



Connectors for Winter and Road Service Area Equipments

Comprehensive Solution for Vehicles & Equipments

Standardized interface for trucks & accessories

■ Approved by EN 16330

Outdoor use & Heavy duty

■ Enhanced grip to use while wearing gloves
Waterproof IP68/69K
UV resistance
Resistance to shocks & vibrations

Covering all aspects from vehicles to attachments

■ Complete range with connectors, closing cap, backshells and accessories

Typical Applications



Winter & Road Service Vehicles



Accessories



Agriculture



Off road - Mining



Mobile Machinery

General Technical Characteristics

WME1: Solution from vehicle to attachment



Materials

- **Shell:** Thermoplastic
- **Backshells and cable glands:** Thermoplastic
- **Coupling ring:** Thermoplastic
- **Spring:** Stainless steel
- **Insert:** Thermoplastic
- **Contacts:** See page 6
- **Halogen free**
- **RoHS compliant & conforms to the Chinese standard SJ/T1166-2006 (Chinese RoHS equivalent)**



Environmental

- **Operating temperature:** from -30°C to +85°C
- **Flammability rating:** UL94 V-0
- **Salt spray:** ≥ 500 hours
- **Sealing:** IP68/IP69K
- **Fluid resistance:**
 - Gasoil
 - Mineral oil
 - Acid bath
 - Cleaning agent
 - Basic bath



With courtesy of Dainger

Electrical

- **Withstand voltage:** 5.000 V
- **Current rating:**
 - Power #8: 44 Amps
 - Signal #16: 13 Amps
- **Contact resistance:**
 - #8: ≤ 5 mΩ
 - #16: ≤ 3 mΩ

Mechanical

- **Durability:** 250 matings & unmatings
- **Vibration resistance ISO 16750-3:**
 - Acceleration 5.79 g.
 - Duration: 32 hours per axe
 - Frequency: 10-20,000 Hz
- **Thermal shock:** 100 cycles 1h30, from -30°C +85°C.

WME2: Solution for inside the cabin



Materials

- **Shell:** Thermoplastic
- **Backshells and cable glands:** Thermoplastic
- **Coupling ring:** Thermoplastic
- **Insert:** Thermoplastic
- **Contacts:** See page 10
- **Halogen free**
- **RoHS compliant & conforms to the Chinese standard SJ/T1166-2006 (Chinese RoHS equivalent)**



Environmental

- **Operating temperature:** from -40°C to +125°C
- **Flammability rating:** UL94 V-0
- **Salt spray:**
 - > 1,000 hours (mated connectors)
 - 48 hours (unmated connectors)
- **Sealing:** IP67/IP68
- **Fluid resistance:**
 - Gasoil
 - Mineral oil
 - Acid bath
 - Basic bath



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Electrical

- **Withstand voltage:** 1.500 V
- **Contact resistance:** < 3 mΩ
- **Current rating:** #16: 13 Amps



Mechanical

- **Durability:** 250 matings & unmatings
- **Frequency range:**
 - 10-20,000 Hz, 20 g.
 - 10 cycles in accordance with CEI 28-2-6

WME1: 4x#8 + 7x#16



Connector Part Numbers

| Connector type | Contact type | Layout | Connector delivered with | | Part numbers | |
|-----------------------------|---|----------------|--------------------------|-----------|------------------|------------------|
| | | | Closing cap | Backshell | Male insert | Female insert |
| Square flange receptacle | Crimped contacts supplied separately see page 6 | 4 x #8 + 7# 16 | No | No | WME10003A | - |
| Receptacle with closing cap | | | Yes | No | WME10007A | - |
| | | | Yes | Yes | WME10012A | - |
| Plug | | | N/A | No | - | WME10002A |
| | | | N/A | Yes | - | WME10013A |

Backshells

| Backshell type | IP level | Ø cable range mini/maxi | Part numbers |
|--|----------|-------------------------|------------------|
| Backshell with grommet and spacer for receptacle | IP68/69K | 9/18 mm | WME10010A |
| Backshell with grommet and spacer for plug | IP68/69K | | WME10011A |

Accessories

Protectiv cap for Plug

IP40

Part number
WME11011A

Dust cap for WME10003A/10007A/10012A

IP65

Part number
WME10015A
With chain

Dimensions

11 pos.

