

AUTOMATION



- **The New 857 Series JUMPFLEX System**
- Signal Conditioning and Relay Modules

WAGO[®]
INNOVATIVE CONNECTIONS

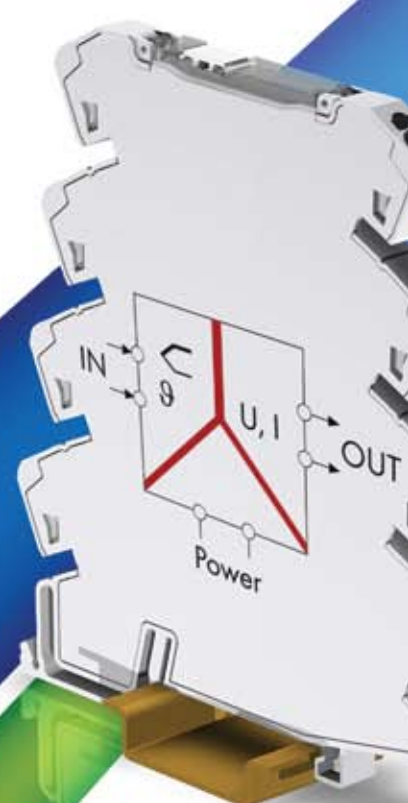
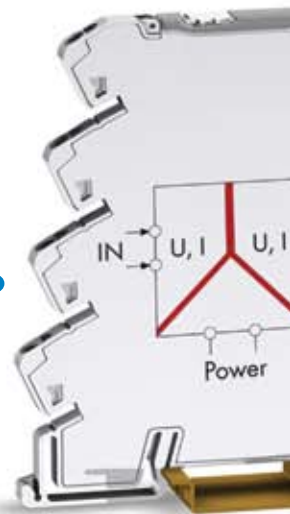
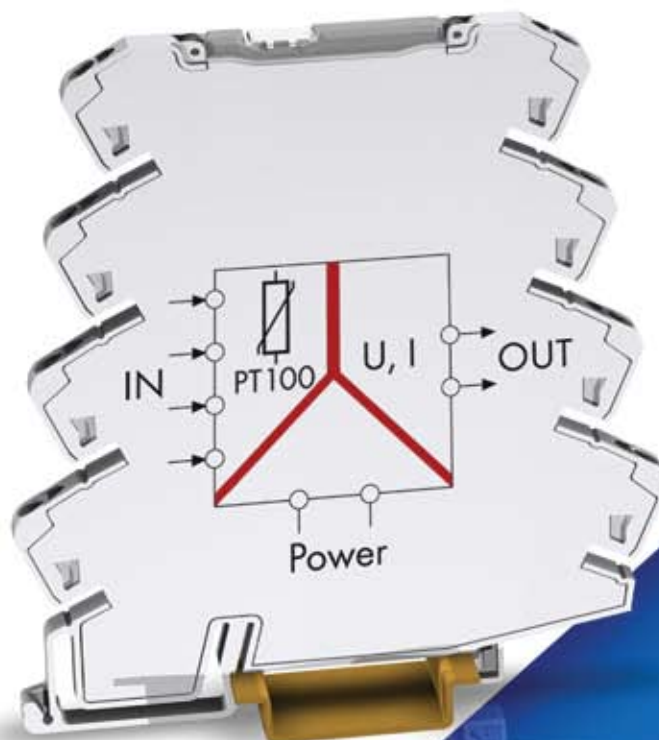
JUMPFLEX Series 857

