



DFE110

Solenoid control monoblock diverter valve for special applications

- 12 ways configuration
- Designed for Front-end Loader Applications

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		12
Max. flow rating		90 l/min (23.7 US gpm)
Max. pressure	without drain	200 bar (2900 psi)
	with drain	315 bar (4600 psi)
Available supply voltage	VDC	see reference page 114
Nominal power		60 W
Internal leakage A(B)⇒T	Δp = 100 bar (1450 psi)	10 cm ³ /min (0.61 in ³ /min)
Fluid		Mineral based oil
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)
Viscosity	operating range	from 15 to 75 mm ² /s (from 15 to 75 cSt)
	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.

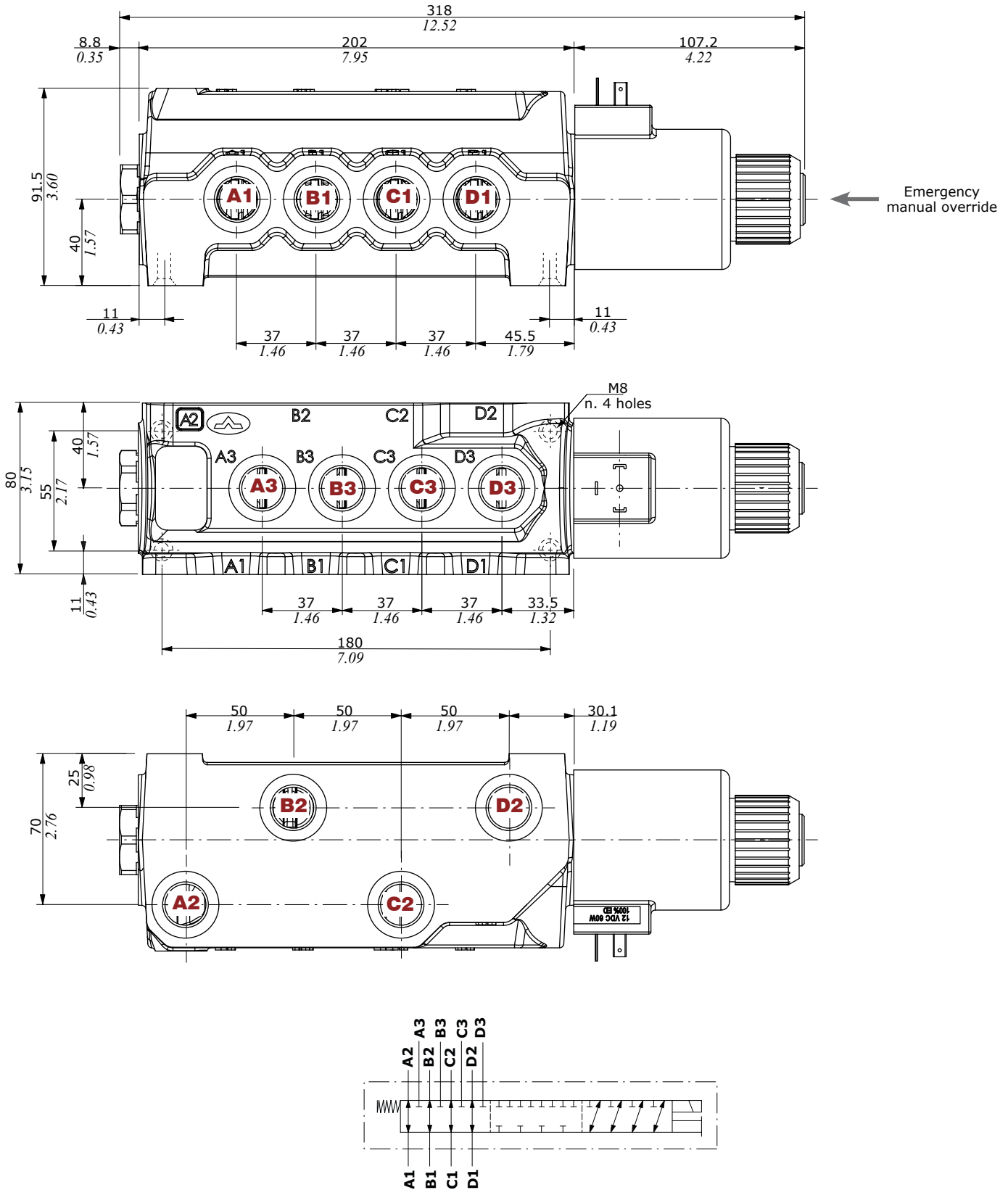
