

# INDUSTRIAL AUTOMATION

## mPm<sup>®</sup> DIN VALVE CONNECTORS

*Conform to industry standard EN 175301-803  
(formerly DIN 43650)*



# Find the Latest Innovations and Information **at molex.com**

For the most in-depth and up-to-date information on all our products, visit molex.com. It's designed to help you get more done in less time with advanced search capabilities, 3D models, product specifications, easy sample ordering and more.



molex.com provides a first stop for comprehensive overviews of our industrial products. Some of the tools you'll find are:

#### **Capabilities Videos**

Short online videos highlight key industry products, as well as our unique cross-functional design and manufacturing capabilities.

#### **Featured Products**

To find out about new products that can take your design to the next level, look no further than this convenient product spotlight.

#### **Other Time-Saving Site Features**

##### **Monthly E-ouncements**

Electronic newsletter keeps you up-to-date on our latest innovations

##### **Favorite Products Feature**

Let you select and save up to 200 products as you browse

##### **New Videos, Webinars, Articles and More**

Available right from our home page

##### **Detailed Application Pages**

##### **Instant Access to Product Specs**

## TABLE OF CONTENTS

|  |           |
|--|-----------|
| <b>mPm® Field Attachable DIN Valve Connectors</b> .....    | <b>4</b>  |
| Form A, Ext. Thread .....                                  | 6         |
| Form Industrial, Ext. Thread .....                         | 7         |
| Form B, Ext. Thread .....                                  | 8         |
| Form C, Ext. Thread .....                                  | 9         |
| Form Micro, Ext. Thread .....                              | 10        |
| Form A, Intern. Thread .....                               | 11        |
| Form Industrial, Intern. Thread .....                      | 13        |
| Form B, Intern. Thread .....                               | 14        |
| Form C, Intern. Thread .....                               | 15        |
| Micro Form, Intern. Thread .....                           | 16        |
| Form A, Intern. Thread .....                               | 17        |
| Form Industrial, Intern. Thread .....                      | 18        |
| Form A, Intern. Thread .....                               | 19        |
| <br>   |           |
| <b>mPm® Molded Cable DIN Valve Connectors</b> .....        | <b>20</b> |
| Form A, Overmolded .....                                   | 22        |
| Form Industrial, Overmolded .....                          | 23        |
| Form B, Overmolded .....                                   | 24        |
| Form C, Overmolded .....                                   | 25        |
| Form Micro, Overmolded .....                               | 26        |
| DIN Valve to Brad® M12, Overmolded .....                   | 27        |
| DUAL DIN Valve, Overmolded .....                           | 28        |
| DIN Valve to Brad® ILS, Overmolded .....                   | 30        |
| DIN Valve to Brad® M12 Overmolded Adaptor .....            | 31        |
| Cable Options .....  | 32        |
| Circuit Options .....                                      | 33        |
| <br>   |           |
| <b>mPm® DIN Bases for DIN Valve Connectors</b> .....       | <b>34</b> |
| <br>   |           |
| <b>mPm® DIN Adaptors for DIN Valve Connectors</b> .....    | <b>40</b> |
| <br>   |           |
| <b>mPm® DIN Spare Parts for DIN Valve Connectors</b> ..... | <b>49</b> |
| <br>   |           |
| Supply Voltage and LED Color .....                         | 33        |
| Ground PIN Position .....                                  | 51        |



**MOLEX DIN VALVE CONNECTOR  
SOLUTIONS >  
EMPHASIZE PERFORMANCE AND  
RELIABILITY**

**The Molex range of field attachable DIN valve connectors provide unsurpassed sealing properties and increase performance, simplify manufacturing processes, reduce inventory and lower applied costs for hydraulic, pneumatic and electromagnetic devices as well as sensors.**



Source: Siemens AG

# mPm® Field Attachable DIN Valve Connectors

Conform to EN 175301-803 (ex DIN 43650)

The mPm® range of connectors is used extensively to provide electrical connection in a wide range of applications. The most common application for mPm DIN connectors is in conjunction with pneumatic, hydraulic or electromagnetic devices, including solenoid valves. Other applications include, for example, pressure transducers, proximity switches, level sensors, limit switches and low energy motors. Molex manufactures an extensive and comprehensive range of connectors with standard options including for example LED illuminated devices as well as VDR, diodes or transil diodes (with or without illuminated device) to offer protection against overvoltage peaks. Brad® DIN mPm connectors offer protection from dust and water (IP65 or IP67 on specific request) when correctly installed with screw and gasket which are supplied together with the connector.



**IP67 rated DIN valve connectors with improved strain relief. Cable retention force increased by up to 20% over internal nut styles. Enlarged cable range that covers the PG9 and PG11 internal thread connector cable range. Conforms to EN 175301-803.**

## Specifications

### ELECTRICAL

Max. Current: 16.0A  
 Contact Resistance:  
 ≤ 15 milliohms max.  
 Insulation Resistance:  
 100 Megohms min.  
 Max. Conductor: 1.50mm<sup>2</sup> / 16AWG

### MECHANICAL

Insertion and Withdrawal Force:  
 2+GND ≤ 60N

### CERTIFICATION

UL recognized *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
 Contact Area: Silver  
 Solder Tail Area: Silver  
 Operating Temperature with:  
 Nitrile Rubber (NBR) Gasket:  
 -40° to +90°C  
 Silicone Gasket: -40° to +125°C  
 Cable Diameter Range: 4.00-9.00mm  
 Live Contact Distance:  
 18.00mm

### ENVIRONMENTAL

IP67 Sealing Protection

## Non Electronic

**C28 2 00 N 0 R \*\***

**SERIES** — C28=External Thread Form A  
**POLES** — 2=2Poles+Ground 3=3Poles+Ground  
**THREAD** — 00=External Thread  
**COVER COLOR** — N=Black Cover G=Gray Cover W=V0 Black Cover (only with UL listed connectors)  
**GROUND POSITION** — 0=Unmounted 2=H12 3=H3 6=H6 9=H9  
**SCREW & GASKET** — R=Integrated NBR Gasket & IP67 Screw, S=Integrated Silicone Gasket & IP67 Screw  
**PACKAGING STYLE** — no digit=Single Bag Unmounted, SN=Bulk Pack Mounted, CN=Bulk Pack Unmounted

## Electronic

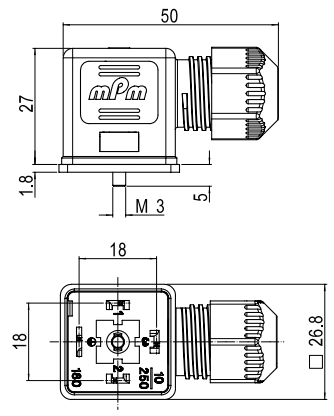
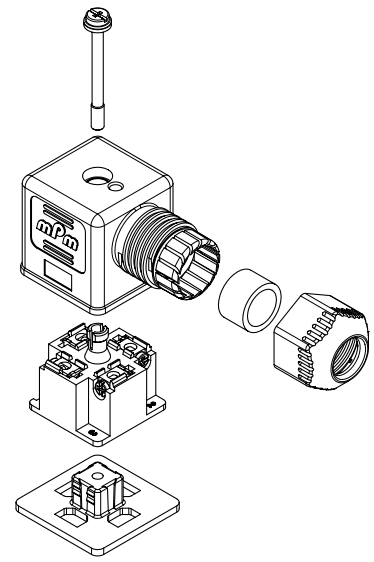
**S28 2 00 T C4 2 0 R \*\***

**SERIES** — S28=External Thread Form A  
**POLES** — 2=2Poles+Ground  
**THREAD** — 00=External Thread  
**COVER COLOR** — N=Black Cover G=Gray Cover T=Transparent  
**CIRCUIT** — see page 33  
**VOLTAGE & LED COLOR** — see page 33  
**GROUND POSITION** — 0=Unmounted 2=H12 3=H3 6=H6 9=H9  
**SCREW & GASKET** — R=Integrated NBR Gasket & IP67 Screw, S=Integrated Silicone Gasket & IP67 Screw  
**PACKAGING STYLE** — no digit=Single Bag Unmounted, SN=Bulk Pack Mounted, CN=Bulk Pack Unmounted



**mPm®**  
**Field Attachable**  
**DIN Valve**  
**Connectors**

**121201** Form A, Ext. Thread, Non-Electronic  
**121207** Form A, Ext. Thread, Electronic



**Note:** UL listed part number identified by adding suffix SA at the end of the nomenclature in conjunction with UL material (W for black and T for transparent) e.g. C28200W2R5NSA

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Packaging Type |           | Poles    | Circuit | Voltage         | LED Color | Engineering No. | Standard Order No. |
|----------------|-----------|----------|---------|-----------------|-----------|-----------------|--------------------|
| Single Bag     | Unmounted | 2+Ground | NO      | 250V AC/300V DC | NO        | C28200N0R       | 121201-0001        |
| Bulk Pack      | Mounted   |          | NO      | 250V AC/300V DC | NO        | C28200N2RSN     | 121201-0034        |
| Single Bag     | Unmounted | 3+Ground | NO      | 250V AC/300V DC | NO        | C28300N0R       | 121201-0002        |
| Bulk Pack      | Mounted   |          | NO      | 250V AC/300V DC | NO        | C28300N2RSN     | 121201-0038        |
| Single Bag     | Unmounted | 2+Ground | C4      | 24V AC/DC       | yellow    | S28200TC4H0R    | 121207-0005        |
| Bulk Pack      | mounted   |          | C4      | 24V AC/DC       | yellow    | S28200TC4H2RSN  | 121207-0368        |
| Single Bag     | Unmounted |          | C4      | 230V AC/DC      | yellow    | S28200TC4M0R    | 121207-0106        |
| Bulk Pack      | mounted   |          | C4      | 230V AC/DC      | yellow    | S28200TC4M2RSN  | 121207-0371        |



**IP67 rated DIN valve connector with improved strain relief. Cable retention force increased up to 20% over internal nut style. Enlarged cable range that covers the PG9 and PG11 internal thread connectors cable range.**

## Specifications

### ELECTRICAL

Max. Current 16.0A  
 Contact Resistance: ≤15milliohms max.  
 Insulation Resistance:  
 100Megohms min.  
 Max. Conductor: 1.50mm<sup>2</sup> / 16AWG

### MECHANICAL

Insertion and Withdrawal Force:  
 2+GND ≤ 60N

### CERTIFICATION

UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
 Contact Area: Silver  
 Solder Tail Area: Silver  
 Operating Temperature with:  
 Nitrile Rubber (NBR) Gasket: -40° +90°C  
 Silicone Gasket: -40° +125°C  
 Cable Diameter Range: 4.00-9.00mm  
 Live Contact Distance: 11.00mm

### ENVIRONMENTAL

IP67 Sealing Protection

## Non Electronic

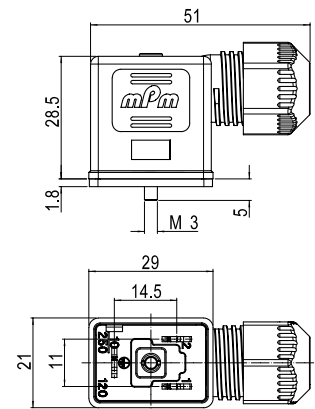
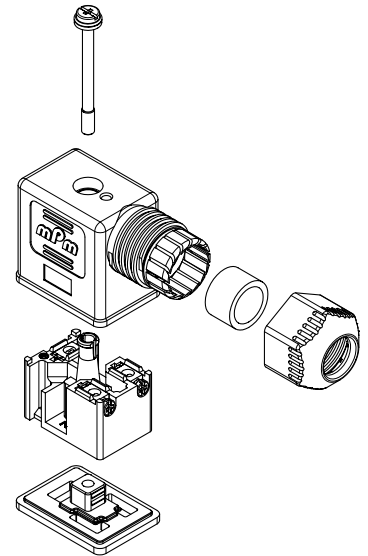
**C22 2 00 N 0 R \*\***

**SERIES** C22=External Thread Form Industrial  
**POLES** 2=2Poles+Ground  
**THREAD** 00=External Thread  
**COVER COLOR** N=Black Cover G=Gray Cover W=V0 Black Cover (only with UL listed connectors)  
**GROUND POSITION** 0=Unmounted 2=H12 6=H6  
**SCREW & GASKET** R=Integrated NBR Gasket & IP67 Screw, S=Integrated Silicone Gasket & IP67 Screw  
**PACKAGING STYLE** no digit=Single Bag Unmounted, SN=Bulk Pack Mounted, CN=Bulk Pack Unmounted

## Electronic

**S22 2 00 T C4 2 0 R \*\***

**SERIES** S22=External Thread Form Industrial  
**POLES** 2=2Poles+Ground  
**THREAD** 00=External Thread  
**COVER COLOR** N=Black Cover G=Gray Cover T=Transparent  
**CIRCUIT** see page 33  
**VOLTAGE & LED COLOR** see page 33  
**GROUND POSITION** 0=Unmounted 2=H12 6=H6  
**SCREW & GASKET** R=Integrated NBR Gasket & IP67 Screw, S=Integrated Silicone Gasket & IP67 Screw  
**PACKAGING STYLE** no digit=Single Bag Unmounted, SN=Bulk Pack Mounted, CN=Bulk Pack Unmounted



**Note:** UL listed part number identified by adding suffix SA at the end of the nomenclature in conjunction with UL material (W for black and T for transparent) e.g. C28200W2RSN5A

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Packaging Type |           | Poles    | Circuit | Voltage         | LED Color | Engineering No. | Standard Order No. |
|----------------|-----------|----------|---------|-----------------|-----------|-----------------|--------------------|
| Single Bag     | Unmounted | 2+Ground | NO      | 250V AC/300V DC | NO        | C22200N0R       | 1212020001         |
| Bulk Pack      | Mounted   |          | NO      | 250V AC/300V DC | NO        | C22200N2RSN     | 1212020012         |
| Single Bag     | Unmounted |          | C4      | 24V AC/DC       | yellow    | S22200TC4H0R    | 1212080080         |
| Bulk Pack      | Mounted   |          | C4      | 24V AC/DC       | yellow    | S22200TC4H2RSN  | 1212080240         |
| Single Bag     | Unmounted |          | C4      | 230V AC/DC      | yellow    | S22200TC4M0R    | 1212080083         |
| Bulk Pack      | Mounted   |          | C4      | 230V AC/DC      | yellow    | S22200TC4M2RSN  | 1212080243         |

**IP67 rated DIN valve connector with improved strain relief. Cable retention force increased up to 20% over internal nut style. Enlarged cable range that covers the PG9 and PG11 internal thread connectors cable range. Conforms to EN 175301-803**

## Specifications

### ELECTRICAL

Current: max. 16.0A  
 Contact Resistance: ≤15milliohms max.  
 Insulation Resistance:  
 100Megohms min.  
 Max. Conductor: 1.50mm<sup>2</sup> / 16AWG

### MECHANICAL

Insertion and Withdrawal Force:  
 2+GND ≤ 60N

### CERTIFICATION

UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
 Contact Area: Silver  
 Solder Tail Area: Silver  
 Operating Temperature with:  
 Nitrile Rubber (NBR) Gasket:  
 -40° +90°C  
 Silicone Gasket: -40° +125°C  
 Cable Diameter Range: 4.00-9.00mm  
 Live Contact Distance: 10.00mm

### ENVIRONMENTAL

IP67 Sealing Protection

## mPm® Field Attachable DIN Valve Connectors

**121203** Form B, Ext. Thread,  
Non-Electronic

**121209** Form B, Ext. Thread,  
Electronic

### Non Electronic

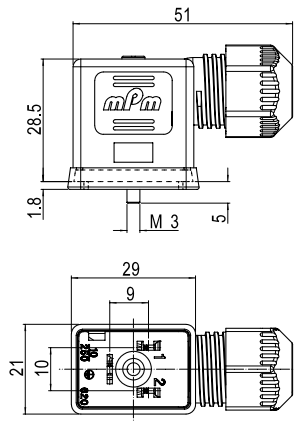
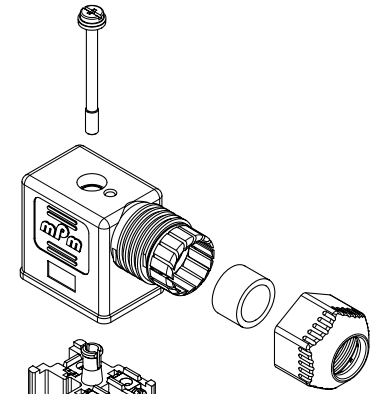
**C92 2 00 N 0 T \*\***

**SERIES** — C92=External Thread Form B  
**POLES** — 2=2Poles+Ground  
**THREAD** — 00=External Thread  
**COVER COLOR** — N=Black Cover G=Gray Cover W=V0 Black Cover (only with UL listed connectors)  
**GROUND POSITION** — 0=Unmounted 2=H12 6=H6  
**SCREW & GASKET** — T=Profile NBR Gasket & IP67 Screw, U=Profile Silicone Gasket & IP67 Screw  
**PACKAGING STYLE** — no digit=Single Bag Unmounted, SN=Bulk Pack Mounted, CN=Bulk Pack Unmounted

### Electronic

**S92 2 00 T C4 2 0 T \*\***

**SERIES** — S92=External Thread Form B  
**POLES** — 2=2Poles+Ground  
**THREAD** — 00=External Thread  
**COVER COLOR** — N=Black Cover G=Gray Cover T=Transparent  
**CIRCUIT** — see page 33  
**VOLTAGE & LED COLOR** — see page 33  
**GROUND POSITION** — 0=Unmounted 2=H12 6=H6  
**SCREW & GASKET** — T=Profile NBR Gasket & IP67 Screw, U=Profile Silicone Gasket & IP67 Screw  
**PACKAGING STYLE** — no digit=Single Bag Unmounted, SN=Bulk Pack Mounted, CN=Bulk Pack Unmounted



**Note:** UL listed part number identified by adding suffix SA at the end of the nomenclature in conjunction with UL material (W for black and T for transparent) e.g. C28200W2RSNSA

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Packaging Type |           | Poles    | Circuit | Voltage         | LED Color | Engineering No. | Standard Order No. |
|----------------|-----------|----------|---------|-----------------|-----------|-----------------|--------------------|
| Single Bag     | Unmounted | 2+Ground | NO      | 250V AC/300V DC | NO        | C92200N0T       | 121203-0001        |
| Bulk Pack      | Mounted   |          | NO      | 250V AC/300V DC | NO        | C92200N2TSN     | 121203-0009        |
| Single Bag     | Unmounted |          | C4      | 24V AC/DC       | yellow    | S92200TC4H0T    | 121209-0047        |
| Bulk Pack      | Mounted   |          | C4      | 24V AC/DC       | yellow    | S92200TC4H2TSN  | 121209-0207        |
| Single Bag     | Unmounted |          | C4      | 230V AC/DC      | yellow    | S92200TC4M0T    | 121209-0050        |
| Bulk Pack      | Mounted   |          | C4      | 230V AC/DC      | yellow    | S92200TC4M2TSN  | 121209-0210        |



**IP67 rated DIN valve connector with improved strain relief. Cable retention force increased up to 20% over internal nut style. Enlarged cable range that covers the internal thread connectors cable range. Conforms to EN 175301-803**

