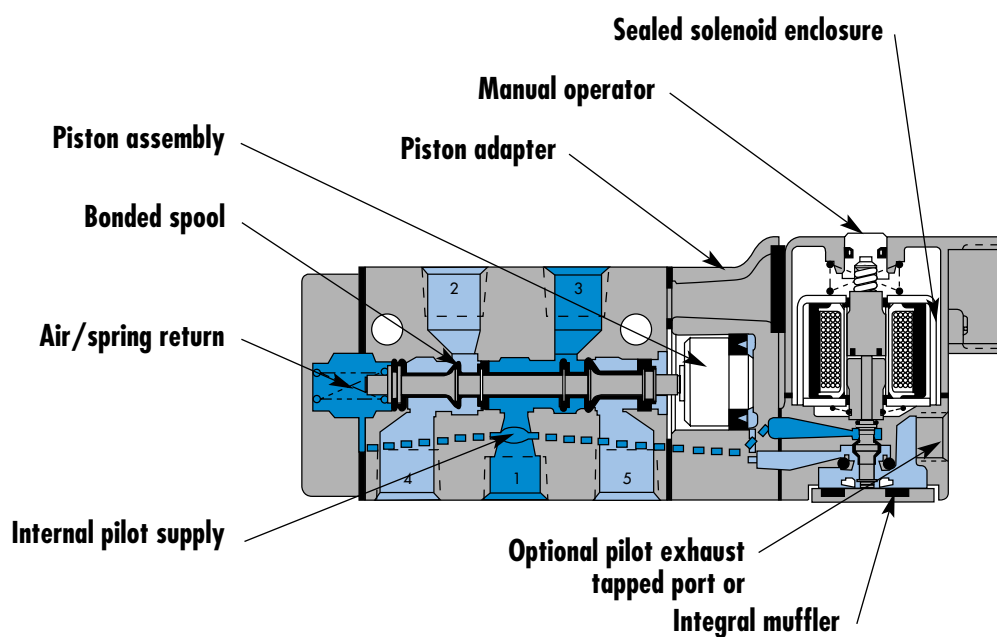


### Circuit bar mounting

| cylinder ports<br>in valve | with shut-off<br>valve |
|----------------------------|------------------------|
|                            |                        |



### SERIES FEATURES

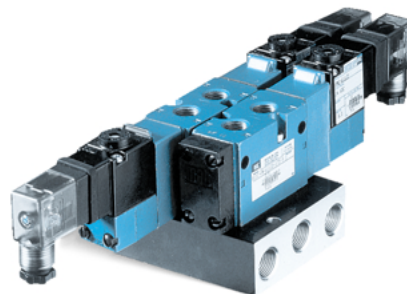
- Patented MACSOLENOID® with its non-burn out feature on AC service.
- Air/spring return on single solenoid valves.
- Use for lube or non-lube service.
- Optional low wattage DC solenoids down to 1 watt.
- Various types of manual operators and solenoid enclosures.
- 2 position or 3 position valve configurations.

| Function         | Port size   | Flow [Max]              | Circuit bar mounting    |
|------------------|-------------|-------------------------|-------------------------|
| <b>5/2 - 5/3</b> | <b>1/4"</b> | <b>1.3C<sub>v</sub></b> | cylinder ports in valve |

## OPERATIONAL BENEFITS

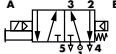
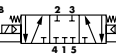
1. Balanced spool, immune to variations of pressure.
2. Short stroke with high flow.
3. The piston (booster) provides maximum shifting forces.
4. Powerful return force thanks to the combination of mechanical and air springs.
5. Bonded spool with minimum friction, shifting in a glass-like finished bore.
6. Wiping effect eliminates sticking.
7. Pilot valve with balanced poppet, high flow, short and consistent response times.
8. Long service life.

