Y-CIRC P CONNECTOR OVERVIEW

YAMAICHI ELECTRONICS

Connector Group	Cable Connectors						Wall Mounted Cable Connectors				Wall Mounted Connectors			Water Tight Wall Mounted Connectors		PCB Mounted Connectors			
Connector	Plugs				Sockets		Sockets				Sockets					Straight Sockets		90° Sockets	
Connector Type Digit	PR	PB	AR	AB	SR	SB	WR	WB	WK	WJ	WA	WC	WD	IA	ID	WG	WH	WE	WI
Connector Type	Cable Plug with Backnut for Bend Relief	Cable Plug with Standard Backnut	Angled Cable Plug with Back Nut for Bend Relief	Angled Cable Plug with Standard Back Nut	Cable Socket with Backnut for Bend Relief	Cable Socket with Standard Backnut	Wall Mounted Cable Socket with Backnut for Bend Relief	Wall Mounted Cable Socket with Standard Backnut	Wall Mounted Cable Socket Backward Mounted with Back Nut for Bend Relief	Wall Mounted Cable Socket Backward Mounted with Standard Back Nut	Standard wall Mounted Socket - Front Mounting	Wall Mounted Socket - Front and Backward Mounting	Wall Mounted Socket - Backward Mounting	Water Tight Wall Mounted Socket, Front Mounting	Water Tight Wall Mounted Socket, Backward Mounting	Straight PCB Mounted Socket with Threat and Front Nut	Straight PCB Mounted Socket without Thread	Angled PCB Mounted Socket with Thread and Front Nut	Angled PCB Mounted Socket without Thread
Available Series	B (IP50) | S (IP50) | T (IP68)																		
Application	Connector to be mounted at a cable		Angled connector to be mounted at a cable	Angled connector to be mounted at a cable	Connector to be mounted at a cable	Connector to be mounted at a cable	Connector to be mounted at a cable and a wall	Connector to be mounted at a cable and a wall	Connector to be mounted at a cable and a wall	Connector to be mounted at a cable and a wall	Socket to be fixed at the housing	Socket to be fixed at the housing	Socket to be fixed at the housing	Socket to be fixed at the housing	Socket to be fixed at the housing	PCB Mounting	PCB Mounting	Angled PCB Mounting	Angled PCB Mounting
	Fixation of a bend relief in different colors		Fixation of a bend relief in different colors		Fixation of a Bend relief in different colors		Fixation of a Bend relief in different colors		Fixation of a bend relief in different colors		Different contact types possible	Different contact types possible	Different contact types possible	Different contact types possible	Different contact types possible	Fixation with screws at PCB	Fixation with screws at PCB	Fixation with screws or Solder Pins at PCB	Fixation with screws or Solder Pins at PCB
Available Sizes 09	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ –	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ –	– – ✓	– – ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ ✓	✓ – ✓	✓ – ✓	✓ – –	✓ – –	✓ 🛠 –	✓ 🛠 –
Available Sizes 12	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ –	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ –	– – ✓	– – ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ ✓	✓ – ✓	✓ – ✓	✓ – –	✓ – –	✓ 🛠 –	✓ 🛠 –
Available Sizes 15	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ –	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ –	– – ✓	– – ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ ✓	✓ – ✓	✓ – ✓	✓ – –	✓ – –	✓ – –	✓ – –
Available Sizes 18	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ –	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ –	– – ✓	– – ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ ✓	✓ – ✓	✓ – ✓	✓ – –	✓ – –	✓ – –	✓ – –
Specialties	In average 20% shorter than competition	In average 20% shorter than competition	8 adjustable cable exit directions	8 adjustable cable exit directions	In average 20% shorter than competition	In average 20% shorter than competition	In average 20% shorter than competition	In average 20% shorter than competition	In average 20% shorter than competition	In average 20% shorter than competition	In average 20% shorter than competition	In average 20% shorter than competition	In average 20% shorter than competition	Optional ground pin available	Optional ground pin available	For length adjustment addition of hex nut possible		Metal housing for good shielding	Metal housing for good shielding