Available threads

PORTS THREAD				
ALL PORTS	BSP	UN-UNF	METRIC* (ISO 9974-1)	METRIC* (ISO 6149)
DFE110	G 1/2	7/8-14 (SAE 10)	M22x1.5	M22x1.5
PILOT PORTS				
L	G 1/4	9/16-18 (SAE 6)	M12x1.5	M12x1.5

(*) Optional threads
for availability contact Sales
Department

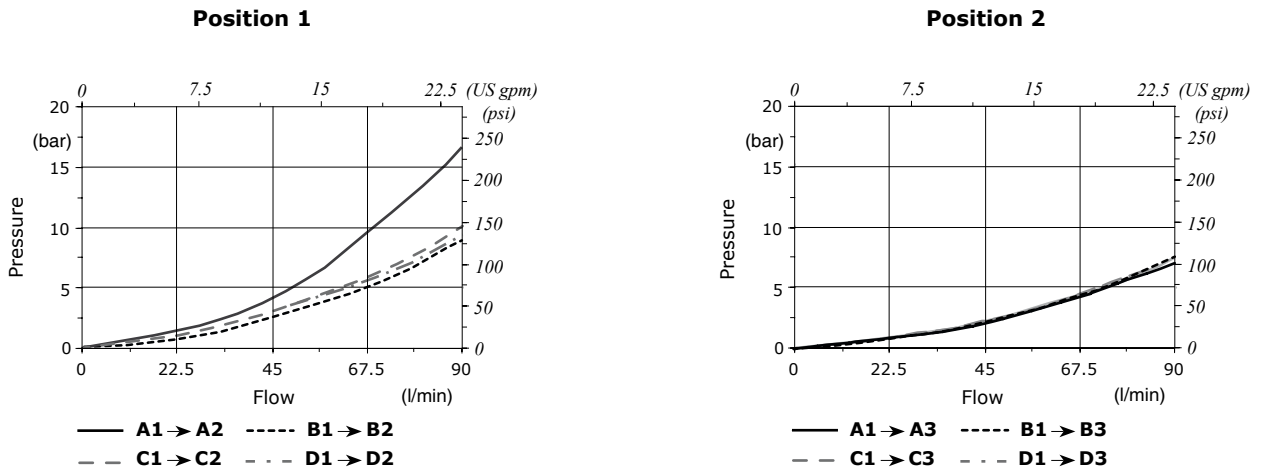
Dimensional data and hydraulic circuit

12 ways



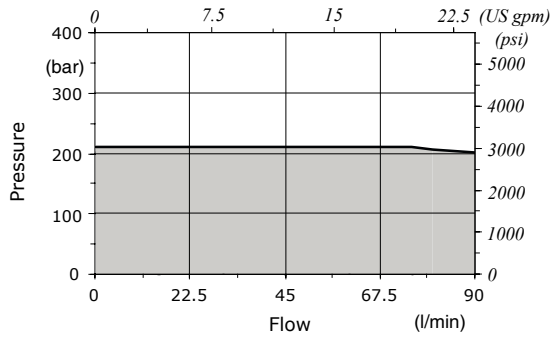
Performance data

Pressure drop versus flow



Minimum dynamic conditions

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

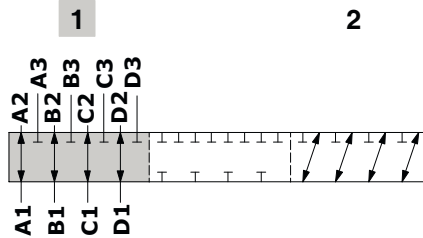


■ Without drain

Spool circuit

Type B

Ports closed
in transit position



Spool stroke

Position 2: + 5.8 mm (0.23 in)