Reset



## HOW TO ORDER

### HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

| Port size        | 5/2<br>Single operator                                                             | 5/2<br>Double operator                                                             | 5/3<br>Closed center                                                               | 5/3<br>Open center                                                                  | 5/3<br>Pressure center                                                               |
|------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                  |  |  |  |  |  |
| <b>1/4" NPTF</b> | 811C-PM- <b>XXYYZZ</b> -172                                                        | 821C-PM- <b>XXYYZZ</b> -172                                                        | 825C-PM- <b>XXYYZZ</b> -572                                                        | 825C-PM- <b>XXYYZZ</b> -672                                                         | 825C-PM- <b>XXYYZZ</b> -872                                                          |

### SOLENOID OPERATOR ➤

**XX Y ZZ\***

| Voltage                  | Manual operator      | Electrical connection                      |
|--------------------------|----------------------|--------------------------------------------|
| <b>11</b> 120/60, 110/50 | <b>1</b> Non-locking | <b>JB</b> Rectangular connector            |
| <b>12</b> 240/60, 220/50 | <b>2</b> Locking     | <b>JD</b> Rectangular connector with light |
| <b>22</b> 24/50, 24/60   |                      | <b>BA</b> Flying leads (18")               |
| <b>59</b> 24VDC (2.5 W)  |                      |                                            |
| <b>87</b> 24VDC (17.1 W) |                      |                                            |
| <b>61</b> 24VDC (8.5 W)  |                      |                                            |

### HOW TO ORDER CIRCUIT BAR\*\*

| Port size<br>(Spacing 31 mm) | Standard circuit bar    | Circuit bar with flow controls<br>(2 per station) |
|------------------------------|-------------------------|---------------------------------------------------|
| <b>3/8" NPTF</b>             | EBM800A-001A- <b>XX</b> | EBM800A-002A- <b>XX</b>                           |

Number of stations (03=3 stations)

Other options available. Consult factory.

Note : clic for valves mounted on base at the factory (add - 9 to the model number).

**TECHNICAL  
DATA**

|                                   |                                                                                                                                             |                    |                       |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------|
| <b>Fluid :</b>                    | Compressed air, vacuum, inert gases                                                                                                         |                    |                       |
| <b>Pressure range :</b>           | Internal pilot : single operator and 3 positions : 20 to 150 PSI      double operator : 10 to 150 PSI<br>External pilot : vacuum to 200 PSI |                    |                       |
| <b>Pilot pressure :</b>           | Single operator and 3 positions : 20 to 150 PSI      Double operator : 20 to 150 PSI                                                        |                    |                       |
| <b>Lubrication :</b>              | Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)                                                      |                    |                       |
| <b>Filtration :</b>               | 40 µ                                                                                                                                        |                    |                       |
| <b>Temperature range :</b>        | 0°F to 120°F (-18°C to +50°C)                                                                                                               |                    |                       |
| <b>Orifice :</b>                  | 7 mm                                                                                                                                        |                    |                       |
| <b>Flow (at 6 bar, ΔP=1bar) :</b> | 1/4" : 1.3 C <sub>v</sub>                                                                                                                   |                    |                       |
| <b>Coil :</b>                     | General purpose class A, continuous duty, encapsulated                                                                                      |                    |                       |
| <b>Voltage range :</b>            | -15% to +10% of nominal voltage                                                                                                             |                    |                       |
| <b>Protection :</b>               | NEMA 4                                                                                                                                      |                    |                       |
| <b>Power :</b>                    | ~ Inrush : 14.8 VA      Holding : 10.9 VA<br>= 1 to 17.1 W                                                                                  |                    |                       |
| <b>Response times :</b>           | 24 V=8.5 W                                                                                                                                  | Energize : 8 ms    | De-energize : 10ms    |
|                                   | 60Hz/6 W                                                                                                                                    | Energize : 5-11 ms | De-energize : 9-16 ms |