	Red dot as label and marking	Red dot as label and marking	Red dot as label and marking	Red dot as label and marking	Red dot as label and marking	Red dot as label and marking	Red dot as label and marking	Red dot as label and marking	Red dot as label and marking	Red dot as label and marking	Size 09, 12 and 15 same length possible	Size 09, 12 and 15 same length possible	Size 09, 12 and 15 same length possible	Size 18 with flat nut	Size 18 with flat nut				
	Poka Yoke assembly	Poka Yoke assembly	Poka Yoke assembly	Poka Yoke assembly	Poka Yoke assembly	Poka Yoke assembly	Poka Yoke assembly	Poka Yoke assembly	Poka Yoke assembly	Poka Yoke assembly	Size 18 with flat nut	Size 18 with flat nut	IP68 unmated	IP68 unmated					
	Rotation protection of insulator and collet	Rotation protection of insulator and collet	Easy assembly due to 2-peace elbow part	Easy assembly due to 2-peace elbow part	Rotation protection of insulator and collet	Rotation protection of insulator and collet	Rotation protection of insulator and collet	Rotation protection of insulator and collet	Rotation protection of insulator and collet	Rotation protection of insulator and collet									
	Patented half shell design	Patented half shell design	Patented half shell design	Patented half shell design	Patented half shell design	Patented half shell design	Patented half shell design	Patented half shell design	Patented half shell design	Patented half shell design									
Contacts Solder	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ –	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ –	– – ✓	– – ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ ✓	✓ – ✓	✓ – ✓	– – –	– – –	– – –	– – –
Contacts Crimp	✓ – –	✓ – –	✓ – –	✓ – –	✓ – –	✓ – –	✓ – –	✓ – –	– – ✓	– – ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ ✓	✓ – ✓	✓ – ✓	– – –	– – –	– – –	– – –
Contacts Print	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – ✓	– – ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ ✓	✓ – ✓	✓ – ✓	✓ – –	✓ – –	✓ 🛠 –	✓ 🛠 –
Contacts Print 90°	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	✓ ✓ ✓	✓ ✓ –	✓ ✓ ✓	– – –	– – –	– – –	– – –	– – –	– – –
Optional Accessory Bend Relief	✓ ✓ ✓	– – –	✓ ✓ –	– – –	✓ ✓ ✓	– – –	✓ ✓ –	– – –	– – ✓	– – ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ ✓	– – –	– – –	– – –	– – –	– – –	– – –
Optional Accessory Colour Coding Washers	– – –	– – –	– – –	– – –	– – –	– – –	✓ ✓ –	✓ ✓ –	– – ✓	– – ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ ✓	– – –	– – –	✓ ✓ –	– – –	✓ ✓ –	– – –
Optional Accessory Solder Tag	– – –	– – –	– – –	– – –	– – –	– – –	✓ ✓ –	✓ ✓ –	– – ✓	– – ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ ✓	– – –	– – –	– – –	– – –	– – –	– – –
Optional Accessory Locking Washer	– – –	– – –	– – –	– – –	– – –	– – –	✓ ✓ –	✓ ✓ –	– – ✓	– – ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ ✓	– – –	– – –	✓ ✓ –	– – –	✓ ✓ –	– – –
Optional Accessory Protection Cap	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ –	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ –	– – ✓	– – ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ ✓	✓ – ✓	✓ – ✓	✓ – –	✓ – –	✓ – –	✓ – –
Optional Accessory Protection Cover	✓ ✓ –	✓ ✓ –	✓ ✓ –	✓ ✓ –	✓ ✓ ✓	✓ ✓ ✓	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –
Optional Accessory Lanyard	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ –	✓ ✓ ✓	✓ ✓ ✓	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –	– – –
Optional Accessory Transport Caps	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ –	✓ ✓ –	✓ ✓ ✓	✓ ✓ ✓	– – –	– – –	– – –	– – –	✓ ✓ ✓	✓ ✓ –	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ – –	✓ – –	✓ – –	✓ – –

