



A New Lighting Experience



- high quality due to Chip-on-Board technology
- available in monochrome and RGB
- resistant against shock and vibrations
- low mounting height
- low heat development
- lead-free soldered

LEDLine 300 COB, LEDLine 150 COB

**WU-M-305, WU-M-306, WU-M-310, WU-M-311,
WU-M-313, WU-M-314**

Typical Applications

- Marking paths, stairs, etc.
- Furniture lighting
- Light advertising
- Entertainment, shop design
- Architectural illumination

Vossloh-Schwabe Deutschland GmbH

Hohe Steinert 8 · 58509 Lüdenscheid, Germany · Phone: +49 (0) 23 51/101-0
Fax: +49 (0) 23 51/101-217 + -384 · www.vossloh-schwabe.com

LEDLine 300 COB, LEDLine 150 COB

Technical Notes

- LED Line 300: L x W ~ 300 mm x 10 mm
- LED Line 150: L x W ~ 150 mm x 10 mm
- LED-chips are driven by constant current sources
- Wide radiation angle (170°) due to Chip-on-Board technology
- Voltage supply: 24 V DC

Electrical Characteristics

at ambient temperature $t_a = 25\text{ °C}$

Type	Ref. No.	Colour	Number of LEDs	Current* mA	Voltage DC* V	Power* W	Max. quantity of modules ** pcs.
LEDLine 300							
WU-M-305-RGB	527649	RGB	60	200	24	4.80	12
WU-M-305-SO	527650	Red	20	40	24	0.96	24
WU-M-305-SG	527651	Green	20	80	24	1.92	12
WU-M-305-SB	527652	Blue	20	80	24	1.92	12
WU-M-305-SY	527653	Yellow	20	40	24	0.96	24
WU-M-305-W-3200K	528478	Warm white	20	80	24	1.92	12
WU-M-305-W-4200K	528479	Neutral white	20	80	24	1.92	12
WU-M-305-W-5400K	527655	Neutral white	20	80	24	1.92	12
WU-M-305-W-6500K	528480	Cold white	20	80	24	1.92	12
WU-M-313-SOSOSO	528843	Red	60	120	24	2.88	24
WU-M-310-SGSGSG	528848	Green	60	240	24	5.76	12
WU-M-310-SBSBSB	528849	Blue	60	240	24	5.76	12
WU-M-313-SYSYSY	528907	Yellow	60	120	24	2.88	24
WU-M-310-WWWW-3200K	528845	Warm white	60	240	24	5.76	12
WU-M-310-WWWW-4200K	528846	Neutral white	60	240	24	5.76	12
WU-M-310-WWWW-5400K	528844	Neutral white	60	240	24	5.76	12
WU-M-310-WWWW-6500K	528847	Cold white	60	240	24	5.76	12
LEDLine 150							
WU-M-306-RGB	527656	RGB	30	100	24	2.40	24
WU-M-306-SO	527657	Red	10	20	24	0.48	48
WU-M-306-SG	527658	Green	10	40	24	0.96	24
WU-M-306-SB	527659	Blue	10	40	24	0.96	24
WU-M-306-SY	527660	Yellow	10	20	24	0.48	48
WU-M-306-W-3200K	528472	Warm white	10	40	24	0.96	24
WU-M-306-W-4200K	528473	Neutral white	10	40	24	0.96	24
WU-M-306-W-5400K	527661	Neutral white	10	40	24	0.96	24
WU-M-306-W-6500K	528474	Cold white	10	40	24	0.96	24
WU-M-314-SOSOSO	528850	Red	30	60	24	1.44	48
WU-M-311-SGSGSG	528855	Green	30	120	24	2.88	24
WU-M-311-SBSBSB	528856	Blue	30	120	24	2.88	24
WU-M-314-SYSYSY	528908	Yellow	30	60	24	1.44	48
WU-M-311-WWWW-3200K	528852	Warm white	30	120	24	2.88	24
WU-M-311-WWWW-4200K	528853	Neutral white	30	120	24	2.88	24
WU-M-311-WWWW-5400K	528851	Neutral white	30	120	24	2.88	24
WU-M-311-WWWW-6500K	528854	Cold white	30	120	24	2.88	24

* On account of the complex manufacturing process of the modules the above values only represent statistical variables.

The values do not necessarily correspond exactly to the actual parameters of every single product which can vary from the typical specification.

