

NP 322

Lumberg Automation™ Eight-Pole M8 Actuator/ Sensor Connectors

Belden sets another milestone in the field of connection technology with the world's first family of M8 eight-pole connectors from Lumberg Automation.



Despite Compact Dimensions, the M8 eight-pole series of connectors provide high contact density.

With the Lumberg Automation brand's new eight-pole M8 actuator/sensor connectors, it is now possible to transmit up to eight signals with only one connector using an external power supply. This is particularly advantageous when connecting optoelectronic sensors or safety switches in applications such as monitoring safety doors on machinery and equipment.

The product range offers an ideal solution for virtually every installation scenario. The connectors are available in molded cable versions as well as receptacles and inserts. All models are suitable for use in temperature ranges from -25°C to +80°C and when connected to their respective counterparts are compliant with IP 67 protection standards.

The molded connectors have an open cable end, allowing the connection of sensors or actuators to switch cabinets or distribution boxes while ensuring a high degree of wiring flexibility. The male connector is equipped with a snap-in/threaded joint and the female connector has a self-locking threaded joint.

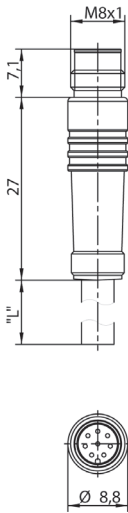
The receptacle connector RSMF 8/0.5 M has stranded wires, solder contacts, and a potted housing. These receptacles are ideally suited for use in switch cabinets or other machinery equipment. Conversely, the RSMEDG 8 is ideally suited for installation in sensors and is easy to install by means of a snap-in/threaded joint. An additional plug insert (RSEM 8) is available for various sensor housings that already have an M8 thread and/or snap-in joint. The housings of receptacle connectors are made of nickel-plated brass (RSMF 8/0.5 M and RSMEDG 8) or polyamide (RSEM 8).

Benefits at a Glance:

- High contact density despite compact dimensions
- IP67 protection class
- Temperature range: -25°C to +80°C
- Shock and vibration resistance
- High degree of flexibility
- Suitable solution for practically all installation requirements

M8 Single-Ended Cordsets

RSM 8-354 | RKMV 8-354



RSM 8-354/...M

Actuator/ sensor cord sets, single-ended, M8 male connector without snap-in joint and molded cable.

Technical Data

Environmental

Degree of protection RSM 8-354: IP x8 (15m/48h Et 100m/2h), otherwise IP 65
RKMV 8-354: IP 67 / IP 69K

(only in locked position with its proper counterparts)

Operating temperature range -25°C / +80°C

Mechanical

Housing / Molded body TPU
Insert RSM 8-354: TPU
RKMV 8-354: PA / TPU
Contact RSM 8-354: CuSn, Et 0.8 microns gold-plated
RKMV 8-354: CuZn, nickel-plated

Receptacle shell CuZn, nickel-plated
O-ring FKM

Electrical data

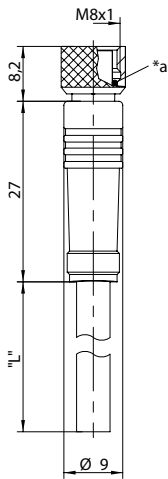
Contact resistance ≤ 5 mΩ
Nominal current at 40°C 1 A
Nominal voltage 30 V
Rated voltage 36 V
Test voltage 0.8 kV eff. / 60 s
Insulation resistance > 10⁹ Ω
Pollution degree 3

Cable Specifications

Cable No. 354
Outer jacket PUR, Halogen Free
Conductor size 8 x 0.14 mm²
Jacket color Black
Outside Diameter .197" (5.0 mm)

RKMV 8-354/...M

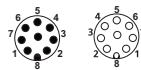
Actuator/ sensor cord sets, single-ended, M8 female connector with self-locking threaded joint and molded cable.



