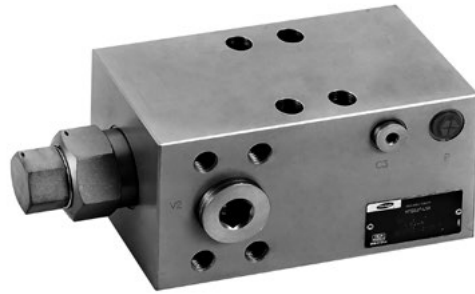
3.7

# **XFD...L1X** TYPE

## CHECK-Q-METER VALVE

| | |
|---|---|
| Size | 16/25/32 |
| Rated pressure(bar) | Up to 350 |
| Rated flow(L/min) | Up to 350 |



## Contents

## Function and symbols

Check-Q-meters are used to prevent runaway of hydraulic cylinder and motor in hydraulic system. They can also prevent pipe bursting.

When pressure in port V2 exceeds the setting value at spring, the check valve crack, the fluid can flow from V2 to C2. When load in port C2 exceeds the setting value, pressure relief valve begins to act and fluid reliefs from port C2 to V2.The pressure decreases based on a corresponding ratio due to the pilot pressure in port P until the valve opens and fluid flows from port C2 to V2.

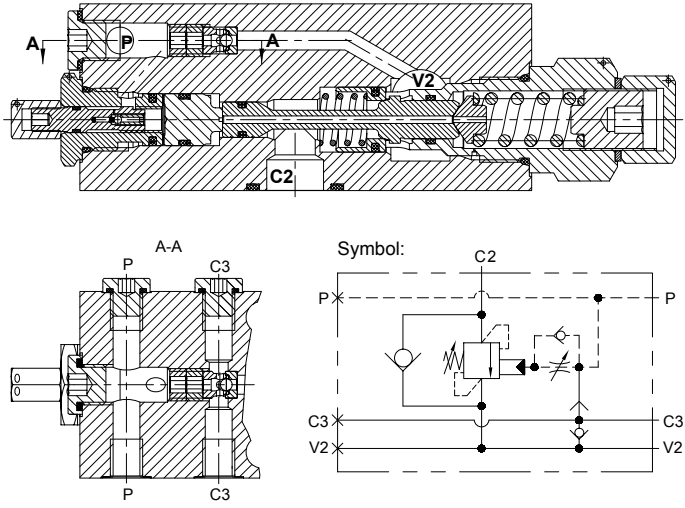
Via the port V2, fluid in spring chamber drains. Under various function, the back pressure in port V2 is added into the pressure setting value. Combined shuttle valve guides pressure in the port P or V2 to act on spring stopper via port C3, then stopper opens.

To save the energy source, it adopts high pilot ratio (13:1) and to gain higher reliability under various flow and pressure, there are damping in pilot line.

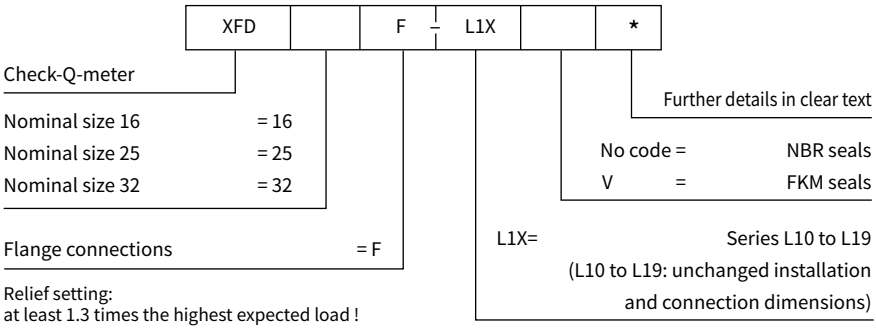
Port C2 is SAE flange connection and it can be connected to hydraulic motor directly.

The setting value of relief valve is at least 1.3 times the estimated highest load .

Besides these, the relief value and pilot ratio must be definite so that high enough pilot pressure P can be set to open the stopper before the valve from C2 to V2 opens.



