

# 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:** D41FBE02FC4NF00  
**SEAL MATERIAL:** NBR  
**VALVE OPTION:** Standard  
**SPOOL POSITION:** Operated in position a or b  
**FLOW RATE:** 200 L/Min  
**PORT CONNECTION:** NG16 / CETOP 07  
**CONNECTION TYPE:** 6 + PE  
**SPOOL CODE:** E02  
**SIGNAL INPUT:** 0 -  $\pm 10$  V  
**FLOW DIRECTION:** 0 -  $+10$  V = P-B  
**PILOT INLET / DRAIN LOCATIONS:** Internal / internal

## 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

|                                    |                                                                                                                    |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>DIVISION</b>                    | Hydraulic Valve Systems Division Europe                                                                            |
| <b>FOR FLUID TYPE</b>              | Hydraulic Oil According to DIN 51524 ... 535                                                                       |
| <b>FILTER EFFICIENCY RATING</b>    | ISO 4406; 18/16/13                                                                                                 |
| <b>MOUNTING TYPE</b>               | Subplate                                                                                                           |
| <b>MAXIMUM OPERATING PRESSURE</b>  | 350 bar                                                                                                            |
| <b>MAXIMUM FLOW RATE</b>           | n/a                                                                                                                |
| <b>FUNCTION</b>                    | 3-way                                                                                                              |
| <b>WEIGHT</b>                      | 12.6 kg                                                                                                            |
| <b>MINIMUM PILOT PRESSURE</b>      | 30 + T/Y bar                                                                                                       |
| <b>FOR FLUID TYPE</b>              | Water-Glycol According to DIN 51524 ... 535                                                                        |
| <b>TECHNOLOGY</b>                  | Hydraulics                                                                                                         |
| <b>INGRESS PROTECTION RATING</b>   | IP65 in accordance with EN 60529                                                                                   |
| <b>POWER SUPPLY VOLTAGE</b>        | 18 to 30 VDC ripple < 5 % eff., surge free                                                                         |
| <b>APPLICATION</b>                 | Industrial Hydraulic                                                                                               |
| <b>BRAND</b>                       | Parker                                                                                                             |
| <b>RESPONSE TIME</b>               | 75.0 ms                                                                                                            |
| <b>MOUNTING POSITION</b>           | Unrestricted                                                                                                       |
| <b>MAXIMUM FLUID TEMPERATURE</b>   | 60 °C                                                                                                              |
| <b>MOUNTING STYLE</b>              | DIN 24340 / ISO 4401 / CETOP RP121 / NFPA                                                                          |
| <b>VIBRATION RESISTANCE</b>        | 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 |
| <b>MINIMUM FLUID TEMPERATURE</b>   | -25.0 °C                                                                                                           |
| <b>MINIMUM KINEMATIC VISCOSITY</b> | 20 cSt                                                                                                             |
| <b>MAXIMUM PILOT PRESSURE</b>      | 350 bar                                                                                                            |

|                                      |                                    |
|--------------------------------------|------------------------------------|
| <b>DIVISION</b>                      | Industrial Systems Division Europe |
| <b>MAXIMUM KINEMATIC VISCOSITY</b>   | 400 cSt                            |
| <b>HYSTERESIS</b>                    | < 5 %                              |
| <b>VALVE TYPE</b>                    | Proportional DC Valve              |
| <b>ACTUATION TYPE</b>                | Proportional                       |
| <b>FLOW RATE</b>                     | 200.0 L/min                        |
| <b>MINIMUM AMBIENT TEMPERATURE</b>   | -20 °C                             |
| <b>VARIATION OF OPENING POINT</b>    | set to 10 % command signal         |
| <b>MAXIMUM AMBIENT TEMPERATURE</b>   | 60 °C                              |
| <b>SEAL MATERIAL</b>                 | NBR                                |
| <b>MAXIMUM OPERATING TEMPERATURE</b> | 60 °C                              |
| <b>OPERATION TYPE</b>                | Pilot                              |
| <b>ELECTRONICS TYPE</b>              | Onboard                            |
| <b>ACTUATION TYPE</b>                | Solenoid                           |
| <b>LEAK RATE</b>                     | 200.0 ml/min                       |
| <b>PRODUCT SERIES</b>                | Proportional DC Valve              |
| <b>BODY MATERIAL</b>                 | Cast Iron                          |
| <b>MEDIA</b>                         | Hydraulic Oil                      |
| <b>MINIMUM OPERATING TEMPERATURE</b> | -20 °C                             |