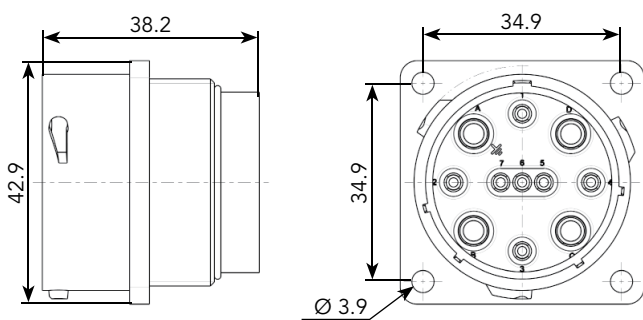
Square flange receptacle - WME10007A & WME10012A



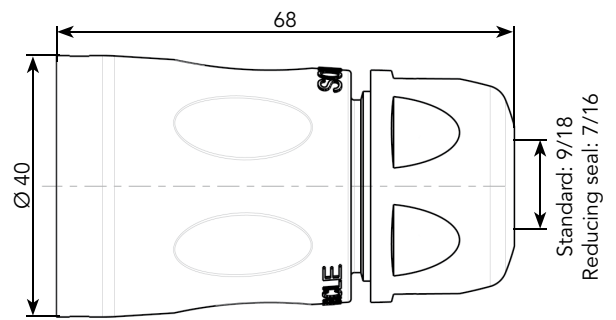
Plug - WME10002A & WME10013A



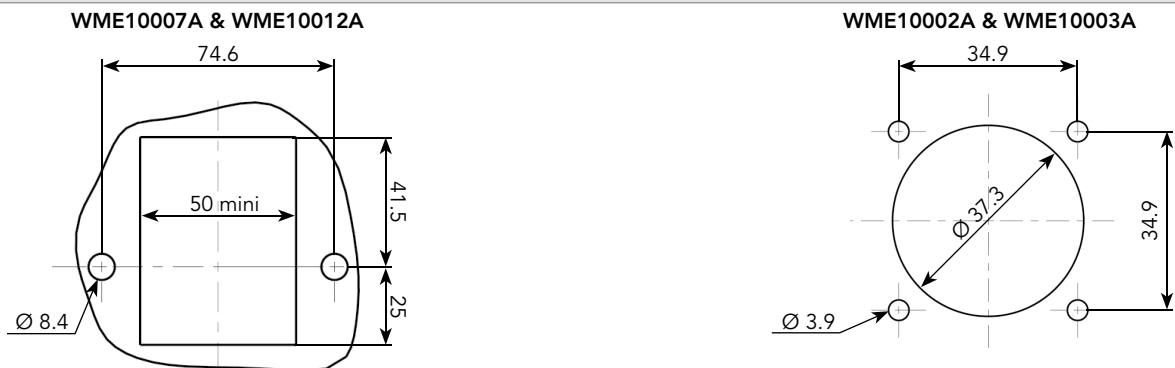
Square flange receptacle - WME10003A



WME10010A & WME10011A



Panel Cut Out



Note: all dimensions are in mm

Contacts for WME1

| Contact size | Conector type | Type | Wire size | | Part number | | Max wire Ø (mm) | Max insulator Ø (mm) | Available plating see below |
|----------------|---------------|------------------|-----------|-----------------|---|---|-----------------|----------------------|-----------------------------|
| | | | AWG | mm ² | Male | Female | | | |
| #16 Ø1.6 mm | WME1 | Machined | 30-28 | 0.05-0.08 | RM28M1- | RC28M1- | 0.55 | 1.1 | K, J |
| | | Machined | 26-24 | 0.13-0.2 | RM24M9- | RC24M9- | 0.8 | 1.6 | K, J |
| | | Stamped & Formed | 26-24 | 0.13-0.25 | SM24M1- ⁽¹⁾ SM24ML1- ⁽²⁾ | SC24M1- ⁽¹⁾ SC24ML1- ⁽²⁾ | 0.89-1.28 | Insulation grip | S31, S18, TK6 |
| | | Machined | 22-20 | 0.32-0.52 | RM20M13- RM20M12- | RC20M13- RC20M12- | 1.18 | 1.8 2.2 | K, J |
| | | Stamped & Formed | 22-20 | 0.35-0.5 | SM20M1- ⁽¹⁾ SM20ML1- ⁽²⁾ | SC20M1- ⁽¹⁾ SC20ML1- ⁽²⁾ | 1.17-2.08 | Insulation grip | S31, S18, TK6 |
| | | Machined | 20-16 | 0.52-1.5 | RM16M23- | RC16M23- | 1.8 | 3.2 | K, J |
| | | Stamped & Formed | 18-16 | 0.8-1.5 | SM16M1- ⁽¹⁾ SM16ML1- ⁽²⁾ | SC16M1- ⁽¹⁾ SC16ML1- ⁽²⁾ | 3.0 | No insulation grip | S31, S18, TK6 |
