



#### General ordering data

Order No.	1639190000
Part designation	BL 3.5/20/90F SN OR
Version	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 20, 90°, Box
EAN	4008190276737
Qty.	20 pc(s).

#### System parameters

Conductor connection system	Clamping yoke connection
Outgoing direction of conductor	90°
Pitch	3.5 mm
Pitch in inch	0.138 inch
No. of poles	20
No. of rows	1
Screwdriver blade	0.4 x 2.5
Screwdriver blade standard	DIN 5264
Tightening torque, min.	0.2
Tightening torque, max.	0.25 Nm
Clamping screw	M 2
Stripping length	6 mm
L1 in mm	66.5 mm
L1 in inch	2.618 inch
Electric shock protection to DIN VDE 0470	IP 20
Electric shock protection to DIN VDE 0470	Safe from finger touch

#### Material data

Insulating material	PBT
Colour	orange
colour chart	Similar to RAL 2000
Insulating material group	IIIa
Flammability class UL 94	V-0
CTI	>= 200

#### Material data

Contact base material	Copper alloy
Contact surface	tinned

#### Connectable conductors

Clamping range, min.	0.08 mm <sup>2</sup>
Clamping range, max.	1.5 mm <sup>2</sup>
AWG, min.	14
AWG, max.	28
Solid, min. H05(07) V-U	0.2 mm <sup>2</sup>
Solid, max. H05(07) V-U	1.5 mm <sup>2</sup>
Flexible, min. H05(07) V-K	0.2 mm <sup>2</sup>
Flexible, max. H05(07) V-K	1.5 mm <sup>2</sup>
With wire end ferrule, acc. to DIN 46 228/1, min.	0.2 mm <sup>2</sup>
With wire end ferrule, acc. to DIN 46 228/1, max.	1.5 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.2 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, max.	1.5 mm <sup>2</sup>
Gauge to EN 60999 a x b; ø	2.4 mm x 1.5 mm;

#### DIN IEC rating data

Rated current, min. No. pins (Tu=20°C)	12 A
Rated current, max. No. pins (Tu=20°C)	10 A
Rated current, min. No. pins (Tu=40°C)	10 A
Rated current, max. No. pins (Tu=40°C)	8 A
Rated voltage for overvoltage class/pollution severity II/2	320 V
Rated voltage for overvoltage class/pollution severity III/2	160 V
Rated voltage for overvoltage class/pollution severity III/3	160 V
Rated impulse withstand voltage for overvoltage class/pollution severity II/2	2.5 kV
Rated impulse withstand voltage for overvoltage class/pollution severity III/2	2.5 kV
Rated impulse withstand voltage for overvoltage class/pollution severity III/3	2.5 kV
Short-time withstand current resistance	3 x 1s with 100 A

#### CSA rating data

Rated voltage (Use group D)	300 V
Rated current (Use group D)	10 A
AWG conductor (field wiring), min.	28
AWG conductor (field wiring), max.	14

#### UL 1059 rating data

Rated voltage (Use group D)	300 V
Rated current (Use group D)	8 A
AWG conductor, min.	28
AWG conductor, max.	14

### Approvals

Approvals institutes



### Classifications

ETIM 2.0	NK
ETIM 3.0	EC001284
eClass 4.1	27-26-07-01
eClass 5.0	27-26-07-01
eClass 5.1	27-26-07-04

### Similar products

Order No.	Part designation	Version
1639010000	BL 3.5/2/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 2, 90°, Box
1639240000	BL 3.5/2/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 2, 90°, Box
1639020000	BL 3.5/3/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 3, 90°, Box
1639250000	BL 3.5/3/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 3, 90°, Box
1639030000	BL 3.5/4/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 4, 90°, Box
1639260000	BL 3.5/4/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 4, 90°, Box
1639040000	BL 3.5/5/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 5, 90°, Box
1639270000	BL 3.5/5/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 5, 90°, Box
1639050000	BL 3.5/6/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 6, 90°, Box
1639280000	BL 3.5/6/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 6, 90°, Box
1639060000	BL 3.5/7/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 7, 90°, Box

1639290000	BL 3.5/7/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 7, 90°, Box
1639070000	BL 3.5/8/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 8, 90°, Box
1639300000	BL 3.5/8/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 8, 90°, Box
1639080000	BL 3.5/9/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 9, 90°, Box
1639310000	BL 3.5/9/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 9, 90°, Box
1639090000	BL 3.5/10/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 10, 90°, Box
1639320000	BL 3.5/10/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 10, 90°, Box
1639100000	BL 3.5/11/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 11, 90°, Box
1639330000	BL 3.5/11/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 11, 90°, Box
1639110000	BL 3.5/12/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 12, 90°, Box
1639340000	BL 3.5/12/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 12, 90°, Box
1639120000	BL 3.5/13/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 13, 90°, Box
1639350000	BL 3.5/13/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 13, 90°, Box
1639130000	BL 3.5/14/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 14, 90°, Box
1639360000	BL 3.5/14/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 14, 90°, Box
1639140000	BL 3.5/15/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 15, 90°, Box
1639370000	BL 3.5/15/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 15, 90°, Box

1639150000	BL 3.5/16/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 16, 90°, Box
1639380000	BL 3.5/16/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 16, 90°, Box
1639160000	BL 3.5/17/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 17, 90°, Box
1639390000	BL 3.5/17/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 17, 90°, Box
1639170000	BL 3.5/18/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 18, 90°, Box
1639400000	BL 3.5/18/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 18, 90°, Box
1639180000	BL 3.5/19/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 19, 90°, Box
1639410000	BL 3.5/19/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 19, 90°, Box
1639420000	BL 3.5/20/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 20, 90°, Box
1639200000	BL 3.5/21/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 21, 90°, Box
1639430000	BL 3.5/21/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 21, 90°, Box
1639210000	BL 3.5/22/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 22, 90°, Box
1639440000	BL 3.5/22/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 22, 90°, Box
1639220000	BL 3.5/23/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 23, 90°, Box
1639450000	BL 3.5/23/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 23, 90°, Box
1639230000	BL 3.5/24/90F SN OR	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 24, 90°, Box
1639460000	BL 3.5/24/90F SN SW	PCB plug-in connector, Female connectors, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Pitch: 3.50 mm, No. of poles: 24, 90°, Box