

GL6

20 mm - G1/8 Valves and solenoid valves for base assembly

- Valve body for base assembly with traditional Univer spool system
- Version with integrated electrical connection and external connection
- Compact design
- High flow rate
- Versions available: 5/2 - 5/3 - 3/2+3/2



TECHNICAL CHARACTERISTICS

| | | | |
|----------------------------|--|------------|----------------|
| Ambient temperature | -20 ÷ +50 °C | | |
| Fluid temperature | max +50 °C | | |
| Fluid | filtered air 50 µm not dehumidified, lubricated or not | | |
| Commutation system | spool | | |
| Ways/Positions | 5/2, 5/3, 3/2+3/2 | | |
| Pressure | 1,5 ÷ 9 bar | | |
| Control | indirect electro-pneumatic, pneumatic | | |
| Return | mechanical spring, pneumomechanical spring | | |
| Connections | sub-base interface | | |
| Nominal Ø (mm) | 5 mm | | |
| Nominal flow rate (NI/min) | according to the type of fittings | | |
| | 5/2 | 5/3 | 3/2+3/2 |
| streight tube Ø8 mm | 740 | 670 | 640 |
| 90° tube Ø8 mm | 620 | 550 | 520 |
| streight tube Ø6 mm | 510 | 510 | 510 |
| 90° tube Ø6 mm | 370 | 370 | 370 |
| streight tube Ø4 mm | 200 | 200 | 200 |
| 90° tube Ø4 mm | 140 | 140 | 140 |

CONSTRUCTIVE CHARACTERISTICS

| | |
|-----------------------|----------------------------------|
| Valve body | zamak |
| Seals | nitrile rubber |
| Subbase and actuators | self-extinguishing technopolymer |
| Spool | aluminum |

ELECTRIC CHARACTERISTICS

| | | |
|-------------------|--|--|
| Electropilot/coil | A/U05 series | |
| Voltage | 24 V DC standard, upon request 12 V DC | 24 V AC - 110 V AC - 230 V AC (only version with external connection) |
| Power consumption | for direct current 2 W (2,3 VA) | |
| Protection degree | IP65 | |
| Manual override | button with tool 1 position | |

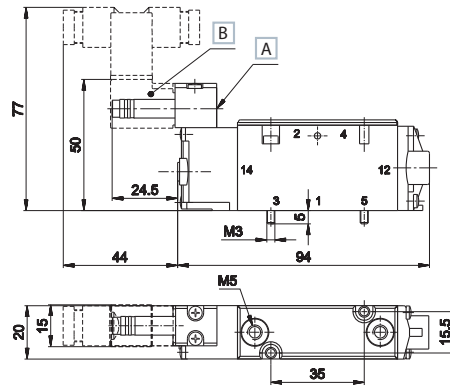
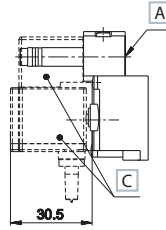
CODIFICATION KEY

| | | | | | |
|----|---|---|---|---|---|
| GL | 6 | 6 | 4 | 4 | D |
| 1 | 2 | 3 | 4 | 5 | |

| | | |
|---|---|---|
| 1 Series | 2 Type | 3 Control 14 |
| GL6 = valve body for except base assembly (coils and connectors) | 2 = 5/2 3 = 5/3 c.c. 4 = 5/3 o.c. 5 = 5/3 p.c. 6 = 3/2+3/2 NC-NC 7 = 3/2+3/2 NC-NO 8 = 3/2+3/2 NO-NO | 3 = pneumatic amplified 4 = electrical amplified DC 5 = electrical amplified DC/AC |

| | |
|--|--|
| 4 Return 12 | 5 Option |
| 0 = pneumomechanical spring 1 = mechanical spring 3 = pneumatic amplified | 4 = electrical amplified DC 5 = electrical amplified DC/AC D = external servoassisted pilot |
| o.c. = open centres c.c. = closed centres p.c. = pressurized centres | |

