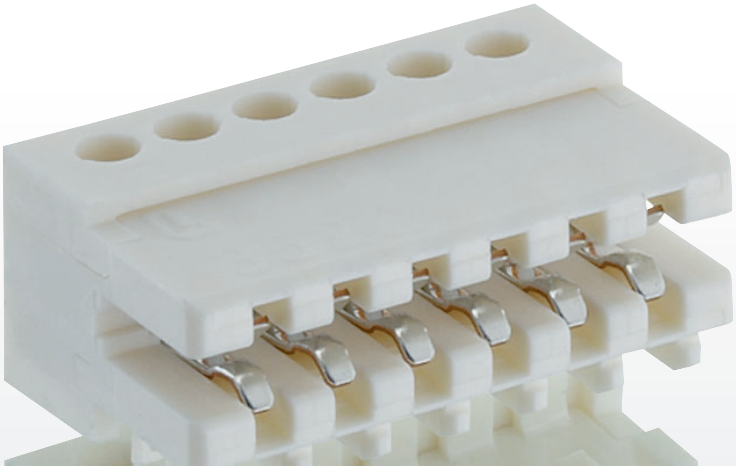
Lumberg

passion for connections



System Overview

RAST 2.5

Lumberg
passion for connections

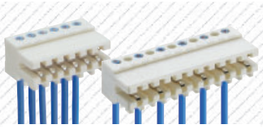
Series 35

RAST 2.5 connectors

pitch 2.5 mm (0.098“)
pitch 5.0 mm (0.197“)

Direct and indirect mating, for cable-to-board and cable-to-cable-connections, insulation displacement technology. Keying according to RAST 2.5 standard avoids mismating.

For signal and load currents up to 6 A, RAST 2.5. Power connectors up to 10 A.



3520 · 3521 · 3522 · 3523

RAST 2.5 connectors for direct and indirect mating, insulation displacement technology

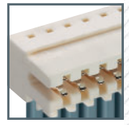
3521, 3523 for exterior locking
3520, 3522 with interior locking (locking and keying by means of guide frame or pin header)

mating with printed circuit board 1.5 ± 0.14 mm (by means of guide frame 350...) or pin headers 354..., 355..., 8354...

352...-1 · 352...-2

RAST 2.5 connectors for direct and indirect mating, insulation displacement technology

details on the left (352...)
352...-1 for flat cables, daisy chain
352...-2 for flat cables or discrete wires



mating with printed circuit board 1.5 ± 0.14 mm (by means of guide frame 350...) or pin headers 354..., 355..., 8354...

352100 · 352300

RAST 2.5 plus™ connectors for direct and indirect mating, insulation displacement technology, with double-sided keying

mating with printed circuit board 1.5 ± 0.14 mm (by means of guide frame 350...) or pin headers 354..., 355..., 8354...

3510 · 3511 · 3517... · 3518

RAST 2.5 connectors for direct mating, insulation displacement technology, with or without keying rib and closed sides

3510, 3511 without locking
3517, 3518 with locking toes
3517-4, 3518-4 with enhanced locking toes

mating with printed circuit board 1.5 ± 0.14 mm

3517-5

RAST 2.5 connectors for direct mating on **1.0 mm printed circuit boards**, insulation displacement technology, with enhanced locking toes, with or without keying rib and closed sides

mating with printed circuit board 1.0 ± 0.14 mm

351700 · 351800

RAST 2.5 plus™ connectors for direct mating, insulation displacement technology, with double-sided keying, with or without keying rib and closed sides

351700, 351800 with locking toes

mating with printed circuit board 1.5 ± 0.14 mm

3512-3513 · 3515-3516 · 3525

RAST 2.5 connectors for direct mating, insulation displacement technology

with or without keying rib and closed sides
3512, 3513 with lateral locking hooks
3525 with lateral locking hooks, min. 80 N retaining force

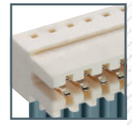
with keying rib
3515, 3516 with internal locking hooks

mating with printed circuit board 1.5 ± 0.14 mm

351...-1 · 351...-2

RAST 2.5 connectors for direct mating, insulation displacement technology, with or without keying rib and closed sides

Details siehe links (351...)
351...-1 for flat cables, daisy chain
351...-2 for flat cables or discrete wires

