



DFE080

Solenoid control sectional diverter valves

- 6 - 8 - 10 ways configuration
- Galvanized body

This catalogue shows technical specifications and diagrams measured with mineral oil of 46 mm²/s (46 cSt) viscosity at 40°C - (104°F) temperature.

| WORKING CONDITIONS | | |
|--|-------------------------|--|
| N. of available ways | | 6 - 8 - 10 |
| Max. flow rating | | 25 l/min (6.6 US gpm) |
| Max. pressure | without drain | 200 bar (2900 psi) |
| | with drain | 315 bar (4600 psi) |
| Available supply voltage | VDC | see reference page 130 |
| Nominal power | | 38 W |
| Internal leakage A(B)⇒T | Δp = 100 bar (1450 psi) | 7 cm ³ /min (0.42 in ³ /min) |
| Fluid | | Mineral based oil |
| Tie rod tightening | | 9.8 Nm (7.22 lbf ^t) |
| Fluid temperature | with NBR (BUNA-N) seals | from -20°C to 80°C (from -4°F to 176°F) |
| | with FPM (VITON) seals | from -20°C to 100°C (from -4°F to 212°F) |
| | operating range | from 15 to 75 mm ² /s (from 15 to 75 cSt) |
| Viscosity | min. | 12 mm ² /s (12 cSt) |
| | max. | 400 mm ² /s (400 cSt) |
| Max. level of contamination | | 20/18/15 - ISO 4406 - NAS 1638 - class 9 |
| Ambient temperature for working conditions | | from -20°C to 50°C (from -4°F to 122°F) |

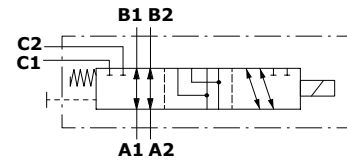
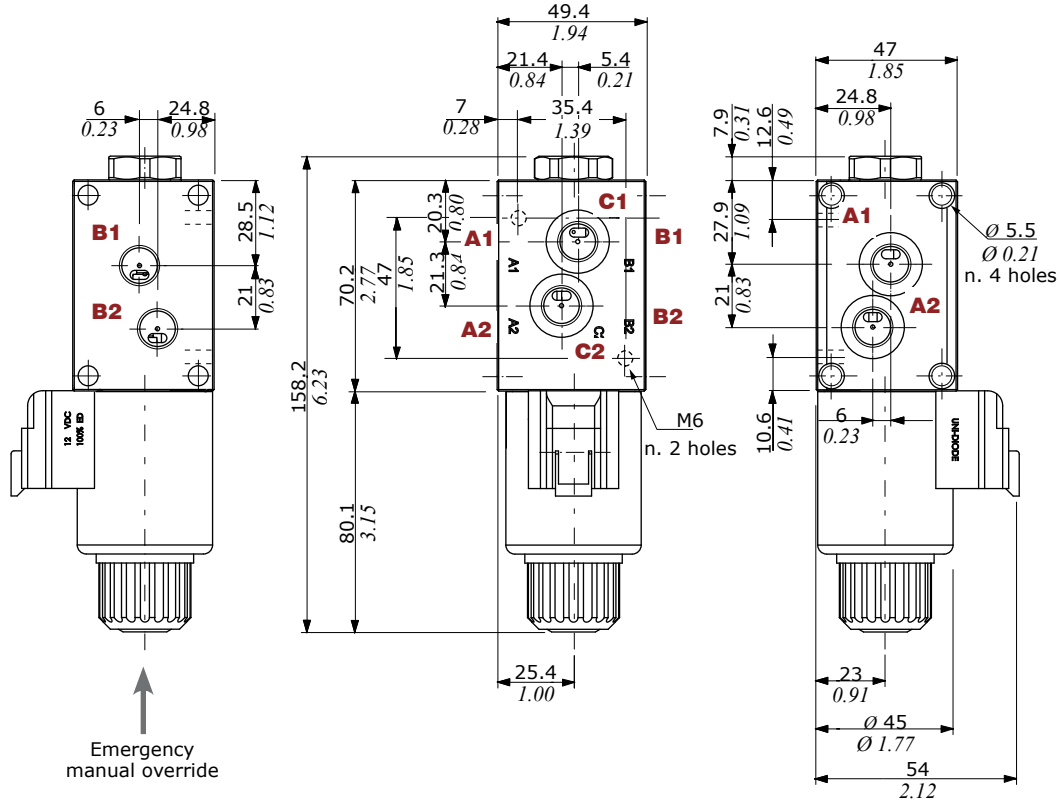
NOTE - For different working conditions please contact Sales Dept.

