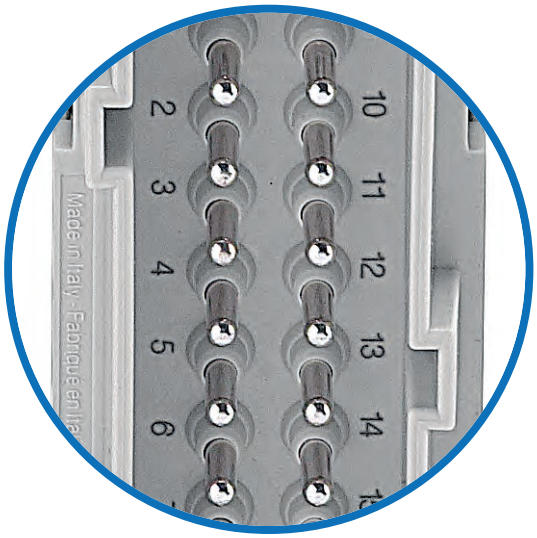
HIGH DENSITY

STANDARD
16A



JDS
HIGH DENSITY
10A

10A
spring connection

The originality of multipole connectors represents one of the core values of ILME, a leading company in this segment.

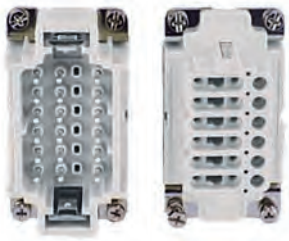
The continuous demand for a greater number of poles and of smaller dimensions has led to the design and manufacture of the new CDS series, which offers single connectors with a maximum number of 84 poles that occupy the same space of standard connectors with screw/spring connection.

The compact spring connection enables the occupied space to be reduced and avoids using “CRIMP” solutions that require the use of special tools.

STANDARD 16A		JDS - HIGH DENSITY 10A	
06 poles	→	09 poles	+50%
10 poles	→	18 poles	+80%
16 poles	→	27 poles	+70%
24 poles	→	42 poles	+75%
32 poles	→	54 poles	+70%
48 poles	→	84 poles	+75%

JDS - 9 poles

JDS - 18 poles



JDS - 27 poles

JDS - 42 poles

The new **JDS series**, which is an evolution as compared to the compact JKS series, offers the following advantages:

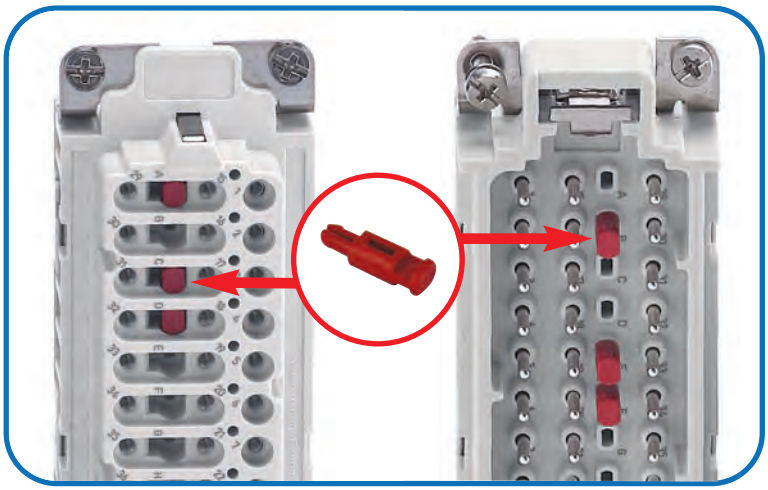
- **Greater pole density as compared to existing connectors with screw terminals for enclosures of the same size**
- **Possibility of using wires up to 2,5 mm² (AWG 14) and availability of a useful section 1,5 mm² (AWG 16) for flexible wires terminated with crimp ferrule**
- **A screwdriver with a 0,5 x 3,5 mm blade is the only tool required to insert the wire into the contact or to open the spring connection**
- **No special wire preparation other than stripping**
- **An excellent fastening solution and a great resistance to strong vibrations**
- **Allows conductivity tests under load to be carried out by inserting the probes in the screwdriver insertion hole, without uncoupling the inserts.**

Electrical characteristics compliant with EN 61984:
- rated current: 10A
- rated voltage: 400V
- rated impulse withstand voltage: 6kV
- pollution degree: 3

The new inserts are available in **standard versions with silver plated brass contacts** and can be used within a temperature range of -40 °C/+125 °C.

