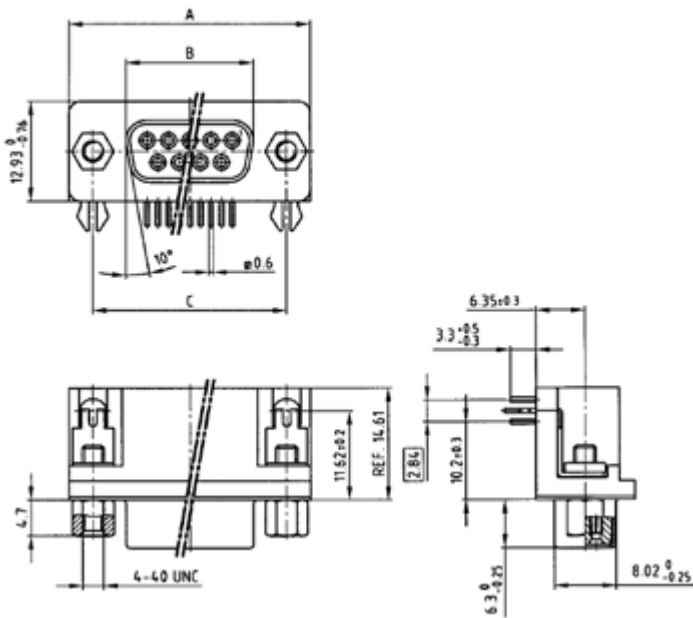
No. of pos.	A -0,76	B+0,25	C	D -0,30
9	31,19	16,79	25,00 ^{+0,12} _{-0,13}	6,12
15	39,52	25,12	33,30 ^{+0,15} _{-0,10}	6,12
25	53,42	38,84	47,04 ^{+0,13}	5,99
37	69,70	55,30	63,50 ^{+0,13}	5,99
50	67,31	52,68	61,10 ^{+0,14} _{-0,11}	5,99



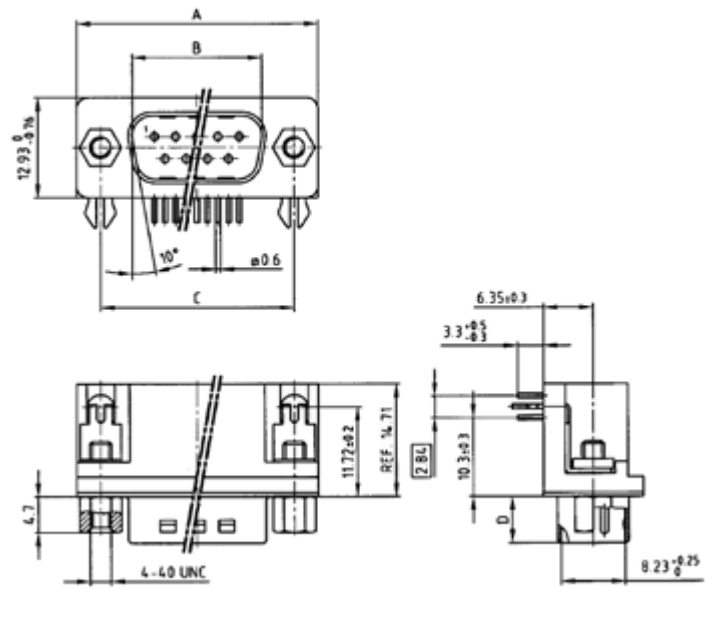
D-Sub Connector
 Solder pin angled .370"
stamped contacts
 with threaded lock and clip

Directive 2002/95/EC
 „RoHS“
 Compliant

Socket connector



Plug connector



Socket Connector

No. of pos.	A - 0,76	B - 0,25	C
09	31,19	16,46	25,00 + 0,12 - 0,13
15	39,52	24,79	33,30 + 0,15 - 0,10
25	53,42	38,50	47,04 ± 0,13
37	69,70	54,96	63,50 ± 0,13

Plug Connector

No. of pos.	A ^{-0,76}	B ^{+0,25}	C	D ^{-0,30}
09	31,19	16,79	25,00 ^{+0,12 - 0,13}	6,12
15	39,52	25,12	33,30 ^{+0,15 - 0,10}	6,12
25	53,42	38,84	47,04 ^{±0,13}	5,99
37	69,70	55,30	63,50 ^{±0,13}	5,99