Available threads

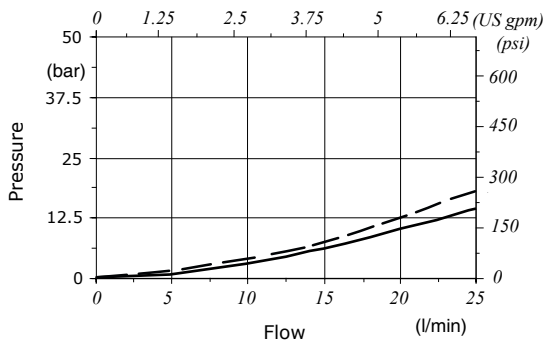
| PORTS THREAD | | |
|---------------|-------|-----------------|
| ALL PORTS | BSP | UN-UNF |
| DFE080 | G 1/4 | 7/16-20 (SAE 4) |
| PILOT PORTS | | |
| L | G 1/4 | 7/16-20 (SAE 4) |

Dimensional data - hydraulic circuit - performance data

6 ways

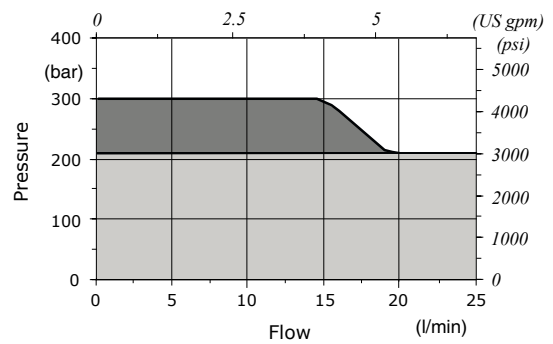


Pressure drop versus flow



— A1 → B1
 - - A1 → C1

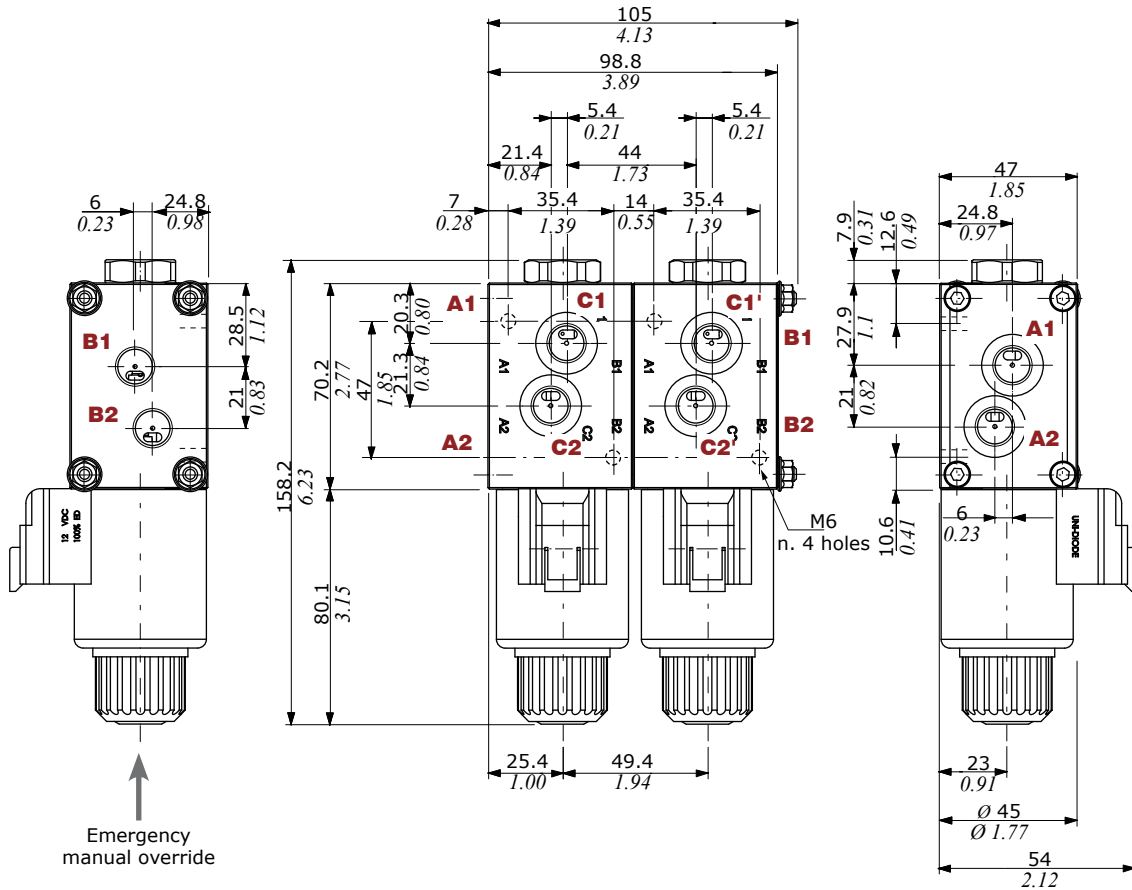
Minimum dynamic conditions
 (Supply = Vn-10%, coil at 70 °C - 158 °F)