The insertion of the screwdriver is facilitated by the particular shape of the hole, which ensures that the operation is always performed correctly.

It is possible to insert in the front area the new CR CDS coding pin that enables the polarisation of inserts in a wide range of combinations.
This means that it is possible to install side by side identical connectors with different functions.
The new CR CDS coding pins can also be used in combination with oder CR 20 / CRM / CRF / CR 72 metal pins instead of insert fixing screws in order to increase the number of possible combinations.



Each position of the coding pin used on the female insert must correspond to an unused position on the male insert.
The required number of coding pins, depending on the size of connectors, and the maximum number of possible codings is shown in the following table.

CDS series - Coding with CR CDS pins

Size of connectors	**Slots for coding pins** (M) = male insert (F) = female insert	**Required coding pins for each coupling**	**Possible codings**
9P+⏚	3 (M) + 3 (F)	3	$2^3 - 2$ (*) = 6
18P+⏚	6 (M) + 3 (F)	6	$2^6 - 2$ = 62
27P+⏚	9 (M) + 9 (F)	9	$2^9 - 2$ = 510
42P+⏚	14 (M) + 14 (F)	14	$2^{14} - 2$ = 16.382

(*) This excludes the two codings where all the coding pins are on one side only (male or female insert) because they are ineffective.

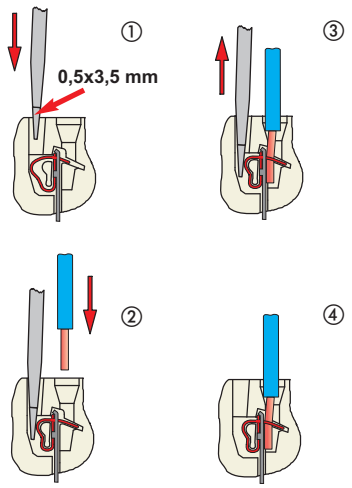
spring connection contacts

description

inserts series: JDS

In this layout the wires are connected to the female and male insert contacts by means of a spring terminal.
This type of connection offers the following advantages:
- no special wire preparation
- a screwdriver with a 0,5 x 3,5 mm blade is the only tool required to insert the wire in the contact
- offers an excellent fastening solution and a great resistance to strong vibrations
- allows rigid and flexible wires with sections between 0,14 and 2,5 mm² to be used (both with non-prepared conductors and those prepared with ferrule)
- allows conductibility tests under load to be carried out through the screwdriver insertion section, without splitting the insert
- greatly reduces insert preparation and cabling timeso.

Connection with spring terminal



inserts series		**JDS**
No. of poles [1]	main contacts + ⏚	**9, 18, 27, 42, (54), (84)**
	auxiliary contacts	--
rated current [2]		10A
EN 61984 pollution degree 3	rated voltage	400V
	rated impulse withstand voltage	6kV
	pollution degree	3
EN 61984 pollution degree 2	rated voltage	400V/690V
	rated impulse withstand voltage	6kV
	pollution degree	2
contact resistance		≤ 1 mΩ
insulation resistance		≥ 10 GΩ
ambient temperature limit (°C)	min	-40
	max	+125
degree of protection	with enclosures	IP65, IP66 (according to type)
	without enclosures	IP20
conductor connections		spring
conductor cross-section	mm²	0,14 - 2,5 (for wires with crimped ferrule, usable section: up to 1,5 mm² (AWG 16)
	AWG	26 - 14
mechanical endurance (rating cycles)		≥ 500

1) Polarities shown in brackets may be achieved by using two inserts in their own double housings.
2) Please check the insert load curves to establish the actual maximum operating current according to the ambient temperature.

