

Parker Product Datasheet



Parker's proven standard performance pilot operated proportional DC valves series D*1FB with onboard electronics are universally applicable and feature progressive flow characteristics for sensitive flow rate adjustment.

PART NUMBER: D31FBE01CC4NF00
FLOW RATE: 75 L/Min
CONNECTION TYPE: 6 + PE
SEAL MATERIAL: NBR
PORT CONNECTION: NG10 / CETOP 05
FLOW DIRECTION: 0 - +10 V = P-B
SPOOL POSITION: Operated in position a or b
PILOT INLET / DRAIN LOCATIONS: Internal / internal
SIGNAL INPUT: 0 - ±10 V
VALVE OPTION: Standard
SPOOL CODE: E01

PRODUCT OVERVIEW

Representing Parker's extensive experience in industrial hydraulics, the pilot operated proportional DC valves series D*1FB with onboard electronics (OBE) is universally applicable and feature progressive flow characteristics for sensitive flow rate adjustment. The standard performance valves have proven very successful in numerous applications all over the world. Series D*1FB OBE is characterized by a solid design which ensures a long lifetime. It offers an excellent price-performance ratio and best conditions for an economic, reliable operation.

The pilot operated proportional directional control valves D*1FB OBE are available in 4 sizes:

D31FB OBE - NG10 (CETOP 05)
D41FB OBE - NG16 (CETOP 07)
D91FB OBE - NG25 (CETOP 08)
D111FB OBE - NG32 (CETOP 10)

Markets:

- Industrial
- Machine tools
- Rubber & tire processing

Features/Benefits:

- Proven design - ensures reliable operation
- Progressive flow characteristics - allows sensitive adjustment of flow rate
- High flow capacity - optimum efficiency in relation to valve size
- Excellent price-performance ratio - fast return of investment
- Short delivery time - no storage necessary
- Centre position monitoring optional
- Energy saving A-regeneration optional
- Switchable hybrid version optional

Applications:

- Machine tool
- General presses
- Tire presses

Technical specifications

The pilot operated proportional directional control valves series D*1FB OBE work with barometric feedback of the main stage to the pressure reducing pilot valve. The pilot control pressure of 25 bar allows high flow rates at maximum stability.

The digital onboard electronics is situated in a robust metal housing, which allows the usage under rough environmental conditions. The nominal values are factory set. The cable connection to a serial RS232 interface is available as accessory. The valve parameters can be edited with the common ProPxD software.

The innovative integrated regenerative function into the A-line (optional) allows energy saving circuits for differential cylinders. The hybrid version can be switched between regenerative mode and standard mode at any time.

TECH SPECIFICATIONS

MAXIMUM OPERATING TEMPERATURE	60 °C
DIVISION	Hydraulic Valve Systems Division Europe
DIVISION	Industrial Systems Division Europe
MAXIMUM OPERATING PRESSURE	350 bar
FLOW RATE	75.0 L/min
MINIMUM OPERATING TEMPERATURE	-20 °C
FOR FLUID TYPE	Hydraulic Oil According to DIN 51524 ... 535
FOR FLUID TYPE	Water-Glycol According to DIN 51524 ... 535
MEDIA	Hydraulic Oil
APPLICATION	Industrial Hydraulic
BRAND	Parker
TECHNOLOGY	Hydraulics
BODY MATERIAL	Cast Iron
PRODUCT SERIES	Proportional DC Valve
SEAL MATERIAL	NBR
WEIGHT	9.3 kg
MAXIMUM FLOW RATE	n/a
MOUNTING TYPE	Subplate
FUNCTION	3-way
VALVE TYPE	Proportional DC Valve
ACTUATION TYPE	Proportional
ACTUATION TYPE	Solenoid
OPERATION TYPE	Pilot

RESPONSE TIME	50.0 ms
LEAK RATE	100.0 ml/min
MOUNTING POSITION	Unrestricted
ELECTRONICS TYPE	Onboard
MAXIMUM AMBIENT TEMPERATURE	60 °C
MINIMUM AMBIENT TEMPERATURE	-20 °C
MAXIMUM FLUID TEMPERATURE	60 °C
MINIMUM FLUID TEMPERATURE	-25.0 °C
MAXIMUM KINEMATIC VISCOSITY	400 cSt
MINIMUM KINEMATIC VISCOSITY	20 cSt
INGRESS PROTECTION RATING	IP65 in accordance with EN 60529
FILTER EFFICIENCY RATING	ISO 4406; 18/16/13
HYSTERESIS	< 5 %
MOUNTING STYLE	DIN 24340 / ISO 4401 / CETOP RP121 / NFPA
POWER SUPPLY VOLTAGE	18 to 30 VDC ripple < 5 % eff., surge free
MINIMUM PILOT PRESSURE	30 + T/Y bar
VIBRATION RESISTANCE	10 Sinus 5...2000 Hz acc. IEC 68-2-610 (RMS) Random noise 20...2000 Hz acc. IEC 68-2-3615 Shock acc. IEC 68-2-27 g
MAXIMUM PILOT PRESSURE	350 bar
VARIATION OF OPENING POINT	set to 10 % command signal