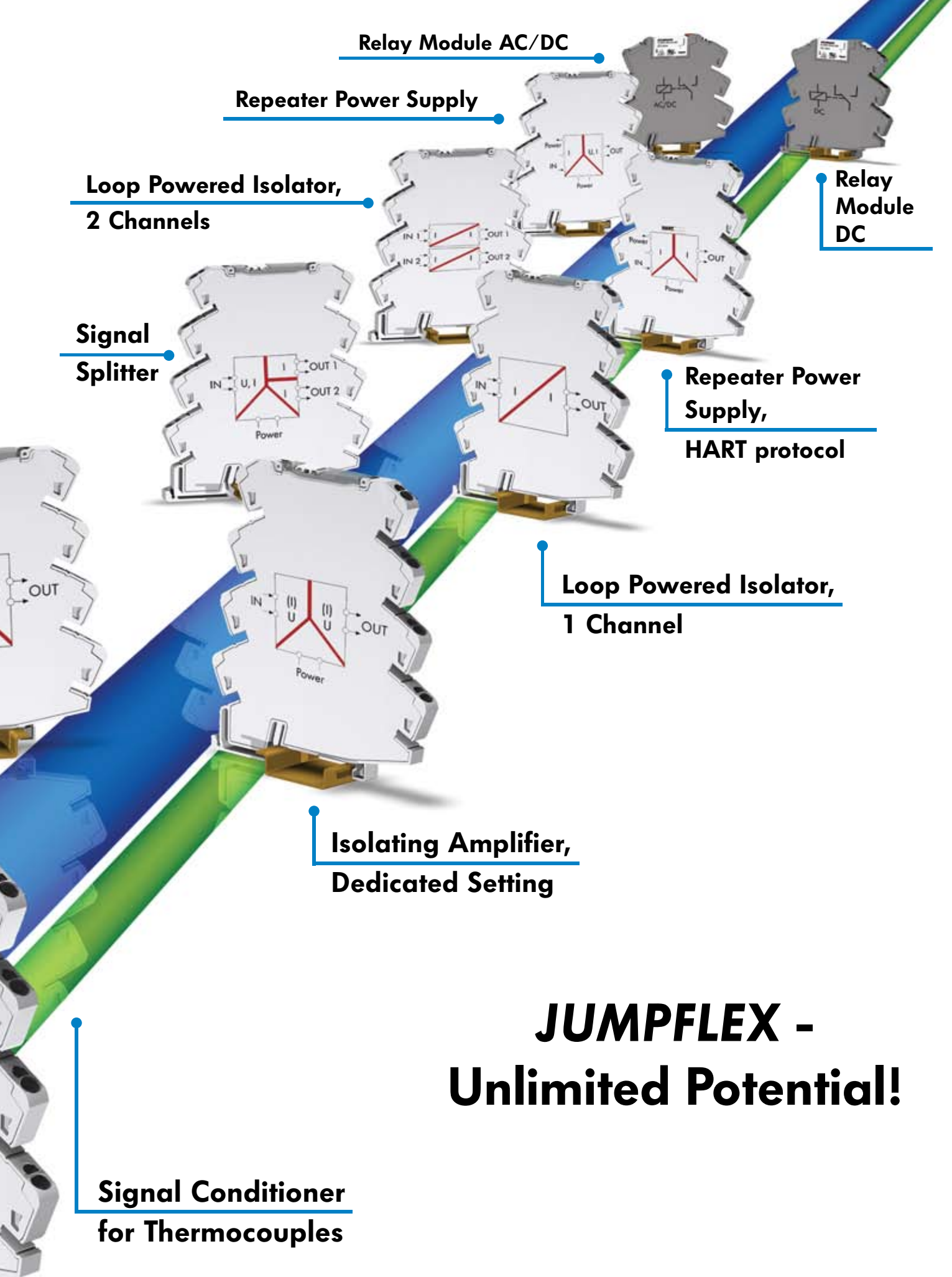
Today's factory automation and process control applications require conversion, isolation, and transmission of many different signal types. With these requirements comes the challenge of managing signal types, maximizing panel space, reducing signal wiring and downtime, while controlling overall system costs. The new 857 Series signal conditioners and relays meet this challenge and much more with...

- Industries smallest pitch at just 6mm wide, reduces panel space
- Pluggable relays for easy placement
- Flexible jumpering system eliminates redundant wiring
- Configurable modules increase flexibility and reduce inventory/part number requirements
- Safe operation with three-way isolation (2.5kV)
- Maintenance-free wiring with CAGE CLAMP®S termination technology
- And support for all signal types...