✓ Available | – Not available/Not possible | 🛠 Under construction

Y-CIRC P CONNECTOR SERIES

B - Series / B - Serie

Various keyings via housing	*Unterschiedliche Kodierungen über das Gehäuse*
IP50 classification (connected condition)	*IP50 Klassifizierung (gesteckter Zustand)*
Rugged metal housing	*Robustes Metallgehäuse*
360° EMI shielding	*360° EMV Schirmung*
Multiple contact variations available	*Verschiedene Kontaktvarianten verfügbar*
Operating temperature - 40°C to +120°C	*Betriebstemperatur - 40°C to +120°C*
Mating Cycles: >5,000	*Steckzyklen: >5.000*

S - Series / S - Serie

Keying via hermaphrodit insulators	*Kodierung über hermaphrodite Isolatoren*
IP50 classification (connected condition)	*IP50 Schutzklasse (im gesteckten Zustand)*
Rugged metal housing	*Robustes Metallgehäuse*
360° EMI shielding	*360° EMV Schirmung*
Multiple contact variations available	*Verschiedene Kontaktvarianten verfügbar*
Operating temperature - 40°C to +120°C	*Betriebstemperatur - 40°C to +120°C*
Mating Cycles: >5,000	*Steckzyklen: >5.000*

T - Series / T - Serie

Various keyings via housing	*Unterschiedliche Kodierungen über das Gehäuse*
IP68 classification (connected condition)	*IP68 Klassifizierung (gesteckter Zustand)*
Rugged metal housing	*Robustes Metallgehäuse*
360° EMI shielding	*360° EMV Schirmung*
Multiple contact variations available	*Verschiedene Kontaktvarianten verfügbar*
Operating temperature - 20°C to +120°C	*Betriebstemperatur - 20°C to +120°C*
Mating Cycles: >5,000	*Steckzyklen: >5.000*

Y-CIRC P CONFIGURATOR

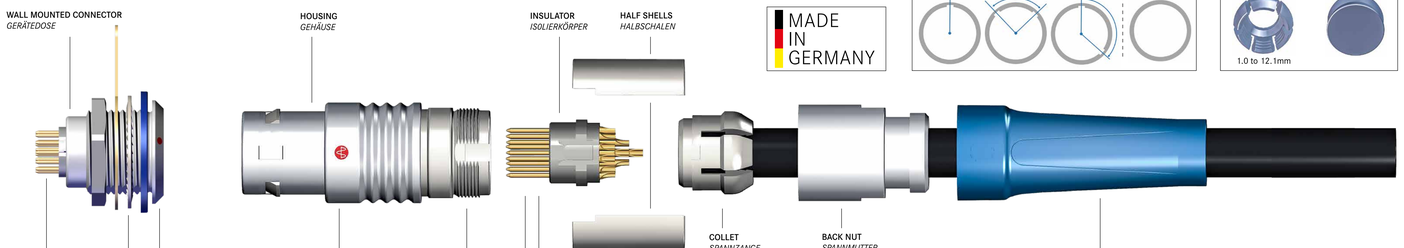
Use our configurator for perfect matches: configurator.yamaichi.de ▶▶

Y-CIRC P CIRCULAR CONNECTOR PARTS

MADE IN GERMANY

KEYING SYSTEM / *KODIERSYSTEM*
B/T-Series - Various Types
B/T-Serie - Verschiedene Typen
S-Series - None
S-Serie - Keine

CABLE DIAMETER / *KABELDURCHMESSER*
Various types
Verschiedene Typen
End collet
Abschluss-Spannzange
1.0 to 12.1mm



CONTACT TYPES / *KONTAKTTYP*
90° Print / 90° *PCB-Lötkontakte*
Print / *PCB-Lötkontakte*
Solder / *Lötkontakte*
Crimp / *Crimpkontakte*

HOUSING SURFACE /*GEHÄUSEOBERFLÄCHE*
Chrome / *Chrom*
Black Chrome / *Schwarzchrom*

WALL MOUNTED CONNECTORS / *GERÄTEDOSEN*
Front Mounting
Fronteinbau
Front/Backward Mounting
Front/Rückseitiger Einbau
Backward Mounting
Rückseitiger Einbau

CONTACT TYPES / *KONTAKTTYP*
Solder / *Lötkontakt*
Crimp / *Crimpkontakte*

PIN COUNTS / *POLZAHL*
B / T-Series - 2 to 32
B / T-Serie - 2 bis 32
S-Series - 2 to 18
S-Serie - 2 bis 18