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inserts,
spring terminal connections

tin plated contacts

description	part No.
spring terminal female inserts with female contacts male inserts with male contacts	**JDSF 09** **JDSM 09**

- characteristics according to EN 61984:
  10A 400V 6kV 3
- certifications: cUL (UL for USA and Canada)
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 200 cycles
- contact resistance: ≤ 1 mΩ

dimensions in mm

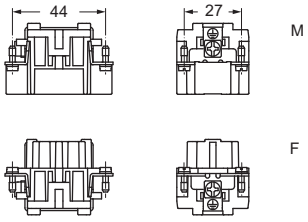
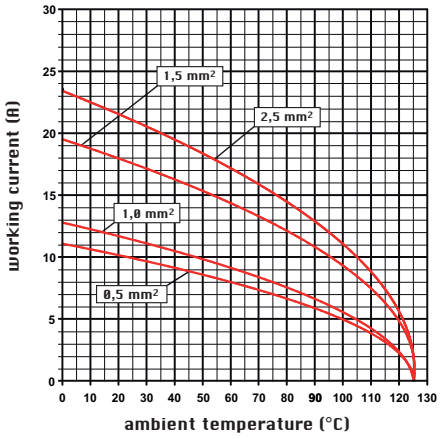
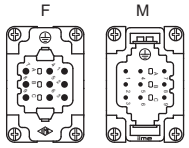


diagram JDS 09 poles



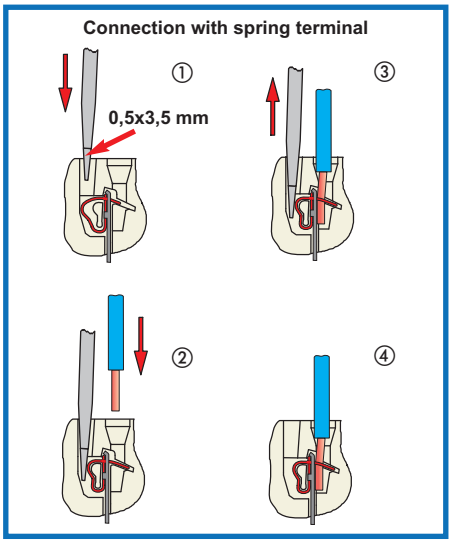
contacts side (front view)



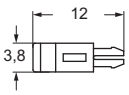
- inserts for conductors section:
  0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, usable section:
  up to 1,5 mm² (AWG 16)
- conductors stripping lenght: 9...11 mm *

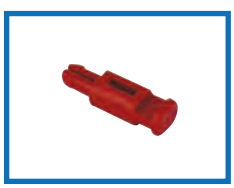
* the stripping length for prepared wires with bush crimped depends on that of the bush itself

Connection with spring terminal



CR CDS coding pin





dimensions shown are not binding
and may be changed without notice

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inserts,
spring terminal connections

tin plated contacts

description	part No.
spring terminal female inserts with female contacts male inserts with male contacts	**JDSF 18** **JDSM 18**

- characteristics according to EN 61984:
  10A 400V 6kV 3
- certifications: cUL (UL for USA and Canada)
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 200 cycles
- contact resistance: ≤ 1 mΩ

dimensions in mm

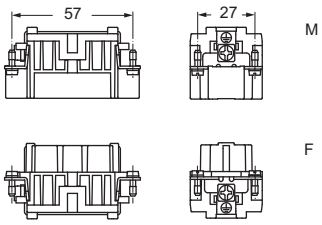
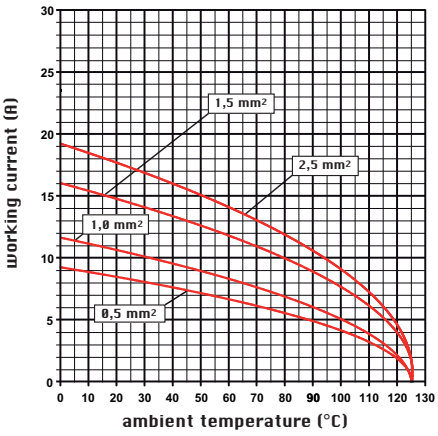
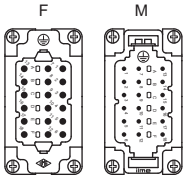


diagram JDS 18 poles



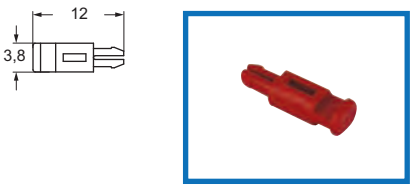
contacts side (front view)