** By the use of the DigitLED Slave the quantity of modules can be increased further.

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of lifetime or destruction of the module.

Type	Voltage DC		Operation temperature range at t_c -point		Storage temperature range		Reverse voltage/LED V
	V min.	V max.	°C min.	°C max.	°C min.	°C max.	
All types	23	25	-20	+70	-40	+85	5

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification. Please find further detailed information at www.vs-optoelectronic.com.

LEDLine 300 COB, LEDLine 150 COB

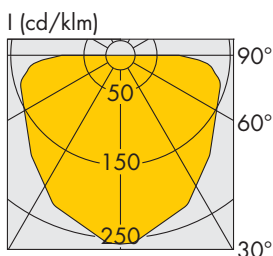
Optical Characteristics

at ambient temperature $t_a = 25\text{ °C}$

Type	Ref. No.	Colour	Dom. wavelength* (nm)			Luminous flux* lm	Radiation angle* °
			R 625	G 535	B 470		
LEDLine 300							
WU-M-305-RGB	527649	RGB	R 625	G 535	B 470	65	170
WU-M-305-SO	527650	Red	625			25	170
WU-M-305-SG	527651	Green	535			29	170
WU-M-305-SB	527652	Blue	470			10	170
WU-M-305-SY	527653	Yellow	590			30	170
WU-M-305-W-3200K	528478	Warm white	3200K			24	170
WU-M-305-W-4200K	528479	Neutral white	4200K			30	170
WU-M-305-W-5400K	528655	Neutral white	5400K			30	170
WU-M-305-W-6500K	528480	Cold white	6500K			27	170
WU-M-313-SOSOSO	528843	Red	625			70	170
WU-M-310-SGSGSG	528848	Green	535			86	170
WU-M-310-SBSBSB	528849	Blue	470			30	170
WU-M-313-SYSYSY	528907	Yellow	590			80	170
WU-M-310-WWWW-3200K	528845	Warm white	3200K			72	170
WU-M-310-WWWW-4200K	528846	Neutral white	4200K			90	170
WU-M-310-WWWW-5400K	528844	Neutral white	5400K			90	170
WU-M-310-WWWW-6500K	528847	Cold white	6500K			81	170
LEDLine 150							
WU-M-306-RGB	527656	RGB	R 625	G 535	B 470	33	170
WU-M-306-SO	527657	Red	625			12	170
WU-M-306-SG	527658	Green	535			15	170
WU-M-306-SB	527659	Blue	470			5	170
WU-M-306-SY	527660	Yellow	590			15	170
WU-M-306-W-3200K	528472	Warm white	3200K			12	170
WU-M-306-W-4200K	528473	Neutral white	4200K			15	170
WU-M-306-W-5400K	527661	Neutral white	5400K			15	170
WU-M-306-W-6500K	528474	Cold white	6500K			14	170
WU-M-314-SOSOSO	528850	Red	625			35	170
WU-M-311-SGSGSG	528855	Green	535			43	170
WU-M-311-SBSBSB	528856	Blue	470			15	170
WU-M-314-SYSYSY	528908	Yellow	590			40	170
WU-M-311-WWWW-3200K	528852	Warm white	3200K			36	170
WU-M-311-WWWW-4200K	528853	Neutral white	4200K			45	170
WU-M-311-WWWW-5400K	528851	Neutral white	5400K			45	170
WU-M-311-WWWW-6500K	528854	Cold white	6500K			41	170

* The values mentioned above represent only statistical variables on account of the complex manufacturing process of light emitting diodes.
The values do not necessarily correspond exactly to the actual parameters of every single product, which can vary from the typical specifications.

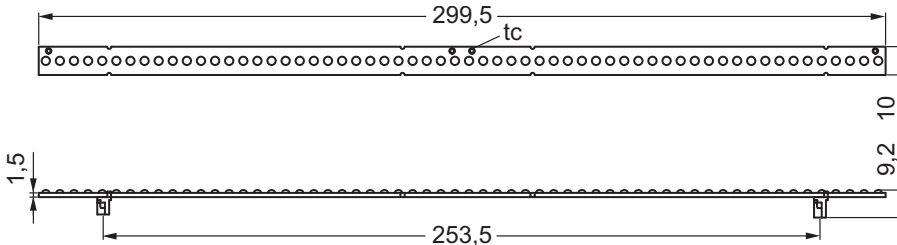
Light Distribution Curve



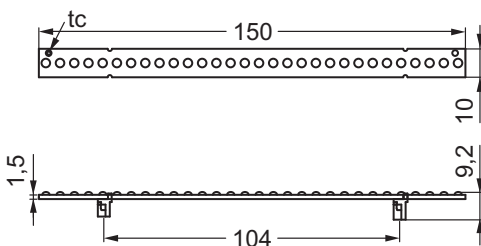
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LEDLine 300 COB, LEDLine 150 COB