ACCESSORIES / *ZUBEHÖR*
Cap for Sockets
Schutzkappe für Dosen
Cap for Sockets
Schutzkappe für Dosen
Cap for Plugs
Schutzkappe für Kabelstecker
Lanyard
Entriegelungshilfe
Protection Cover
Schutzabdeckung
Transport Cap
Transportkappe
Colour Coding Washers
Various Colours
Farbcodierringe verschiedene Farben
Locking Washer
Fächerscheibe
Solder Tag
Lötfahne

CABLE CONNECTORS / *KABELSTECKVERBINDER*
Cable Plugs
Kabelstecker
Cable Plug 90°
Kabelstecker 90°
Cable Sockets
Kabeldosen
Wall Mounted Cable Sockets
Geräte-Kabeldosen

BEND RELIEFS
KNICKSCHUTZTÜLLEN
Various Colours
Verschiedene Farben

90°PCB-SOCKETS
90°PCB-DOSEN

SPEED SELECTION TABLE / SCHNELL AUSWAHL

MAX. CURRENT RATING / MAX. BEMESSUNGSSTROM

Pin Count / *Polzahl*	Max. Current Rating [A] / *Nennstrom [A]*							
	Size / *Größe*							
	S-Series / *S-Serie*				B/T-Series / *B/T-Serie*			
	09	12	15	18	09	12	15	18
02	10.0	15.0	20.0	23.0	4.5 to 10.0	4.5 to 15.0	12.0 to 25.0	36.0
03	7.0	10.0	15.0	20.0	4.5 to 8.0	4.5 to 12.0	12.0 to 17.0	25.0
04	7.0	10.0	15.0	18.0	4.5 to 7.0	4.5 to 10.0	12.0 to 15.0	19.0
05	-	10.0	15.0	-	4.5 to 6.5	4.5 to 9.0	12.0 to 14.0	19.0
06	2.5	7.0	13.0	14.0	2.5	4.5 to 7.0	12.0	17.0
07	-	-	12.0	12.0	2.0 to 2.5	2.0 to 7.0	11.0	15.0
08	-	-	9.0	10.0	-	2.0 to 6.0	6.0 to 10.0	13.0
09	-	-	-	-	1.5 to 2.0	-	-	-
10	-	-	7.0	9.0	-	1.5 to 2.5	6.0 to 8.0	12.0
12	-	-	-	8.0	-	-	6.0 to 7.0	9.0
13	-	-	-	8.0	-	-	-	-
14	-	-	-	7.0	-	2.0	6.0 to 6.5	8.0 to 9.0
16	-	-	-	7.0	-	1.5	6.0	8.0
18	-	-	-	6.0	-	-	5.5	7.0
19	-	-	-	-	-	-	5.0	-
20	-	-	-	-	-	-	-	6.0
22	-	-	-	-	-	-	-	5.5
24	-	-	-	-	-	-	-	4.0
26	-	-	-	-	-	2.0 to 2.0		4.0
30	-	-	-	-	-	-	-	3.5
32	-	-	-	-	-	-	1.5	-
E8	-	-	-	-	-	5.0	7.0	-
40	-	-	-	-	-	-	-	0.5

CABLE DIAMETER Ø mm
KABEL DURCHMESSER Ø mm

Series / *Serie*	Size / *Größe*	Bend Relief Backnut Min. Ø	Bend Relief Backnut Max. Ø	Standard Backnut Min. Ø	Standard Backnut Max. Ø
B/S	09	2.5	5.3	1	5.6
	12	2.5	7.1	2	7.6
	15	3	10.1	2	10.1
	18	4	12.1	4	12.1
T	09	2.5	5.1	2.5	5.1
	12	2.5	6.6	2.5	6.6
	15	3.5	8.6	3.5	8.6
	18	4.5	10.6	4.5	10.6

MAX. CURRENT FOR CONDUCTORS*
MAX. BEMESSUNGSSTROM FÜR LEITER*

Nominal cross section [mm²] *Aderquerschnitt [mm²]*	Max. Current rating for multiconductor cables* *Max. Strombelastbarkeit für Mehradrige Leitungen**
4.00	34A
2.50	26A
1.50	18A
1.00	15A
0.50	9A
0.34	6A
0.25	4A
0.15	2A
0.09	1A

*IEC60°C Ambient temperature (according DIN VDE 0100-part 430 and 0298-part 4)
**IEC60°C Umgebungstemperatur (nach DIN VDE 0100-teil 430 und 0298-teil 4)