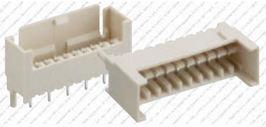


mating with printed circuit board 1.5 ± 0.14 mm

Contact pitch	2.5 mm (always the first mentioned type) or 5.0 mm (always the second mentioned type)					
Pole number	**3521...** 2–20 **3520...** 4–20 (**3520-1** 4–10) **3523...** 2–10 **3522...** 3–10 (**3522-1** 3–5)	**352100** 2–11 **352300** 2–6	**3510..., 3512..., 3517...,** 2–20 (**35...-1** 2–10, **35...-4** 2–9) **3515...** 3–18 (**3515-1** 3–10) **3511..., 3513..., 3518...,** 2–10 (**35...-1** 2–5) **3516** 2–10 (**3516-1** 3–6, **3516-2** 3–10) **3517-5** 3–9 **351700** 2–11 **351800** 2–6 **3525** 2–12			
Insulating body	**352...** PBT, V0 according to UL 94 **352... M12** PA[1], V2 according to UL 94	PA[1], V0 according to UL 94	**351..., 3525, 352...50** PBT, V0 according to UL 94 **351... M12, 352...50 M12** PA[1], V2 according to UL 94			
Contact spring	CuSn, tin-plated		**351...** CuSn, tin-plated **351...V03** CuSn, tin-plated (Sn/Ag) (pitch 2.5 mm, 2-9 poles and pitch 5.0 mm, 2-5 poles) **351...V102** CuSn, pre-nickel and gold-plated			
Connectable wire section[2]	0.14–0.38 mm²	0.35–0.38 mm²	0.14–0.38 mm²	0.22–0.38 mm²	0.35–0.38 mm²	0.14–0.38 mm² (**3525** 0.22–0.38 mm²)
Rated current	4 A at T_{amb} 60 °C (**3517-5** 70 °C) 2 A at T_{amb} 100 °C					
Rated voltage	32 V AC (pitch 2.5 mm), 250 V AC (pitch 5.0 mm), **35...00** 80/250 V AC, **355...95** 250/500 V AC					

[1] glow-wire resistant (GWT 750 °C), see specification at www.lumberg.com
[2] range of values of conductors approved by laboratory tests; covering various geometries of insulation displacement terminations

Lumberg
passion for connections



355...

RAST 2.5 pin headers

upright
3551, 3553 interior locking
3550, 3552 locking latch
3355096 without locking latch

angular
3555, 3557 interior locking
3554, 3556 locking latch

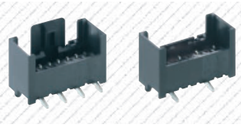
mating with connectors 352..., 3570

355099 · 355299

RAST 2.5 plus™ pin headers, with double-sided keying

upright
355099, 355299 with locking latch

mating with connectors 3521..., 3523..., 3570...

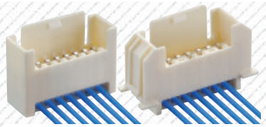


355095-355395

RAST 2.5 plus™ pin headers, in surface mount technology (SMT), with double-sided keying

upright
355095, 355295 with locking latch and positioning spigot
355195, 355395 for interior locking, with positioning spigot

mating
355095, 355295 with 3521..., 3523..., 3570...
355195, 355395 with 3520..., 3522...

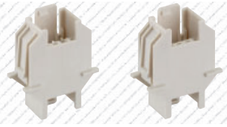


3541 · 3542 · 3545 · 3546

RAST 2.5 pin headers, insulation displacement technology, with locking latches

3541, 3542 without chassis latches
3545, 3546 with latches for chassis mounting

mating with connectors 3521..., 3523..., 3570...



83545 · 83546

RAST 2.5 double chassis pin headers

83545, 83546 straight, with locking latches

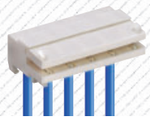
mating with connectors 3521..., 3523..., 3570...

357...

RAST 2.5 Power connectors for direct and indirect mating, insulation displacement technology

3570 for direct and indirect mating, locking and keying by means of guide frame or pin header
3575 for direct mating, with or without locking hooks for locking on printed circuit board, with or without keying rib and closed sides

mating
3570 with printed circuit board 1.5 ± 0.14 mm (by means of guide frame 350...) or pin headers 354..., 355..., 83546
3575 with printed circuit board 1.5 ± 0.14 mm



357099

RAST 2.5 Power connector for direct and indirect mating, insulation displacement technology, with double-sided keying

locking and keying by means of guide frame or pin header

mating with printed circuit board 1.5 ± 0.14 mm (by means of guide frame 350...) or pin headers 354..., 355..., 83546

357000 · 357600

RAST 2.5 Power plus™ connector for direct and indirect mating, insulation displacement technology, with double-sided keying

357000 for direct and indirect mating, locking and keying by means of guide frame or pin header
357600 for direct mating, with or without locking hooks for locking on printed circuit board, with or without keying rib and closed sides

mating
357000 with printed circuit board 1.5 ± 0.14 mm (by means of guide frame 350...) or pin headers 3542..., 3546... or pin headers 3552..., 3556, 83546
357600 with printed circuit board 1.5 ± 0.14 mm

3501 · 3500

RAST 2.5 guide frame and handle latch

3501 for interior locking for connectors 3520..., 3522...
3500 with locking latch for use with connectors 3521..., 3523..., 3570...