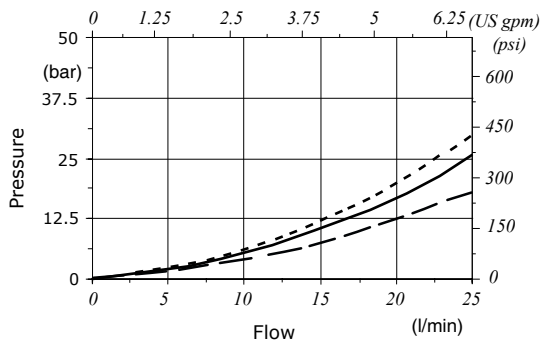
■ With drain
 ■ Without drain

Dimensional data - hydraulic circuit - performance data

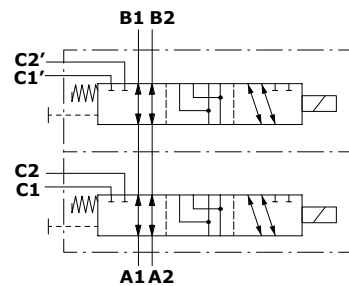
8 ways



Pressure drop versus flow

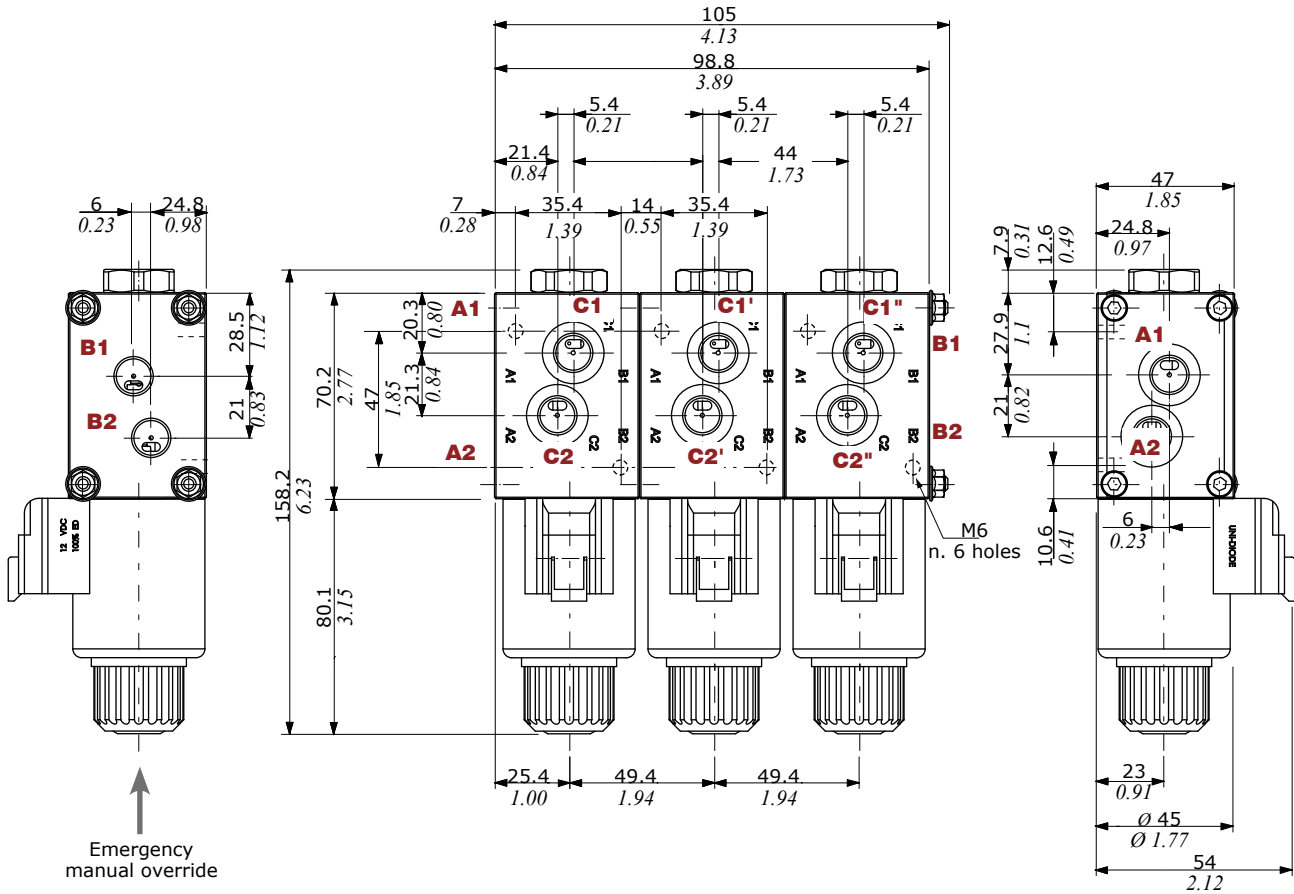


— A1 → B1' ····· A1 → C1'
 - - - A1 → C1

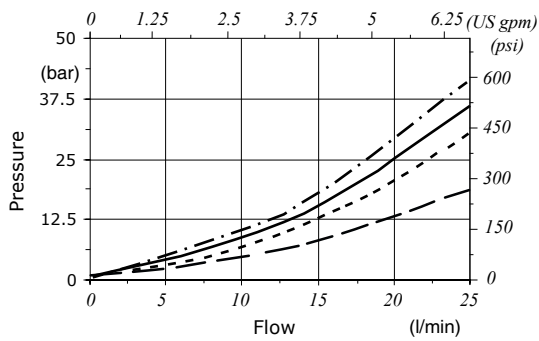


Dimensional data - hydraulic circuit - performance data

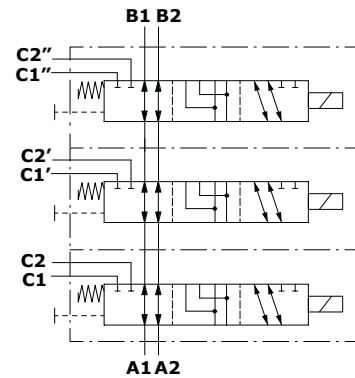
10 ways



Perdite di carico in funzione alla portata

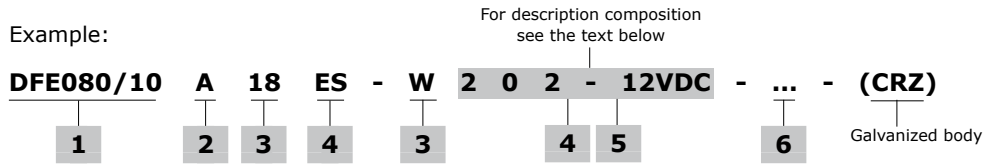


— A1 → B1'' A1 → C1'
 - - A1 → C1 - · - · A1 → C1''



Part ordering codes

Example:



Coil
 1 = without coil
 2 = with coil

Connection*
 0 = ISO (Std)
 2 = AMP-JPT
 3 = Deutsch DT06
 4 = Deutsch DT04-2P Male
 5 = Deutsch DT04-4P Female
 6 = Metri-Pack Female
 7 = Metri-Pack Male
 8 = WeatherPack Male
 9 = WeatherPack Female

