

- > **Port size: G1/4**
- > **Variety of pressure range options**
- > **Accurate and reliable**
- > **Heavy duty construction**
- > **Wide range of possible applications**
- > **Additional features can provide a variety of possible solutions**



### Technical features

The K16 is a balanced valve dome loaded pressure regulator and provides a flow of process fluid at controlled pressure. The outlet pressure is set by adjusting the pressure in the dome. A flexible diaphragm separates the gas in the dome from the process fluid. The valve in the regulator is balanced type. The dome must be charged with air or an inert gas such as nitrogen. The outlet pressure is substantially unaffected by flow rate or by changes in the inlet pressure.

#### Applications:

- Marine industries
- Gas & Oil industries

- Off shore/aggressive environments
- Oxygen use approved
- Nitrogen Plants
- Gas Analyser/Instrumentation
- Pressure test rigs

#### Medium:

Liquid and gases

#### Maximum inlet pressure:

413 barg (5990 psig)

#### Outlet pressure range:

0,1 ... 300 barg (1 ... 4351 psig)

#### Dome loading:

Internal or external via G1/8

connection

Domes should be loaded with air or inert gas

#### Leakage:

Bubble tight (standard,

typically  $10^{-6}$  atm.cm<sup>3</sup>/sec<sup>-1</sup>)

Helium leak tested to

$10^{-8}$  atm.cm<sup>3</sup>/sec<sup>-1</sup> (on request)

#### Ambient/Media temperature:

NBR:

-10 ... +100°C (+14 ... 202°F)

FPM:

-20 ... +150°C (-4 ... 302°F)

EPDM:

-30 ... +115°C (-22 ... 239°F)

Aluminium

-40 ... +150°C (-40 ... 302°F)

Stainless Steel

-40 ... +150°C (-40 ... 302°F)

#### Materials:

Body: stainless steel BS EN 10272

1.4401, aluminium L168-T6511

Dome: stainless steel BS EN 10272

1.4401, aluminium L168-T6511


Seat: stainless steel BS EN 10088

1.4401

Trim: PCTFE

Elastomers: NBR, FPM, EPDM

### Technical data, standard models

Symbol	Port size	Valve seat size (mm)	Valve seat size (inch)	Seat flow area (mm <sup>2</sup> )	Seat flow area (inch <sup>2</sup> )	Port flow area (mm <sup>2</sup> )	Port flow area (inch <sup>2</sup> )	Flow coefficient (Kv)	Flow coefficient (Cv)	Model
	G1/4	6,35	0.25	19	0.029	63	0.098	0,72	0.84	K16

### Option selector

**K16★★★★★**

Valve seat size	Substitute	Elastomer	Substitute
1/4"	<b>C</b>	NBR (standard)	<b>N</b>
Material	Substitute	FPM	<b>V</b>
Stainless steel (standard)	<b>B9</b>	EPDM	<b>E</b>
Aluminium	<b>T0</b>	Port size	Substitute
		G1/4	<b>E1</b>
		1/4 NPT	<b>A1</b>

Option selector spare kits

K16SC★

Elastomer	Substitute
NBR	N
FPM	V
EPDM	E

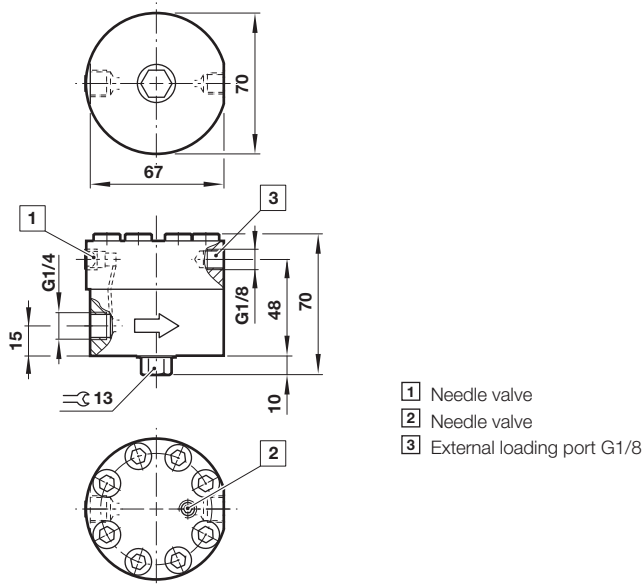
Spares BOM

Description	Material	QTY
'O'-Ring	Rubber	1
Diaphragm	Rubber	2
'O'-Ring	Rubber	2
'O'-Ring	Rubber	2
Seat	BS EN 10088 1.4401	1
Valve assy	Various	1
'O'-Ring	Rubber	1
'O'-Ring	Rubber	1

Dimension

Weight:  
0,8 kg (Aluminium)  
1,5 kg (Stainless steel)

Dimensions in mm  
Projection/First angle



Warning

Do not use these products where pressures and temperatures can exceed those listed under »**Technical features**«.

Before using these products with fluids other than those specified within published specifications, consult IMI Precision Engineering, Thompson Valves Ltd.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate

safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.