**Isolating Amplifier,
Configurable-
up to 36 signal combinations**

**Signal Conditioner
for RTDs**





Relay Module AC/DC

Repeater Power Supply

**Loop Powered Isolator,
2 Channels**

**Relay
Module
DC**

**Signal
Splitter**

**Repeater Power
Supply,
HART protocol**

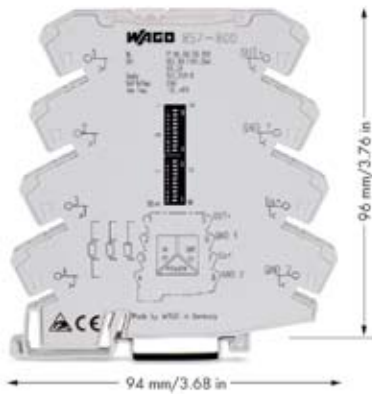
**Loop Powered Isolator,
1 Channel**

**Isolating Amplifier,
Dedicated Setting**

**Signal Conditioner
for Thermocouples**

**JUMPFLEX -
Unlimited Potential!**

Technical Data for Signal Conditioners

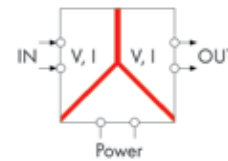


Module width:	6.0 mm / 0.236 in
Test voltage:	2.5 kV AC, 50 Hz, 1 min
Error of transmission:	< 0.1 % of the full scale value
Supply voltage:	16.8 V ... 31.2 V
Temperature range:	-25 °C ... + 70 °C
Approvals:	CE, listed Class I, Div. 2, Groups A, B, C, D*

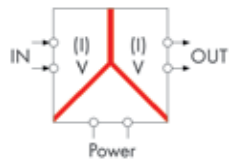
* In preparation

UL File # E175199

Isolation Amplifier, Configurable



Isolation Amplifier, Dedicated Setting

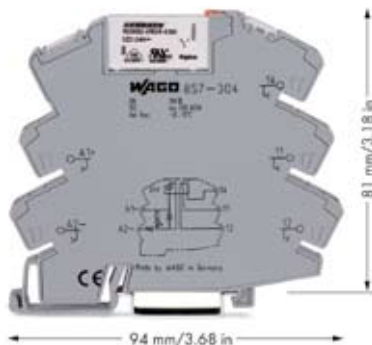


Item no.	857-400	857-411 / 857-412
Configuration	DIP switch	-
Input signal (calibrated switchable)	0 ... 20 mA, 4 ... 20 mA, 0 ... 5 V, 0 ... 10 V, 2 ... 10 V, 1 ... 5 V	0(4) ... 20 mA (857-411) 0(2) ... 10 V (857-412)
Output signal (calibrated switchable)	0 ... 20 mA, 4 ... 20 mA, 0 ... 5 V, 0 ... 10 V, 2 ... 10 V, 1 ... 5 V	0(4) ... 20 mA (857-411) 0(2) ... 10 V (857-412)
Load impedance	600 Ω (Out = mA) 2 kΩ (Out = V)	600 Ω (857-411) 2 kΩ (857-412)
Max. operating frequency	100 Hz / > 5 kHz	100 Hz
Supply voltage V_N	24 V DC	24 V DC

Signal Conditioning

Relay Modules

Technical Data for Relay Modules



Module width:	6.0 mm
Input voltage range:	V _N -15 % ... +20 %
Max. switching voltage:	AC 250 V
Max. continuous current:	5 A
Ambient temperature:	-25 °C ... +50 °C
Approvals:	CE, *