Single electric impulse

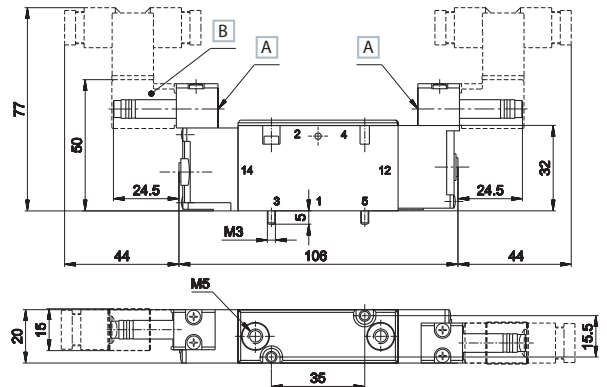
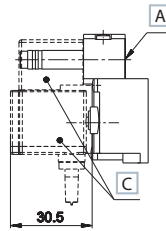


- A Manual override
- B Coil with connector for single connection
- C Coil with intergrated connector for multipolar version **DD-051**C**

- 1 = Supply port
- 2 - 4 = Use
- 3 - 5 = Exhaust
- 14 = Control
- 12 = Return

| | Symbol | Control | Return | Flow rate (NI/min) | Pressure bar | Times (ms) | | Weight Kg | Part no. |
|-----|--------|----------------------|-------------------------|--------------------|--------------|------------|--------|-----------|--------------------|
| | | | | | | En. | De-en. | | |
| 5/2 | | electrical amplified | spring pneumomechanical | 740 | 1,5÷9 | 21 | 30 | 0,112 | GL-6240 GL-6250 |
| 5/2 | | electrical amplified | spring mechanical | 740 | 1,5÷9 | 18 | 64 | 0,112 | GL-6241 GL-6251 |

Double electric impulse



- A Manual override
- B Coil with connector for single connection
- C Coil with intergrated connector for multipolar version **DD-051**C**

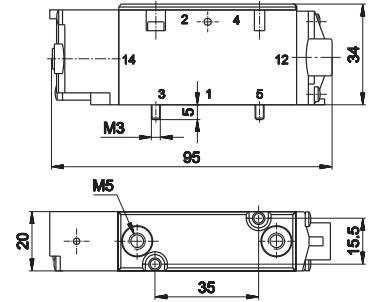
- 1 = Supply port
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- 14 = Control
- 12 = Return

| | Symbol | Control | Return | Flow rate (NI/min) | Pressure bar | Times (ms) | | Weight Kg | Part no. |
|-----------------|--------|----------------------|----------------------|--------------------|--------------|------------|--------|-----------|--------------------|
| | | | | | | En. | De-en. | | |
| 5/2 | | electrical amplified | electrical amplified | 740 | 0,6÷9 | 16 | 16 | 0,143 | GL-6244 GL-6255 |
| 5/3 c.c. | | electrical amplified | electrical amplified | 670 | 1,5÷9 | 16 | 47 | 0,148 | GL-6344 GL-6355 |
| 5/3 o.c. | | electrical amplified | electrical amplified | 670 | 2,0÷9 | 16 | 47 | 0,148 | GL-6444 GL-6455 |
| 5/3 p.c. | | electrical amplified | electrical amplified | 670 | 1,5÷9 | 16 | 47 | 0,148 | GL-6544 GL-6555 |
| 3/2 NC + 3/2 NC | | electrical amplified | electrical amplified | 640 | 1,5÷9 | 14 | 17 | 0,140 | GL-6644 GL-6655 |
| 3/2 NC + 3/2 NO | | electrical amplified | electrical amplified | 640 | 1,5÷9 | 14 | 17 | 0,140 | GL-6744 GL-6755 |
| 3/2 NO + 3/2 NO | | electrical amplified | electrical amplified | 640 | 1,5÷9 | 14 | 17 | 0,140 | GL-6844 GL-6855 |

