# $-NR50^{-20K}$ **CHECK VALVE**

UP TO 1,379 BAR 20,000 PSI



The NR50-20K is a 1/2" nominal bore check valve. It will allow flow in one direction, and blocks flow in the opposite direction. It may also be referred to as a non-return valve.

The valve uses sealed poppet technology to give virtually zero leakage with liquids and

- Check or Non-Return valve
- Super duplex and stainless steel construction
- Sealed poppet design
- Virtually zero leakage
- Can be used subsea
- Suitable for liquid or gas
- Suitable for use with air, nitrogen, sweet natural gas, mineral oils, water glycols, water and sea water
- Suitable for many other media, contact us for advice
- NACE MR01-75 compliant version available
- High cracking pressure variants available, contact us for details
- Various seal options available
- Various porting options available

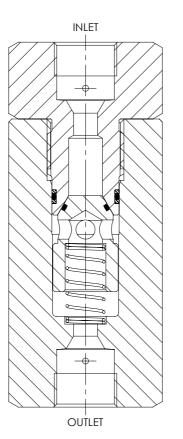
### **Specifications**

## **BASIC MODEL NUMBER**

## NR50-20K

SYMBOL	INLET OUTLET
MAX WORKING PRESSURE (LIQUID)	1,379 bar (20,000 psi)
MAX WORKING PRESSURE (GAS)	690 bar (10,000 psi)
CV (FLOW CAPACITY)	1.6
FLUID	Liquids and Gases See materials section
TEMPERATURE RANGE	See Product Selector opposite and Technical Data section
NOMINAL SIZE	1/2"
CRACKING PRESSURE	0.1 - 0.3 bar (2 - 5 psi)

Specifications may change without notice



#### **Materials**

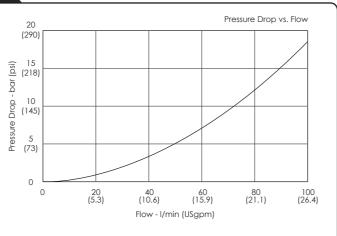
Externally Exposed Parts: Super duplex.

Internally Wetted Parts: Super duplex and 316 stainless steel with 302 stainless steel spring and PEEK. The spring is inconel for SWD and NACE variants.

The standard valve is designed for use with air, nitrogen, sweet natural gas, mineral oil, water glycols and plain water, and may also be used with a wide variety of media compatible with the materials of construction.

The standard valve has Viton® seals. Further seal options are The standard valve rius villone seals, romes seals, and the available via the Product Selector. Compatibility with the working fluid at the operating temperature must be considered.

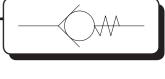
## Typical Performance



Typical performance based on water

## **Installation Diagram**





STOP AND METERING

3 PORT DIRECTIONAL CONTROL

PILOT OPERATED CHECK

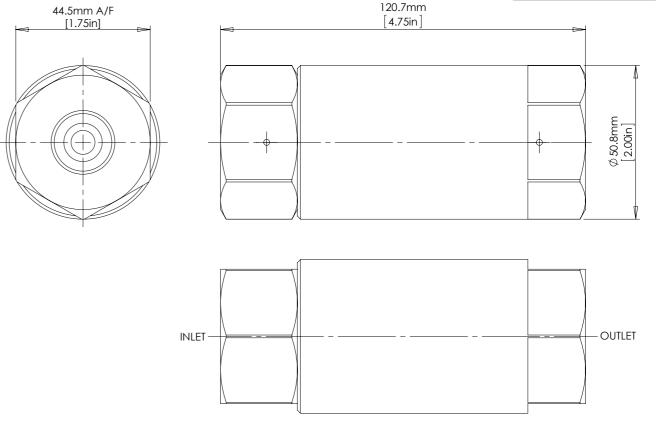
EXCESS

FILTERS

ACTUATORS

Page 16





## **Product Selector**

Repair and seal kits are available on request

For a seal kit add SK at the end

of the model code and for a repair kit add RK

www.bisvalves.co.uk

Catalogue also available on digital media Visit our website for a full online search facility

NR50 - 81AE - NBR - SWD - 20K

VALVE **PORTING TYPE OPTIONS** 

**NR50 81AE** 9/16" OD medium

Leave blank for Viton® seals -10°C to +160°C **NBR** Nitrile seals -30°C to +105°C pressure tube port

EP EPDM seals -45°C to +150°C KLZ Kalrez® seals

SEAL

**OPTIONS** 

-25°C to +200°C **HNBR** Hydrogenated Nitrile seals -20°C to +150°C

Further seal options are

available on request

VALVE **OPTIONS** 

Leave blank if not required **SWD** 

Materials compatible with sea water

NACE Materials comply with NACE MR01-75

**20K** 1,379 bar (20,000 psi) Liquid

MAX

**WORKING** 

**PRESSURE** 

690 bar (10,000 psi)

Gas

The Specifier's Catalogue

**WEIGHT** 

1.6 kg

(3.5 lb)