Pin Assignments

M8

8 Poles



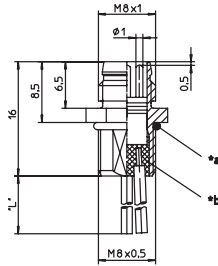
1 = white 5 = grey
2 = brown 6 = pink
3 = green 7 = blue
4 = yellow 8 = red

Order Number	Part Number	Outer Jacket	Characteristics
on request	RSM 8-354/2 M / 5 M / 10 M	PUR, halogen-free	UL
91033	RKMV 8-354/2 M	PUR, halogen-free	UL
96490	RKMV 8-354/5 M	PUR, halogen-free	UL
96491	RKMV 8-354/10 M	PUR, halogen-free	UL

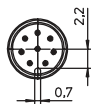
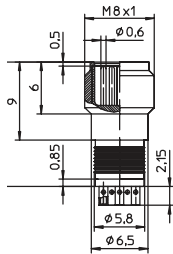
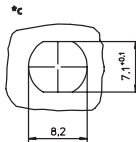


M8 Receptacle Connectors and Inserts

RSMF 8 | RSMEDG 8



*a O-ring enclosed separately
 *b solder contacts potted with epoxy
 *c cut out
 *L 0.5 m



RSMF 8/0.5 M

Receptacle connector, M8 male connector for front mounting, assembled stranded wire, solder contacts potted with epoxy, chassis side thread M8 x 0.5 (panel nut RSKF 8).

Technical Data

Environmental

Degree of protection IP 67
 (only in locked position with its proper counterparts)

Operating temperature range -25°C / +80°C

Mechanical

Housing / Molded body CuZn, nickel-plated
 Insert PA
 Contact RSMF CuZn, pre nickel-plated and 0.8 microns gold-plated
 RSMEDG: RSMF: FKM

Electrical data

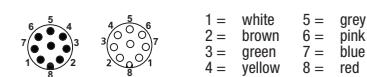
Contact resistance ≤ 5 mΩ
 Nominal current at 40°C 1 A
 Nominal voltage RSMF: 32 V
 RSMEDG: 30 V
 Test voltage RSMF:
 0.8 kV eff. / 60 s
 RSMEDG:
 0.5 kV eff. / 60 s
 Insulation resistance > 10⁹ Ω
 Pollution degree 3

RSMEDG 8

Receptacle insert connector, M8 male connector for sensors, with combined snap-in/ threaded joint, mounting hole for LED, short solder contacts, hollow contacts on solder side.

Pin Assignments

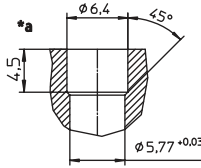
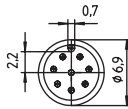
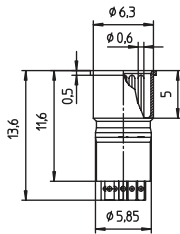
M8 8 Poles



Order Number	Part Number	Lead (mm ²)	Characteristics
91740	RSMF 8/0.5 M	0.22	UL
88036	RSMEDG 8		

M8 Connector Insert

RSEM 8



*a cut out

RSEM 8

Receptacle insert connector, M8 male connector for sensors, with long solder contacts, solid contacts on solder side.

Technical Data

Environmental

Operating temperature range -25°C / +80°C

Mechanical

Insert PA
 Contact CuZn, pre nickel-plated and 0.8 microns gold-plated
 Mode of connection solder connection

Electrical data

Contact resistance $\leq 5 \text{ m}\Omega$
 Nominal current at 40°C 1 A
 Nominal voltage 32 V
 Test voltage 0.8 kV eff. / 60 s
 Insulation resistance $> 10^9 \Omega$
 Pollution degree 3

Pin Assignments

M8



Order Number	Designation	Characteristics
91607	RSEM 8	

Always the Right Solution

St. Louis-based Belden Inc designs, manufactures, and markets cable, connectivity and networking products in markets including industrial automation, enterprise, transportation, infrastructure, and consumer electronics. It has approximately 6,600 employees, and provides value for industrial automation, enterprise, education, healthcare, entertainment and broadcast, sound and security, transportation, infrastructure, consumer electronics and other industries. Belden has manufacturing capabilities in North America, Europe and Asia, and a market presence in nearly every region of the world. Belden was founded in 1902, and today is a leader with some of the strongest brands in the signal transmission industry.

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