## Specifications

### ELECTRICAL

Current: max. 10.0A  
 Contact Resistance: ≤15milliohms max.  
 Insulation Resistance:  
 100Megohms min.  
 Max. Conductor: 0.75mm<sup>2</sup> / 18AWG

### MECHANICAL

Insertion and Withdrawal Force:  
 2+GND ≤ 60N

### CERTIFICATION

UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
 Contact Area: Silver  
 Solder Tail Area: Silver  
 Operating Temperature with:  
 Nitrile Rubber (NBR) Gasket: -40° +90°C  
 Silicone Gasket: -40° +125°C  
 Cable Diameter Range: 3.00-5.50mm  
 Live Contact Distance: 8.00mm

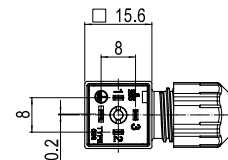
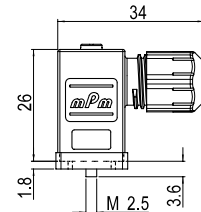
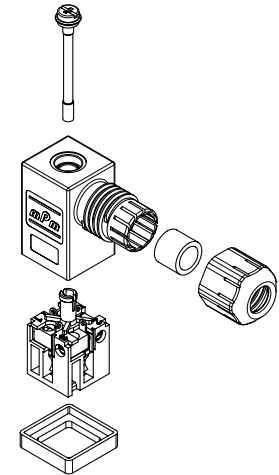
### ENVIRONMENTAL

IP67 Sealing Protection

## mPm® Field Attachable DIN Valve Connectors

**121204** Form C, Ext. Thread,  
Non-Electronic

**121210** Form C, Ext. Thread,  
Electronic



## Non Electronic

**C25 2 00 N 0 T \*\***

**SERIES** — C25=External Thread Form C  
**POLES** — 2=2Poles+Ground 3=3Poles+Ground  
**THREAD** — 00=External Thread  
**COVER COLOR** — N=Black Cover G=Gray Cover W=V0 Black Cover (only with UL listed connectors)  
**GROUND POSITION** — 0=Unmounted 2=H12 3=H3 6=H6 9=H9  
**SCREW & GASKET** — T=Profile NBR Gasket & IP67 Screw, U=Profile Silicone Gasket & IP67 Screw  
**PACKAGING STYLE** — no digit=Single Bag Unmounted, SN=Bulk Pack Mounted, CN=Bulk Pack Unmounted

## Electronic

**S25 2 00 T C4 2 0 T \*\***

**SERIES** — S25=External Thread Form C  
**POLES** — 2=2Poles+Ground  
**THREAD** — 00=External Thread  
**COVER COLOR** — N=Black Cover G=Gray Cover T=Transparent  
**CIRCUIT** — see page 33  
**VOLTAGE & LED COLOR** — see page 33  
**GROUND POSITION** — 0=Unmounted 2=H12 3=H3 6=H6 9=H9  
**SCREW & GASKET** — T=Profile NBR Gasket & IP67 Screw, U=Profile Silicone Gasket & IP67 Screw  
**PACKAGING STYLE** — no digit=Single Bag Unmounted, SN=Bulk Pack Mounted, CN=Bulk Pack Unmounted

**Note:** UL listed part number identified by adding suffix SA at the end of the nomenclature in conjunction with UL material (W for black and T for transparent) e.g. C28200W2RSNSA

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Packaging Type |           | Poles    | Circuit | Voltage         | LED Color | Engineering No. | Standard Order No. |
|----------------|-----------|----------|---------|-----------------|-----------|-----------------|--------------------|
| Single Bag     | Unmounted | 2+Ground | NO      | 250V AC/300V DC | NO        | C25200N0T       | 121204-0001        |
| Bulk Pack      | Mounted   |          | NO      | 250V AC/300V DC | NO        | C25200N2TSN     | 121204-0010        |
| Single Bag     | Unmounted |          | C4      | 24V AC/DC       | yellow    | S25200TC4H0T    | 121210-0042        |
| Bulk Pack      | Mounted   |          | C4      | 24V AC/DC       | yellow    | S25200TC4H2TSN  | 121210-0342        |
| Single Bag     | Unmounted |          | C4      | 230V AC/DC      | yellow    | S25200TC4M0T    | 121210-0045        |
| Bulk Pack      | Mounted   |          | C4      | 230V AC/DC      | yellow    | S25200TC4M2TSN  | 121210-0345        |

**IP67 rated DIN valve connector with improved strain relief. Cable retention force increased up to 20% over internal nut style. Enlarged cable range that covers internal thread connectors cable range.**

## Specifications

### ELECTRICAL

Max. Current 10.0A  
 Contact Resistance: ≤15milliohms max.  
 Insulation Resistance:  
 100Megohms min.  
 Max Conductor: 0.75mm<sup>2</sup> / 18AWG

### MECHANICAL

Insertion and Withdrawal Force:  
 2+GND ≤ 60N

### CERTIFICATION

UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
 Contact Area: Silver  
 Solder Tail Area: Silver  
 Operating Temperature with:  
 Nitrile Rubber (NBR) Gasket:  
 -40° +90°C  
 Silicone Gasket -40° to +125°C  
 Cable Diameter Range: 3.00-5.50mm  
 Live Contact Distance: 9.40mm

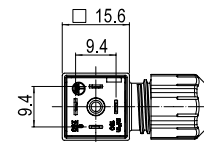
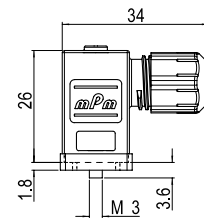
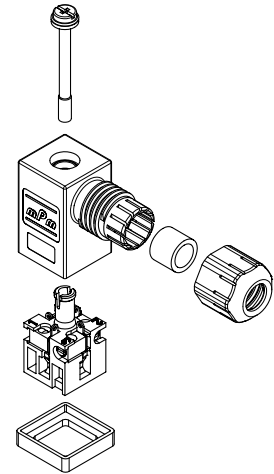
### ENVIRONMENTAL

IP67 Sealing Protection

## mPm® Field Attachable DIN Valve Connectors

**121205** Form Micro, Ext. Thread  
Non-Electronic

**121211** Form Micro, Ext. Thread  
Electronic



### Non Electronic

**C29 2 00 N 0 T \*\***

- SERIES** — C29=External Thread Form Micro
- POLES** — 2=2Poles+Ground 3=3Poles+Ground
- THREAD** — 00=External Thread
- COVER COLOR** — N=Black Cover G=Gray Cover W=V0 Black Cover (only with UL listed connectors)
- GROUND POSITION** — 0=Unmounted 2=H12 3=H3 6=H6 9=H9
- SCREW & GASKET** — T=Profile NBR Gasket & IP67 Screw, U=Profile Silicone Gasket & IP67 Screw
- PACKAGING STYLE** — no digit=Single Bag Unmounted, SN=Bulk Pack Mounted, CN=Bulk Pack Unmounted

### Electronic

**S29 2 00 T C4 2 0 T \*\***

- SERIES** — S29=External Thread Form Micro
- POLES** — 2=2Poles+Ground
- THREAD** — 00=External Thread
- COVER COLOR** — N=Black Cover G=Gray Cover T=Transparent
- CIRCUIT** — see page 33
- VOLTAGE & LED COLOR** — see page 33
- GROUND POSITION** — 0=Unmounted 2=H12 3=H3 6=H6 9=H9
- SCREW & GASKET** — T=Profile NBR Gasket & IP67 Screw, U=Profile Silicone Gasket & IP67 Screw
- PACKAGING STYLE** — no digit=Single Bag Unmounted, SN=Bulk Pack Mounted, CN=Bulk Pack Unmounted

**Note:** UL listed part number identified by adding suffix SA at the end of the nomenclature in conjunction with UL material (W for black and T for transparent) e.g. C28200W2R5NSA

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Packaging Type |           | Poles    | Circuit | Voltage         | LED Color | Engineering No. | Standard Order No. |
|----------------|-----------|----------|---------|-----------------|-----------|-----------------|--------------------|
| Single Bag     | Unmounted | 2+Ground | NO      | 250V AC/300V DC | NO        | C29200N0T       | 121205-0001        |
| Bulk Pack      | Mounted   |          | NO      | 250V AC/300V DC | NO        | C29200N2TSN     | 121205-0012        |
| Single Bag     | Unmounted |          | C4      | 24V AC/DC       | yellow    | S29200TC4H0T    | 121211-0042        |
| Bulk Pack      | Mounted   |          | C4      | 24V AC/DC       | yellow    | S29200TC4H2TSN  | 121211-0342        |
| Single Bag     | Unmounted |          | C4      | 230V AC/DC      | yellow    | S29200TC4M0T    | 121211-0045        |
| Bulk Pack      | Mounted   |          | C4      | 230V AC/DC      | yellow    | S29200TC4M2TSN  | 121211-0345        |

**Standard internal thread DIN valve connector, IP65 rated.  
Available with different thread style, gaskets and circuitry.  
Conforms to EN 175301-803**

## Specifications

### ELECTRICAL

Max. Current: 16.0A  
Contact Resistance: ≤15milliohms max.  
Insulation Resistance:  
100Megohms min.  
Max. Conductor: 1.50mm<sup>2</sup> / 16AWG

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND ≤ 60N

### CERTIFICATION

UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
Contact Area: Silver  
Solder Tail Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket:  
-40° +90°C  
Silicone -40° +125°C  
Cable Diameter Range:  
PG9-M16 6.00-8.00mm  
PG11-G1/2"-M20 8.00-10.00mm  
Live Contact Distance: 18.00mm

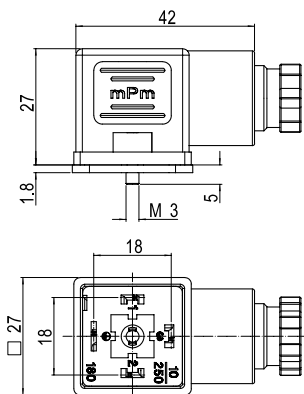
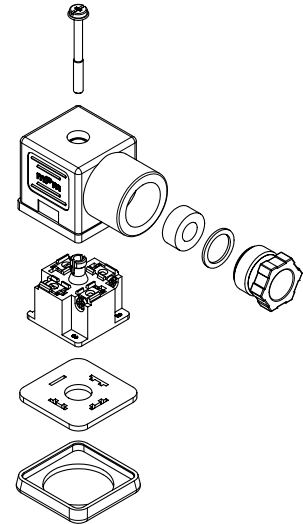
### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)

## mPm® Field Attachable DIN Valve Connectors

**121023** Form A, Intern. Thread,  
Non-Electronic

**121064** Form A, Intern. Thread,  
Electronic



**Note:** UL listed part number identified by adding suffix SA at the end of the nomenclature in conjunction with UL material (W for black and T for transparent) e.g. C28200W2RSNSA

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

## Non Electronic C18 2 09 N 2 1

**SERIES** ——— C18=Internal Thread Form A  
**POLES** ——— 2=2Poles+Ground 3=3Poles+Ground  
**THREAD** ——— 09=PG9 11=PG11 M6=M16x1,5 M0=M20x1,5  
12=1/2" GAS 13=1/2 NPTF  
**COVER COLOR** ——— N=Black Cover G=Gray Cover  
W=V0 Black Cover (only with UL listed connectors)  
**GROUND POSITION** ——— 2=H12 3=H3 6=H6 9=H9  
**SCREW & GASKET** ——— 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw

## Electronic S18 2 09 T C4 2 1

**SERIES** ——— S18=Internal Thread Form A  
**POLES** ——— 2=2Poles+Ground  
**THREAD** ——— 09=PG9 11=PG11 M6=M16x1,5 M0=M20x1,5  
12=1/2" GAS 13=1/2 NPTF  
**COVER COLOR** ——— N=Black Cover G=Gray Cover T=Transparent  
**CIRCUIT** ——— see page 33  
**VOLTAGE & LED COLOR** ——— see page 33  
**SCREW & GASKET** ——— 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw

| Packaging Type | Poles    | Circuit | Voltage         | LED Color | Engineering No. | Standard Order No. |
|----------------|----------|---------|-----------------|-----------|-----------------|--------------------|
| Bulk Pack      | 2+Ground | NO      | 250V AC/300V DC | NO        | C18209N21       | 121023-0238        |
|                |          | NO      | 250V AC/300V DC | NO        | C18211N21       | 121023-0278        |
|                |          | NO      | 250V AC/300V DC | NO        | C18309N21       | 121023-0341        |
|                |          | NO      | 250V AC/300V DC | NO        | C18311N21       | 121023-0377        |
|                | 3+Ground | C4      | 24V AC/DC       | yellow    | S18209TC4H1     | 121064-0600        |
|                |          | C4      | 230V AC/DC      | yellow    | S18209TC4M1     | 121064-0603        |
|                |          | C4      | 24V AC/DC       | yellow    | S18211TC4H1     | 121064-0685        |
|                |          | C4      | 230V AC/DC      | yellow    | S18211TC4M1     | 121064-0687        |

**Standard internal thread DIN valve connector, IP65 rated.  
Available with different thread style and gaskets.  
Conforms to EN 175301-803**

## Specifications

### ELECTRICAL

Max. Current: 16.0A  
Contact Resistance: ≤15milliohms max.  
Insulation Resistance:  
100Megohms min.  
Max. Conductor: 1.50mm<sup>2</sup> / 16AWG

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND ≤ 60N

### CERTIFICATION

UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
Contact Area: Silver  
Solder Tail Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket: -40° +90°C  
Silicone Gasket: -40° +125°C  
Cable Diameter Range:  
PG9-M16 6.00-8.00mm  
PG11-G1/2"-M20 8.00-10.00mm  
Live Contact Distance: 18.00mm

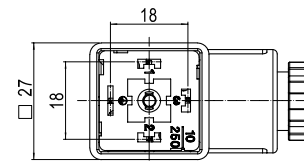
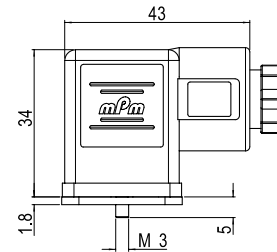
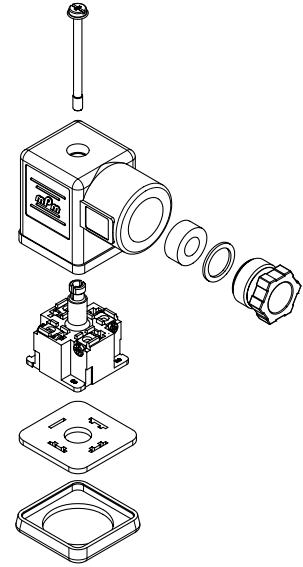
### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)

## Non Electronic

**C81 2 09 N 2 1**

**SERIES** — C81=Internal Thread Form A High Space  
**POLES** — 2=2Poles+Ground 3=3Poles+Ground  
**THREAD** — 09=PG9 11=PG11 M6=M16x1,5 M0=M20x1,5  
12=1/2" GAS  
**COVER COLOR** — N=Black Cover G=Gray Cover  
W=V0 Black Cover (only with UL listed connectors)  
**GROUND POSITION** — 2=H12 3=H3 6=H6 9=H9  
**SCREW & GASKET** — 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw



**Note:** UL listed part number identified by adding suffix SA at the end of the nomenclature in conjunction with UL material (W for black and T for transparent) e.g. C28200W2RSNSA

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Packaging Type |         | Poles    | Circuit | Voltage         | LED Color | Engineering No. | Standard Order No. |
|----------------|---------|----------|---------|-----------------|-----------|-----------------|--------------------|
| Bulk Pack      | Mounted | 2+Ground | NO      | 250V AC/300V DC | NO        | C81209N21       | 121023-0612        |
|                |         |          | NO      | 250V AC/300V DC | NO        | C81211N21       | 121023-0620        |
|                |         | 3+Ground | NO      | 250V AC/300V DC | NO        | C81309N21       | 121023-0629        |
|                |         |          | NO      | 250V AC/300V DC | NO        | C81311N21       | 121023-0633        |

Standard internal thread DIN valve connector, IP65 rated.  
Available with different thread style, gaskets and circuitry.

## Specifications

### ELECTRICAL

Max. Current: 16.0A  
Contact Resistance: ≤15milliohms max.  
Insulation Resistance:  
100Megohms min.  
Max. Conductor: 1.50mm<sup>2</sup> / 16AWG

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND ≤ 60N

### CERTIFICATION

UL recognized, cURus marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

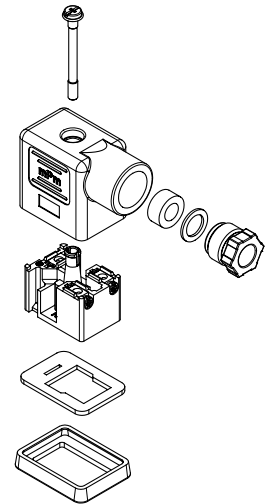
Durability: min. 50 cycles  
Contact Area: Silver  
Solder Tail Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket: -40° +90°C  
Silicone Gasket: -40° +125°C  
Cable Diameter Range:  
PG7-M12 4.00-6.00mm  
PG9-M16 6.00-8.00mm  
M20 8.00-10.00mm  
Live Contact Distance: 11.00mm

### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)

## mPm® Field Attachable DIN Valve Connectors

**121023** Form Industrial,  
Intern. Thread, Non-Electronic  
**121064** Form Industrial,  
Intern. Thread, Electronic



### Non Electronic

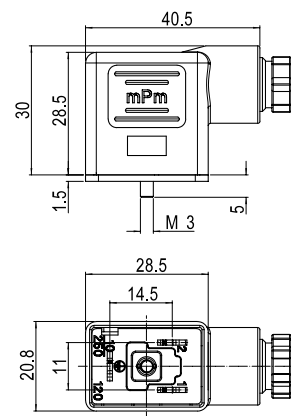
**C12 2 07 N 2 1**

**SERIES** C12=Internal Thread Form Industrial  
**POLES** 2=2Poles+Ground  
**THREAD** 07=PG7 09=PG9 M2=M12x1,5 M6=M16x1,5  
M0=M20x1,5 13=1/2" NPTF  
**COVER COLOR** N=Black Cover G=Gray Cover  
W=V0 Black Cover (only with UL listed connectors)  
**GROUND POSITION** 2=H12 6=H6  
**SCREW & GASKET** 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw

### Electronic

**S02 2 07 T C4 2 1**

**SERIES** S02=Internal Thread Form Industrial  
**POLES** 2=2Poles+Ground  
**THREAD** 07=PG7 09=PG9 M2=M12x1,5 M6=M16x1,5  
M0=M20x1,5 13=1/2" NPTF  
**COVER COLOR** N=Black Cover G=Gray Cover T=Transparent  
**CIRCUIT** see page 33  
**VOLTAGE & LED COLOR** see page 33  
**SCREW & GASKET** 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw



**Note:** UL listed part number identified by adding suffix SA at the end of the nomenclature in conjunction with UL material (W for black and T for transparent) e.g. C28200W2RSNSA