LEDLine 300



LEDLine 150



Assembly and Safety Information

- LED modules and all PCB components must not be subjected to undue mechanical stress:
 - LED modules must not be handled as bulk cargo
 - Shear and pressure stress must be avoided on the grouting material of LEDs during assembly and handling
- The circuit path must not be damaged or interrupted.
- Power supply units must be used for operation, in which the following protective measures are ensured:
 - Short-circuit protection
 - Overload protection
 - Overheating protection
 - SELV equiv. (Safety Extra Low Voltage)
- The maximum output of the power supply must be observed.
- Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- The modules can be wired by the use of commercial 6-strand flatband cable.
- For colour mixing colour control modules of the DigiLED series (DigiLED-Manuel, DigiLED-Wireless-IR, DigiLED-1-10 V, DigiLED-DMX, DigiLED DALI) must be used. Information about the connection technique can be found in the manuals of the DigiLED series under www.vs-optoelectronic.com.
- Please ensure standard ESD (electrostatic discharge) protection measures are employed when handling and installing LED modules. Electrostatic discharge can damage LEDs.
- The modules are not protected against dust or moisture. When LED modules are operated in unduly moist or dusty environments, care must be taken to ensure each module is built into a protective casing in compliance with the correct IP classification or provided with corrosion protection. Damage caused by moisture and/or corrosion will not be recognised as a material or manufacturing defect.
- Contact with chemicals containing acid or acetic acid can permanently damage LEDs. Substances and materials containing acid or acetic acid must therefore not be used for cleaning, maintaining and installing LED modules or LED luminaires. The vapours produced by such chemicals alone can damage LEDs.
- For easy assembly of the LEDLines the installation clip (Ref. No. 507775) can be used.

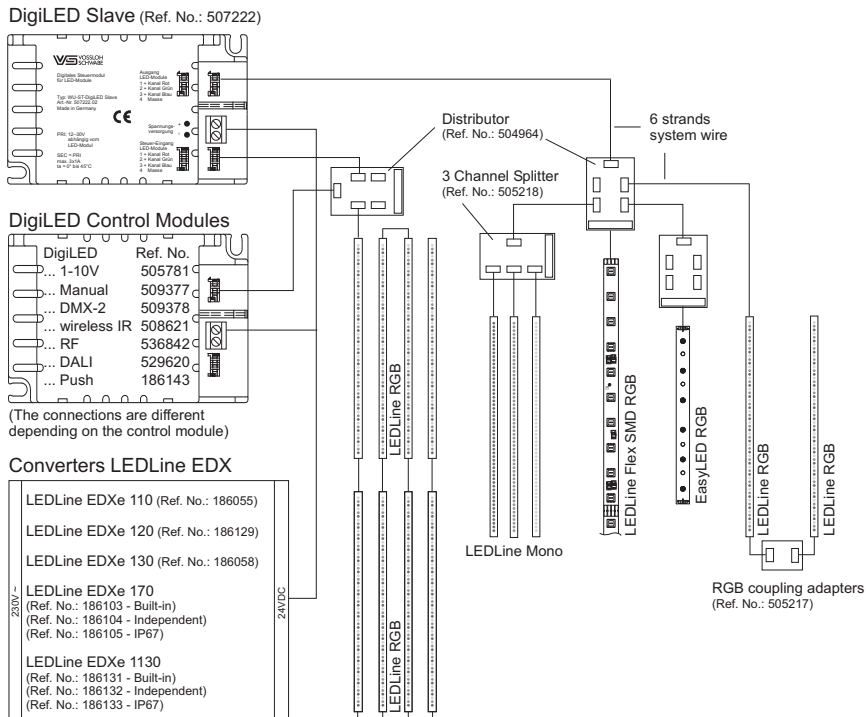
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LEDLine 300 COB, LEDLine 150 COB

Application Notes

VS provides a highly convenient connection system for wiring LEDLine modules using commonly available six-strand flat-ribbon cables. This ensures installation is very easy, flexible and cost-effective.