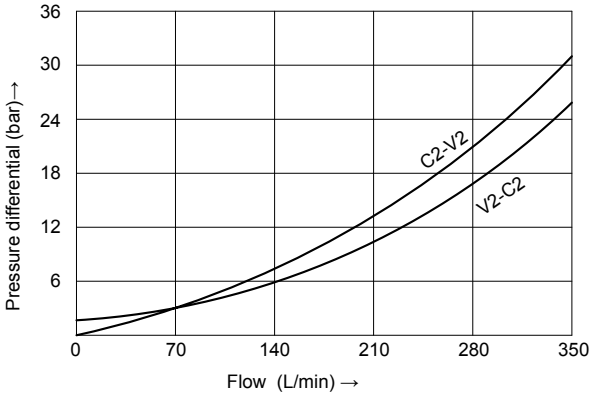
## Specification



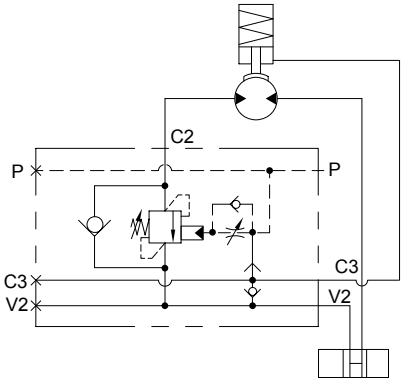

## Technical data

| | | |
|---|---|---|
| Fluid | | Mineral oil suitable for NBR and FKM seal |
| | | Phosphate ester for FKM seal |
| Fluid temperature range | °C | -30 to +80 (NBR seal) |
| | | -20 to +80 (FKM seal) |
| Viscosity range | $mm^2/s$ | 10 to 800 |
| Degree of contamination | | Maximum permissible degree of fluid contamination: Class 9. NAS 1638 or 20/18/15, ISO4406 |
| Nominal pressure | bar | 350 |
| Max. flow-rate | L/min | 350 |
| Weight | kg | Approx.8.9 |

## Characteristic curves (Measured at t=40℃ ±5℃ , using HLP46)

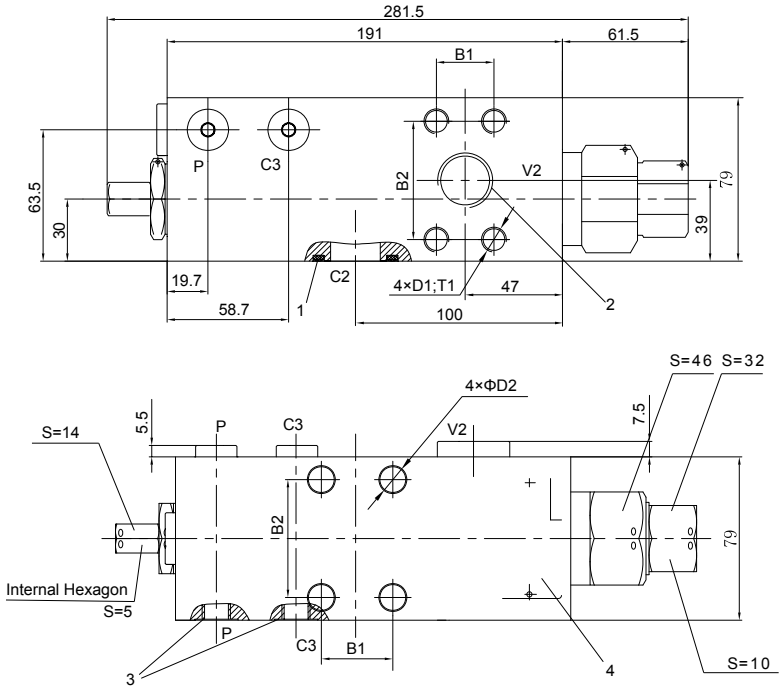



## Curcuit examples



## Unit dimensions

(Dimensions in mm)




1 O-rings

2 Port V2, SAE flange connections or threaded (16 size G1/2, 25 size G3/4, 32 size G1)

3 Port P and Port C3, threaded connection G1/4.

4 Name plate

| Size | B1 | B2 | D1 | D2 | T1 | O-rings |
|---|---|---|---|---|---|---|
| 16 | 23.8 | 50.8 | M10 | 10.5 | 15 | 28.17×3.53 |
| 25 | 27.8 | 57.2 | M12 | 12.5 | 18 | 32.92×3.53 |
| 32 | 31.8 | 66.7 | M14 | 15 | 25 | 36.09×3.53 |