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Packaging Type |         | Poles    | Circuit | Voltage         | LED Color | Engineering No. | Standard Order No. |
|----------------|---------|----------|---------|-----------------|-----------|-----------------|--------------------|
| Bulk Pack      | Mounted | 2+Ground | NO      | 250V AC/300V DC | NO        | C12207N21       | 121023-0105        |
|                |         |          | NO      | 250V AC/300V DC | NO        | C12209N21       | 121023-0122        |
|                |         |          | C4      | 24V AC/DC       | yellow    | S02209TC4H1     | 121064-0120        |
|                |         |          | C4      | 230V AC/DC      | yellow    | S02209TC4M1     | 121064-0124        |

**Standard internal thread DIN valve connector, IP65 rated.  
Available with different thread style, gaskets and circuitry.  
Conforms to EN 175301-803.**

## Specifications

### ELECTRICAL

Max. Current: 16.0A  
Contact Resistance: ≤15milliohms max.  
Insulation Resistance:  
100Megohms min.  
Max. Conductor: 1.50mm<sup>2</sup> / 16AWG

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND ≤ 60N

### CERTIFICATION

UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
Contact Area: Silver  
Solder Tail Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket:  
-40° +90°C  
Silicone Gasket: -40° +125°C  
Cable Diameter Range:  
PG7-M12 4.00-6.00mm  
PG9-M16 6.00-8.00mm  
Live Contact Distance: 10.00mm

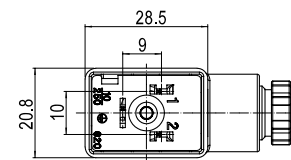
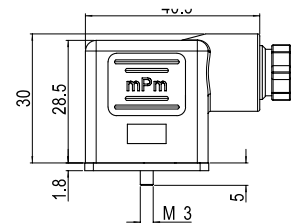
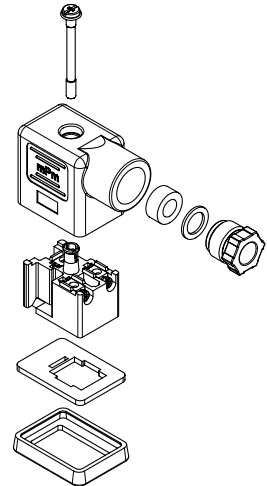
### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)

## mPm® Field Attachable DIN Valve Connectors

**121023** Form B, Intern. Thread,  
Non-Electronic

**121064** Form B, Intern. Thread,  
Electronic



### Non Electronic

**C62 2 07 N 2 1**

**SERIES** — C62=Internal Thread Form B  
**POLES** — 2=2Poles+Ground  
**THREAD** — 07=PG7 09=PG9 M2=M12x1,5 M6=M16x1,5  
**COVER COLOR** — N=Black Cover G=Gray Cover W=V0 Black Cover (only with UL listed connectors)  
**GROUND POSITION** — 2=H12 6=H6  
**SCREW & GASKET** — 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw 3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw

### Electronic

**S62 2 07 T C4 2 1**

**SERIES** — S62=Internal Thread Form B  
**POLES** — 2=2Poles+Ground  
**THREAD** — 07=PG7 09=PG9 M2=M12x1,5 M6=M16x1,5  
**COVER COLOR** — N=Black Cover G=Gray Cover T=Transparent  
**CIRCUIT** — see page 33  
**VOLTAGE & LED COLOR** — see page 33  
**SCREW & GASKET** — 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw 3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw

**Note:** UL listed part number identified by adding suffix SA at the end of the nomenclature in conjunction with UL material (W for black and T for transparent) e.g. C28200W2RSNSA

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Packaging Type |         | Poles    | Circuit | Voltage         | LED Color | Engineering No. | Standard Order No. |
|----------------|---------|----------|---------|-----------------|-----------|-----------------|--------------------|
| Bulk Pack      | Mounted | 2+Ground | NO      | 250V AC/300V DC | NO        | C62207N21       | 121023-0569        |
|                |         |          | NO      | 250V AC/300V DC | NO        | C62209N21       | 121023-0571        |
|                |         |          | C4      | 24V AC/DC       | yellow    | S62209TC4H1     | 121064-1239        |
|                |         |          | C4      | 230V AC/DC      | yellow    | S62209TC4M1     | 121064-1241        |



Standard internal thread DIN valve connector, IP65 rated.  
Available with different thread style, gaskets and circuitry.  
Conforms to EN 175301-803.

## Specifications

### ELECTRICAL

Max. Current: 10.0A  
Contact Resistance: ≤15milliohms max.  
Insulation Resistance:  
100Megohms min.  
Max. Conductor: 0.75mm<sup>2</sup> / 18AWG

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND ≤ 60N

### CERTIFICATION

UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
Contact Area: Silver  
Solder Tail Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket:  
-40° +90°C  
Silicone Gasket: -40° +125°C  
Cable Diameter Range:  
PG7-M12 4.00-6.00mm  
Live Contact Distance: 8.00mm

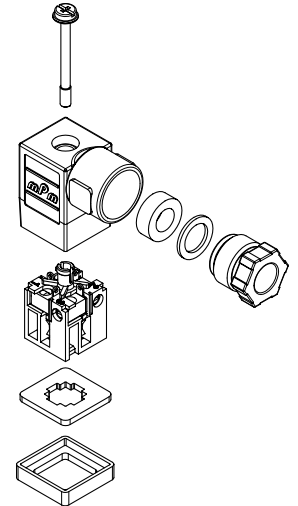
### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)

## mPm® Field Attachable DIN Valve Connectors

**121023** Form C, Intern. Thread,  
Non-Electronic

**121064** Form C, Intern. Thread,  
Electronic

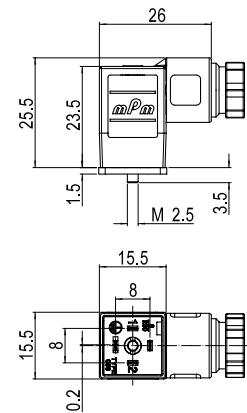


### Non Electronic C05 2 07 N 2 1

**SERIES** C05=Internal Thread Form C  
**POLES** 2=2Poles+Ground 3=3Poles+Ground  
**THREAD** 07=PG7 M2=M12x1,5  
**COVER COLOR** N=Black Cover G=Gray Cover W=V0 Black Cover (only with UL listed connectors)  
**GROUND POSITION** 2=H12 3=H3 6=H6 9=H9  
**SCREW & GASKET** 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw 3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw

### Electronic S05 2 07 T C4 2 1

**SERIES** S05=Internal Thread Form C  
**POLES** 2=2Poles+Ground  
**THREAD** 07=PG7 M2=M12x1,5  
**COVER COLOR** N=Black Cover G=Gray Cover T=Transparent  
**CIRCUIT** see page 33  
**VOLTAGE & LED COLOR** see page 33  
**SCREW & GASKET** 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw 3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw



**Note:** UL listed part number identified by adding suffix SA at the end of the nomenclature in conjunction with UL material (W for black and T for transparent) e.g. C28200W2RSNSA

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Packaging Type | Poles    | Circuit  | Voltage    | LED Color       | Engineering No.         | Standard Order No.    |
|----------------|----------|----------|------------|-----------------|-------------------------|-----------------------|
| Bulk Pack      | Mounted  | 2+Ground | NO         | 250V AC/300V DC | NO                      | C05207N21 121023-0083 |
|                |          | 3+Ground | NO         | 250V AC/300V DC | NO                      | C05307N21 121023-0684 |
|                | 2+Ground | C4       | 24V AC/DC  | yellow          | S05207TC4H1 121064-1253 |                       |
|                |          | C4       | 230V AC/DC | yellow          | S05207TC4M1 121064-1446 |                       |

**Standard internal thread DIN valve connector, IP65 rated.  
Available with different thread style, gaskets and circuitry.**

## Specifications

### ELECTRICAL

Max. Current: 10.0A  
Contact Resistance: ≤15milliohms max.  
Insulation Resistance:  
100Megohms min.  
Max. Conductor: 0.75mm<sup>2</sup> / 18AWG

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND ≤ 60N

### CERTIFICATION

UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

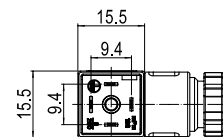
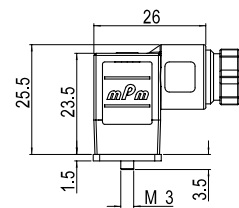
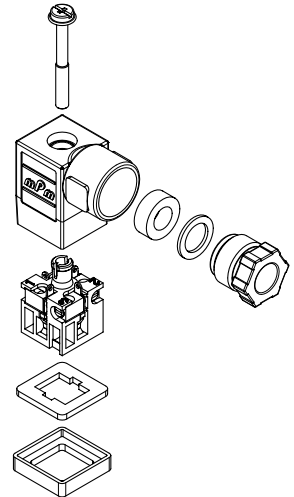
Durability: min. 50 cycles  
Contact Area: Silver  
Solder Tail Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket:  
-40° +90°C  
Silicone Gasket: -40° +125°C  
Cable Diameter Range:  
PG7-M12 4.00-6.00mm  
Live Contact Distance: 9.40mm

### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)

## mPm® Field Attachable DIN Valve Connectors

**121023** Micro Form,  
Intern. Thread, Non-Electronic  
**121064** Micro Form,  
Intern. Thread, Electronic



## Non Electronic C19 2 07 N 2 1

**SERIES** — C19=Internal Thread Form Micro  
**POLES** — 2=2Poles+Ground 3=3Poles+Ground  
**THREAD** — 07=PG7 M2=M12x1,5  
**COVER COLOR** — N=Black Cover G=Gray Cover W=V0 Black Cover (only with UL listed connectors)  
**GROUND POSITION** — 2=H12 3=H3 6=H6 9=H9  
**SCREW & GASKET** — 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw 3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw

## Electronic S19 2 07 T C4 2 1

**SERIES** — S19=Internal Thread Form Micro  
**POLES** — 2=2Poles+Ground  
**THREAD** — 07=PG7 M2=M12x1,5  
**COVER COLOR** — N=Black Cover G=Gray Cover T=Transparent  
**CIRCUIT** — see page 33  
**VOLTAGE & LED COLOR** — see page 33  
**SCREW & GASKET** — 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw 3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw

**Note:** UL listed part number identified by adding suffix SA at the end of the nomenclature in conjunction with UL material (W for black and T for transparent) e.g. C28200W2RSNSA

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Packaging Type |         | Poles    | Circuit | Voltage         | LED Color | Engineering No. | Standard Order No. |
|----------------|---------|----------|---------|-----------------|-----------|-----------------|--------------------|
| Bulk Pack      | Mounted | 2+Ground | NO      | 250V AC/300V DC | NO        | C19207N21       | 121023-0433        |
|                |         | 3+Ground | NO      | 250V AC/300V DC | NO        | C19307N21       | 121023-0464        |
|                |         | 2+Ground | C4      | 24V AC/DC       | yellow    | S19207TC4H1     | 121064-0871        |
|                |         |          | C4      | 230V AC/DC      | yellow    | S19207TC4M1     | 121064-1342        |

**Standard internal thread DIN valve connector, IP65 rated.  
Available with different thread style, gaskets and circuitry.  
Conforms to EN 175301-803**

## Specifications

### ELECTRICAL

Max. Current: 16.0A  
Contact Resistance: ≤15milliohms max.  
Insulation Resistance:  
100Megohms min.  
Max. Conductor: 1.50mm<sup>2</sup> / 16AWG

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND ≤ 60N

### CERTIFICATION

UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
Contact Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket: -40° +90°C  
Silicone Gasket: -40° +125°C  
Cable Diameter Range:  
PG9-M12 6.00-8.00mm  
PG11 8.00-10.00mm  
Live Contact Distance: 18.00mm

### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)

## Electronic

**S53 2 11 T C4 2 1**

### SERIES

S53=Internal Thread Form A

### POLES

2=2Poles+Ground

### THREAD

09=PG9 11=PG11 M6=M16x1,5

### COVER COLOR

N=Black Cover G=Gray Cover T=Transparent  
W=V0 Black Cover (only with UL listed Conn)

### CIRCUIT

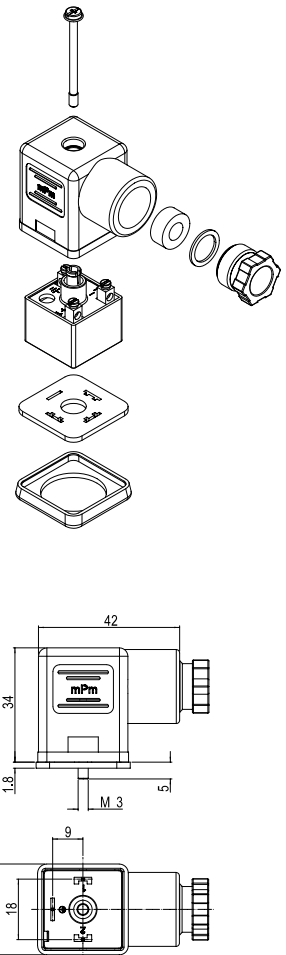
see page 33

### VOLTAGE & LED COLOR

see page 33

### SCREW & GASKET

1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw



## mPm® Field Attachable DIN Valve Connectors

**121064** Form A, Intern. Thread,  
Electronic

**Note:** UL listed part number identified by adding suffix SA at the end of the nomenclature in conjunction with UL material (W for black and T for transparent) e.g. C28200W2RSNSA

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Packaging Type |         | Poles    | Circuit | Voltage | LED Color | Engineering No. | Standard Order No. |
|----------------|---------|----------|---------|---------|-----------|-----------------|--------------------|
| Bulk Pack      | Mounted | 2+Ground | R0      | 24V AC  | NO        | S53209NR021     | 121064-0896        |
|                |         |          | R0      | 230V AC | NO        | S53209NR051     | 121064-0900        |
|                |         |          | R2      | 24V AC  | yellow    | S53209TR2H1     | 121064-0953        |
|                |         |          | R2      | 230V AC | yellow    | S53209TR2M1     | 121064-0955        |

Standard internal thread DIN valve connector, IP65 rated.  
Available with different thread style, gaskets and circuitry.

## Specifications

### ELECTRICAL

Max. Current: 16.0A  
Contact Resistance: ≤15milliohms max.  
Insulation Resistance:  
100Megohms min.  
Max. Conductor: 1.50mm<sup>2</sup> / 16AWG

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND ≤ 60N

### CERTIFICATION

UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
Contact Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket:  
-40° +90°C  
Silicone Gasket: -40° +125°C  
Cable Diameter Range:  
PG7-M12 4.00-6.00mm  
PG9-M16 6.00-8.00mm  
Live Contact Distance: 11.00mm

### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)

## Electronic

**S54 2 09 T C4 2 1**

### SERIES

**S54**=Internal Thread Form Industrial

### POLES

**2**=2Poles+Ground

### THREAD

**07**=PG7 **09**=PG9 **M2**=M12x1,5 **M6**=M16x1,5

### COVER COLOR

**N**=Black Cover **G**=Gray Cover **T**=Transparent  
**W**=V0 Black Cover (only with UL listed Conn)

### CIRCUIT

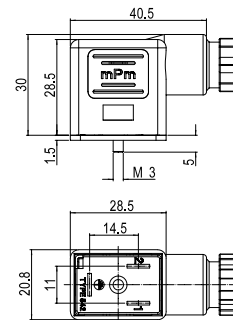
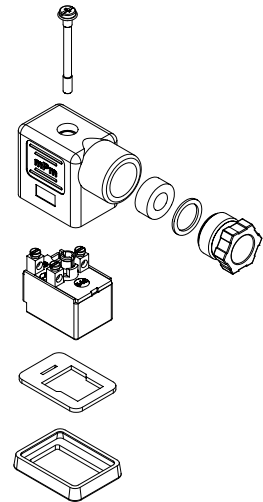
see page 33

### VOLTAGE & LED COLOR

see page 33

### SCREW & GASKET

**1**=Profile NBR Gasket & Screw, **2**=Flat NBR Gasket & Screw  
**3**=White Silicone Profile Gasket & Screw, **4**=White Silicone Flat Gasket & Screw



**Note:** UL listed part number identified by adding suffix SA at the end of the nomenclature in conjunction with UL material (W for black and T for transparent) e.g. C28200W2RSNSA

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Packaging Type | Poles   | Circuit  | Voltage | LED Color | Engineering No. | Standard Order No. |             |
|----------------|---------|----------|---------|-----------|-----------------|--------------------|-------------|
| Bulk Pack      | Mounted | 2+Ground | R0      | 24V AC    | NO              | S54209NR021        | 121064-1036 |
|                |         |          | R0      | 230V AC   | NO              | S54209NR051        | 121064-1038 |
|                |         |          | R2      | 24V AC    | yellow          | S54209TR2H1        | 121064-1083 |
|                |         |          | R2      | 230V AC   | yellow          | S54209TR2M1        | 121064-1810 |

Standard internal thread DIN valve connector, IP65 rated.  
Available with different thread style, gaskets and circuitry.  
Conforms to EN 175301-803

## Specifications

### ELECTRICAL

Max. Current: 16.0A  
Contact Resistance: ≤15milliohms max.  
Insulation Resistance:  
100Megohms min.  
Max. Conductor: 1.50mm<sup>2</sup> / 16AWG

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND ≤ 60N

### CERTIFICATION

UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
Contact Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket: -40° +90°C  
Silicone Gasket: -40° +125°C  
Cable Diameter Range:  
PG9-M16 6.00-8.00mm  
PG11-M20 8.00-10.00mm  
Live Contact Distance: 18.00mm

### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)

## Electronic

**S11 2 09 T C4 2 1**

### SERIES

S11=Internal Thread Form A

### POLES

2=2Poles+Ground 3=3Poles+Ground

### THREAD

09=PG7 11=PG7 M6=M16x1,5

### COVER COLOR

N=Black Cover G=Gray Cover T=Transparent  
W=V0 Black Cover (only with UL listed Conn)

### CIRCUIT

see page 33

### VOLTAGE & LED COLOR

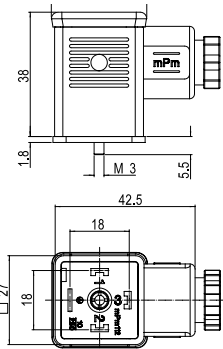
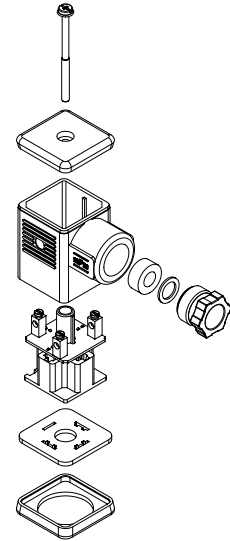
see page 33

### SCREW & GASKET

1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw

## mPm® Field Attachable DIN Valve Connectors

121064 Form A, Intern. Thread,  
Electronic



**Note:** UL listed part number identified by adding suffix SA at the end of the nomenclature in conjunction with UL material (W for black and T for transparent) e.g. C28200W2RSNSA

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Packaging Type |         | Poles    | Circuit | Voltage | LED Color | Engineering No. | Standard Order No. |
|----------------|---------|----------|---------|---------|-----------|-----------------|--------------------|
| Bulk Pack      | Mounted | 2+Ground | R0      | 24V AC  | NO        | S11209NR021     | 121064-0248        |
|                |         |          | R0      | 230V AC | NO        | S11209NR051     | 121064-0250        |
|                |         |          | R2      | 24V AC  | yellow    | S11209NR2H1     | 121064-1811        |
|                |         |          | R2      | 230V AC | yellow    | S11209NR2M1     | 121064-1692        |



**PRE-WIRED SOLENOID CONNECTORS  
CONFORM TO INDUSTRY STANDARD  
EN 175301-803**

When space and time are in short supply, mPm<sup>®</sup> DIN valve overmolded cordsets provide the perfect solution which also conform to Industry Standard EN 175301-803 (formerly DIN 43650). This is the standard for a series of electrical connectors, which are commonly used with solenoid valves - especially those used on hydraulic and pneumatic valves.