AWG TO mm² CONVERSION
AWG IN mm² UMRECHNUNG

AWG M	Metric [mm²]
AWG 12	4.00
AWG 14	2.50
AWG 16	1.50
AWG 18	1.00
AWG 20	0.50
AWG 22	0.34
AWG 24	0.25
AWG 26	0.15
AWG 28	0.09
AWG 32	0.04

WIRE CROSS SECTION / ADERQUERSCHNITT

Series / *Serie*	Contact type/ *Kontakttyp*	Size / *Größe*	Max. Wire Cross Section [mm²]/Print Diameter [mm] / *Max. Aderquerschnitt [mm²]/Max. Anschlussdurchmesser [mm]* — Pin Count / *Polzahl*																					
			02	03	04	05	06	07	08	09	10	12	13	14	16	18	19	20	22	24	26	30	32	E8	40
B/T	Crimp	09	0.5	0.5	0.34	0.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		12	1	1	0.5	0.5	0.34	0.34	0.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		15	2.5	1.5	1	1	1	1	0.5	-	0.5	0.34	-	0.34	0.34	0.34	0.34	-	-	-	-	-	-	0.34	
		18	-	2.5	2.5	1.5	1.5	1.5	1	-	1	0.5	-	0.5	0.5	0.5	-	0.34	0.34	0.34	0.34	0.34	-	-	
	Solder	09	0.34	0.34	0.34	0.34	0.09	0.09	-	0.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		12	0.5	0.5	0.34	0.34	0.34	0.34	0.34	-	0.09	-	-	0.09	0.09	-	-	-	-	-	-	-	-	0.09	
		15	1.5	1	0.5	0.5	0.5	0.5	0.34	-	0.34	0.34	-	0.34	0.34	0.34	0.34	-	-	-	0.09	-	-	0.34	
		18	4	1.5	1.5	1	1	1	0.5	-	0.5	0.34	-	0.34	0.34	0.34	-	0.34	0.34	0.34	0.34	0.34	0.34	-	0.25
	Print (IBO®)	09	0.7	0.7	0.7	0.7	0.5	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		12	0.7	0.7	0.7	0.7	0.7	0.7	-	0.5	-	-	-	0.5	0.5	-	-	-	-	-	-	-	0.5	0.5	
		15	0.7	0.7	0.7	0.7	0.7	0.7	-	0.7	0.7	-	-	0.7	0.7	0.7	0.7	-	-	-	0.5	-	0.7	0.5	
		18	-	0.7	0.7	0.7	0.7	0.7	-	0.7	0.7	-	-	0.7	0.7	0.7	-	0.7	0.7	0.7	0.7	0.7	-	-	
	Print (SO®)	09	0.6	0.6	0.6	0.6	0.6	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		12	0.8	0.8	0.6	0.6	0.6	0.6	-	0.6	-	-	-	0.6	0.6	-	-	-	-	-	-	-	-	-	
		15	0.8	0.8	0.8	0.8	0.8	0.6	-	0.6	0.6	-	-	0.6	0.6	0.6	0.6	-	-	-	-	-	-	-	
		18	-	-	0.8	-	0.8	-	0.8	-	0.8	0.6	-	0.6	0.6	0.6	-	0.6	-	0.6	0.6	0.6	-	-	
S	Solder	09	0.34	0.34	0.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		12	0.5	0.34	0.34	0.34	0.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		15	1	0.5	0.5	0.5	0.5	0.5	0.34	-	0.34	-	-	-	-	-	-	-	-	-	-	-	-	-	
		18	1.5	1.5	1.5	-	0.5	0.5	0.5	-	0.5	0.34	0.34	0.34	0.34	0.34	-	-	-	-	-	-	-	-	
	Print	09	0.7	0.7	0.7	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		12	0.7	0.7	0.7	0.7	0.7	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		15	0.7	0.7	0.7	0.7	0.7	0.7	0.7	-	0.7	0.7	0.7	0.7	0.7	0.7	-	-	-	-	-	-	-	-	
		18	0.7	0.7	0.7	-	0.7	0.7	0.7	-	0.7	0.7	0.7	0.7	0.7	0.7	-	-	-	-	-	-	-	-	