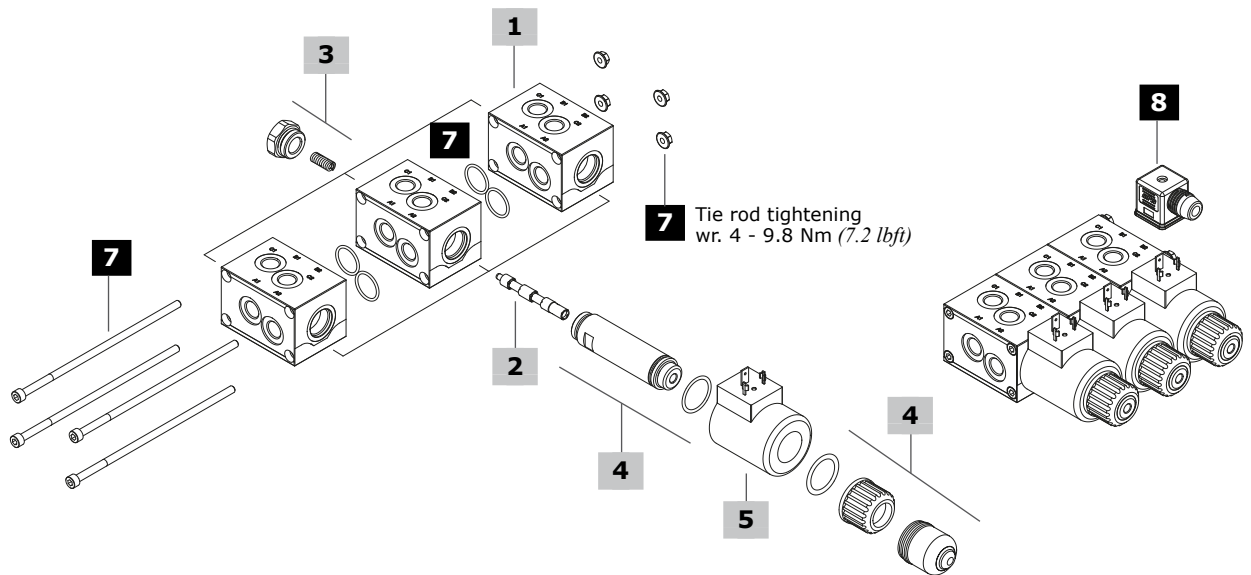
Lenght cables
 (only if it's present)
 Lenght is in mm

Diode*
 (text omitted if diode is not present)
 DB = bidirectional diode

Bellow
 1 = without bellow
 2 = with bellow

Coil voltage

(*) - For diodes and connector options see coils table on page 130



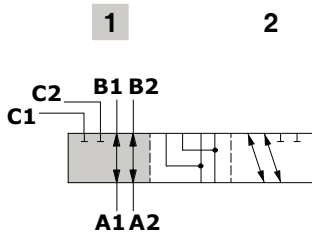
| | | | | | |
|--|------------|---|--|-------------------------------|--|
| 1 Body kit* | | | 4 Solenoid kit page 129 | | |
| TYPE | CODE | DESCRIPTION | TYPE | CODE | DESCRIPTION |
| DFE080/6-8-10 | 3CO2208320 | 6 ways body kit | ES | 5SOL515000 | Tube assembly without protective bellow |
| | | | - | 4ACC515 | Optional assembly tube protective bellow |
| 2 Spools page 128 | | | 5 Coil | | |
| TYPE | CODE | DESCRIPTION | For list of available coils see pages 130 | | |
| A | 3CAS108640 | A1/A2 in B1/B2 in pos. 1. A1/A2 in C1/C2 in pos. 2. Ports connected in transit position | 6 Body threading | | |
| B | 3CAS108740 | A1/A2 in B1/B2 in pos. 1. A1/A2 in C1/C2 in pos. 2. Ports closed in transit position | Specify threading always when it is different from BSP standard | | |
| H | 3CAS108840 | A1/A2 in B1/B2 in pos. 1. A1/A2 in C1/C2 in pos. 2. Port connected to drain in transit position | 7 Tie rods kit and O-ring seals | | |
| N | 3CAS108940 | As type A, for right inlet | CODE | DESCRIPTION | |
| 3 Positioner kit page 129 | | | 5TIR080008 | For DFE080/8 diverter valves | |
| TYPE | CODE | DESCRIPTION | 5TIR080010 | For DFE080/10 diverter valves | |
| 18...W | 5TAP007 | Spring return in pos. 1 | 8 Accessories | | |
| 18...Y | 5GIU016* | Spring return in pos. 1, with G1/4 drain port | For list of available connectors see pages 130 | | |