## **mPm<sup>®</sup>** **Molded Cable DIN Valve** **Connectors**

**Conform to EN 175301-803 (ex DIN 43650)**

Our connectors with integrated cable are suitable for use with most types of solenoid valves. They offer a fast and efficient method of connection resulting in greatly reduced installation time and cost and it is always preferred in rugged applications. They can be supplied with or without LED indicators and surge suppression circuit. A diagram is printed on each electronic connector to allow an easy user identification.



**DIN Valve connectors with molded cable, IP65 rated.  
IP67 version available on request.  
Conforms to EN 175301-803.**

## Specifications

### ELECTRICAL

Current: max. 5.0A  
Contact Resistance: ≤15milliohms max.  
Insulation Resistance:  
100Megohms min.

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND ≤ 60N

### CERTIFICATION

UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
Contact Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket:  
-40° +90°C  
Silicone Gasket: -40° +125°C  
Live Contact Distance: 18.00mm

### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)

## Non Electronic

**E15 2 N2 N 300 1 1**

- SERIES** — E15=Overmolded Cordset Form A
- POLES** — 2=2Poles+Ground 3=3Poles+Ground
- CABLE TYPE** — see cable options on technical features page 32
- HEAD COLOR** — N=Black G=Gray A=UL Black (only with UL listed cable)
- CABLE LENGTH** — e.g. 050=50cm 300=3.0m 10K=10.0m
- GROUND LOCATION** — 1=Double Ground H6/H12 2=H12 6=H6
- SCREW & GASKET** — 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw  
P=NBR Integrated Gasket Assembled + IP67 Screw

## Electronic

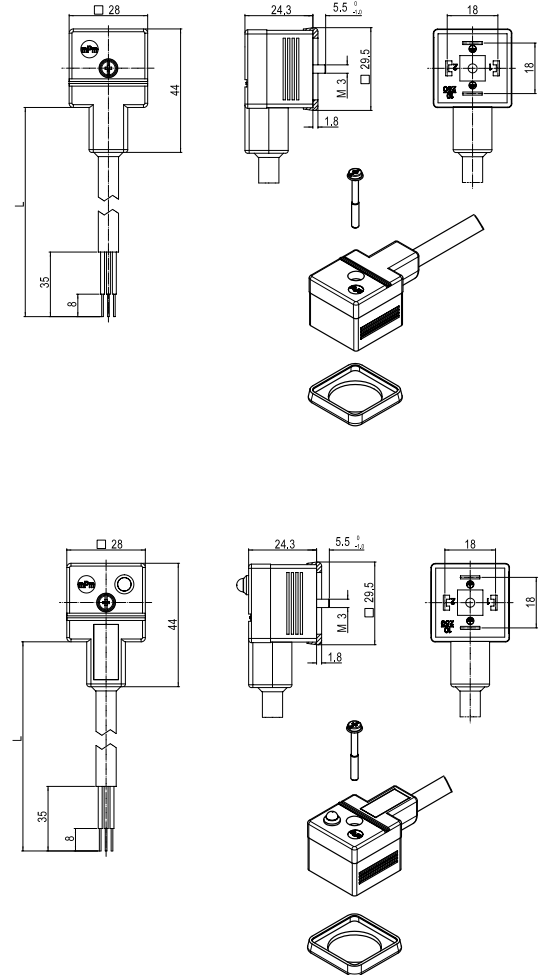
**E45 2 N2 N 300 1 1 C4 2**

- SERIES** — E45=Overmolded Cordset Form A
- POLES** — 2=2Poles+Ground
- CABLE TYPE** — see cable options on technical features page 32
- HEAD COLOR** — N=Black G=Gray A=UL Black (only with UL listed cable)
- CABLE LENGTH** — e.g. 050=50cm 300=3.0m 10K=10.0m
- GROUND LOCATION** — 1=Double Ground H6/H12
- SCREW & GASKET** — 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw  
P=NBR Integrated Gasket Assembled + IP67 Screw
- CIRCUIT** — see page 33
- VOLTAGE & LED COLOR** — see page 33

## mPm® Molded Cable DIN Valve Connectors

**121040** Form A, Overmolded  
Non-Electronic

**121050** Form A, Overmolded  
Electronic



**Note:** UL listed part number identified by combining UL listed cable with UL overmolding material  
e.g. E152A3A30011

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Ground Position | Poles    | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|-----------------|----------|---------|------------|-----------|-----------------|--------------------|
| H6/H12          | 2+Ground | NO      | 250V       | NO        | E152N3N10011    | 121040-0140        |
| H12             | 3+Ground | NO      | 250V       | NO        | E153N3N10021    | 121040-0210        |
| H6              | 3+Ground | NO      | 250V       | NO        | E153N3N10061    | 121040-0212        |
| H6/H12          | 2+Ground | C4      | 24V AC/DC  | yellow    | E452N3N10011C4H | 121050-0554        |
| H6/H12          |          | C4      | 230V AC/DC | yellow    | E452N3N10011C4M | 121050-1867        |

**DIN Valve connectors with molded cable, IP65 rated.  
IP67 version available on request.**

## Specifications

### ELECTRICAL

Current: max. 5.0A  
Contact Resistance: ≤15milliohms max.  
Insulation Resistance:  
100Megohms min.

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND ≤ 60N

### CERTIFICATION

UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
Contact Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket:  
-40° +90°C  
Silicone Gasket: -40° +125°C  
Live Contact Distance: 11.00mm

### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)

## mPm® Molded Cable DIN Valve Connectors

**121040** Form Industrial,  
Overmolded, Non-Electronic  
**121050** Form Industrial,  
Overmolded, Electronic

### Non Electronic

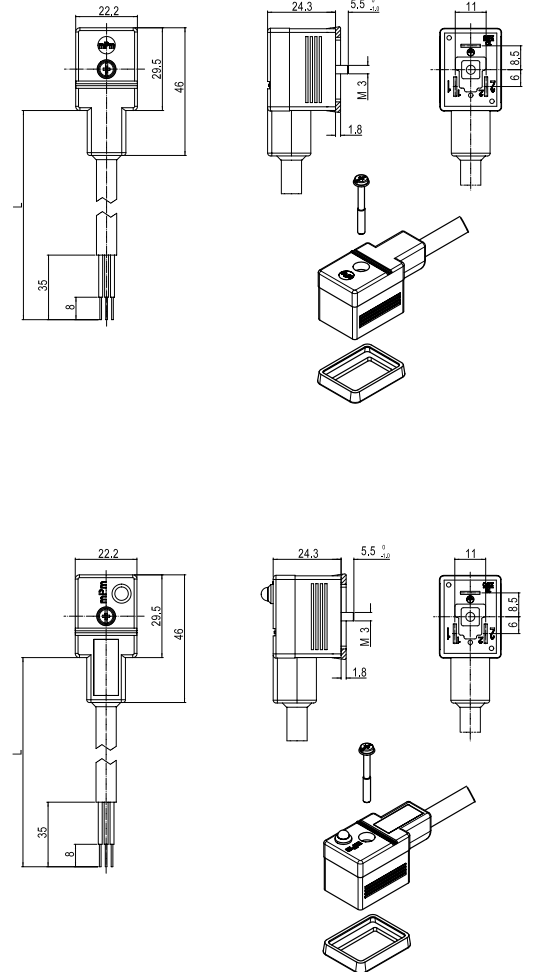
**E16 2 N2 N 300 2 1**

- SERIES** — E16=Overmolded Cordset Form Industrial
- POLES** — 2=2Poles+Ground
- CABLE TYPE** — see cable options on technical features page 32
- HEAD COLOR** — N=Black G=Gray A=UL Black (only with UL listed cable)
- CABLE LENGTH** — e.g. 050=50cm 300=3.0m 10K=10.0m
- GROUND LOCATION** — 2=H12 6=H6
- SCREW & GASKET** — 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw  
P=NBR Integrated Gasket Assembled + IP67 Screw

### Electronic

**E46 2 N2 N 300 2 1 C4 2**

- SERIES** — E46=Overmolded Cordset Form Industrial
- POLES** — 2=2Poles+Ground
- CABLE TYPE** — see cable options on technical features page 32
- HEAD COLOR** — N=Black G=Gray A=UL Black (only with UL listed cable)
- CABLE LENGTH** — e.g. 050=50cm 300=3.0m 10K=10.0m
- GROUND LOCATION** — 2=H12 6=H6
- SCREW & GASKET** — 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw  
P=NBR Integrated Gasket Assembled + IP67 Screw
- CIRCUIT** — see page 33
- VOLTAGE & LED COLOR** — see page 33



**Note:** UL listed part number identified by combining UL listed cable with UL overmolding material  
e.g. E152A3A30011

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Ground Position | Poles    | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|-----------------|----------|---------|------------|-----------|-----------------|--------------------|
| H12             | 2+Ground | NO      | 250V       | NO        | E162N3N10021    | 121040-0295        |
| H6              |          | NO      | 250V       | NO        | E162N3N10061    | 121040-0297        |
| H12             |          | C4      | 24V AC/DC  | yellow    | E462N3N10021C4H | 121050-1097        |
| H6              |          | C4      | 24V AC/DC  | yellow    | E462N3N10061C4H | 121050-1108        |
| H12             |          | C4      | 230V AC/DC | yellow    | E462N3N10021C4M | 121050-3473        |
| H6              |          | C4      | 230V AC/DC | yellow    | E462N3N10061C4M | 121050-3474        |

**DIN Valve connectors with molded cable, IP65 rated.  
IP67 version available on request.  
Conforms to EN 175301-803.**

## Specifications

### ELECTRICAL

Current: max. 5.0A  
Contact Resistance: ≤15milliohms max.  
Insulation Resistance:  
100Megohms min.

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND ≤ 60N

### CERTIFICATION

UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
Contact Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket:  
-40° +90°C  
Silicone -40° +125°C  
Live Contact Distance: 10.00mm

### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)

## Non Electronic

**E07 2 N2 N 300 2 1**

**SERIES** — E07=Overmolded Cordset Form B  
**POLES** — 2=2Poles+Ground  
**CABLE TYPE** — see cable options on technical features page 32  
**HEAD COLOR** — N=Black G=Gray A=UL Black (only with UL listed cable)  
**CABLE LENGTH** — e.g. 050=50cm 300=3.0m 10K=10.0m  
**GROUND LOCATION** — 2=H12 6=H6  
**SCREW & GASKET** — 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw  
P=NBR Integrated Gasket Assembled + IP67 Screw

## Electronic

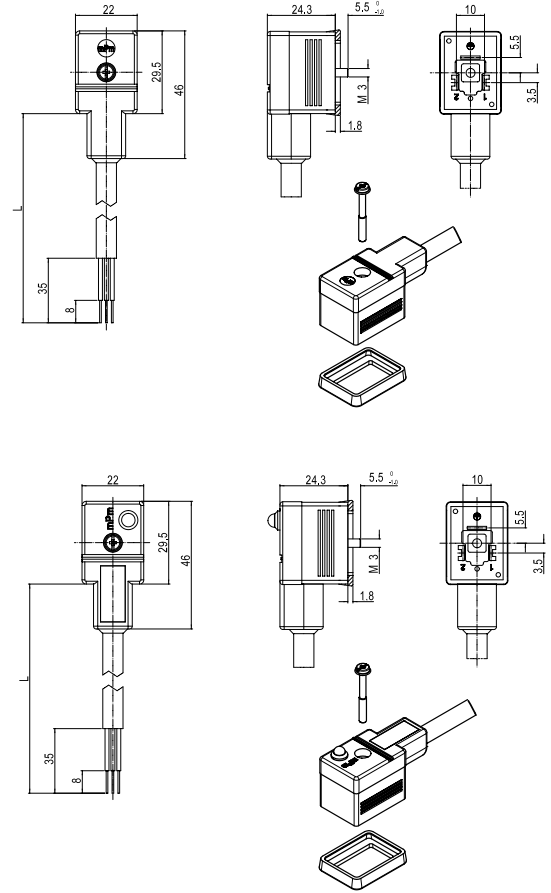
**E47 2 N2 N 300 2 1 C4 2**

**SERIES** — E47=Overmolded Cordset Form A  
**POLES** — 2=2Poles+Ground  
**CABLE TYPE** — see cable options on technical features page 32  
**HEAD COLOR** — N=Black G=Gray A=UL Black (only with UL listed cable)  
**CABLE LENGTH** — e.g. 050=50cm 300=3.0m 10K=10.0m  
**GROUND LOCATION** — 2=H12 6=H6  
**SCREW & GASKET** — 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw  
P=NBR Integrated Gasket Assembled + IP67 Screw  
**CIRCUIT** — see page 33  
**VOLTAGE & LED COLOR** — see page 33

## mPm® Molded Cable DIN Valve Connectors

**121040** Form B, Overmolded  
Non-Electronic

**121050** Form B, Overmolded  
Electronic



**Note:** UL listed part number identified by combining UL listed cable with UL overmolding material  
e.g. E152A3A30011

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Ground Position | Poles    | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|-----------------|----------|---------|------------|-----------|-----------------|--------------------|
| H12             | 2+Ground | NO      | 250V       | NO        | E072N3N10021    | 121040-1254        |
| H6              |          | NO      | 250V       | NO        | E072N3N10061    | 121040-1401        |
| H12             |          | C4      | 24V AC/DC  | yellow    | E472N3N10021C4H | 121050-3475        |
| H6              |          | C4      | 24V AC/DC  | yellow    | E472N3N10061C4H | 121050-3477        |
| H12             |          | C4      | 230V AC/DC | yellow    | E472N3N10021C4M | 121050-3476        |
| H6              |          | C4      | 230V AC/DC | yellow    | E472N3N10061C4M | 121050-3478        |

**DIN Valve connectors with molded cable, IP65 rated.  
IP67 version available on request.  
Conforms to EN 175301-803.**

## Specifications

### ELECTRICAL

Current: max. 3.0A  
Contact Resistance: ≤15milliohms max.  
Insulation Resistance:  
100Megohms min.

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND ≤ 60N

### CERTIFICATION

UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
Contact Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket:  
-40° +90°C  
Silicone Gasket: -40° +125°C  
Live Contact Distance: 8.00mm

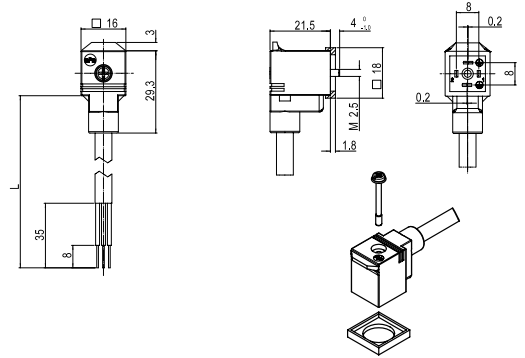
### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)

## mPm® Molded Cable DIN Valve Connectors

**121040** Form C, Overmolded  
Non-Electronic

**121050** Form C, Overmolded  
Electronic



## Non Electronic

**E43 2 N2 N 300 1 1**

- SERIES** — E43=Overmolded Cordset Form C
- POLES** — 2=2Poles+Ground 3=3Poles+Ground
- CABLE TYPE** — see cable options on technical features page 32
- HEAD COLOR** — N=Black G=Gray A=UL Black (only with UL listed cable)
- CABLE LENGTH** — e.g. 050=50cm 300=3.0m 10K=10.0m
- GROUND LOCATION** — 1=Double Ground H6/H12 2=H12 6=H6
- SCREW & GASKET** — 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw  
T=Profile NBR Gasket + IP67 Fixing Screw

## Electronic

**E49 2 N2 N 300 1 1 C4 2**

- SERIES** — E49=Overmolded Cordset Form C
- POLES** — 2=2Poles+Ground
- CABLE TYPE** — see cable options on technical features page 32
- HEAD COLOR** — N=Black G=Gray A=UL Black (only with UL listed cable)
- CABLE LENGTH** — e.g. 050=50cm 300=3.0m 10K=10.0m
- GROUND LOCATION** — 1=Double Ground H6/H12 2=H12 6=H6
- SCREW & GASKET** — 1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw  
T=Profile NBR Gasket + IP67 Fixing Screw
- CIRCUIT** — see page 33
- VOLTAGE & LED COLOR** — see page 33

**Note:** UL listed part number identified by combining UL listed cable with UL overmolding material  
e.g. E152A3A30011

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Ground Position | Poles    | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|-----------------|----------|---------|------------|-----------|-----------------|--------------------|
| H6/H12          | 2+Ground | NO      | 250V       | NO        | E432N2N10011    | 121040-0491        |
| H12             | 3+Ground | NO      | 250V       | NO        | E433N2N10021    | 121040-1258        |
| H6              |          | NO      | 250V       | NO        | E433N2N10061    | 121040-0730        |
| H6/H12          | 2+Ground | C4      | 24V AC/DC  | yellow    | E492N2N10011C4H | 121050-1466        |
| H6/H12          |          | C4      | 230V AC/DC | yellow    | E492N2N10011C4M | 121050-3479        |

**DIN Valve connectors with molded cable, IP65 rated.  
IP67 version available on request.**

## mPm® Molded Cable DIN Valve Connectors

**121040** Form Micro,  
Overmolded, Non-Electronic  
**121050** Form Micro,  
Overmolded, Electronic

### Specifications

#### ELECTRICAL

Current: max. 3.0A  
Contact Resistance: ≤15milliohms max.  
Insulation Resistance:  
100Megohms min.