o.c. = open centres c.c. = closed centres p.c. = pressurized centres

Solenoid valves are supplied without coil and connector

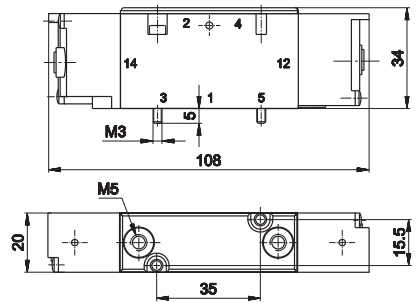
Single pneumatic impulse



1 = Supply port 14 = Control
 2 - 4 = Use 12 = Return
 3 - 5 = Exhaust

| | Symbol | Control | Return | Flow rate (NI/min) | Pressure bar | Times (ms) | | Weight Kg | Part no. |
|-----|--------|---------------------|-------------------------|--------------------|--------------|------------|--------|-----------|----------|
| | | | | | | En. | De-en. | | |
| 5/2 | | pneumatic amplified | pneumomechanical spring | 740 | 1,5÷10 | 7 | 16 | 0,092 | GL-6230 |
| 5/2 | | pneumatic amplified | mechanical spring | 740 | 0,9÷10 | 6 | 18 | 0,092 | GL-6231 |

Double pneumatic impulse

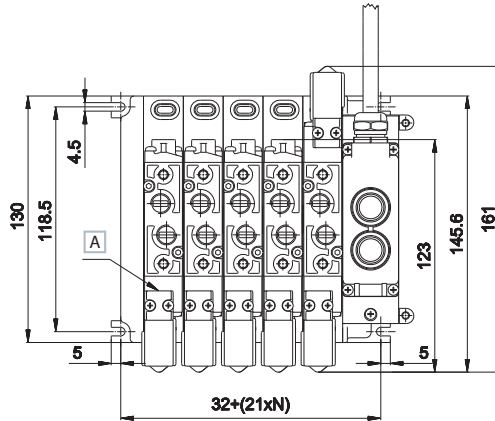
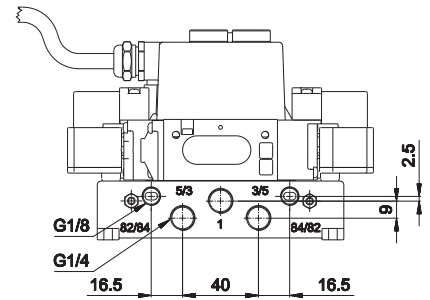
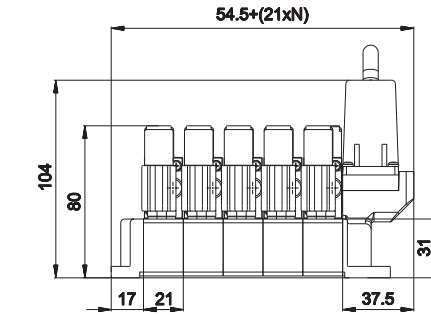


1 = Supply port 14 = Control
 2 - 4 = Use 12 = Return
 3 - 5 = Exhaust

| | Symbol | Control | Return | Flow rate (NI/min) | Pressure bar | Times (ms) | | Weight Kg | Part no. |
|-----------------|--------|---------------------|---------------------|--------------------|--------------|------------|--------|-----------|----------|
| | | | | | | En. | De-en. | | |
| 5/2 | | pneumatic amplified | pneumatic amplified | 740 | 0,7÷10 | 5 | 5 | 0,103 | GL-6233 |
| 5/3 c.c. | | pneumatic amplified | pneumatic amplified | 670 | 1,5÷9 | 6 | 19 | 0,192 | GL-6333 |
| 5/3 o.c. | | pneumatic amplified | pneumatic amplified | 670 | 2,0÷9 | 6 | 19 | 0,192 | GL-6433 |
| 5/3 p.c. | | pneumatic amplified | pneumatic amplified | 670 | 1,5÷9 | 6 | 19 | 0,192 | GL-6533 |
| 3/2 NC + 3/2 NC | | pneumatic amplified | pneumatic amplified | 640 | 1,5÷9 | 3 | 14 | 0,188 | GL-6633 |
| 3/2 NC + 3/2 NO | | pneumatic amplified | pneumatic amplified | 640 | 1,5÷9 | 3 | 14 | 0,188 | GL-6733 |
| 3/2 NO + 3/2 NO | | pneumatic amplified | pneumatic amplified | 640 | 1,5÷9 | 3 | 14 | 0,188 | GL-6833 |