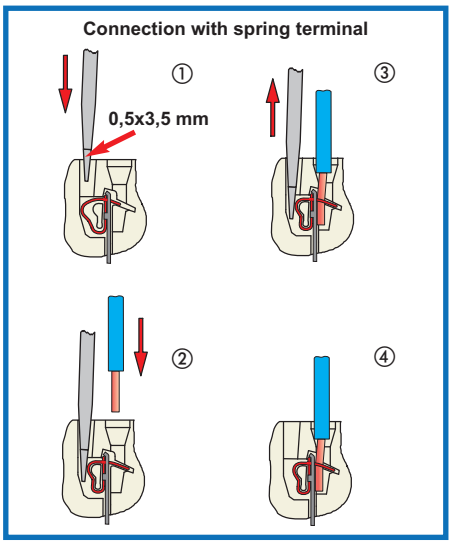
- inserts for conductors section:
  0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, usable section:
  up to 1,5 mm² (AWG 16)
- conductors stripping lenght: 9...11 mm *

* the stripping length for prepared wires with bush crimped depends on that of the bush itself

CR CDS coding pin



Connection with spring terminal



dimensions shown are not binding
and may be changed without notice

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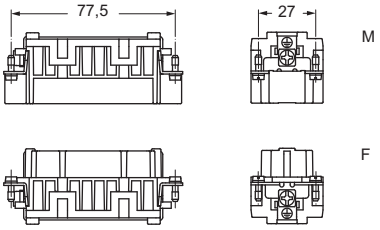
inserts,
spring terminal connections

tin plated contacts

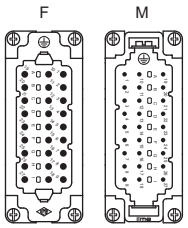
dedescription	part No.
spring terminal female inserts with female contacts male inserts with male contacts	**JDSF 27** **JDSM 27**

- characteristics according to EN 61984:
  10A 400V 6kV 3
- certifications: cUL (UL for USA and Canada)
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 200 cycles
- contact resistance: ≤ 1 mΩ

dimensions in mm



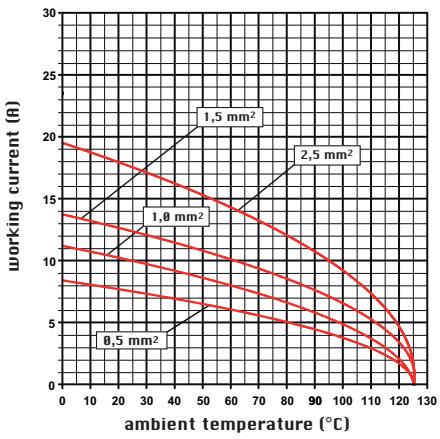
contacts side (front view)



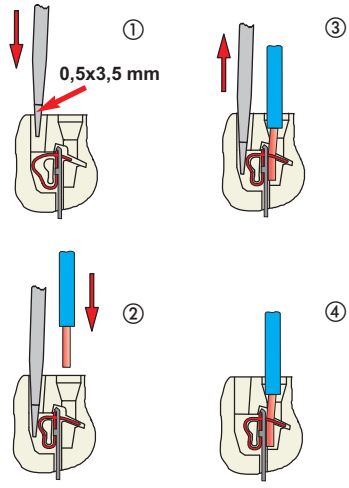
- inserts for conductors section:
  0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, usable section:
  up to 1,5 mm² (AWG 16)
- conductors stripping lenght: 9...11 mm *

* the stripping length for prepared wires with bush crimped depends on that of the bush itself

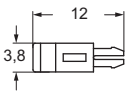
diagram JDS 27 poles

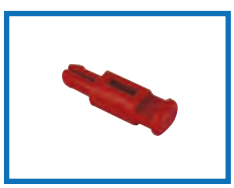


Connection with spring terminal



CR CDS coding pin





dimensions shown are not binding
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inserts,
spring terminal connections

tin plated contacts

description	part No.
spring terminal female inserts with female contacts male inserts with male contacts	**JDSF 42** **JDSM 42**

