



G-114-1

Approval No. d'approbation

Ottawa

FEB
FEV

25 1983

NOTICE OF APPROVAL – AVIS D'APPROBATION

Fisher Controls Type S301D Gas Pressure Regulator

Régulateur de pression du gaz Fisher Controls, type S301D

This approval supplements Notice of Approval G-114 dated September 2, 1975.

Le présent avis complète l'avis d'approbation C-114 en date du 2 septembre 1975.

Company: Fisher Controls Corporation
of Canada Limited
Woodstock, Ontario
N4S 7Z6

Société: Fisher Controls Corporation
of Canada Limited
Woodstock, Ontario
N4S 7Z6

Manufacturer: Fisher Controls Company
Marshalltown, Iowa
USA 50158

Fabricant: Fisher Controls Company
Marshalltown, Iowa
USA

Type of Device: Internally piloted gas pressure regulator.

Appareil: Régulateur de pression du gaz à asservissement interne.

Description: The type S301D pressure regulator is identical in design and construction to the type S301F pressure regulator previously approved in Notice of Approval G-114, except that this version is internally piloted.

Description: La conception et la construction du régulateur de pression S301D sont identiques à celles du régulateur de pression S301F approuvé en vertu de l'avis d'approbation G-114, sauf que le présent modèle est un régulateur à asservissement interne.

For further information refer to the manufacturer's bulletin N°. 71.1:S300:A.

Pour plus de renseignements, consulter le bulletin du fabricant, N°. 71.1:S300:A.

Specifications:

Spécifications:

Maximum Inlet Pressure(s): as listed in Tables numbered 1 to 4

Pression d'entrée maximale: Valeurs figurant aux tableaux numérotés de 1 à 4.

Outlet Pressure Range: 2 to 20 p.s.i.g.

Plage de pression de sortie: 2 à 20 lb/po² (mano).

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TABLE 1

Size: $\frac{3}{4}$ " x 1" NPT 1" x 1" NPT;
Capacity of Type S301D

Type S301D de $\frac{3}{4}$ po. x 1 po NPT et de
1 po x 1 po NPT

Pression De Sortie OUTLET PRESS. psig lb/po ² (mano)	Pression D'Entrée INLET PRESS. psig lb/po ² (mano)	Débit maximal en pi ³ étalons/h, pour un gas ayant une densité de 0.6 CAPACITY IN scfh 0.6 SPECIFIC GRAVITY GAS DIAMÈTRE DE L'ORFICE - POUCHES ORIFICE SIZE - INCHES			
		1/4	3/8	1/2	3/4
2	5	700	1,000	1,300	3,000
	10	1,250	1,600	2,600	3,000
	15	1,600	2,800	3,000	3,000
	20	1,800	3,000	3,000	3,000
	30	2,300	3,000	3,000	---
	50	3,000	3,000	3,000	---
	60	3,000	3,000	3,000	---
	80	3,000	3,000	---	---
	100	3,000	---	---	---
	125	3,000	---	---	---
5	10	1,000	1,500	2,000	3,000
	15	1,300	2,400	3,000	3,000
	20	1,800	3,000	3,000	3,000
	30	2,300	3,000	3,000	---
	50	3,000	3,000	3,000	---
	60	3,000	3,000	3,000	---
	80	3,000	3,000	---	---
	100	3,000	---	---	---
125	3,000	---	---	---	
10	15	900	1,900	3,000	3,000
	20	1,800	3,000	3,000	3,000
	30	2,200	3,000	3,000	---
	50	3,000	3,000	3,000	---
	60	3,000	3,000	3,000	---
	80	3,000	3,000	---	---
	100	3,000	---	---	---
125	3,000	---	---	---	
15	20	1,250	2,500	3,000	3,000
	30	2,000	3,000	3,000	---
	50	3,000	3,000	3,000	---
	60	3,000	3,000	3,000	---
	80	3,000	3,000	---	---
	100	3,000	---	---	---
125	3,000	---	---	---	
20	30	2,000	3,000	3,000	---
	50	3,000	3,000	3,000	---
	60	3,000	3,000	3,000	---
	80	3,000	3,000	---	---
	100	3,000	---	---	---
	125	3,000	---	---	---