| | | Stamped & Formed | 18-16 | 0.8-1.5 | SM16M11- ⁽¹⁾ SM16ML11- ⁽²⁾ | SC16M11- ⁽¹⁾ SC16ML11- ⁽²⁾ | 2.0-3.0 | Insulation grip | S31, S18, TK6 |
| | | Machined | 16-14 | 1.5-2.5 | RM14M30- | RC14M30- | 2.28 | 3.2 | K, J |
| | | Stamped & Formed | 14 | 2.0-2.5 | SM14M1- ⁽¹⁾ SM14ML1- ⁽²⁾ | SC14M1- ⁽¹⁾ SC14ML1- ⁽²⁾ | 3.0 | No insulation grip | S31, S18, TK6 |
| #8 Ø3.6 mm | Machined | | 16 | 1.5 | 82913601A | 82913600A | - | 6.5 | A |
| | | | 14 | 2.5 | 82913603A | 82913602A | | | |
| | | | 12 | 4 | 82913605A | 82913604A | | | |
| | | | 10 | 6.0 | 82913607A | 82913606A | | | |
| | | | 8 | 10.0 | 82913609A | 82913608A | | | |

(1) contact reeled (2) loose contact
 Exemple: **RM28M1K** - Size #16, Machined, AWG30 wire.

Contact Selector Guide

Contacts Supplied Separately

| Electrical characteristics: contact resistance | | |
|--|------------------|-------|
| #16 Ø1.6mm | Machined | < 3mΩ |
| | Stamped & formed | < 6mΩ |
| #8 Ø3.6mm | Machined | < 5mΩ |

| Available plating options | |
|--|---|
| A | 2µ Ni + 2µ Ag |
| J | Gold flash over 2µ Ni |
| K | Min 0.4µ gold over 2µ Ni |
| S31 | Active part: Gold flash over Ni Crimp area: Nickel |
| S18 | Active part: 0.75µ gold min over 2µ Ni Crimp area: 1.3µ tin over Ni Other: Nickel |
| TK6 | 2-5µ Sn pre-plated |
| D70 | Superseded by S31 |
| S6 | Superseded by S18 |
| Other platings on request (contact supplied separately) | |
| T | T: 2µm Ni mini all over + 3 to 5 µm Sn all over |
| D28 | 0.75µ gold over Ni |

Tooling for WME1

11 pos.