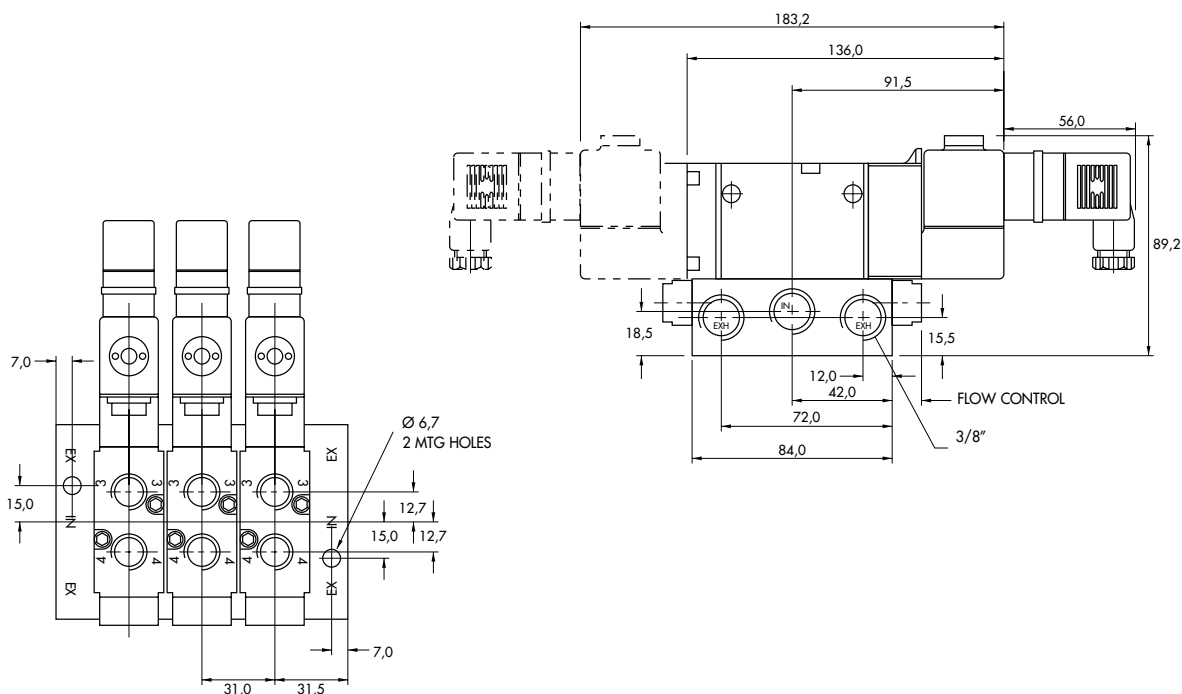
Spare parts :

- Pilot valve : PME-XYZZ.
- Mounting screw pilot to main valve : 34364.
- Blanking plate : M-08008.
- Mounting screw valve to bar (x2) : 35249.
- Flow control : N08006.

Options :

- BSPP threads.
- Isolation of inlet and/or exhaust.
- Explosion-proof model.

**DIMENSIONS**

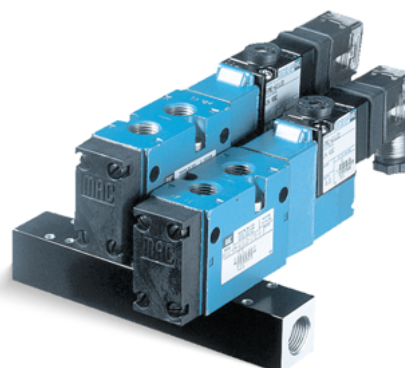


| Function         | Port size   | Flow [Max]              | Circuit bar mounting |
|------------------|-------------|-------------------------|----------------------|
| <b>5/2 - 5/3</b> | <b>1/4"</b> | <b>1.3C<sub>v</sub></b> | with shut-off valve  |

## OPERATIONAL BENEFITS

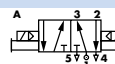
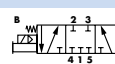
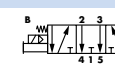
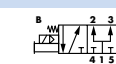
1. Balanced spool, immune to variations of pressure.
2. Short stroke with high flow.
3. The piston (booster) provides maximum shifting forces.
4. Powerful return force thanks to the combination of mechanical and air springs.
5. Bonded spool with minimum friction, shifting in a glass-like finished bore.
6. Wiping effect eliminates sticking.
7. Pilot valve with balanced poppet, high flow, short and consistent response times.
8. Long service life.