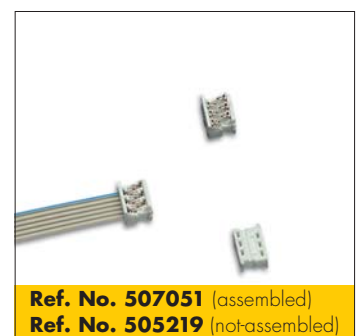
The image shows the typical system architecture of the LEDLine series in conjunction with VS 24 V converters, colour control modules (DigiLED) and distributors (e.g.: four-way distributor Ref. No. 504964).



For assembly, the six-strand flat-ribbon cable (Ref. No. 505222) can be individually fitted with push connectors.

Connected to the cable via IDC contacts, the push connector enables a reverse-polarity-proof, snap-in connection to LED system components. The fact that the push connector can be attached to the cable at any given point enables highly flexible system topologies.

The push connector is available in two forms: pre-assembled on the cable in line with customer requirements (Ref. No. 507051) or as an individual part (Ref. No. 505219).



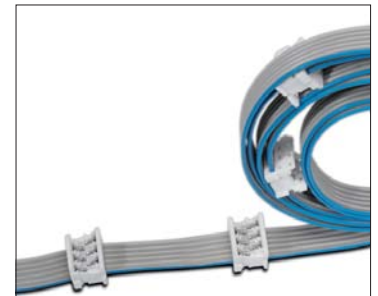
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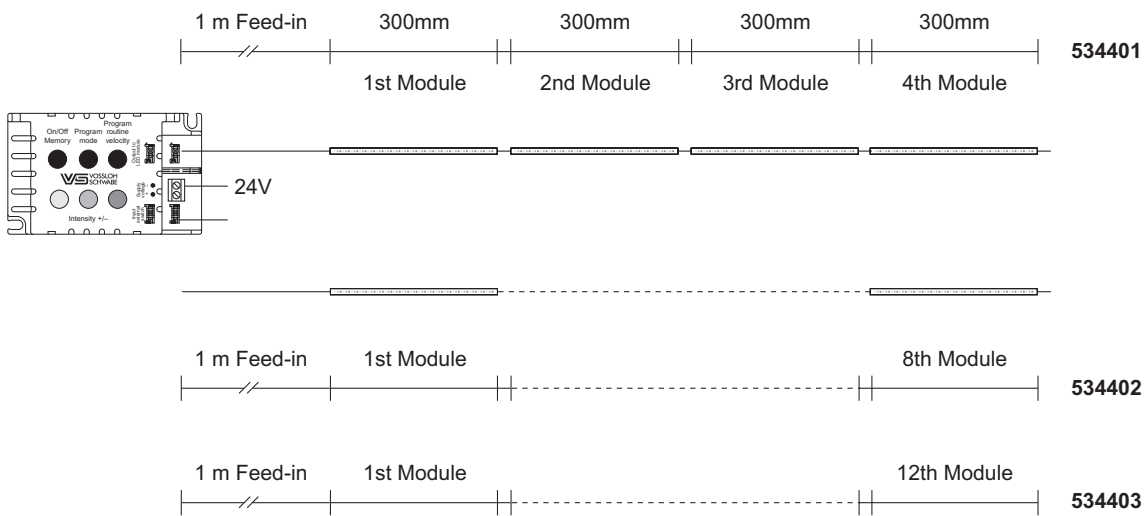
Application Notes

Apart from individually pre-assembled cables, Vossloh-Schwabe also provides various inexpensive standard cable lengths for simple wiring of the DigilED-to-LEDLine interface.

The following diagram shows three different standard lengths used to achieve gapless connection of four, eight or twelve modules with a 1 m supply cable from the DigilED to the first module.



- Best.-Nr. 534401** (4 modules)
- Best.-Nr. 534402** (8 modules)
- Best.-Nr. 534403** (12 modules)
- Best.-Nr. 534404** (18 modules ^{1/3})
- Best.-Nr. 534405** (24 modules ^{1/3})



Further standard lengths are available for monochrome applications with 1/3 LED-loaded LED modules (WU-M-305-SO/SG/SB/SY/W):



The Ref. Nos. quoted above are for **assembled cables only**, i.e. without LED modules or operating units. Please refer to the "LED Connection Technology" data sheet for detailed technical information on the available cables.