Crimp Tooling

Standard contacts

| Contact size | Part number ⁽¹⁾ | Head* | Handles* | Extraction tools |
|----------------|----------------------------|-----------|----------|------------------|
| #16 Ø 1.6mm | RM/RC 28M- | S16RCM20 | SHANDLES | RX2025GE1 |
| | RM/RC 24M9- | | | |
| | RM/RC 20M13- | | | |
| | RM/RC 20M12- | | | |
| | RM/RC 16M23- | S16RCM16 | | |
| | RM/RC 14M30- | S16RCM14 | | |
| | SM/SC 24ML1- | S16SCM20 | | |
| | SM/SC 20ML1- | | | |
| | SM/SC 16ML1- | S16SCML1 | | |
| | SM/SC 14ML1- | S16SCML11 | | |
| SM/SC 16ML11- | | | | |

(1) see page 6 for plating options and other contact details

* Endurance of SHANDLES & Head tools = 50,000 cycles

| Contact size | Part number | Tool with separate locator | | Extraction tools |
|---------------|-----------------------|----------------------------|------------------------------|------------------|
| | | Hand tool | Positioner + locator setting | |
| #8 Ø 3.6mm | 82913601A / 82913600A | M317 | VGE10078A | 51060210936 |
| | 82913603A / 82913602A | | | |
| | 82913605A / 82913604A | | | |
| | 82913607A / 82913606A | | | |
| | 82913609A / 82913608A | | | |

Tools for contact #16



Part number Handle (without Head)

SHANDLES



Crimp Tooling (without Shandles)

S16RCM16*



Handle + Head = Complete set



Part number Extraction Tool

RX2025GE1

Tools for contact #8



Part number Hand Tool

M317



Part number Positioner + Locator Setting

VGE10078A



Part number Extraction Tool

51060210936

* Heads to be used with handle PN: SHANDLES

WME2: 9x#16



Connector Part Numbers

| Connector type | Contact type | Layout | Backshell | Part numbers | |
|--------------------------|---|--------|-----------|--------------|---------------|
| | | | | Male insert | Female insert |
| Square flange receptacle | Crimped contacts supplied separately see page 8 | 9 x 16 | No | WME20003A | WME20006A |
| Plug | | | No | WME20005A | WME20002A |

Backshells

| Backshell type | IP level | Part numbers |
|---|----------|--------------|
| Straight backshell for flexible conduit system | IP67 | WME20008A |
| Sealing gland backshell with anti-decoupling system | IP67 | WME20009A |
| 90° backshell with sealing gland | IP67 | WME20010A |

Accessories

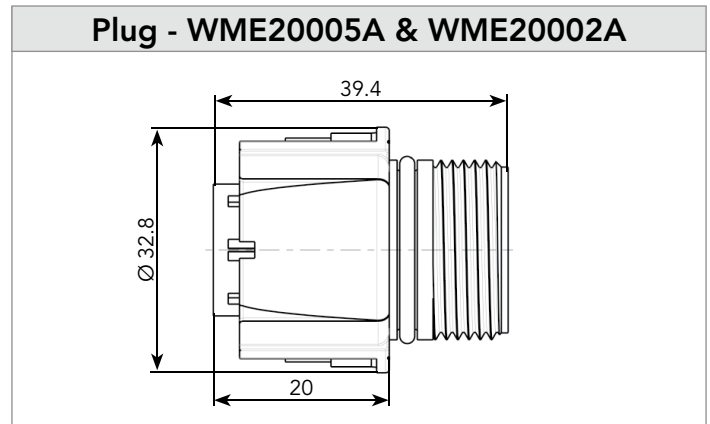
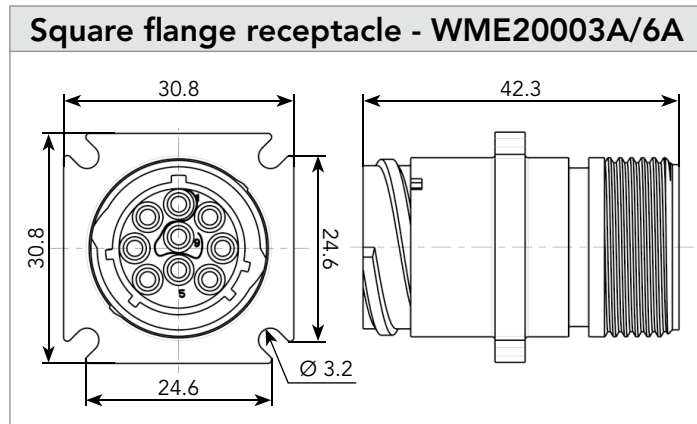
Receptacle dustcap