o.c. = open centres c.c. = closed centres p.c. = pressurized centres

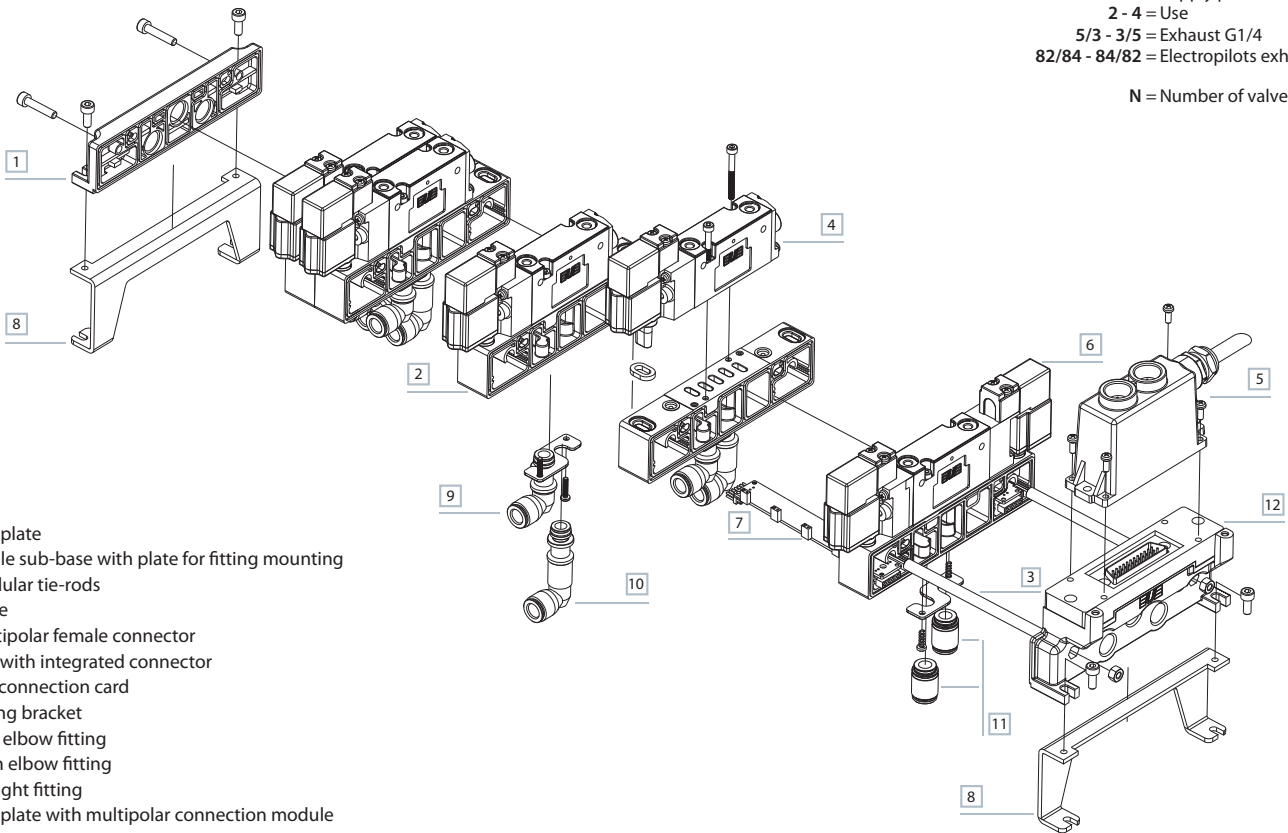
Multipolar electrical connection



A Manual override

1 = Supply port
 2 - 4 = Use
 5/3 - 3/5 = Exhaust G1/8
 82/84 - 84/82 = Electropilots exhaust G1/8