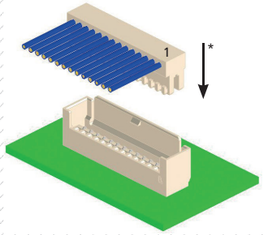
2.5 mm (always the first mentioned type) or 5.0 mm (second type)					5.0 mm			2.5/5.0 mm
3551, 3555 3–20 **3550, 3554** 2–20 **3552, 3553, 3556, 3557** 2–10	**355099** 3–11 **355299** 2–7	**355095-355195** 3–7 **355295-355395** 3–4	**3541..., 3545...** 2–20 **3542..., 3546...** 2–10	**83545** 3–4 **83546** 2	2–10	2–7	2–8	3–20
PA GF[1], V0 according to UL 94					**357..., 357099** PBT GF, V0 according to UL 94 **357...M09** PA[1], V2 according to UL 94		PA, V0 according to UL 94	PBT GF, V0 according to UL 94
355... CuZn, pre-nickel and tin-plated **355...V04** CuZn, pre-nickel and silver-plated (only pitch 5.0 mm)		CuZn, pre-nickel and tin-plated	CuSn, tin-plated	CuZn, pre-nickel and tin-plated	**357...** Cu alloy, silver-plated **357...V03** Cu alloy, tin-plated (Sn/Ag)		**357000** CuSn, tin-plated **357600, 357000 V168** CuSn, silver-plated	
			354... 0.22–0.38 mm² **354...-1** 0.34–0.5 mm²		0.35–0.82 mm²		0.5–0.75 mm²	
355... 4/2 A at T_{amb} 60/100 °C **355... V04** 10/6 A at T_{amb} 70 °C (pitch 5.0 mm, 2-5-poles/6-10 poles)		4 A at T_{amb} 60 °C, 2 A at T_{amb} 100 °C	4 A at T_{amb} 60 °C, 2 A at T_{amb} 110 °C, 6 A at T_{amb} 85 °C (only pitch 5.0 mm)	4 A at T_{amb} 60 °C 2 A at T_{amb} 120 °C	6 A at T_{amb} 70 °C **3570...** 10 A at T_{amb} 70 °C (with indirect mating, 2-5 poles) **357...V03** 6 A at T_{amb} 70 °C (max. 4 poles energized)		6 A at T_{amb} 70 °C **357...V168** 6 A at T_{amb} 70 °C, 10 A at T_{amb} 70 °C (with indirect mating, 2-4 poles)	
				83545 160/40 VAC (poll. deg. 2/3) **83546** 400/250 VAC (poll. deg. 2/3)	400 V AC			

Lumberg
passion for connections

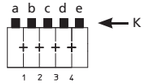
KEYING of RAST 2.5 connectors according to RAST 2.5 standard

Indirect connectors

350... · 352... · 354... · 355... · 3570...

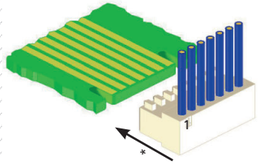


Indirect connectors are keyed by means of keying noses (K). The matching keying windows of the pin header are open (same with guide frame in case of direct mating).

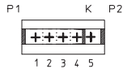


Direct connectors

351... · 3575



Direct connectors are keyed by keying ribs (K) and closed sides (positioning, P). The printed circuit board has matching reliefs.

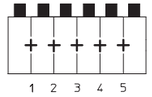


All drawings in view of mating direction (*), from female to male connector.

A selection of proposed keyings can be found on the Internet at **www.lumberg.com**

Examples:

3521 05 K00

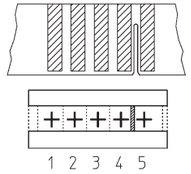


keying: –

Examples:

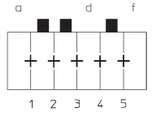
Direct RAST 2.5 connectors with keying rib, RAST 2.5 Power connectors as well as double-sided keyings are geared to the RAST 2.5 standard without being described by the directive.

3510 05 K01



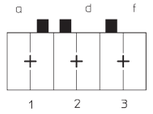
keying: **4/5**

3521 05 K32



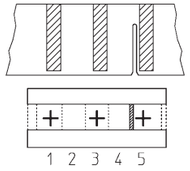
keying: **adf**

3523 03 K32



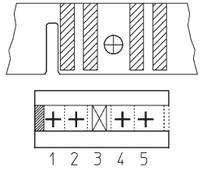
keying: **adf**

3511 03 K01



keying: **4/5**

3515 04 K04



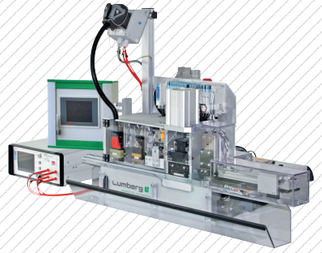
positioning: **P1**, lock: **3**

Lumberg
passion for connections

EFFICIENT HARNESSING

From manual tongs over hand presses, various semiautomatic harnessing machines to our premium products, our fully automatic harnessing machines from our VARICON™ line: We offer from one source all options for efficient termination of cables with our connectors – no matter if low, middle or high-volume production.

Our engineering professionals are shortly available worldwide for initial installation, upgrades and local trainings.



Lumberg

passion for connections

www.lumberg.com · info@lumberg.com

40410 · 2509-0.5 · EN