#### MECHANICAL

Insertion and Withdrawal Force:  
2+GND ≤ 60N

#### CERTIFICATION

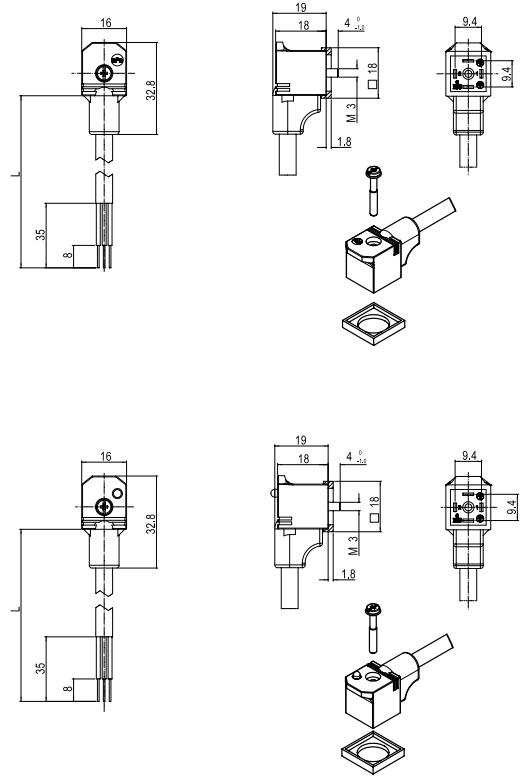
UL recognized, *cURus* marked, file  
E218123 (product available upon  
request or specific part number)

#### PHYSICAL

Durability: min. 50 cycles  
Contact Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket:  
-40° +90°C  
Silicone Gasket: -40° +125°C  
Live Contact Distance: 9.40mm

#### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)



### Non Electronic

**E33 2 N2 N 300 1 1**

**SERIES** →  
E33=Overmolded Cordset Form Micro  
**POLES** →  
2=2Poles+Ground 3=3Poles+Ground  
**CABLE TYPE** →  
see cable options on technical features page 32  
**HEAD COLOR** →  
N=Black G=Gray A=UL Black (only with UL listed cable)  
**CABLE LENGTH** →  
e.g. 050=50cm 300=3.0m 10K=10.0m  
**GROUND LOCATION** →  
1=Double Ground H6/H12 2=H12 6=H6  
**SCREW & GASKET** →  
1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw  
T=Profile NBR Gasket + IP67 Fixing Screw

### Electronic

**E39 2 N2 N 300 1 1 C4 2**

**SERIES** →  
E39=Overmolded Cordset Form Micro  
**POLES** →  
2=2Poles+Ground  
**CABLE TYPE** →  
see cable options on technical features page 32  
**HEAD COLOR** →  
N=Black G=Gray A=UL Black (only with UL listed cable)  
**CABLE LENGTH** →  
e.g. 050=50cm 300=3.0m 10K=10.0m  
**GROUND LOCATION** →  
1=Double Ground H6/H12 2=H12 6=H6  
**SCREW & GASKET** →  
1=Profile NBR Gasket & Screw, 2=Flat NBR Gasket & Screw  
3=White Silicone Profile Gasket & Screw, 4=White Silicone Flat Gasket & Screw  
T=Profile NBR Gasket + IP67 Fixing Screw  
**CIRCUIT** →  
see page 33  
**VOLTAGE & LED COLOR** →  
see page 33

**Note:** UL listed part number identified by combining  
UL listed cable with UL overmolding material  
e.g. E152A3A30011

**Build your connector using the intelligent  
part number system and contact your local  
sales representative to identify the proper  
EDP number to use in your purchase orders**

| Ground Position | Poles    | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|-----------------|----------|---------|------------|-----------|-----------------|--------------------|
| H6/H12          | 2+Ground | NO      | 250V       | NO        | E332N2N10011    | 121040-0422        |
| H12             | 3+Ground | NO      | 250V       | NO        | E333N2N10021    | 121040-1260        |
| H6              |          | NO      | 250V       | NO        | E333N2N10061    | 121040-1402        |
| H6/H12          | 2+Ground | C4      | 24V AC/DC  | yellow    | E392N2N10011C4H | 121050-0076        |
| H6/H12          |          | C4      | 230V AC/DC | yellow    | E392N2N10011C4M | 121050-3472        |



**DIN Valve connectors with molded cable, IP65 rated.  
IP67 version available on request.**

## Specifications

### ELECTRICAL

Current: max. 3.0 or 5.0A  
Contact Resistance:  $\leq 15$  milliohms max.  
Insulation Resistance:  
100Megohms min.

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND  $\leq 60$ N

### PHYSICAL

Durability: min. 50 cycles  
Contact Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket:  
-40° +90°C  
Silicone Gasket: -40° +125°C  
Live Contact Distance:  
Form A 18.00mm  
Form Industrial 11.00mm  
Form B 10.00mm  
Form C 8.00mm  
Form Micro 9.40mm

## Electronic and Non Electronic

**E 8 5 0 B 0 P 12 M 100**

### DIN BODY STYLE

**D**=Form B 10.00mm (2P+Ground)  
**E**=Form A 18.00mm (2P+Double Ground)  
**F**=Form Ind. 11.00mm (2P+Ground)  
**G**=Form Micro 9.40mm (2P+Double Ground)  
**H**=Form C 8.0mm (2P+Double Ground)

### SECOND END OF CABLE

**1**=Mini-Change Connector  
**4**=Nano-Change M8 Connector  
**8**=Micro-Change M12 Connector

### NUMBER OF POLES

**3**=3 Poles For Mini-Change  
**5**=5 Poles for Micro-Change M12

### WIRING

**0**=Default Standard Wiring

### CIRCUIT, VOLTAGE & LED COLOR

**A**= Circuit S0 24V and Yellow LED  
**B**= Circuit C4 24V and Yellow LED  
**C**= Circuit S0 110v and Yellow LED  
**D**= Circuit C4 110v and Yellow LED  
**0**= No Circuit

### SECOND HEAD BODY STYLE

**0**= Micro-Change M12 Male Straight  
Ground on DIN Head DIN H6 (H6/12 for cordset with Double Ground)  
**1**= Micro-Change M12 Male Straight  
Ground on DIN Head DIN H12 (not for Double Ground DIN)  
**2**= Micro-Change M12 Male 90°  
Ground on DIN Head DIN H6 (H6/12 for cordset with Double Ground)  
**3**= Micro-Change M12 Male 90°  
Ground on DIN Head DIN H12 (not for Double Ground DIN)  
**4**= Mini-Change Male Straight  
Ground on DIN Head DIN H6 (H6/12 for cordset with Double Ground)  
**5**= Mini-Change Male Straight  
Ground on DIN Head DIN H12 (not for Double Ground DIN)  
**6**= Mini-Change Male 90°  
Ground on DIN Head DIN H6 (H6/12 for cordset with Double Ground)  
**7**= Mini-Change Male 90°  
Ground on DIN Head DIN H12 (not for Double Ground DIN)

### CABLE UNIT OF MEASURE

**A23**=Black PVC 0.75mm<sup>2</sup>  
**E12**=Black PVC 0.50mm<sup>2</sup>  
**P12**=Black PUR 0.50mm<sup>2</sup>  
**B08**=Yellow PUR 18 AWG

### CABLE UNIT OF MEASURE

**M**=Meters

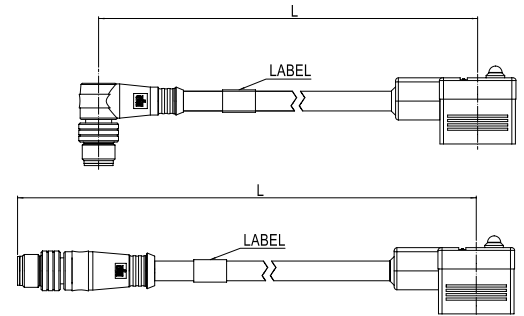
### CABLE LENGTH

e.g. **003**=0.3m **010**=1m **100**=10m

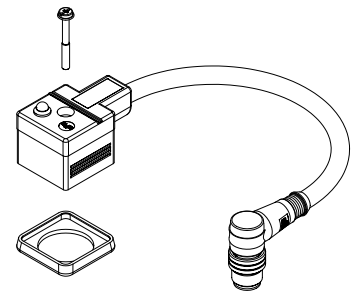
## mPm® Molded Cable DIN Valve Connectors

**121035** DIN Valve to Brad® M12,  
Overmolded, Non-Electronic

**121036** DIN Valve to Brad® M12,  
Overmolded, Electronic



This technical data is referred on the DIN connector head, for Brad® connector data please refer to the proper catalogue



**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Ground Position                         | Poles    | Circuit | Voltage   | LED Color | Engineering No. | Standard Order No. |
|---|----------|---------|-----------|-----------|-----------------|--------------------|
| Check Sales Drawing on<br>www.molex.com | 2+Ground | C4      | 24V AC/DC | yellow    | D850B0P12M010   | 121036-0825        |
|   |          |         |           |           | E850B0P12M010   | 121036-0193        |
|   |          |         |           |           | F850B0P12M010   | 121036-0255        |
|   |          |         |           |           | G850B0P12M010   | 121036-0277        |
|   |          |         |           |           | H850B0P12M010   | 121036-0296        |

**DIN Valve connectors with molded cable, IP65 rated.  
IP67 version available on request.**

## Specifications

### ELECTRICAL

Current: max. 5.0A  
Contact Resistance: ≤15milliohms max.  
Insulation Resistance:  
100Megohms min.

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND ≤ 60N

### PHYSICAL

Durability: min. 50 cycles  
Contact Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket:  
-40° +90°C  
Silicone Gasket: -40° +125°C  
Live Contact Distance:  
Form A 18.00mm  
Form Industrial 11.00mm  
Form B 10.00mm

### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)

## Electronic and Non Electronic

**E6 5 2 N2 N A 26 1 1 C4 1**

### SERIES

**E6**=Overmolded Dual DIN Cordset

### SERIES

**5**=Form A **6**=Form Industrial **7**=Form B

### NUMBER OF POLES

**2**=2 Poles + No GND connected

**3**=2 Poles + GND connected

**A**=M12 Straight **B**=M12 90°

### CABLE

see cable options on technical features page 32

### HEAD COLOR

**N**=Black **G**=Gray **A**=UL Black (only with UL listed cable)

### MAIN CABLE LENGTH (m)

**A**=1 **B**=1,5 **C**=2 **D**=2,5 **E**=3 **F**=3,5 **G**=4 **H**=4,5 **L**=5 **M**=5,5 **N**=6  
**P**=6,5 **Q**=7 **R**=7,5 **S**=8 **T**=8,5 **U**=9 **K**=10 **O**=M12 Molded on DIN Head

### DISTANCE BETWEEN THE HEADS

e.g. **26**=26cm (min distance between 2 heads 13cm)

### GROUND LOCATION

**1**=Double Ground H6/H12 **2**=H12 **6**=H6

### SCREW & GASKET

**1**=Profile NBR Gasket & Screw, **2**=Flat NBR Gasket & Screw

**3**=White Silicone Profile Gasket & Screw, **4**=White Silicone Flat Gasket & Screw

**P**=Integrated NBR Gasket Assembled + IP67 Fixing Screw

### CIRCUIT

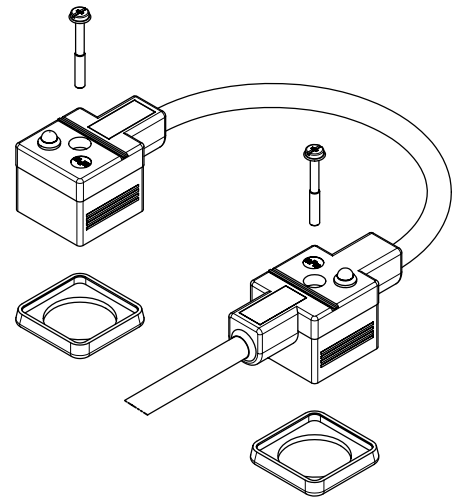
see page No. 33

### VOLTAGE & LED COLOR

see page No. 33

## mPm® Molded Cable DIN Valve Connectors

**121055** DUAL DIN Valve,  
Overmolded,  
Non-Electronic or Electronic



This technical data is referred on the DIN connector head, for Brad® connector data please refer to the proper catalogue

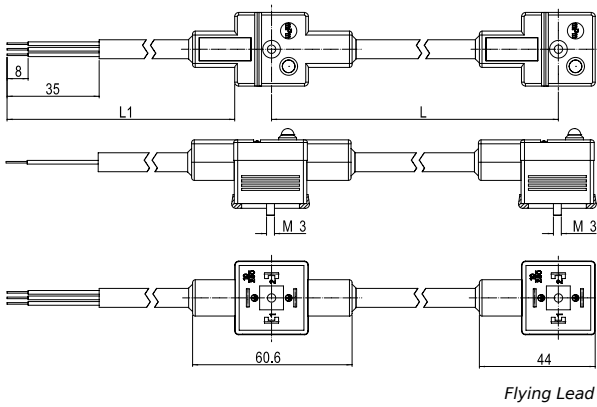
**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Ground Position                         | Poles                     | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|---|---------------------------|---------|------------|-----------|-----------------|--------------------|
| Check Sales Drawing on<br>www.molex.com | 2+Ground<br>connected     | C4      | 24V AC/DC  | yellow    | E653P3NA1311C4H | 121055-0161        |
|   |                           |         | 230V AC/DC |           | E653P3NA1311C4M | 121055-0292        |
|   | 2+Ground<br>not connected |         | 24V AC/DC  |           | E662P3NA1361C4H | 121055-0293        |
|   |                           |         | 230V AC/DC |           | E662P3NA1361C4M | 121055-0294        |
|   |                           |         | 24V AC/DC  |           | E672P3NA1361C4H | 121055-0295        |
|   |                           |         | 230V AC/DC |           | E672P3NA1361C4M | 121055-0296        |

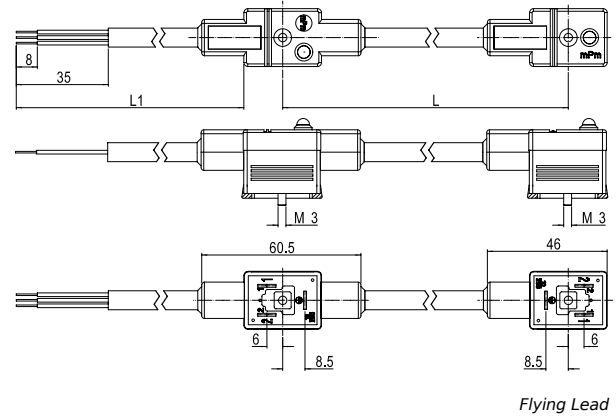
DIN Valve connectors with molded cable, IP65 rated.  
IP67 version available on request.

121055 DUAL DIN Valve,  
Overmolded,  
Non-Electronic or Electronic

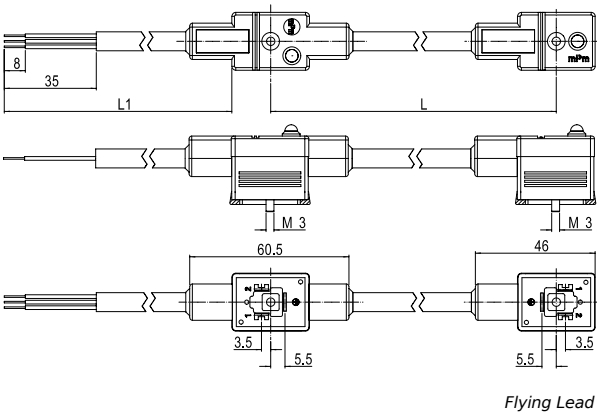
### E65 Dual DIN Form A



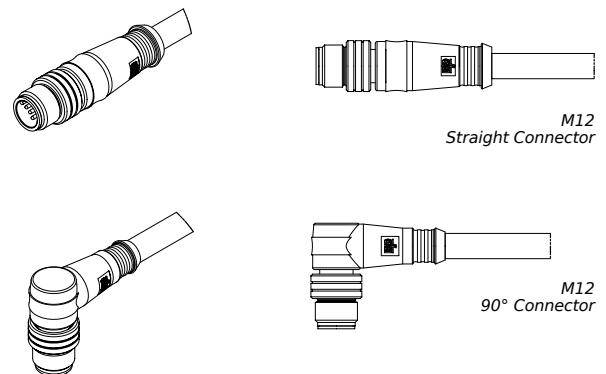
### E66 Dual DIN Form Industrial



### E67 Dual DIN Form B



### Brad® Micro-Change M12



**DIN Valve connectors with molded cable, IP65 rated.  
IP67 version available on request.**

## Specifications

### ELECTRICAL

Current: max. 3.0A or 5.0A  
Contact Resistance: ≤15milliohms max.  
Insulation Resistance:  
100Megohms min.

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND ≤ 60N

### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)

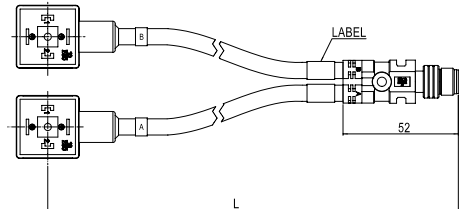
### PHYSICAL

Durability: min. 50 cycles  
Contact Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket:  
-40° +90°C  
Silicone Gasket: -40° +125°C  
Live Contact Distance:  
Form A 18mm  
Form Industrial 11mm  
Form B 10mm  
Form C 8mm  
Form Micro 9.4mm

## mPm® Molded Cable DIN Valve Connectors

**121035** DIN Valve to Brad® ILS,  
Overmolded, Non-Electronic

**121036** DIN Valve to Brad® ILS,  
Overmolded, Electronic



## Electronic and Non Electronic

**E 8 5 A B 0 P12 M 100**

### DIN BODY STYLE

**D**=Form B 10.00mm (2P+Ground)  
**E**=Form A 18.00mm (2P+Double Ground)  
**F**=Form Ind. 11.00mm (2P+Ground)  
**G**=Form Micro 9.40mm (2P+Double Ground)  
**H**=Form C 8.0mm (2P+Double Ground)

### SECOND END OF CABLE

**8**=Micro-Change M12 Connector

### NUMBER OF POLES

**5**=5 Poles for Micro-Change M12

### WIRING

**A**=In-Line Splitter

### CIRCUIT, VOLTAGE & LED COLOR

**A**=Circuit S0 24V and Yellow LED  
**B**=Circuit C4 24V and Yellow LED  
**C**=Circuit S0 110v and Yellow LED  
**D**=Circuit C4 110v and Yellow LED  
**0**=No Circuit

### SECOND HEAD BODY STYLE

**0**= Micro-Change M12 Male Straight  
Ground on DIN Head DIN H6 (H6/12 for cordset with Double Ground)  
**1**= Micro-Change M12 Male Straight  
Ground on DIN Head DIN H12 (not for Double Ground DIN)

### CABLE UNIT OF MEASURE

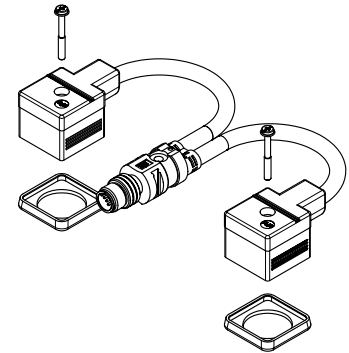
**A23**=Black PVC 0.75mm<sup>2</sup>  
**E12**=Black PVC 0.50mm<sup>2</sup>  
**P12**=Black PUR 0.50mm<sup>2</sup>  
**B08**=Yellow PUR 18 AWG

### CABLE UNIT OF MEASURE

**M**=Meters

### CABLE LENGTH

e.g. **003**=0.3m **010**=1m **100**=10m



This technical data is referred on the DIN connector head, for Brad® connector data please refer to the proper catalogue

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Ground Position | Poles    | Circuit | Voltage   | LED Color | Engineering No. | Standard Order No. |
|-----------------|----------|---------|-----------|-----------|-----------------|--------------------|
| See drawing     | 2+Ground | C4      | 24V AC/DC | yellow    | D85AB0P12M010   | 121036-0925        |
|                 |          |         |           |           | E85AB0P12M010   | 121036-0577        |
|                 |          |         |           |           | F85AB0P12M010   | 121036-0378        |
|                 |          |         |           |           | G85AB0P12M010   | 121036-0926        |
|                 |          |         |           |           | H85AB0P12M010   | 121036-0927        |

**DIN Valve connectors with molded cable, IP65 rated.  
IP67 version available on request.**

## Specifications

### ELECTRICAL

Current: max. 3.0A or 5.0A  
Contact Resistance:  $\leq 15$  milliohms max.  
Insulation Resistance:  
100Megohms min.