| | |
|--------------------|------|
| Part number | IP67 |
| WME20007A | |

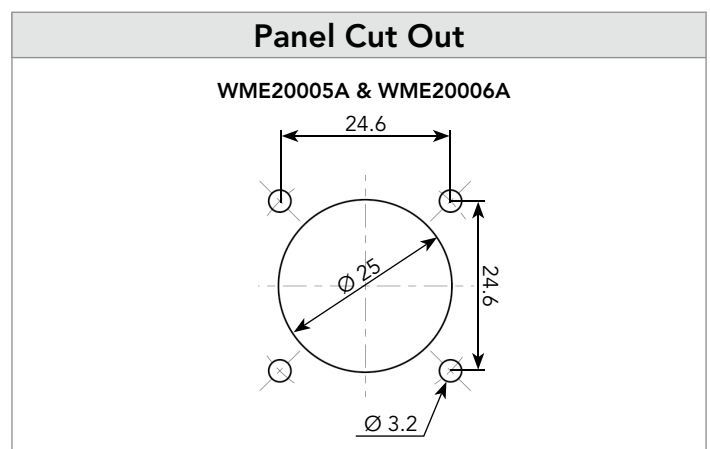
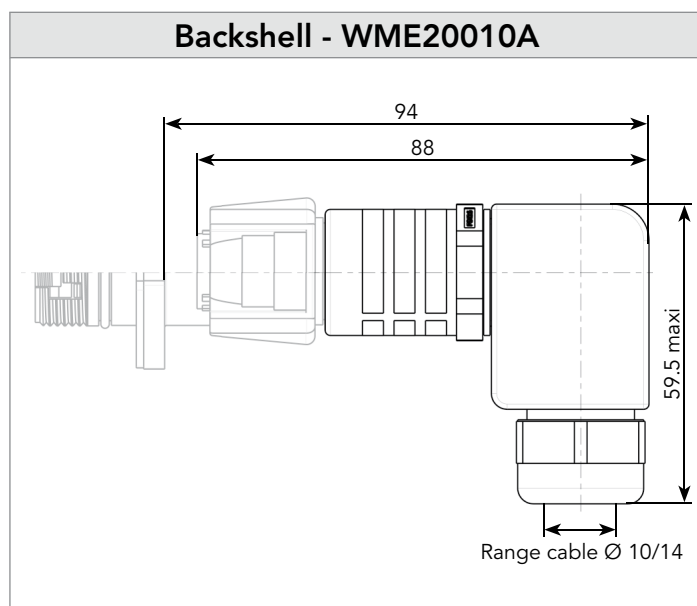
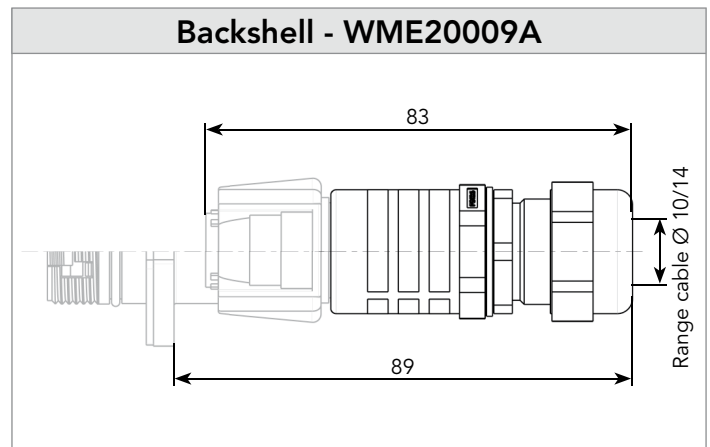
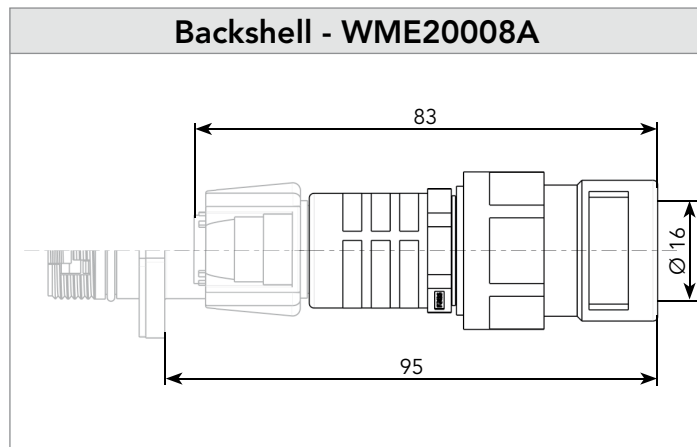
Panel gasket