* In preparation

UL File # E175199

Relay Socket for Miniature Switching Relay



V _N	Item no.
DC 12 V	857-303
DC 24 V	857-304
DC 48 V	857-305
DC 60 V	857-306

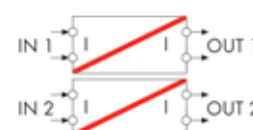
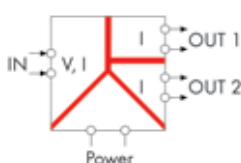
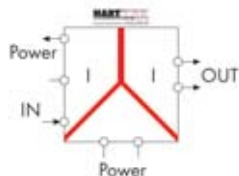
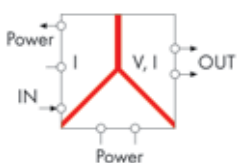
Relay Socket for Miniature Switching Relay



V _N	Item no.
AC/DC 24 V	857-354
AC/DC 230 V	857-358
AC/DC 120V	TBD

Max. continuous current	5 A	5 A
Max. switching voltage	AC 250 V	AC 250 V
Nominal operating mode	continuous duty	continuous duty
Mechanical life	5 x 10 ⁶ switching operations	5 x 10 ⁶ switching operations

Relay modules with gold contacts on request

Repeater Power Supply
**Repeater Power Supply,
HART protocol**
Signal Splitter
**Loop Powered Isolator,
1 Channel**
**Loop Powered Isolator,
2 Channels**


857-420

DIP switch

0 ... 20 mA, 4 ... 20 mA

0 ... 20 mA, 4 ... 20 mA, 0 ... 5 V,
0 ... 10 V, 2 ... 10 V, 1 ... 5 V

600 Ω (Out = mA)

2 kΩ (Out = V)

100 Hz / 1 kHz

24 V DC

857-421

-

4 ... 20 mA

4 ... 20 mA

230 Ω ... 600 Ω

100 Hz Signal / > 2.5 kHz HART

24 V DC

857-423

DIP switch

0 ... 20 mA, 4 ... 20 mA, 0 ... 5 V,
0 ... 10 V, 2 ... 10 V, 1 ... 5 V

2 x 0(4) ... 20 mA

2 x 300 Ω

100 Hz / 5 kHz

24 V DC

857-451

-

0(4) ... 20 mA

0(4) ... 20 mA

600 Ω

100 Hz

-

857-452

-

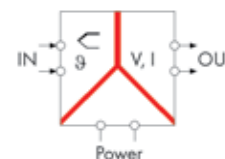
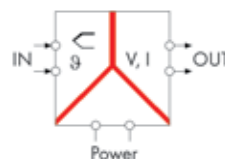
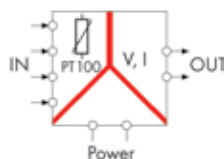
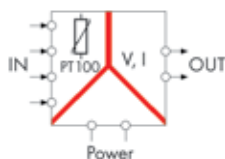
0(4) ... 20 mA

0(4) ... 20 mA

600 Ω

100 Hz

-

**Signal Conditioner
for RTDs**
**Signal Conditioner
for RTDs**
**Signal Conditioner
for Thermocouples**
**Signal Conditioner
for Thermocouples**


Item no.

857-800

857-801

857-810

857-811

Configuration

DIP switch

DIP switch or
configuration software

DIP switch

DIP switch or
configuration software

Input signal

Pt 100, Pt 200, Pt 500, Pt 1000
0 ... 1 k, 0 ... 4,5 k

Thermocouples of types J and K

Sensor connection

2-wire, 3-wire, 4-wire

Temperature range

-200 °C ... +850 °C

Type J: -150 °C ... +1200°C

Type K: -150 °C ... +1350°C

Cold junction compensation

-

on/ off (default: on)

Output signal

0 ... 20 mA, 4 ... 20 mA, 0 ... 10 V, 2 ... 10 V,
0 ... 5 V, 1 ... 5 V, 0 ... 10 mA, 2 ... 10 mA0 ... 20 mA, 4 ... 20 mA, 0 ... 10 V, 2 ... 10 V,
0 ... 5 V, 1 ... 5 V, 0 ... 10 mA, 2 ... 10 mA

Output signal (can be inverted)

- via configuration software

-

via configuration software

Load impedance

600 Ω (Out = mA)
2 kΩ (Out = V)600 Ω (Out = mA)
2 kΩ (Out = V)