Positioner kit

With spring return in position 1

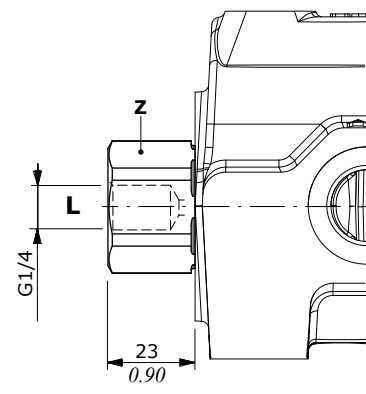
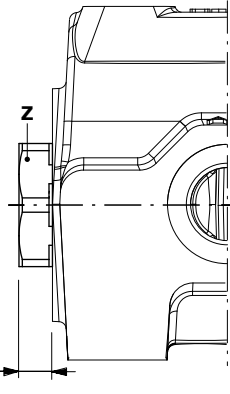
Type 18W

With plug



Type 18Y

with G1/4 drain port

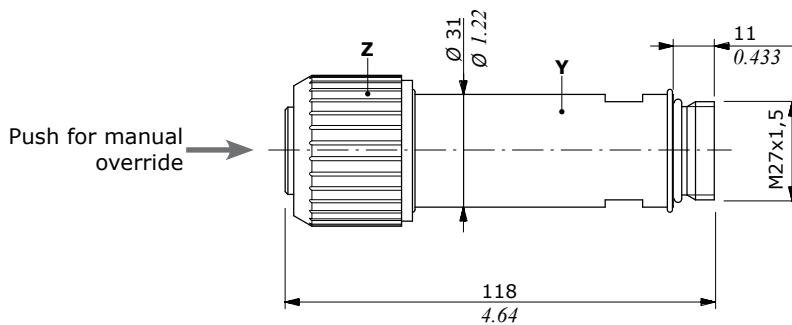


Wrenches and tightening torque

Z = wrench 32 - 42 Nm (31 lbft)

Solenoid kit

ES tube assembly kit



Wrenches and tightening torque

Y = wrench 27 - 24 Nm (17.7 lbft)

Z = 24 Nm (17.7 lbft)

Coil and accessories

Type	Voltage	Ordering codes					Flying leads without connector
		ISO4400	Deutsch DT	AMP JPT	Packard Weatherpack	Packard Metri-pack	
D19	12 VDC	4SOL519112	4SOL519402 ⁽⁶⁾	-	-	-	-
	20 VDC	4SOL519120	-	-	-	-	-
	24 VDC	4SOL519124	4SOL519404 ⁽⁶⁾	-	-	-	-
	94 VDC	4SOL519194	-	-	-	-	-
	192 VDC	4SOL519292	-	-	-	-	-
Mating connectors		4CN1009995	5CON140031	-	-	-	-

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.....: 60 W

12/20/24/94/192 VDC

Nominal current.....: 5 A @ 12 VDC

: 3 A @ 20 VDC

: 2.5 A @ 24 VDC

: 2.5 A @ 94 VDC

: 0.31 A @ 192 VDC

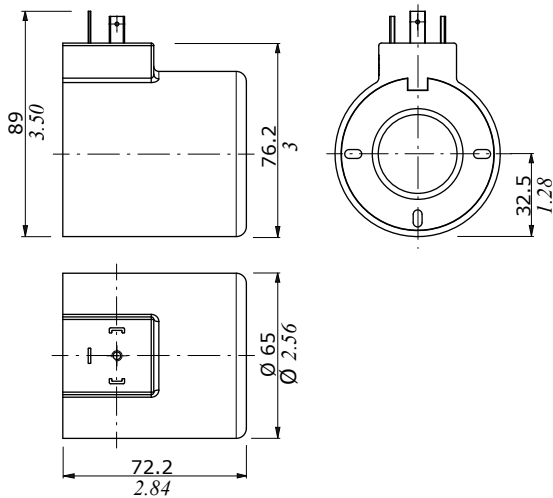
Insulation.....: Class H (180°C - 356 °F)

Weather protection.....: IP65 - ISO4400

: IP69K - Deutsch DT

Insertion.....: 100%

ISO4400 connector



DEUTSCH DT04 connector

(Parallel type)