Reset



## HOW TO ORDER

### HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

| Port size        | 5/2<br>Single operator                                                             | 5/2<br>Double operator                                                             | 5/3<br>Closed center                                                               | 5/3<br>Open center                                                                  | 5/3<br>Pressure center                                                               |
|------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                  |  |  |  |  |  |
| <b>1/4" NPTF</b> | 811C-PM- <b>XXYYZZ</b> -172                                                        | 821C-PM- <b>XXYYZZ</b> -172                                                        | 825C-PM- <b>XXYYZZ</b> -572                                                        | 825C-PM- <b>XXYYZZ</b> -672                                                         | 825C-PM- <b>XXYYZZ</b> -872                                                          |

### SOLENOID OPERATOR ➤

**XX Y ZZ\***

| Voltage                  | Manual operator      | Electrical connection                      |
|--------------------------|----------------------|--------------------------------------------|
| <b>11</b> 120/60, 110/50 | <b>1</b> Non-locking | <b>JB</b> Rectangular connector            |
| <b>12</b> 240/60, 220/50 | <b>2</b> Locking     | <b>JD</b> Rectangular connector with light |
| <b>22</b> 24/50, 24/60   |                      | <b>BA</b> Flying leads (18")               |
| <b>59</b> 24VDC (2.5 W)  |                      |                                            |
| <b>87</b> 24VDC (17.1 W) |                      |                                            |
| <b>61</b> 24VDC (8.5 W)  |                      |                                            |

### HOW TO ORDER CIRCUIT BAR\*\*

| Port size<br>(Spacing 31 mm) | w/o inlet shut-off valve | w/ inlet shut-off valve |
|------------------------------|--------------------------|-------------------------|
| <b>3/8" NPTF</b>             | EBI800A-001A- <b>XX</b>  | EBI800A-002A- <b>XX</b> |

Number of stations (03=3 stations)

Other options available. Consult factory.

Note : clic for valves mounted on base at the factory (add - 9 to the model number).

### TECHNICAL DATA

|                            |                                                                                                                                             |  |  |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Fluid :                    | Compressed air, vacuum, inert gases                                                                                                         |  |  |
| Pressure range :           | Internal pilot : single operator and 3 positions : 20 to 150 PSI      double operator : 10 to 150 PSI<br>External pilot : vacuum to 200 PSI |  |  |
| Pilot pressure :           | Single operator and 3 positions : 20 to 150 PSI      Double operator : 20 to 150 PSI                                                        |  |  |
| Lubrication :              | Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)                                                      |  |  |
| Filtration :               | 40 µ                                                                                                                                        |  |  |
| Temperature range :        | 0°F to 120°F (-18°C to +50°C)                                                                                                               |  |  |
| Orifice :                  | 7 mm                                                                                                                                        |  |  |
| Flow (at 6 bar, ΔP=1bar) : | 1/4" : 1.3 C <sub>v</sub>                                                                                                                   |  |  |
| Coil :                     | General purpose class A, continuous duty, encapsulated                                                                                      |  |  |
| Voltage range :            | -15% to +10% of nominal voltage                                                                                                             |  |  |
| Protection :               | NEMA 4                                                                                                                                      |  |  |
| Power :                    | ~ Inrush : 14.8 VA      Holding : 10.9 VA<br>= 1 to 17.1 W                                                                                  |  |  |
| Response times :           | 24 V= / 8.5 W      Energize : 8 ms      De-energize : 10ms<br>60Hz/6 W      Energize : 5-11 ms      De-energize : 9-16 ms                   |  |  |

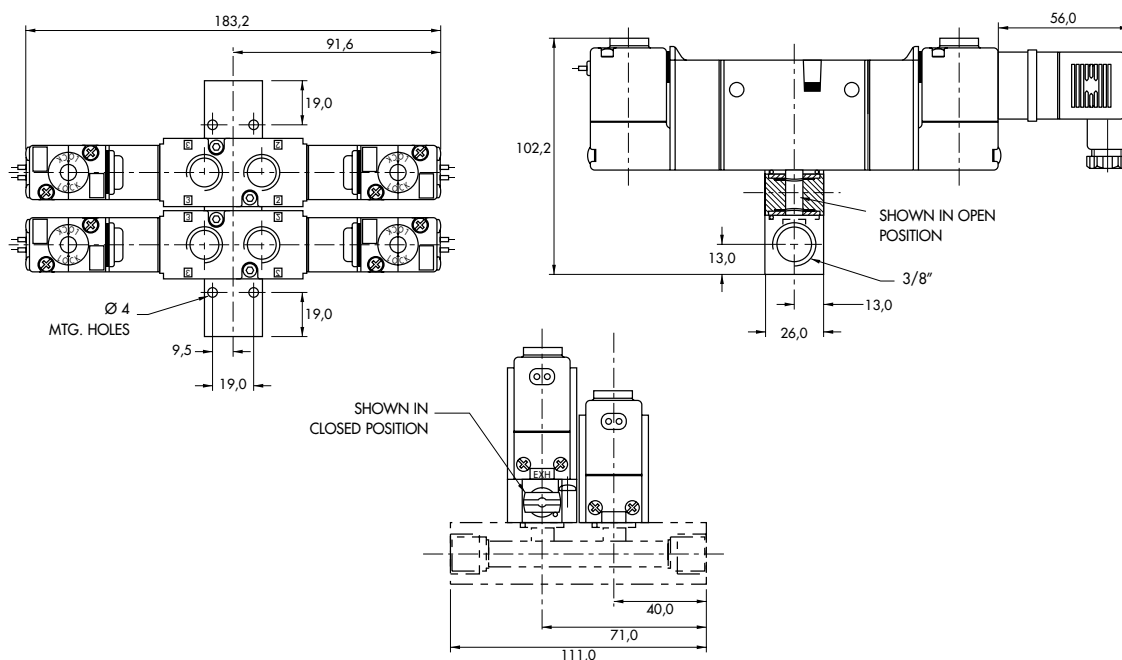
Spare parts :