### MECHANICAL

Insertion and Withdrawal Force:  
2+GND  $\leq 60$ N

### ENVIRONMENTAL

IP65 sealing protection  
(IP67 available on request)

### PHYSICAL

Durability: min. 50 cycles  
Contact Area: Silver  
Operating Temperature with:  
Nitrile Rubber (NBR) Gasket:  
-40° +90°C  
Silicone Gasket: -40° +125°C  
Live Contact Distance:  
Form A 18mm  
Form Industrial 11mm  
Form B 10mm  
Form C 8mm  
Form Micro 9.4mm

## mPm® DIN Valve Connectors with Molded M8/M12

**121037** DIN Valve to Brad®  
M8/M12 Overmolded Adaptor,  
Electronic / Non-Electronic

## Electronic and Non Electronic

**E 8 5 0 B 0**

### DIN BODY STYLE

**D**=Form B 10.00mm (2P+Ground)  
**E**=Form A 18.00mm (2P+Double Ground)  
**F**=Form Ind. 11.00mm (2P+Ground)  
**G**=Form Micro 9.40mm (2P+Double Ground)  
**H**=Form C 8.0mm (2P+Double Ground)

### BRAD® M8/M12 EXIT

**5**=Nano-Change M8 Connector  
**8**=Micro-Change M12 Connector

### NUMBER OF POLES

**3**=3 Poles For Mini-Change  
**5**=5 Poles for Micro-Change M12

### WIRING

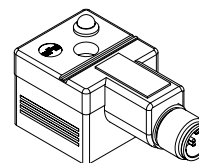
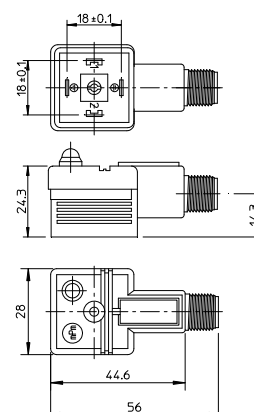
**0**=Default Standard Wiring

### CIRCUIT, VOLTAGE & LED COLOR

**A**=Circuit S0 24V and Yellow LED  
**B**=Circuit C4 24V and Yellow LED  
**C**=Circuit S0 110v and Yellow LED  
**D**=Circuit C4 110v and Yellow LED  
**0**=No Circuit

### HEAD BODY STYLE

**0**=Brad® M8 / M12 Male Straight  
Ground on DIN Head DIN H6 (H6/12 for cordset with Double Ground)  
**1**=Brad® M8 / M12 Male Straight  
Ground on DIN Head DIN H12 (not for Double Ground DIN)



This technical data is referred on the DIN connector head, for Brad connector data please refer to the proper catalogue

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| Ground Position | Poles    | Circuit | Voltage   | LED Color | Engineering No. | Standard Order No. |
|-----------------|----------|---------|-----------|-----------|-----------------|--------------------|
| See drawing     | 2+Ground | C4      | 24V AC/DC | yellow    | E850B0          | 121037-0035        |
|                 |          |         |           |           | F850B0          | 121037-0058        |
|                 |          |         |           |           | G850B0          | 121037-0068        |
|                 |          |         |           |           | H850B0          | 121037-0075        |

### Cable Types

| Cable Type      | Code     | Features   |
|-----------------|----------|--|
| Harmonized PVC  | <b>N</b> | Cable used for general purpose, has a good resistance to water but usually poor against chemical oils.                       |
| PVC CEI 2022 II | <b>I</b> | Approved to IEC332-2a, it is flame retardant and self-extinguishing, limited resistance against mineral oils.                |
| PUR Blend       | <b>P</b> | This cable offers a good resistance against chemicals and oils. Can swell when constantly immersed in water.                 |
| PVC UL 2661     | <b>A</b> | Approved UL2661, application for general purpose. This cable has a good resistance to water but usually poor oil resistance. |
| PUR UL 20668    | <b>B</b> | Approved UL20668, cable with very good resistance against oils and chemicals.  |

### Technical Features

| Cable Code | Strand / Cross        | Type               | External Diam. (mm) |           | Temp. Range (static) |          | Bending Radius (mm) |         |
|------------|-----------------------|--------------------|---------------------|-----------|----------------------|----------|---------------------|---------|
|            |                       |                    | nominal             | tolerance | min (°C)             | max (°C) | static              | dynamic |
| <b>I 2</b> | 2x0.50mm <sup>2</sup> | PVC CEI 2022 II    | 5,50                | +0,4/-0,0 | -25                  | +70      | >10xD               | >15xD   |
| <b>I 2</b> | 3x0.50mm <sup>2</sup> | PVC CEI 2022 II    | 5,50                | +0,4/-0,0 | -25                  | +70      | >10xD               | >15xD   |
| <b>I 2</b> | 4x0.50mm <sup>2</sup> | PVC CEI 2022 II    | 6,50                | ±0,3      | -25                  | +70      | >10xD               | >15xD   |
| <b>P 2</b> | 2x0.50mm <sup>2</sup> | PUR BLEND          | 5,50                | ±0,3      | -40                  | +90      | >7,5xD              | >12,5xD |
| <b>P 2</b> | 3x0.50mm <sup>2</sup> | PUR BLEND          | 5,50                | +0,5/-0,0 | -40                  | +90      | >7,5xD              | >12,5xD |
| <b>P 2</b> | 4x0.50mm <sup>2</sup> | PUR BLEND          | 6,50                | ±0,3      | -40                  | +90      | >7,5xD              | >12,5xD |
| <b>A 2</b> | 2x20 AWG              | PVC UL 2661        | 5,40                | ±0,3      | -30                  | +105     | >10xD               | >15xD   |
| <b>A 2</b> | 3x20 AWG              | PVC UL 2661        | 5,60                | ±0,3      | -30                  | +105     | >10xD               | >15xD   |
| <b>A 2</b> | 4x20 AWG              | PVC UL 2661        | 6,20                | ±0,35     | -30                  | +105     | >10xD               | >15xD   |
| <b>B 2</b> | 2x20 AWG              | PUR UL 20668       | 5,60                | ±0,3      | -40                  | +90      | >5xD                | >10xD   |
| <b>B 2</b> | 3x20 AWG              | PUR UL 20668       | 5,60                | ±0,3      | -40                  | +90      | >5xD                | >10xD   |
| <b>B 2</b> | 4x20 AWG              | PUR UL 20668       | 6,30                | ±0,3      | -40                  | +90      | >5xD                | >10xD   |
| <b>N 2</b> | 2x0.50mm <sup>2</sup> | HARMONIZED PVC H03 | 5,20                | ±0,3      | -20                  | +70      | >3xD                | NA      |
| <b>N 2</b> | 3x0.50mm <sup>2</sup> | HARMONIZED PVC H03 | 5,50                | ±0,3      | -20                  | +70      | >3xD                | NA      |
| <b>N 2</b> | 4x0.50mm <sup>2</sup> | HARMONIZED PVC H03 | 5,90                | ±0,4      | -20                  | +70      | >3xD                | NA      |
| <b>I 3</b> | 2x0.75mm <sup>2</sup> | PVC CEI 2022 II    | 5,50                | ±0,3      | -25                  | +70      | >10xD               | >15xD   |
| <b>I 3</b> | 3x0.75mm <sup>2</sup> | PVC CEI 2022 II    | 6,00                | ±0,3      | -25                  | +70      | >10xD               | >15xD   |
| <b>I 3</b> | 4x0.75mm <sup>2</sup> | PVC CEI 2022 II    | 7,00                | ±0,3      | -25                  | +70      | >10xD               | >15xD   |
| <b>P 3</b> | 2x0.75mm <sup>2</sup> | PUR BLEND          | 6,50                | ±0,3      | -40                  | +90      | >7,5xD              | >12,5xD |
| <b>P 3</b> | 3x0.75mm <sup>2</sup> | PUR BLEND          | 6,50                | ±0,3      | -40                  | +90      | >7,5xD              | >12,5xD |
| <b>P 3</b> | 4x0.75mm <sup>2</sup> | PUR BLEND          | 7,00                | ±0,3      | -40                  | +90      | >7,5xD              | >12,5xD |
| <b>A 3</b> | 2x18 AWG              | PVC UL 2661        | 6,20                | ±0,35     | -30                  | +105     | >10xD               | >15xD   |
| <b>A 3</b> | 3x18 AWG              | PVC UL 2661        | 6,50                | ±0,35     | -30                  | +105     | >10xD               | >15xD   |
| <b>A 3</b> | 4x18 AWG              | PVC UL 2661        | 7,00                | +0,4/-0,0 | -30                  | +105     | >10xD               | >15xD   |
| <b>B 3</b> | 2x18 AWG              | PUR UL 20668       | 6,20                | ±0,3      | -40                  | +90      | >5xD                | >10xD   |
| <b>B 3</b> | 3x18 AWG              | PUR UL 20668       | 6,50                | ±0,3      | -40                  | +90      | >5xD                | >10xD   |
| <b>B 3</b> | 4x18 AWG              | PUR UL 20668       | 7,00                | ±0,3      | -40                  | +90      | >5xD                | >10xD   |
| <b>N 3</b> | 2x0.75mm <sup>2</sup> | HARMONIZED PVC H05 | 6,20                | ±0,3      | -20                  | +70      | >9xD                | NA      |
| <b>N 3</b> | 3x0.75mm <sup>2</sup> | HARMONIZED PVC H05 | 6,50                | ±0,3      | -20                  | +70      | >9xD                | NA      |
| <b>N 3</b> | 4x0.75mm <sup>2</sup> | HARMONIZED PVC H05 | 7,10                | ±0,4      | -20                  | +70      | >9xD                | NA      |
| <b>I 4</b> | 2x1mm <sup>2</sup>    | PVC CEI 2022 II    | 7,10                | ±0,3      | -25                  | +70      | >10xD               | >15xD   |
| <b>I 4</b> | 3x1mm <sup>2</sup>    | PVC CEI 2022 II    | 7,10                | +0,4/-0,0 | -25                  | +70      | >10xD               | >15xD   |
| <b>N 4</b> | 2x1mm <sup>2</sup>    | HARMONIZED PVC H05 | 6,50                | ±0,3      | -20                  | +70      | >9xD                | NA      |
| <b>N 4</b> | 3x1mm <sup>2</sup>    | HARMONIZED PVC H05 | 6,90                | ±0,3      | -20                  | +70      | >9xD                | NA      |

Our circuit range provides LED indication or suppressor circuitry for surge protection.

Many other circuit configurations are available upon request; contact your local sales representative to identify the proper EDP number to use in your purchase orders.

### Circuit Options

#### SUPPLY VOLTAGE AND LED COLOR

|          |         |          |           |          |            |
|----------|---------|----------|-----------|----------|------------|
| 1 = 12V  | Red LED | A = 12V  | Green LED | G = 12V  | Yellow LED |
| 2 = 24V  |         | B = 24V  |           | H = 24V  |            |
| 3 = 48V  |         | C = 48V  |           | K = 48V  |            |
| 4 = 115V |         | D = 115V |           | L = 115V |            |
| 5 = 230V |         | E = 230V |           | M = 230V |            |

| Input   | Circuit Schematic | Load | Circuit Description   | Available on Product Type   |
|---------|-------------------|------|---|---|
| V AC/DC |                   |      | <b>CIRCUIT A1</b><br>With bipolar LED, provides a luminous signal when power is applied.  | Connectors Series S, Series E (only with Electronic) and Series A |
| V DC    |                   |      | <b>CIRCUIT C3</b><br>With LED and diode to protect against peak of overvoltage when switching off.  | Connectors Series S, Series E (only with Electronic) and Series A |
| V AC/DC |                   |      | <b>CIRCUIT C4</b><br>With bipolar LED and VDR to protect supply and switch against peak of overvoltage.   | Connectors Series S, Series E (only with Electronic) and Series A |
| V AC/DC |                   |      | <b>CIRCUIT D0</b><br>With VDR to protect supply and switch from peak of overvoltage.  | Connectors Series S, Series E (only with Electronic)              |
| V DC    |                   |      | <b>CIRCUIT E0</b><br>With diode to protect against peak of overvoltage when switching off.  | Connectors Series S, Series E (only with Electronic)              |
| V AC/DC |                   |      | <b>CIRCUIT S0</b><br>With transient suppressor (transil) to provide blocking of input and output overvoltage. a bipolar LED provide a visual information when power is applied. | Connectors Series S, Series E (only with Electronic) and Series A |
| V AC/DC |                   |      | <b>CIRCUIT S1</b><br>With transient suppressor (transil) to provide blocking of input and output overvoltage.   | Connectors Series S, Series E (only with Electronic)              |
| V AC    |                   |      | <b>CIRCUIT R0</b><br>Full wave bridge rectifier with VDR to protect against overvoltage.  | Connectors Series S53/54/11, Series E451 (only with Electronic)   |
| V AC    |                   |      | <b>CIRCUIT R2</b><br>Full wave bridge rectifier with VDR to protect against overvoltage and LED to confirm the presence of the rectified DC voltage.                            | Connectors Series S53/54/11, Series E451 (only with Electronic)   |



The background of the top section is a photograph of industrial machinery, possibly a factory or laboratory setting, with various metal components and cables. The text is overlaid on this image.

## **SAFE AND RELIABLE PRODUCTS > DESIGNED FOR DEMANDING ENVIRONMENTS**

**mPm<sup>®</sup> DIN valve bases follow industry standards and are used where rapid installation and service are required. Bases are used as protective enclosures for electrical connection in conjunction with hydraulic and pneumatic solenoid valves as well as sensors.**



## **mPm<sup>®</sup>** **DIN Bases**

**Conform to EN 175301-803 (ex DIN 43650)**

The bases range is used extensively together with Molex mPm connectors to provide electrical connections in a wide range of applications. The most common application for mPm bases is in conjunction with hydraulic, pneumatic or electromagnetic devices. Other applications include, for example, pressure transducers, proximity switches, level sensors, limit switches, thermostats and low energy motors.



**DIN Bases are provided in kit with fixing screw and gasket where required. The range covers the most important and common applications**

## Specifications

### ELECTRICAL

See following pages for details

### CERTIFICATION

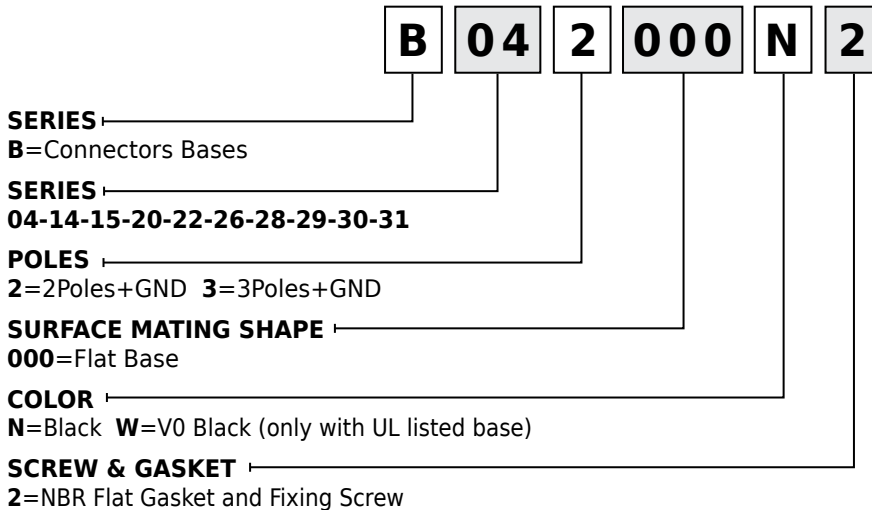
UL recognized, *cURus* marked, file E218123 (product available upon request or specific part number)

### PHYSICAL

Durability: min. 50 cycles  
 Contact Area: Silver  
 Solder Tail Area: Silver  
 Operating Temperature with:  
 Nitrile Rubber (NBR) Gasket:  
 -40° +90°C  
 Silicone Gasket: -40° +125°C  
 Live Contact Distance:  
 Form A 18.00mm  
 Form Industrial 11.00mm  
 Form C 8.00mm  
 Form Micro 9.40mm

## mPm® DIN Bases

- 121012** Form A
- 121012** Industrial
- 121012** Form C
- 121012** Form Micro



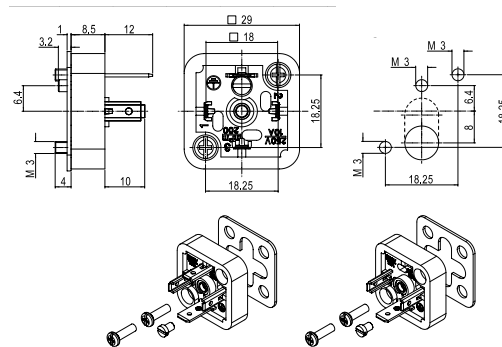
**Note:** UL listed part number identified by adding suffix SA at the end of the nomenclature in conjunction with UL material (W for black and T for transparent) e.g. B142000W2SA

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

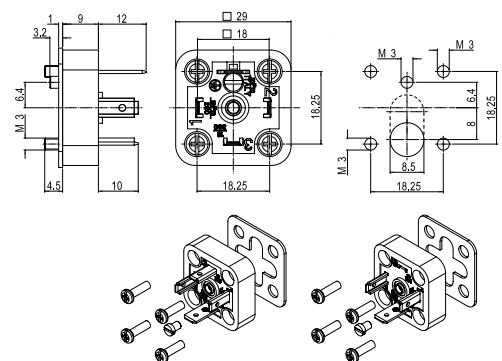
DIN Bases are provided in kit with fixing screw and gasket where required. The range covers the most important and common applications.