Step response

2- and 4-wire: 180 ms
3-wire: 3602- and 4-wire: 60 ms ... 3 s
3-wire: 120 ms ... 6 sCold junction off: 60 ms
Cold junction on: 120 msCold junction off: 60 ms ... 3 s
Cold junction on: 120 ms ... 6 sSupply voltage V_N

24 V DC

24 V DC

Additional configuration options via configuration software (857-801 /857-811)

- Selection of other types of sensors
- Inversion of output signal
- Adjustable step response

Jumpers for 857 Series Signal Conditioning and Relay Module
Jumper Comb, Insulated White, 18A
Part Number

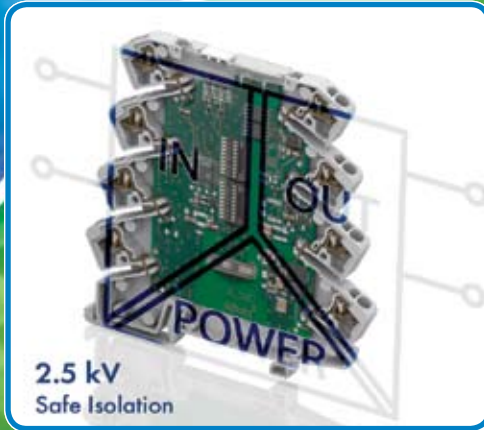
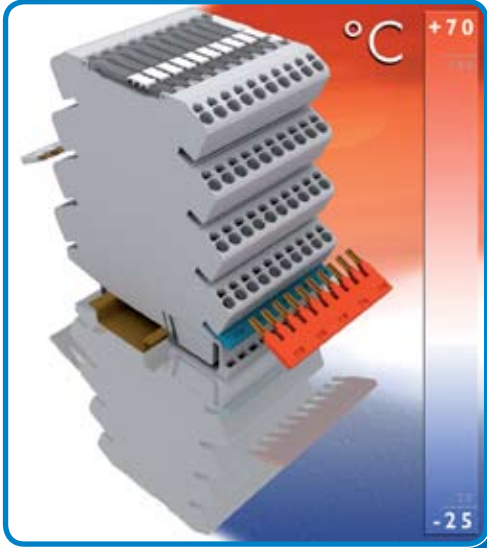
2 Pole	859-402
3 Pole	859-403
4 Pole	859-404
5 Pole	859-405
6 Pole	859-406
7 Pole	859-407
8 Pole	859-408
9 Pole	859-409
10 Pole	859-410
Red insulated part number adder	.../000-005
Blue insulated part number adder	.../000-006
Example, Blue insulated 2 pole	859-402/000-006

 For additional technical data see: www.wago.us

Multi-Talented With Unlimited Potential

For Extreme Applications

Extended temperature range from -25°C to $+70^{\circ}\text{C}$ allows for wide application areas.



Highest Safety

All devices provide "safe isolation" with 2.5kV test voltage to EN 61140.



Commoning, Not Discrete Wiring

Jumper slot at every connection point. Same module outline allows the use of a single in-line jumper. Application example, shared 0V potential on relay and signal conditioner.





Uniquely Compact

"True" 6.0mm/0.236in width allows for space saving.

Flexibility at its Finest

Configuration via DIP switch. RTD and thermocouple signal conditioners can also be configured via software.



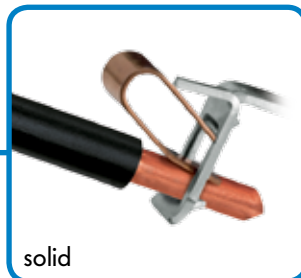
Clear Identification

Clear marking using the WMB Multi marking system.



Vibration Proof - Fast - Maintenance Free

CAGE CLAMP®S connection for all types of wires.



solid

AWG 28 ... 12
(0.08 mm² ... 2.5 mm²)



fine-stranded

AWG 22 ... 12
(0.34 mm² ... 2.5 mm²)



ferruled

AWG 22 ... 14
(0.25 mm² ... 1.5 mm²)

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