| | |
|--------------------|--|
| Part number | |
| WME20011A | |
| IP67 | |

Dimensions



9 pos.



Note: all dimensions are in mm

Contacts for WME2

| Contact size | Conector type | Type | Wire size | | Part number | | Contact resistance | Wire Ø (mm) | Max insulator Ø (mm) | Available plating |
|----------------|---------------|------------------|-----------|---------|---------------------------|---------------------------|--------------------|--------------|----------------------|----------------------------|
| | | | AWG | mm² | Male | Female | | | | |
| #16 Ø1.6 mm | WME2 | Stamped & Formed | 18-16 | 0.8-1.5 | CF16PC10RF ⁽¹⁾ | CF16SC10RF ⁽¹⁾ | < 7mΩ | 0.7 to 1.5 | 3 | Active part: Gold flash |
| | | | 14 | 2.5 | CF16PC18RF ⁽²⁾ | CF16SC18RF ⁽²⁾ | | | | |
| | | Crimp Machined | 18-14 | 0.8-2.5 | CM16PC10MQ | CM16SC10MQ | < 4mΩ | 0.93 to 1.91 | 3 | Active part: 0.4µ gold |
| | | Solder Machined | 14 | 2.5 | CM16PS10MQ | CM16SS10MQ | < 7mΩ | - | 3 | |
| | | Crimp Machined | 18 to 13 | | CM16PC00MQ | CM16SC00MQ | < 4mΩ | 0.93 to 2.6 | 3 | |

(1): loose piece contacts

(2): reeled contacts

Tools for stamped & formed contact #16

| Contact part Number | Contact size | Cable size | Cable section (mm²) | Crimping handle | Crimp head | Head cavity size |
|--------------------------|----------------|------------|---------------------|-----------------|------------|------------------|
| CF16PC10RF CF16SC10RF | #16 Ø1.6 mm | AWG 19 | 0.70 min | Shandles | S16CFSP | 19/18 |
| | | AWG 18 | 0.80 max | | | |
| | | AWG 16 | 1.5 max | | | |
| CF16PC40RF CF16SC40RF | #16 Ø1.6 mm | AWG 14 | 2.5 min | Shandle | S16CFSP | 14 |

Tools for machined contact #16



Part number
Positioner + Locator Setting
8365-2



Part number Hand Tool
8365

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Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

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