121012 Form A  
121012 Industrial  
121012 Form C  
121012 Form Micro

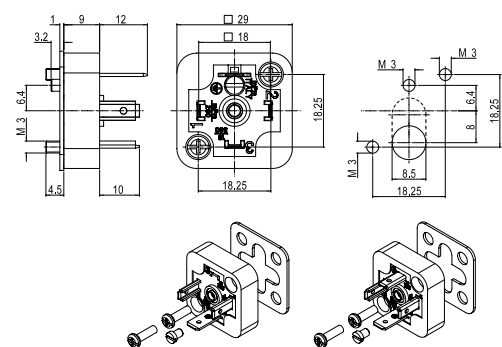
|  |                     |                |
|--|---------------------|----------------|
| <b>Code</b>  | B202000N2           | B203000N2      |
| <b>Standard Order No.</b>  | 121012-0013         | 121012-0019    |
| <b>Nominal Voltage</b>   | 250V AC/300V DC     |                |
| <b>Poles</b>   | 2 + Ground          | 3 + Ground     |
| <b>Max. Wire Sect.</b>   | 1.00mm <sup>2</sup> |                |
| <b>Mate with</b>   | Form A 2 Poles      | Form A 3 Poles |
| Base with external fixing screw for assembly on flat surface. This base allow to solder wire in front or back of the base. |                     |                |



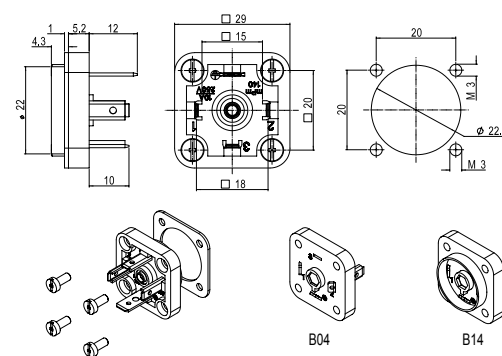
|   |                     |                |
|---|---------------------|----------------|
| <b>Code</b>   | B262000N2           | B263000N2      |
| <b>Standard Order No.</b>                                     | 121012-0071         | 121012-0076    |
| <b>Nominal Voltage</b>  | 250V AC/300V DC     |                |
| <b>Poles</b>  | 2 + Ground          | 3 + Ground     |
| <b>Max. Wire Sect.</b>  | 1.00mm <sup>2</sup> |                |
| <b>Mate with</b>  | Form A 2 Poles      | Form A 3 Poles |
| Base with external fixing screw for assembly on flat surface. |                     |                |



|   |                     |                |
|---|---------------------|----------------|
| <b>Code</b>   | B282000N2           | B283000N2      |
| <b>Standard Order No.</b>                                     | 121012-0095         | 121012-0099    |
| <b>Nominal Voltage</b>  | 250V AC/300V DC     |                |
| <b>Poles</b>  | 2 + Ground          | 3 + Ground     |
| <b>Max. Wire Sect.</b>  | 1.00mm <sup>2</sup> |                |
| <b>Mate with</b>  | Form A 2 Poles      | Form A 3 Poles |
| Base with external fixing screw for assembly on flat surface. |                     |                |



|   |                     |                |
|---|---------------------|----------------|
| <b>Code</b>   | B142000N2           | B143000N2      |
| <b>Standard Order No.</b>   | 121012-0006         | 121012-0007    |
| <b>Code</b>   | B042000N2           | B043000N2      |
| <b>Standard Order No.</b>   | 121012-0001         | 121012-0003    |
| <b>Nominal Voltage</b>  | 250V AC/300V DC     |                |
| <b>Poles</b>  | 2 + Ground          | 3 + Ground     |
| <b>Max. Wire Sect.</b>  | 1.00mm <sup>2</sup> |                |
| <b>Mate with</b>  | Form A 2 Poles      | Form A 3 Poles |
| Base with external fixing screw for assembly on flat surface with hole max. Diam. 22,5mm. |                     |                |

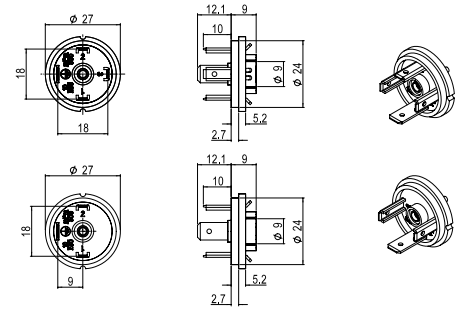


DIN Bases are provided in kit with fixing screw and gasket where required. The range covers the most important and common applications.

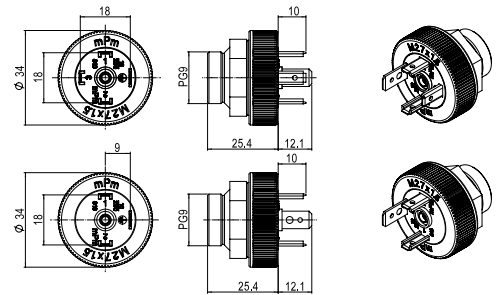
## mPm® DIN Bases

121012 Form A  
121012 Industrial  
121012 Form C  
121012 Form Micro

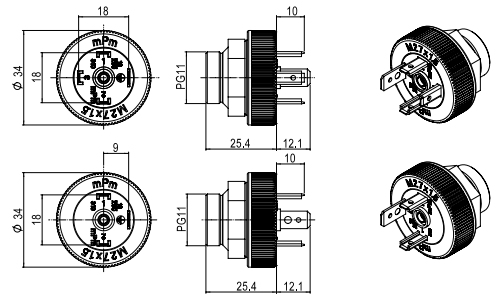
|  |                     |                |
|--|---------------------|----------------|
| <b>Code</b>  | B302000N0           | B303000N0      |
| <b>Standard Order No.</b>  | 121012-0112         | 121012-0114    |
| <b>Nominal Voltage</b>   | 250V AC/300V DC     |                |
| <b>Poles</b>   | 2 + Ground          | 3 + Ground     |
| <b>Max. Wire Sect.</b>   | 1.00mm <sup>2</sup> |                |
| <b>Mate with</b>   | Form A 2 Poles      | Form A 3 Poles |
| Base can be molded directly with the coil or assembled into the application. |                     |                |



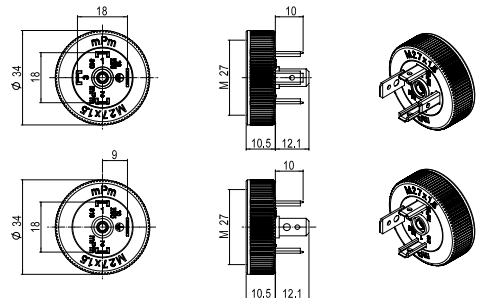
|  |                     |                |
|--|---------------------|----------------|
| <b>Code</b>                                    | B312P09N0           | B313P09N0      |
| <b>Standard Order No.</b>                      | 121012-0117         | 121012-0121    |
| <b>Nominal Voltage</b>                         | 250V AC/300V DC     |                |
| <b>Poles</b>                                   | 2 + Ground          | 3 + Ground     |
| <b>Max. Wire Sect.</b>                         | 1.00mm <sup>2</sup> |                |
| <b>Mate with</b>                               | Form A 2 Poles      | Form A 3 Poles |
| Base allowed to assembled using a PG 9 thread. |                     |                |



|   |                     |                |
|---|---------------------|----------------|
| <b>Code</b>                                     | B312P11N0           | B313P11N0      |
| <b>Standard Order No.</b>                       | 121012-0118         | 121012-0122    |
| <b>Nominal Voltage</b>                          | 250V AC/300V DC     |                |
| <b>Poles</b>                                    | 2 + Ground          | 3 + Ground     |
| <b>Max. Wire Sect.</b>                          | 1.00mm <sup>2</sup> |                |
| <b>Mate with</b>                                | Form A 2 Poles      | Form A 3 Poles |
| Base allowed to assembled using a PG 11 thread. |                     |                |



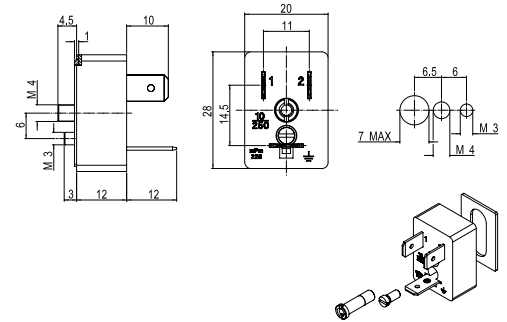
|   |                     |                |
|---|---------------------|----------------|
| <b>Code</b>   | B312M27N0           | B313M27N0      |
| <b>Standard Order No.</b>                                     | 121012-0116         | 121012-0120    |
| <b>Nominal Voltage</b>  | 250V AC/300V DC     |                |
| <b>Poles</b>  | 2 + Ground          | 3 + Ground     |
| <b>Max. Wire Sect.</b>  | 1.00mm <sup>2</sup> |                |
| <b>Mate with</b>  | Form A 2 Poles      | Form A 3 Poles |
| Base allowed to assembled using a lock fixing nut M27 thread. |                     |                |



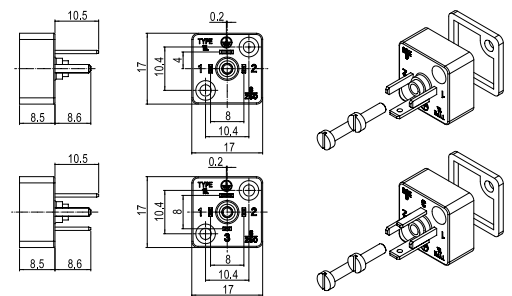
DIN Bases are provided in kit with fixing screw and gasket where required. The range covers the most important and common applications.

121012 Form A  
121012 Industrial  
121012 Form C  
121012 Form Micro

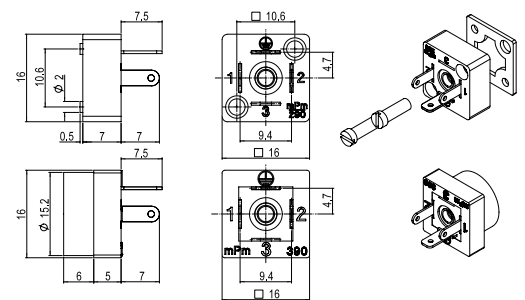
|   |                         |
|---|-------------------------|
| <b>Code</b>   | B222000N2               |
| <b>Standard Order No.</b>                                   | 121012-0047             |
| <b>Nominal Voltage</b>                                      | 250V AC/300V DC         |
| <b>Poles</b>  | 2 + Ground              |
| <b>Max. Wire Sect.</b>                                      | 1.00mm <sup>2</sup>     |
| <b>Mate with</b>  | Form Industrial 2 Poles |
| Base with central fixing screw to assemble on flat surface. |                         |



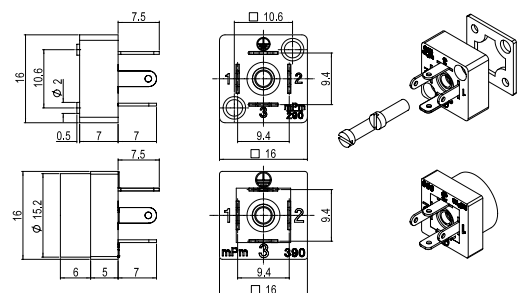
|   |                     |                     |
|---|---------------------|---------------------|
| <b>Code</b>   | B152000N2           | B153000N2           |
| <b>Standard Order No.</b>                                     | 121012-0009         | 121012-0010         |
| <b>Nominal Voltage</b>  | 250V AC/300V DC     |                     |
| <b>Poles</b>  | 2 + Ground          | 3 + Ground          |
| <b>Max. Wire Sect.</b>  | 0,75mm <sup>2</sup> | 0,75mm <sup>2</sup> |
| <b>Mate with</b>  | Form C 2 Poles      | Form C 3 Poles      |
| Base with external fixing screw for assembly on flat surface. |                     |                     |



|  |                     |                     |
|--|---------------------|---------------------|
| <b>Code</b>  | B292000N2           | B392000N0           |
| <b>Standard Order No.</b>  | 121012-0102         | 121012-0126         |
| <b>Nominal Voltage</b>   | 250V AC/300V DC     |                     |
| <b>Poles</b>   | 2 + Ground          | 2 + Ground          |
| <b>Max. Wire Sect.</b>   | 0,75mm <sup>2</sup> | 0,75mm <sup>2</sup> |
| <b>Mate with</b>   | Form Micro 2 Poles  | Form Micro 2 Poles  |
| B292 base with external fixing screw for assembly on flat surface. B392 for assembly on surface with hole Diam. 15mm |                     |                     |



|   |                     |                     |
|---|---------------------|---------------------|
| <b>Code</b>   | B293000N2           | B393000N0           |
| <b>Standard Order No.</b>   | 121012-0107         | 121012-0127         |
| <b>Nominal Voltage</b>  | 250V AC/300V DC     |                     |
| <b>Poles</b>  | 3 + Ground          | 3 + Ground          |
| <b>Max. Wire Sect.</b>  | 0,75mm <sup>2</sup> | 0,75mm <sup>2</sup> |
| <b>Mate with</b>  | Form Micro 3 Poles  | Form Micro 3 Poles  |
| B293 base with external fixing screw for assembly on flat surface. B393 for assembly on surface with hole Diam. 15mm. |                     |                     |







**HIGH QUALITY SOLENOID VALVE  
ADAPTORS >  
ENSURE FLEXIBILITY AND  
PROTECTION**

The mPm<sup>®</sup> DIN valve adaptors are developed in compliance with current standards and specifications to guarantee a high level of performance, reliability and availability. Adaptors provide easier assembly and mounting at lower applied costs.





## mPm<sup>®</sup> DIN Adaptors

Conform to EN 175301-803 (ex DIN 43650)

The adaptors with protective circuit are wafer interfaces which fit between the solenoid and the power connector. Thus providing the opportunity to upgrade with protection and indicator facilities with a minimum assembly time whilst retaining the existing component.



**DIN Adaptors with protective circuit. The range covers the most important and common applications.**

- 121001** Form A
- 121001** Industrial
- 121001** Form B
- 121001** Form Micro

### Specifications

#### ELECTRICAL

See following pages

#### PHYSICAL

Durability: min. 50 cycles

Live Contact Distance:

- Form A 18.00mm
- Form Industrial 11.00mm
- Form B 10.00mm
- Form Micro 9.40mm

#### SERIES

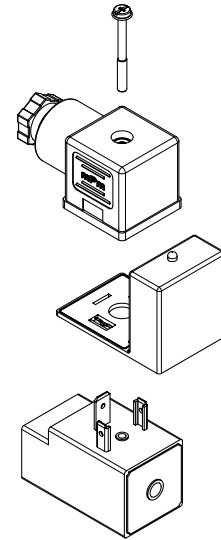
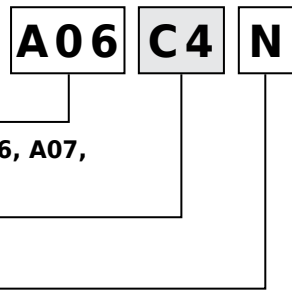
**A01, A02, A03, A04, A05, A06, A07, A08, A09, A10, A11**

#### CIRCUIT

see below in the page

#### VOLTAGE & LED COLOR

see here below



#### SUPPLY VOLTAGE AND LED COLOR

|          |          |          |
|----------|----------|----------|
| 1 = 12V  | A = 12V  | G = 12V  |
| 2 = 24V  | B = 24V  | H = 24V  |
| 3 = 48V  | C = 48V  | K = 48V  |
| 4 = 115V | D = 115V | L = 115V |
| 5 = 230V | E = 230V | M = 230V |

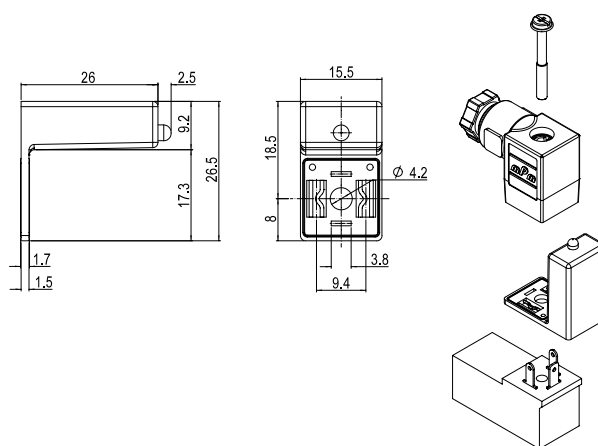
Red LED (A-E), Green LED (A-E), Yellow LED (G-M)

**Build your connector using the intelligent part number system and contact your local sales representative to identify the proper EDP number to use in your purchase orders**

| A1   | C3   | C4  | G2  | S0  |
|--|--|---|---|---|
|  |  |   |   |   |
| Bipolar LED for signal of power applied on the application | Polarized LED and blocking diode to protect against peak of overvoltage when switching off | Bipolar LED and VDR to protect against peak of overvoltage when switching off | Bipolar LED and RC circuit to dissipate energy created when switching off (not available for A01 adaptor) | Bipolar LED and Transil Diode to protect against peak of overvoltage when switching off |
| V AC - V DC  | V DC   | V AC - V DC   | V AC - V DC   | V AC - V DC   |

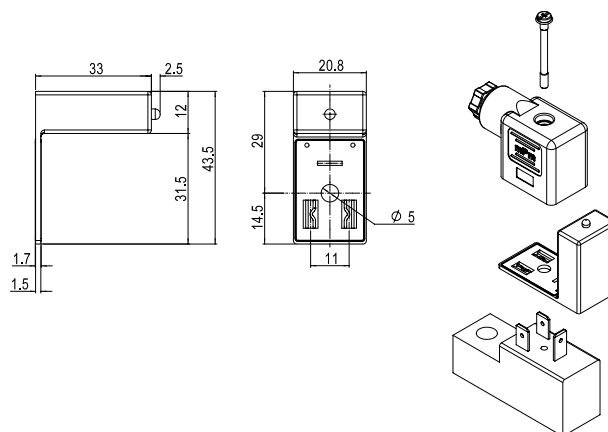
DIN Adaptors with protective circuit. The range covers the most important and common applications.

**121001** Form A  
**121001** Industrial  
**121001** Form B  
**121001** Form Micro



### Light Adaptor A01 Series for Form Micro DIN Connectors

| Poles | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|-------|---------|------------|-----------|-----------------|--------------------|
| 2     | C4      | 24V AC/DC  | yellow    | A01C4H          | 121001-0024        |
|       |         | 115V AC/DC | yellow    | A01C4L          | 121001-0025        |
|       |         | 230V AC/DC | yellow    | A01C4M          | 121001-0406        |



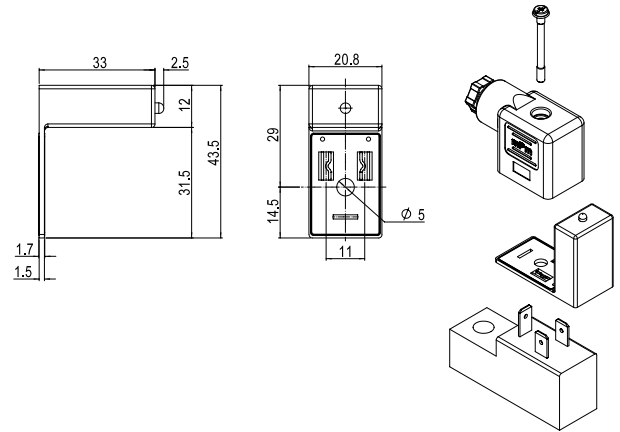
### Light Adaptor A02 Series for Form Industrial DIN Connectors

| Poles | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|-------|---------|------------|-----------|-----------------|--------------------|
| 2     | C4      | 24V AC/DC  | yellow    | A02C4H          | 121001-0056        |
|       |         | 115V AC/DC | yellow    | A02C4L          | 121001-0057        |
|       |         | 230V AC/DC | yellow    | A02C4M          | 121001-0058        |

DIN Adaptors with protective circuit. The range covers the most important and common applications.