N = Number of valve positions

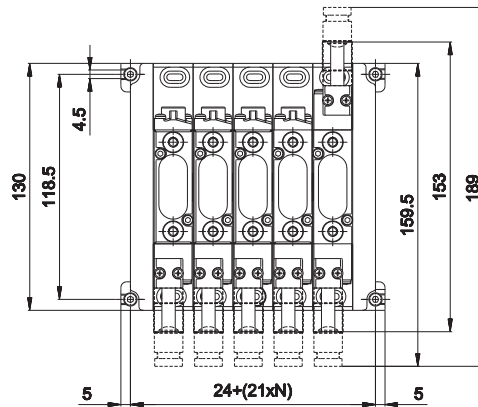
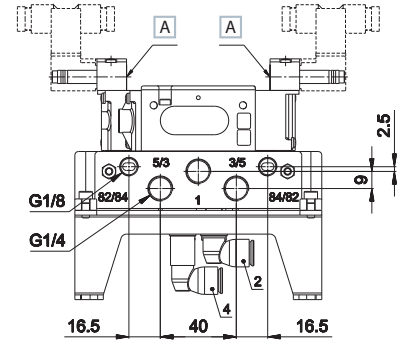
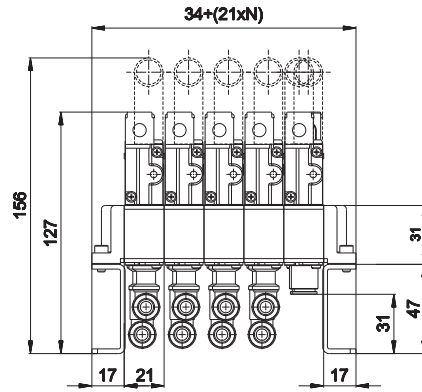


- 1 End plate
- 2 Single sub-base with plate for fitting mounting
- 3 Modular tie-rods
- 4 Valve
- 5 Multipolar female connector
- 6 Coil with integrated connector
- 7 Bus connection card
- 8 Lifting bracket
- 9 Low elbow fitting
- 10 High elbow fitting
- 11 Straight fitting
- 12 End plate with multipolar connection module

Tightening torque for fittings

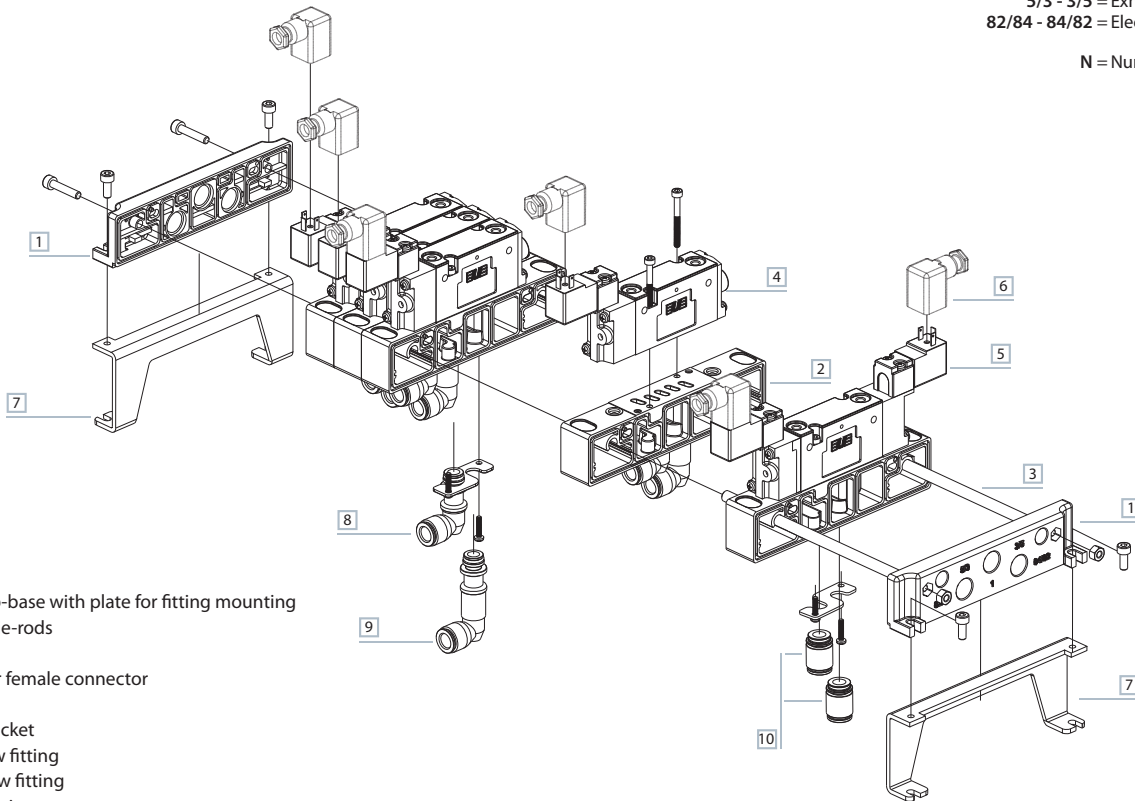
| Thread | max pair (Nm) |
|--------|---------------|
| M5 | 3 |
| M7 | 3 |
| G1/8 | 3 |
| G1/4 | 10 |