- characteristics according to EN 61984:
  10A 400V 6kV 3
- certifications: cUL (UL for USA and Canada)
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 200 cycles
- contact resistance: ≤ 1 mΩ

dimensions in mm

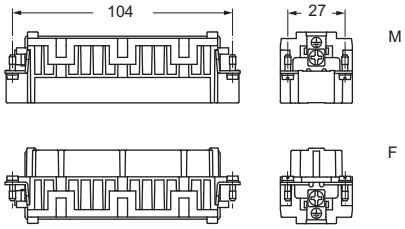
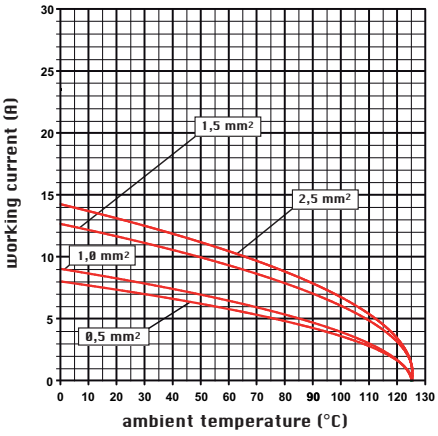
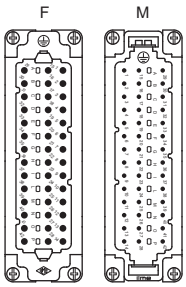


diagram JDS 42 poles



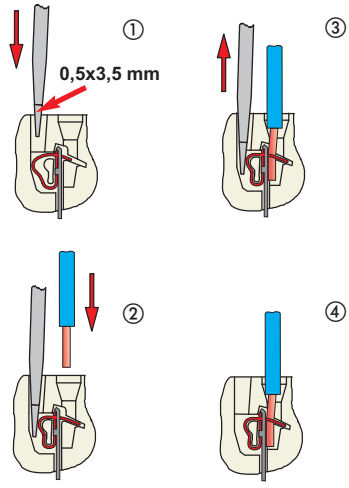
contacts side (front view)



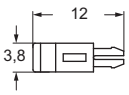
- inserts for conductors section:
  0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, usable section:
  up to 1,5 mm² (AWG 16)
- conductors stripping lenght: 9...11 mm *

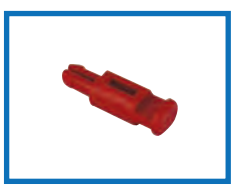
* the stripping length for prepared wires with bush crimped depends on that of the bush itself

Connection with spring terminal



CR CDS coding pin





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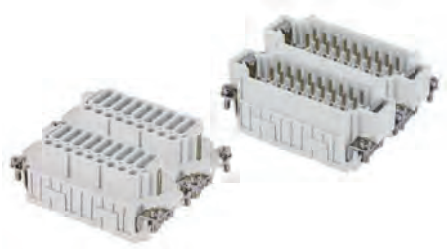
inserts,
spring terminal connections

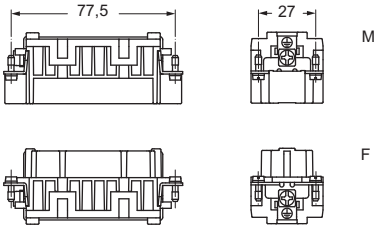


tin plated contacts

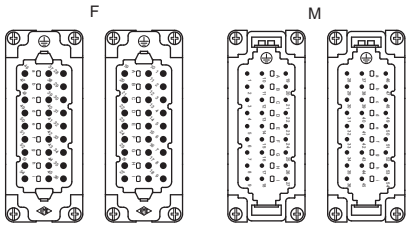
description	part No.	part No.
spring terminal female inserts with female contacts, No. (1-27) and (28-54) male inserts with male contacts, No. (1÷27) and (28-54)	**JDSF 27** **JDSM 27**	**JDSF 27 N** **JDSM 27 N**

- characteristics according to EN 61984:
  10A 400V 6kV 3
- certifications: cUL (UL for USA and Canada)
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 200 cycles
- contact resistance: ≤ 1 mΩ

dimensions in mm



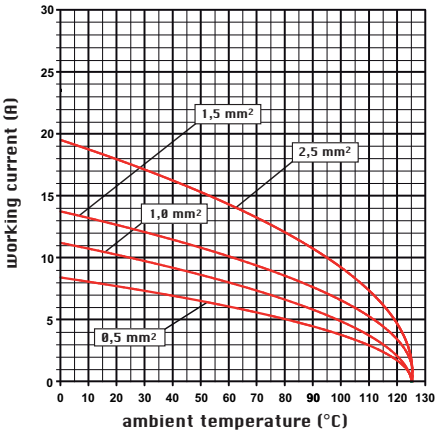
contacts side (front view)