- Pilot valve : PME-XYZZ.
- Mounting screw pilot to main valve : 34364.
- Blanking plate : M-08011.
- Shut-off valve : M-08010.
- Mounting screw valve to bar (x2) : 35249.

Options :

- BSPP threads.
- Isolation of inlet and/or exhaust.
- Explosion-proof model.

### DIMENSIONS





## Section 2

## Options

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**Codification table for voltages / Manual operator / Electrical connection / Wire length**

---

VALVE CODE ➤ -XX Y ZZ (-VV)  
1 2 3 4

**OPTIONS AVAILABLE FOR**

- valves type 800 Series

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## 1. VOLTAGE

| - XX Y ZZ | VOLTAGE                                 |
|-----------|-----------------------------------------|
| 11        | 120/60 - 110/50                         |
| 12        | 240/60 - 220/50                         |
| 13        | 100/60 - 100/50                         |
| 15        | 200/60 - 200 V~/50 Hz                   |
| 16        | 10/60                                   |
| 20        | 6/60                                    |
| 21        | 12/50 - 12/60                           |
| 22        | 24/60 - 24/50                           |
| 23        | 32/60 - 32/50                           |
| 24        | 48/60 - 42/50                           |
| 26        | 380/50, 440/50 - 440/60,<br>480/60-CLSF |
| 29        | 200/60                                  |
| 34        | 127/50 - 120/50                         |
| 35        | 48/50                                   |
| 36        | 16/60                                   |
| 81        | 24/50                                   |
| 50        | 24 VDC (6W)                             |
| 51        | 24 VDC (4W)                             |
| 54        | 12 VDC (4W)                             |
| 55        | 12 VDC (6W)                             |
| 57        | 12 VDC (2.5W)                           |
| 59        | 24 VDC (2.5W)                           |
| 60        | 12 VDC (8.5W)                           |
| 61        | 24 VDC (8.5W)                           |
| 64        | 6 VDC (6W)                              |
| 65        | 32 VDC (7W)                             |
| 66        | 48 VDC (5.8W)                           |
| 67        | 64 VDC (7.5W)                           |
| 68        | 120 VDC (6.4W)                          |
| 75        | 90 VDC (8.8W)                           |
| 76        | 100 VDC (6.9W)                          |
| * 84      | 125 VDC (10.9W)                         |
| * 87      | 24 VDC (17.1W)                          |
| * 88      | 12 VDC (17.4W)                          |
| * 89      | 36 VDC (18.8W)                          |
| 90        | 28 VDC (8.2W)                           |
| * 91      | 6 VDC (10.6W)                           |
| 92        | 190 VDC (6.5W)                          |
| 94        | 3 VDC (7W)                              |
| 95        | 38 VDC (6.4W)                           |
| A1        | 24 VDC (1.0W)                           |
| A2        | 12 VDC (1.0W)                           |
| A3        | 9 VDC (1.0W)                            |

MOD. DD01 : Protection diode (DC)

MOD. MOV1 : Protection varistor (AC)