Electrical connection with external connector



A Manual override

- 1 = Supply port
- 2 - 4 = Use
- 5/3 - 3/5 = Exhaust G1/4
- 82/84 - 84/82 = Electropilot exhaust G1/8
- N = Number of valve position



- 1 End plate
- 2 Single sub-base with plate for fitting mounting
- 3 Modular tie-rods
- 4 Valve
- 5 Multipolar female connector
- 6 Coil
- 7 Lifting bracket
- 8 Low elbow fitting
- 9 High elbow fitting
- 10 Straight fitting

Coppia di serraggio raccordi

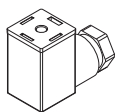
| Thread | max pair (Nm) |
|--------|---------------|
| M5 | 3 |
| M7 | 3 |
| G1/8 | 3 |
| G1/4 | 10 |

| GP-6100 | GP-6110 | GP-611212 | GP-611806 | GP-6210/1/2 | GP-6220/1/2 |
|---|---|---|--|--|--|
| | | | | | |
| threaded end plate weight: 0,046 Kg | blank end plate weight: 0,050 Kg | end plate with male connector 25 poles 12+12 coils control 12-14 weight: 0,100 Kg | end plate with male connector 25 poles 18 coils control 14 6 coils control 12 (only for control 14 more than 12 coils max 18) weight: 0,102 Kg | sub-base with open diaphragms GP-6310 without electrical connection GP-6311 monostable GP-6312 bistable weight: 0,060 Kg | sub-base with closed diaphragms GP-6320 without electrical connection GP-6321 monostable GP-6322 bistable weight: 0,062 Kg |
| GP-6230/1/2 | GP-6240/1/2 | GP-6380 | GP-6385 | GP-6411 | |
| | | | | | |
| sub-base with closed supply and open exhausts GP-6330 without electrical connection GP-6331 monostable GP-6332 bistable weight: 0,062 Kg | sub-base with open supply and closed exhausts GP-6340 without electrical connection GP-6341 monostable GP-6342 bistable weight: 0,062 Kg | intermediate supply plate (to be used only with GP-63... series sub-base) weight: 0,036 Kg | closing plate for unused station weight: 0,018 Kg | lifting bracket weight: 0,086 Kg | |
| GP-6400-1 | GP-6400-2 | GP-6400-5 | GP-6512-01/..MF | GP-6514-01/..MF | GP-651418 |
| | | | | | |
| modular tie-rod 1 valve place weight: 0,004 Kg (package 100 pcs.) | modular tie-rod 2 valve places weight: 0,010 Kg (package 100 pcs.) | modular tie-rod 5 valve places weight: 0,022 Kg (package 100 pcs.) | BUS connection card control side 12 with 12 pin GP-6512-01MF 1 place GP-6512-02MF 2 places GP-6512-03MF 3 places GP-6512-05MF 5 places GP-6512-06MF 6 places weight: 0,003 Kg (for each place) | BUS connection card control side 14 with 12 pin GP-6514-01MF 1 place GP-6514-02MF 2 places GP-6514-03MF 3 places GP-6514-05MF 5 places GP-6514-06MF 6 places weight: 0,003 Kg (for each place) | BUS connection card control side 14 with 18 pin (only 12 places) for manifold assemblies with control 14 with more than 12 coils up to 18 coils use card GP-651418 12 places and then GP-6514-... weight: 0,003 Kg (for each place) |
| AZ4-VN0416 screw M04x16 for tie-rods (package 100 pcs.) AZ4-SN004A hexagonal nut M4 (package 100 pcs.) | | | upon request customized solutions up to 12 places | | |
| GZR-100 | GZR-V10004/6/8 | GZR-V20004/6/8 | GZR-V20L004/6/8 | | |
| | | | | | |
| blanking plug weight: 0,010 Kg | straight fitting (package 50 pcs.) GZR-V10004 tube: 4 mm GZR-V10006 tube: 6 mm GZR-V10008 tube: 8 mm weight: 0,010 Kg | low elbow fitting (package 50 pcs.) GZR-V20004 tube: 4 mm weight: 0,013 Kg GZR-V20006 tube: 6 mm weight: 0,014 Kg GZR-V20008 tube: 8 mm weight: 0,015 Kg | high elbow fitting (package 50 pcs.) GZR-V20L004 tube: 4 mm weight: 0,017 Kg GZR-V20L006 tube: 6 mm weight: 0,021 Kg GZR-V20L008 tube: 8 mm weight: 0,027 Kg | | |
| DD-051 | DD-051**C | | | | |
| | | | | | |
| 24 V CC 2 W coil for single connection weight: 0,019 Kg | 24 V CC 2 W coil with integrated connector for multipolar version weight: 0,028 Kg | | | | |