(*) - Codes are referred to **BSP** thread

Spool circuits

Type A

A1/A2 in B1/B2 in pos. 1.
Ports connected in transit position

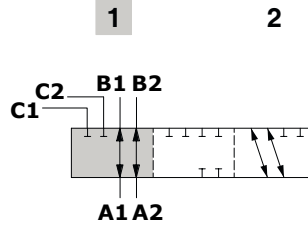


Spool stroke

Position 2: + 3.2 mm (0.12 in)

Type B

A1/A2 in B1/B2 in pos. 1.
Ports closed in transit position

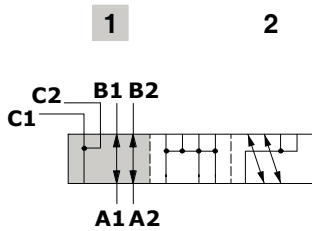


Spool stroke

Position 2: + 3.2 mm (0.12 in)

Type H

A1/A2 in B1/B2 in pos. 1.
Port connected to drain in transit position

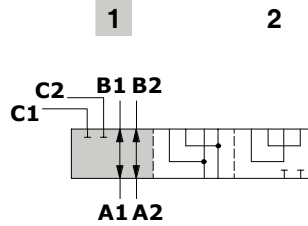


Spool stroke

Position 2: + 3.2 mm (0.12 in)

Type N

As type A, for right inlet



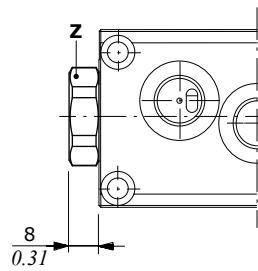
Spool stroke

Position 2: + 3.2 mm (0.12 in)

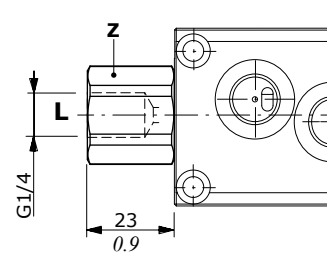
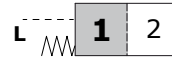
Positioner kit

With spring return in position 1

Type 18W
With plug



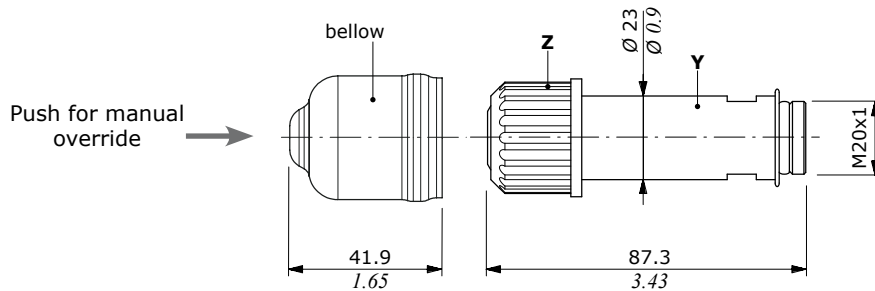
Type 18Y
With G1/4 drain port



Wrenches and tightening torque
Z = wrench 24 - 42 Nm (31 lbf)

Solenoid kit

ES tube assembly kit



Wrenches and tightening torque
Y = wrench 20 - 24 Nm (17.7 lbf)
Z = 24 Nm (17.7 lbf)