MOD. DD01 : max. 8,5 W

MOD. MOV1 : max. 8,5 W

\* Voltages are CLSF only

## 2. MANUAL OPERATOR

| - XX Y ZZ | MANUAL OPERATOR      |
|-----------|----------------------|
| 0         | No operator          |
| 1         | Non-locking recessed |
| 2         | Locking recessed     |
| 3         | Non-locking extended |
| 4         | Locking extended     |

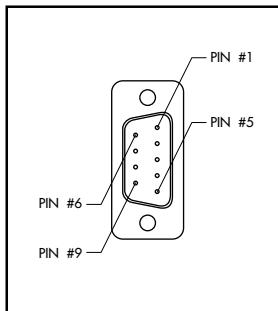
## 3. ELECTRICAL CONNECTION

| - XX Y ZZ | ELECTRICAL CONNECTION            |
|-----------|----------------------------------|
| AA        | Wiring box with 1/2" NPS conduit |
| BA        | Flying leads                     |
| CA        | 1/2" NPS conduit                 |
| CC        | 1/2" NPT conduit                 |
| FA        | Military type 2 PIN              |
| GA        | Military type 3 PIN              |
| HA        | AA with ground wire              |
| JA        | Square connector                 |
| JB        | Rectangular connector            |
| JC        | Square connector with light      |
| JD        | Rectangular connector with light |
| JJ        | Square connector, male only      |
| JM        | Rectangular connector, male only |
| NA        | CA with ground wire              |
| NC        | CC with ground wire              |
| RA        | 3/8" NPS conduit                 |
| CD        | 20 mm conduit                    |

## 4. WIRE LENGTH

| - XX Y ZZ (-VV) | WIRE LENGTH |
|-----------------|-------------|
| AA              | 18"         |
| AB              | 24"         |
| AD              | 36"         |
| AE              | 48"         |
| AF              | 72"         |
| AG              | 6"          |
| AR              | 12"         |
| AU              | 120"        |
| BA              | 60"         |
| BB              | 144"        |

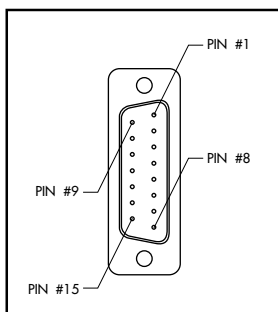
### MOD. S009



#### TECHNICAL DATA

- Type «SUB\_D»
- Number of contacts : 9
- Solder termination (Dia. 0.6 mm/0.14 mm<sup>2</sup>/26-22 AWG)
- Operating current 5 A/contact
- Rated voltage 125 V~
- Temp. range -40° to +125°C
- Insulation resistance  $\geq 5.0^9 \Omega$
- Protection class IP40 (DIN 40050)
- Number of solenoids : 7 max.
- Max. 24 V=/5.4 W per solenoid
- 2 common wires

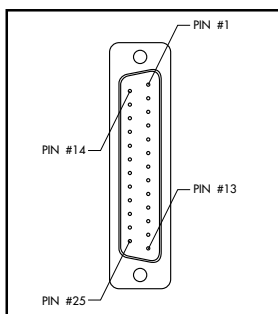
### MOD. S015



#### TECHNICAL DATA

- Type «SUB\_D»
- Number of contacts : 15
- Solder termination (Dia. 0.6 mm/0.14 mm<sup>2</sup>/26-22 AWG)
- Operating current 5 A/contact
- Rated voltage 125 V~
- Temp. range -40° to +125°C
- Insulation resistance  $\geq 5.0^9 \Omega$
- Protection class IP40 (DIN 40050)
- Number of solenoids : 12 max.
- Max. 24 V=/5.4 W per solenoid
- 3 common wires

### MOD. S025



#### TECHNICAL DATA

- Type «SUB\_D»
- Number of contacts : 25
- Solder termination (Dia. 0.6 mm/0.14 mm<sup>2</sup>/26-22 AWG)
- Operating current 5 A/contact
- Rated voltage 125 V~
- Temp. range -40° to +125°C
- Insulation resistance  $\geq 5.0^9 \Omega$
- Protection class IP40 (DIN 40050)
- Number of solenoids : 20 max.
- Max. 24 V=/5.4 W per solenoid
- 5 common wires

Note : Use desired MOD. number after circuit bar part number

# Connector termination details