For subbases suitable for servoassistance add "S" to the part number (ex. GP-6210S)

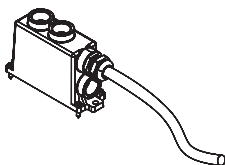
Electrical connections

AM-5109



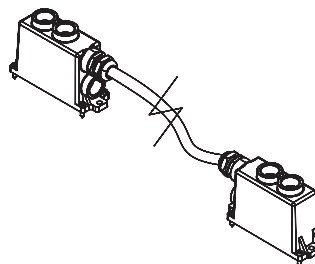
■ 15 mm connector

TSCF24S0300
TSCF24S0500
TSCF24S1000



■ flying female connector sub D according to CEI 20-22 O.R. II (upon request) prewired for 24 coils

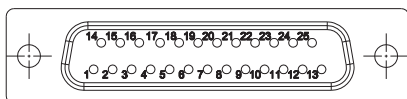
TSCF16D0300
TSCF16D0500
TSCF16D1000



■ flying male/female connector sub D according to CEI 20-22 O.R. II (upon request) prewired for 24 coils with cable Ø8 mm of 3-5-10 m length suitable for mobile laying

Colour identification according to standard DIN 47100

Female connector D-SUB 25 poles for 12+12 coils



| PIN N° | Operation side | Valve No. | Colour | Coil |
|--------|----------------|-----------|------------------------------------|---------------|
| 1 | 14 | 1 | white | 1 |
| 2 | 12 | 1 | brown | 2 |
| 3 | 14 | 2 | green | 3 |
| 4 | 12 | 2 | yellow | 4 |
| 5 | 14 | 3 | grey | 5 |
| 6 | 12 | 3 | pink | 6 |
| 7 | 14 | 4 | blue | 7 |
| 8 | 12 | 4 | red | 8 |
| 9 | 14 | 5 | black | 9 |
| 10 | 12 | 5 | violet | 10 |
| 11 | 14 | 6 | grey-pink | 11 |
| 12 | 12 | 6 | red-blue | 12 |
| 13 | 14 | 7 | white-green | 13 |
| 14 | 12 | 7 | brown-green | 14 |
| 15 | 14 | 8 | white-yellow | 15 |
| 16 | 12 | 8 | yellow-brown | 16 |
| 17 | 14 | 9 | white-grey | 17 |
| 18 | 12 | 9 | grey-brown | 18 |
| 19 | 14 | 10 | white-pink | 19 |
| 20 | 12 | 10 | pink-brown | 20 |
| 21 | 14 | 11 | white-blue | 21 |
| 22 | 12 | 11 | brown-blue | 22 |
| 23 | 14 | 12 | white-red | 23 |
| 24 | - | - | brown-red brown-black shield | common low |
| 25 | 12 | 12 | white-black | 24 |