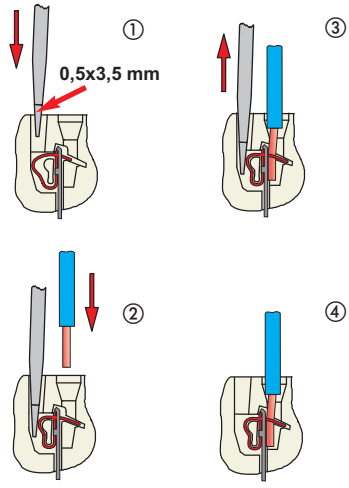
- inserts for conductors section:
  0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, usable section:
  up to 1,5 mm² (AWG 16)
- conductors stripping lenght: 9...11 mm *

* the stripping length for prepared wires with bush crimped depends on that of the bush itself

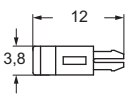
diagram JDS 54 poles

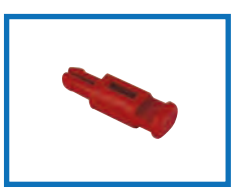


Connection with spring terminal



CR CDS coding pin





dimensions shown are not binding
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JEI®-V zinc-plated steel lever 122

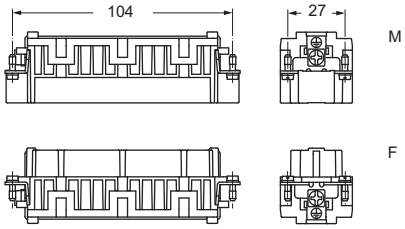
inserts,
spring terminal connections

tin plated contacts

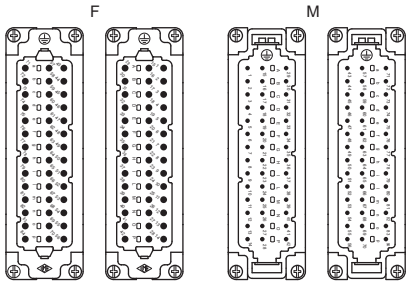
description	part No.	part No.
spring terminal female inserts with female contacts, No. (1-42) and (43-84) male inserts with male contacts, No.(1-42) and (43-84)	**JDSF 42** **JDSM 42**	**JDSF 42 N** **JDSM 42 N**

- characteristics according to EN 61984:
  10A 400V 6kV 3
- certifications: cUL (UL for USA and Canada)
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 200 cycles
- contact resistance: ≤ 1 mΩ

dimensions in mm



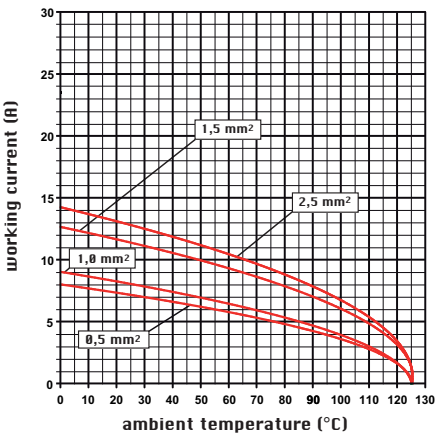
contacts side (front view)



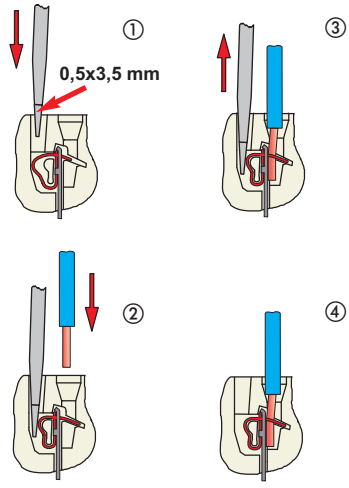
- inserts for conductors section:
  0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, usable section:
  up to 1,5 mm² (AWG 16)
- conductors stripping lenght: 9...11 mm *

* the stripping length for prepared wires with bush crimped depends on that of the bush itself

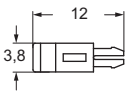
diagram JDS 84 poles

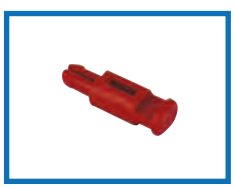


Connection with spring terminal



CR CDS coding pin





dimensions shown are not binding
and may be changed without notice