Coils and accessories

| Type | Voltage | Ordering codes | | | | | |
|--------------------------|---------|----------------|---|----------------------------|---------------------|--------------------|--------------------------------|
| | | ISO4400 | Deutsch DT | AMP JPT | Packard Weatherpack | Packard Metri-pack | Flying leads without connector |
| D15 | 12 VDC | 4SOL515012 | 4SOL515011 ⁽²⁾ 4SOL515014A ⁽³⁻⁶⁾ | 4SOL515016 ⁽⁵⁾ | - | - | - |
| | 14 VDC | - | 4SOL515014B ⁽³⁻⁶⁾ | 4SOL515016A ⁽⁵⁾ | - | - | - |
| | 24 VDC | 4SOL515024 | 4SOL515025A ⁽³⁻⁶⁾ 4SOL515021 ⁽²⁾ | - | - | - | - |
| | 48 VDC | 4SOL515048 | - | 4SOL515049 ⁽²⁾ | - | - | - |
| | 98 VDC | 4SOL515098 | - | - | - | - | - |
| | 110 VDC | 4SOL515110 | - | - | - | - | - |
| Mating connectors | | 4CN100995 | 5CON140031 | 5CON003 | - | - | - |

Notes: ⁽¹⁾ supply with AC and use only with rectifier connector - ⁽²⁾ with flying leads - ⁽³⁾ with bidirectional diode - ⁽⁴⁾ with unidirectional diode ⁽⁵⁾ integrated perpendicular type - ⁽⁶⁾ integrated parallel type

Features

Nominal voltage tolerance: ±10%

Nominal power.....: 38 W

12/14/24/48/98/110 VDC

Nominal current.....: 3.16 A @ 12 VDC

: 2.9 A @ 14 VDC

: 1.58 A @ 24 VDC

: 0.79 A @ 48 VDC

: 0.41 A @ 98 VDC

: 0.35 A @ 110 VDC

Insulation.....: Class H (180°C - 356°F)

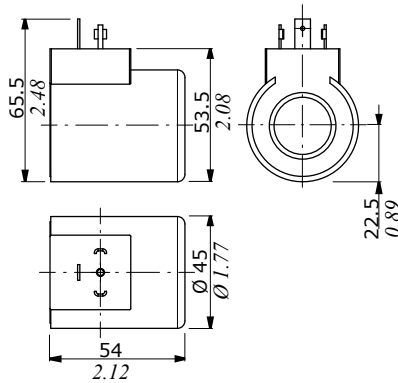
Weather protection.....: IP65 - ISO4400

: IP69K - Deutsch DT

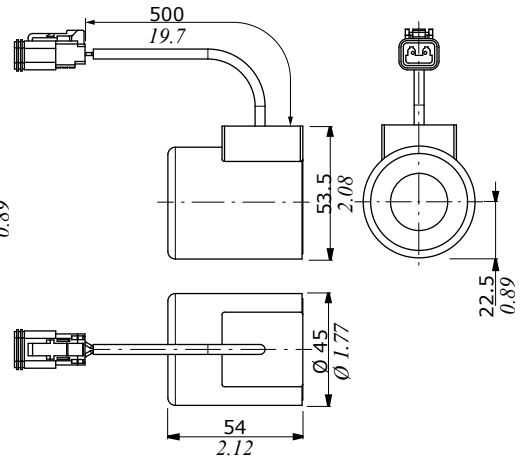
: IP65 - AMP JPT

Insertion.....: 100%

ISO4400 connector

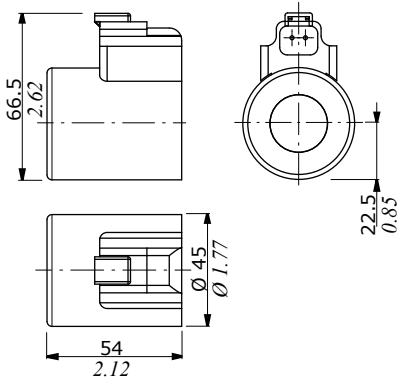


Flying leads with DEUTSCH DT04 connector



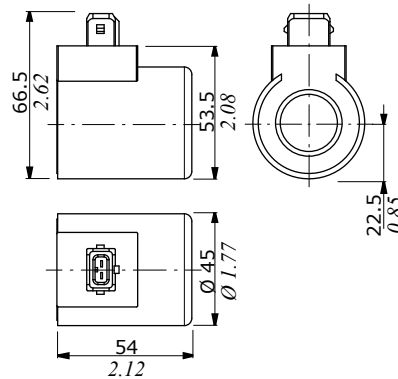
DEUTSCH DT04 connector

(Parallel type)



AMP JPT connector

(Perpendicular type)



Flying leads with AMP JPT connector