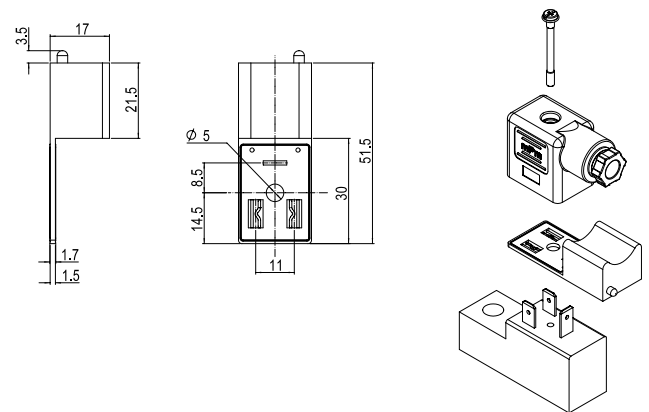
## mPm® DIN Adaptors

- 121001 Form A
- 121001 Industrial
- 121001 Form B
- 121001 Form Micro



### Light Adaptor A03 Series for Form Industrial DIN Connectors

| Poles | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|-------|---------|------------|-----------|-----------------|--------------------|
| 2     | C4      | 24V AC/DC  | yellow    | A03C4H          | 121001-0098        |
|       |         | 115V AC/DC | yellow    | A03C4L          | 121001-0099        |
|       |         | 230V AC/DC | yellow    | A03C4M          | 121001-0100        |

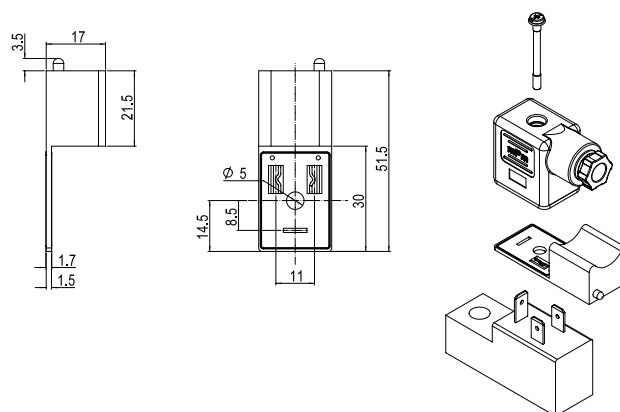


### Light Adaptor A04 Series for Form Industrial DIN Connectors

| Poles | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|-------|---------|------------|-----------|-----------------|--------------------|
| 2     | C4      | 24V AC/DC  | yellow    | A04C4H          | 121001-0136        |
|       |         | 115V AC/DC | yellow    | A04C4L          | 121001-0137        |
|       |         | 230V AC/DC | yellow    | A04C4M          | 121001-0138        |

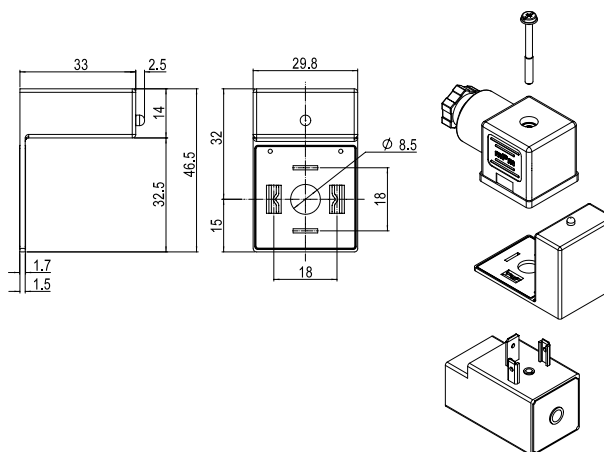
DIN Adaptors with protective circuit. The range covers the most important and common applications.

- 121001 Form A
- 121001 Industrial
- 121001 Form B
- 121001 Form Micro



### Light Adaptor A05 Series for Form Industrial DIN Connectors

| Poles | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|-------|---------|------------|-----------|-----------------|--------------------|
| 2     | C4      | 24V AC/DC  | yellow    | A05C4H          | 121001-0172        |
|       |         | 115V AC/DC | yellow    | A05C4L          | 121001-0438        |
|       |         | 230V AC/DC | yellow    | A05C4M          | 121001-0174        |



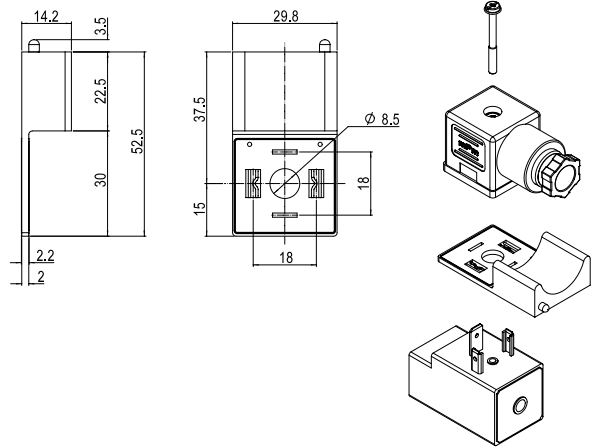
### Light Adaptor A06 Series for Form A DIN Connectors

| Poles | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|-------|---------|------------|-----------|-----------------|--------------------|
| 2     | C4      | 24V AC/DC  | yellow    | A06C4H          | 121001-0219        |
|       |         | 115V AC/DC | yellow    | A06C4L          | 121001-0220        |
|       |         | 230V AC/DC | yellow    | A06C4M          | 121001-0221        |

DIN Adaptors with protective circuit. The range covers the most important and common applications.

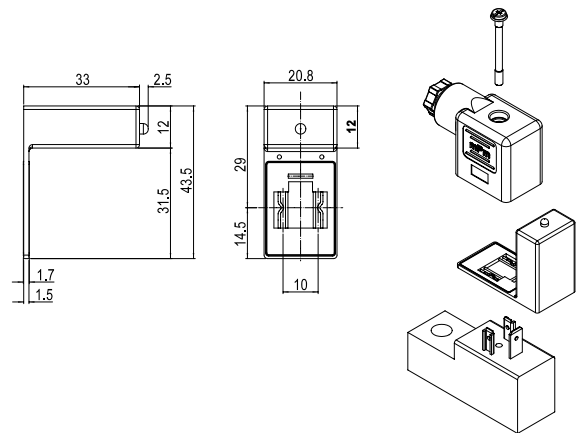
## mPm® DIN Adaptors

- 121001 Form A
- 121001 Industrial
- 121001 Form B
- 121001 Form Micro



### Light Adaptor A07 Series for Form A DIN Connectors

| Poles | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|-------|---------|------------|-----------|-----------------|--------------------|
| 2     | C4      | 24V AC/DC  | yellow    | A07C4H          | 121001-0262        |
|       |         | 115V AC/DC | yellow    | A07C4L          | 121001-0263        |
|       |         | 230V AC/DC | yellow    | A07C4M          | 121001-0264        |

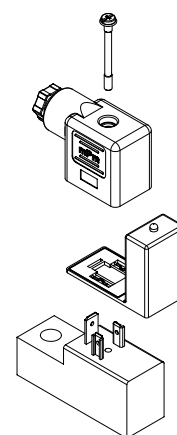
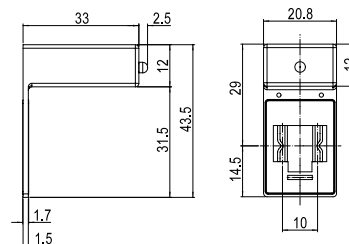


### Light Adaptor A08 Series for Form B DIN Connectors

| Poles | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|-------|---------|------------|-----------|-----------------|--------------------|
| 2     | C4      | 24V AC/DC  | yellow    | A08C4H          | 121001-0292        |
|       |         | 115V AC/DC | yellow    | A08C4L          | 121001-0439        |
|       |         | 230V AC/DC | yellow    | A08C4M          | 121001-0294        |

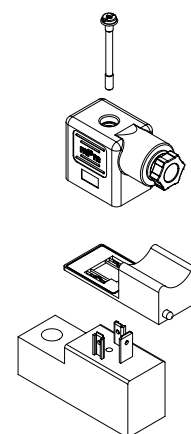
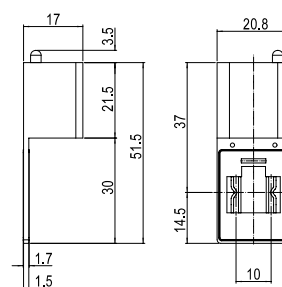
DIN Adaptors with protective circuit. The range covers the most important and common applications.

**121001** Form A  
**121001** Industrial  
**121001** Form B  
**121001** Form Micro



### Light Adaptor A09 Series for Form B DIN Connectors

| Poles | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|-------|---------|------------|-----------|-----------------|--------------------|
| 2     | C4      | 24V AC/DC  | yellow    | A09C4H          | 121001-0440        |
|       |         | 115V AC/DC | yellow    | A09C4L          | 121001-0441        |
|       |         | 230V AC/DC | yellow    | A09C4M          | 121001-0327        |



### Light Adaptor A10 Series for Form B DIN Connectors

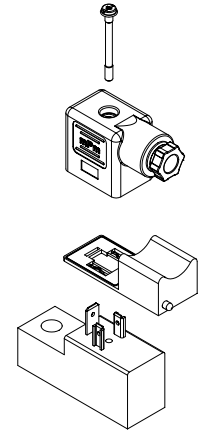
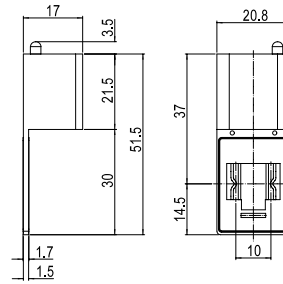
| Poles | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|-------|---------|------------|-----------|-----------------|--------------------|
| 2     | C4      | 24V AC/DC  | yellow    | A10C4H          | 121001-0353        |
|       |         | 115V AC/DC | yellow    | A10C4L          | 121001-0442        |
|       |         | 230V AC/DC | yellow    | A10C4M          | 121001-0443        |



DIN Adaptors with protective circuit. The range covers the most important and common applications.

## mPm® DIN Adaptors

- 121001 Form A
- 121001 Industrial
- 121001 Form B
- 121001 Form Micro



### Light Adaptor A11 Series for Form B DIN Connectors

| Poles | Circuit | Voltage    | LED Color | Engineering No. | Standard Order No. |
|-------|---------|------------|-----------|-----------------|--------------------|
| 2     | C4      | 24V AC/DC  | yellow    | A11C4H          | 121001-0354        |
|       |         | 115V AC/DC | yellow    | A11C4L          | 121001-0444        |
|       |         | 230V AC/DC | yellow    | A11C4M          | 121001-0445        |

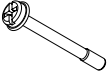
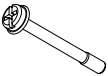
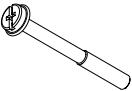
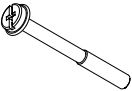
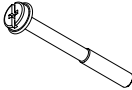
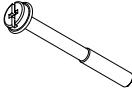
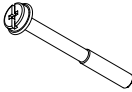
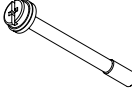
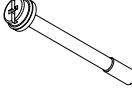
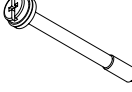
Gasket and screws, bagged spare parts for DIN valve connectors. Spare parts are developed specifically for and can be used only with mPm DIN valve connectors.

121129 DIN Valve Connector  
Spare Parts

|   | Gasket Type | For Connectors                         | Material | Standard Order No. | Packaging Style            |
|---|-------------|--|----------|--------------------|----------------------------|
|    | Non loosing | Form A with retention feature          | NBR      | 121129-0334        | 1 Unit = 1 Bag with 100pcs |
|   | Non loosing |  | Silicone | 121129-0289        | 1 Unit = 1 Bag with 50pcs  |
|    | Non loosing | Form Industrial with retention feature | NBR      | 121129-0264        | 1 Unit = 1 Bag with 50pcs  |
|   | Non loosing |  | Silicone | 121129-0296        | 1 Unit = 1 Bag with 50pcs  |
|    | Profile     | Form A                                 | NBR      | 121129-0080        | 1 Unit = 1 Bag with 100pcs |
|   | Profile     |  | Silicone | 121129-0081        | 1 Unit = 1 Bag with 100pcs |
|   | Flat        | Form A                                 | NBR      | 121129-0078        | 1 Unit = 1 Bag with 100pcs |
|   | Flat        |  | Silicone | 121129-0079        | 1 Unit = 1 Bag with 100pcs |
|  | Profile     | Form B and Industrial                  | NBR      | 121129-0084        | 1 Unit = 1 Bag with 100pcs |
|   | Profile     |  | Silicone | 121129-0085        | 1 Unit = 1 Bag with 100pcs |
|  | Flat        | Form Industrial                        | NBR      | 121129-0082        | 1 Unit = 1 Bag with 100pcs |
|   | Flat        |  | Silicone | 121129-0083        | 1 Unit = 1 Bag with 100pcs |
|  | Flat        | Form B                                 | NBR      | 121129-0112        | 1 Unit = 1 Bag with 100pcs |
|   | Flat        |  | Silicone | 121129-0113        | 1 Unit = 1 Bag with 100pcs |
|  | Profile     | Form C and Micro                       | NBR      | 121129-0098        | 1 Unit = 1 Bag with 100pcs |
|   | Profile     |  | Silicone | 121129-0099        | 1 Unit = 1 Bag with 100pcs |
|  | Flat        | Form Micro                             | NBR      | 121129-0096        | 1 Unit = 1 Bag with 100pcs |
|   | Flat        |  | Silicone | 121129-0097        | 1 Unit = 1 Bag with 100pcs |
|  | Flat        | Form C                                 | NBR      | 121129-0118        | 1 Unit = 1 bag with 100pcs |
|   | Flat        |  | Silicone | 121129-0119        | 1 Unit = 1 Bag with 100pcs |

Gasket and screws, bagged spare parts for DIN valve connectors. Spare parts are developed specifically for and can be used only with mPm DIN valve connectors.

121129 DIN Valve Connector  
Spare Parts

|   | Screw Type | Length  | Note   | Standard Order No. | Packaging Style            |
|---|------------|---------|--|--------------------|----------------------------|
|    | M2.5       | 22.50mm | Steel - Zinc plated                                    | 121129-0033        | 1 Unit = 1 Bag with 100pcs |
|    | M2.5       | 25.00mm | Steel - Zinc plated                                    | 121129-0002        | 1 Unit = 1 Bag with 100pcs |
|    | M3         | 20.00mm | Steel - Zinc plated                                    | 121129-0030        | 1 Unit = 1 Bag with 100pcs |
|  | M3         | 25.00mm | Steel - Zinc plated                                    | 121129-0007        | 1 Unit = 1 Bag with 100pcs |
|  | M3         | 27.00mm | Steel - Zinc plated                                    | 121129-0010        | 1 Unit = 1 Bag with 100pcs |
|  | M3         | 29.00mm | Steel - Zinc plated                                    | 121129-0001        | 1 Unit = 1 Bag with 100pcs |
|  | M3         | 31.00mm | Steel - Zinc plated                                    | 121129-0003        | 1 Unit = 1 Bag with 100pcs |
|  | M3         | 27.00mm | Steel - Zinc plated<br>With additional sealing grommet | 121129-0237        | 1 Unit = 1 Bag with 100pcs |
|  | M3         | 30.00mm | Steel - Zinc plated<br>With additional sealing grommet | 121129-0069        | 1 Unit = 1 Bag with 100pcs |
|  | M3         | 31.00mm | Steel - Zinc plated<br>With additional sealing grommet | 121129-0262        | 1 Unit = 1 Bag with 100pcs |

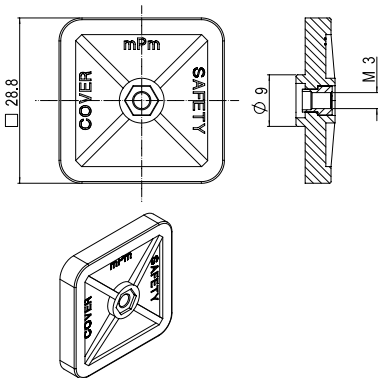
Gasket and screws, bagged spare parts for DIN valve connectors. Spare parts are developed specifically and can be used only with mPm DIN valve connectors.

**1210130006** Cover cap for form A connector

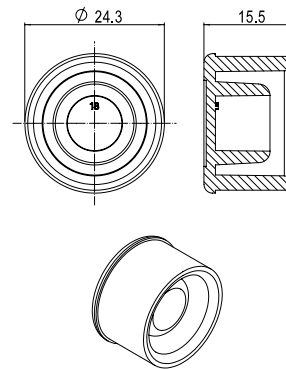
**1211230038** Cover cap for form A bases

**1211220400** Adaptor for corrugated tube on form A

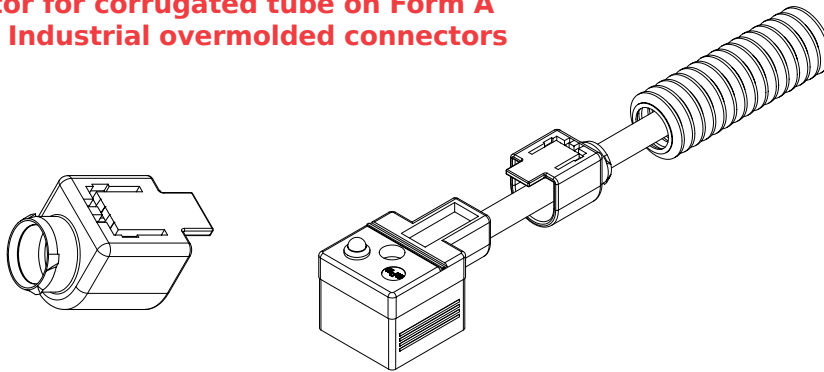
### 121013-0006 Cover cap for Form A Connector



### 121123-0038 Cover cap for Form A Bases

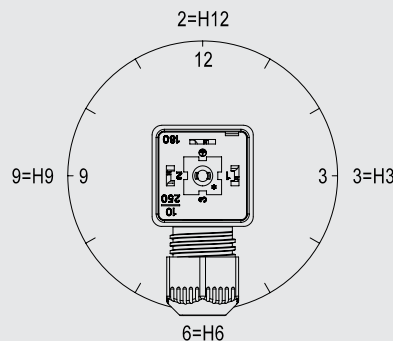


### 121122-0400 Adaptor for corrugated tube on Form A and B Industrial overmolded connectors



#### Ground PIN Position

Ground PIN position must be specified. For the range of mPm DIN valve connectors the position is noted looking at the face view of the connector with the cable gland (or cable exit) down below. In the H6 position the ground pin is at the bottom. In the H12 position the ground pin is at the top. Please note that the ground PIN position can be rotated 90° or 180° depending on the connector type.



For additional information on Molex Brad® product range please request a copy of the Molex Brad® Automation Catalogue from your local Sales representative.

All dimensions and product information included in this catalogue are for reference only. More detailed sales drawings are available for download on [www.molex.com](http://www.molex.com) or upon request from your local Sales representative.

From time to time Molex reserves the right to add new part numbers or obsolete part numbers based on market demand, please check availability on [www.molex.com](http://www.molex.com).

Get more insights at: [www.molex.com/link/mpm.html](http://www.molex.com/link/mpm.html)

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Molex:](#)

[1210641277](#) [1210640839](#) [1210230658](#) [1210641351](#) [1210641480](#) [1210641488](#) [1210641489](#) [1210641545](#)  
[1210641637](#) [1210641639](#) [1210641641](#) [1210641642](#) [1210641644](#)