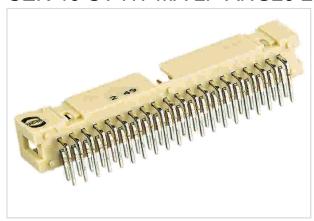


# SEK-19 SV HT MA LP ANG29 20P PLS4



Part number	09 19 520 5323
Specification	SEK-19 SV HT MA LP ANG29 20P PLS4
HARTING eCatalogue	https://b2b.harting.com/09195205323

Image is for illustration purposes only. Please refer to product description.

## Identification

Category	Connectors
Series	SEK Low-profile
Element	Male connector
Description of the contact	Angled

#### Version

Termination method	Reflow soldering termination (THR)
Connection type	PCB to cable Motherboard to daughtercard
Number of contacts	20
Termination length	2.9 mm

#### Technical characteristics

Contact rows	2
Contact spacing (termination side)	2.54 mm
Rated current	1 A
Insulation resistance	>10 <sup>9</sup> Ω
Contact resistance	≤20 mΩ
Limiting temperature	-55 +125 °C (during reflow soldering max. +240 °C for 60 s)
Insertion and withdrawal force	≤40 N
Performance level	NM 30 (S4)
Mating cycles	≥250
Test voltage U <sub>r.m.s.</sub>	1 kV



## Technical characteristics

Isolation group	II (400 ≤ CTI < 600)

# Material properties

Material (insert)       Thermoplastic resin (PCT)         Colour (insert)       Beige         Material (contacts)       Copper alloy         Surface (contacts)       Noble metal over Ni Mating side         Surface (contacts)       ≥0.76 μm         Layer thickness       ≥30 μinch         Material flammability class acc. to UL 94       V-0         RoHS       compliant         ELV status       compliant         China RoHS       e         REACH Annex XVII substances       No         REACH ANNEX XIV substances       No         REACH SVHC substances       No         California Proposition 65 substances       Yes         California Proposition 65 substances       Nickel Lead		
Material (contacts)       Copper alloy         Surface (contacts)       Noble metal over Ni Mating side         Sn over Ni Termination side         Layer thickness       ≥0.76 μm         Layer thickness       ≥30 μinch         Material flammability class acc. to UL 94       V-0         ROHS       compliant         ELV status       compliant         China ROHS       e         REACH Annex XVII substances       No         REACH ANNEX XIV substances       No         REACH SVHC substances       No         California Proposition 65 substances       Yes         Nickel	Material (insert)	Thermoplastic resin (PCT)
Surface (contacts)  Noble metal over Ni Mating side Sn over Ni Termination side  Layer thickness  ≥0.76 μm  Layer thickness  ≥30 μinch  Material flammability class acc. to UL 94  V-0  RoHS  compliant  ELV status  compliant  China RoHS  e  REACH Annex XVII substances  No  REACH ANNEX XIV substances  No  REACH SVHC substances  No  California Proposition 65 substances  Nickel	Colour (insert)	Beige
Surrace (contacts)  Sn over Ni Termination side  Layer thickness  ≥0.76 μm  Layer thickness  ≥30 μinch  Material flammability class acc. to UL 94  V-0  RoHS  compliant  ELV status  compliant  China RoHS  e  REACH Annex XVII substances  No  REACH ANNEX XIV substances  No  REACH SVHC substances  No  California Proposition 65 substances  Nickel	Material (contacts)	Copper alloy
Layer thickness ≥30 μinch   Material flammability class acc. to UL 94 V-0   RoHS compliant   ELV status compliant   China RoHS e   REACH Annex XVII substances No   REACH ANNEX XIV substances No   REACH SVHC substances No   California Proposition 65 substances Yes   California Proposition 65 substances Nickel	Surface (contacts)	
Material flammability class acc. to UL 94  RoHS  compliant  ELV status  China RoHS  e  REACH Annex XVII substances  No  REACH ANNEX XIV substances  No  REACH SVHC substances  No  California Proposition 65 substances  Nickel	Layer thickness	≥0.76 µm
RoHS compliant  ELV status compliant  China RoHS e  REACH Annex XVII substances No  REACH ANNEX XIV substances No  REACH SVHC substances No  California Proposition 65 substances Yes  Nickel	Layer thickness	≥30 µinch
ELV status compliant  China RoHS e  REACH Annex XVII substances No  REACH ANNEX XIV substances No  REACH SVHC substances No  California Proposition 65 substances Yes  Nickel	Material flammability class acc. to UL 94	V-0
China RoHS e  REACH Annex XVII substances No  REACH ANNEX XIV substances No  REACH SVHC substances No  California Proposition 65 substances Yes  Nickel	RoHS	compliant
REACH Annex XVII substances  REACH ANNEX XIV substances  No  REACH SVHC substances  No  California Proposition 65 substances  Nickel  Nickel	ELV status	compliant
REACH ANNEX XIV substances  No  REACH SVHC substances  No  California Proposition 65 substances  Ves  Nickel	China RoHS	е
REACH SVHC substances  California Proposition 65 substances  Ves  Nickel	REACH Annex XVII substances	No
California Proposition 65 substances  Yes  Nickel	REACH ANNEX XIV substances	No
California Proposition 65 substances	REACH SVHC substances	No
California Proposition 65 substances	California Proposition 65 substances	Yes
	California Proposition 65 substances	

## Specifications and approvals

Specifications	IEC 60603-13
UL / CSA	UL 1977 ECBT2.E102079 CSA-C22.2 No. 182.3 ECBT8.E102079

# Commercial data

Packaging size	100
Net weight	4.36 g
Country of origin	Romania
European customs tariff number	85366990
eCl@ss	27460201 PCB connector (board connector)



#### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Temperature raise
- ② Derating curve
- 3 Derating curve 80%

#### Cross section of solder termination