TABLE 2

Size: 1½" x 1½" NPT;
Capacity of Type S301D

Type S301D de 1½ po x 1½ po NPT

Presion De Sortie OUTLET PRESS. psig lb/po ² (mano)	Pression D'Entrée INLET PRESS. psig lb/po ² (mano)	Débit maximal en pi ³ étalons/h, pour un gaz ayant une densité de 0.6 CAPACITY IN scfh 0.6 SPECIFIC GRAVITY GAS DIAMÈTRE DE L'ORIFICE - POUCHES ORIFICE SIZE - INCHES			
		1/4	3/8	1/2	3/4
2	5	700	1,000	1,300	3,500
	10	1,250	1,600	2,600	4,000
	15	1,600	2,800	4,400	4,000
	20	1,800	3,800	5,000	5,000
	30	2,300	4,900	5,000	---
	50	3,500	6,000	5,000	---
	60	4,000	6,000	5,000	---
	80	5,100	6,000	---	---
	100	3,000	---	---	---
	125	3,000	---	---	---
5	10	1,000	1,500	2,000	4,000
	15	1,300	2,400	4,400	4,000
	20	1,800	3,800	5,000	4,000
	30	2,300	5,000	6,000	4,500
	50	3,500	5,000	6,000	---
	60	4,000	5,500	6,000	---
	80	5,100	6,000	---	---
	100	6,500	---	---	---
	125	3,000	---	---	---
10	15	900	1,900	3,300	5,000
	20	1,800	3,800	4,600	5,500
	30	2,200	5,000	7,500	---
	50	3,500	7,500	7,500	---
	60	4,000	7,500	7,500	---
	80	5,100	7,500	---	---
	100	6,500	---	---	---
	125	4,000	---	---	---
15	20	1,250	2,500	3,200	5,600
	30	2,000	4,700	6,800	---
	50	3,500	7,500	7,500	---
	60	4,000	7,500	7,500	---
	80	5,100	7,500	---	---
	100	6,500	---	---	---
20	125	7,500	---	---	---
	30	2,000	4,000	6,000	---
	50	3,500	7,500	7,500	---
	60	4,000	7,500	7,500	---
	80	5,100	7,500	---	---
	100	6,500	---	---	---
	125	7,500	---	---	---

TABLE 3

Size: 1½" x 1½" NPT;
Capacity of Type S301D

Type S301D de 1½ po x 1½ po NPT

Pression De Sortie OUTLET PRESS. psig lb/po ² (mano)	Pression D'Entrée INLET PRESS. psig lb/po ² (mano)	Débit maximal, en pi ³ étalons/h pour un gas ayant une densité de 0.6 CAPACITY IN scfh 0.6 SPECIFIC GRAVITY GAS DIAMÈTRE DE L'ORIFICE - POUCES ORIFICE SIZE - INCHES				
		1/4	3/8	1/2	3/4	
2	5	700	1,000	1,300	3,500	
	10	1,250	1,600	2,600	4,000	
	15	1,600	2,800	4,400	4,000	
	20	1,800	3,800	5,000	5,000	
	30	2,300	4,900	6,000	---	
	50	3,500	7,000	7,000	---	
	60	4,000	7,000	8,000	---	
	80	5,100	8,000	---	---	
	100	6,500	---	---	---	
	125	5,000	---	---	---	
5	10	1,000	1,500	2,000	4,000	
	15	1,300	2,400	4,400	6,000	
	20	1,800	3,800	5,000	6,000	
	30	2,300	5,000	7,000	---	
	50	3,500	8,000	8,000	---	
	60	4,000	8,700	9,000	---	
	80	5,100	11,000	---	---	
	100	6,500	---	---	---	
	125	5,500	---	---	---	
	10	15	900	1,900	3,300	5,000
20		1,800	3,800	4,600	6,000	
30		2,200	5,000	8,100	---	
50		3,500	8,000	9,000	---	
60		4,000	8,700	10,000	---	
80		5,100	11,000	---	---	
100		6,500	---	---	---	
125		7,700	---	---	---	
15		20	1,250	2,500	3,200	5,600
		30	2,000	4,700	6,800	---
	50	3,500	8,000	11,000	---	
	60	4,000	8,700	12,000	---	
	80	5,100	11,000	---	---	
	100	6,500	---	---	---	
	125	7,700	---	---	---	
	20	30	2,000	4,000	6,000	---
		50	3,500	8,000	11,000	---
		60	4,000	8,700	12,000	---
80		5,100	11,000	---	---	
100		6,500	---	---	---	
125		7,700	---	---	---	

TABLE 4

Size: 2" x 2" NPT and 2" 125 FF ANSI;
Capacity of Type S301D

Type S301D de 2 po x 2 po NPT et de 2 po
125 FF ANSI

Pression De Sortie OUTLET PRESS. psig lb/po ² (mano)	Pression D'Entrée INLET PRESS. psig lb/po ² (mano)	Débit maximal, en pi ³ étalons/h, pour un gaz ayant une densité de 0.6 CAPACITY IN scfh 0.6 SPECIFIC GRAVITY GAS DIAMÈTRE DE L'ORIFICE - POUCES ORIFICE SIZE - INCHES			
		1/4	3/8	1/2	3/4
2	5	700	1,100	1,400	3,500
	10	1,300	2,000	3,300	5,100
	15	1,600	3,300	5,000	8,500
	20	1,800	4,500	6,800	10,000
	30	2,300	5,300	8,600	---
	50	3,600	8,000	12,500	---
	60	4,100	8,800	12,500	---
	80	5,200	11,000	---	---
	100	6,500	---	---	---
	125	7,000	---	---	---
5	10	1,100	1,800	2,500	4,800
	15	1,300	2,800	5,000	7,700
	20	1,800	4,200	6,100	10,000
	30	2,300	5,300	8,600	---
	50	3,600	8,000	12,500	---
	60	4,100	8,800	12,500	---
	80	5,200	11,000	---	---
	100	6,500	---	---	---
	125	7,700	---	---	---
	10	15	900	2,300	3,500
20		1,800	4,000	5,400	9,000
30		2,300	5,300	8,600	---
50		3,600	8,000	12,500	---
60		4,100	8,800	12,500	---
80		5,200	11,000	---	---
100		6,500	---	---	---
125		7,700	---	---	---
15	20	1,400	2,800	3,300	6,500
	30	2,000	5,000	7,100	---
	50	3,600	8,000	12,500	---
	60	4,100	8,800	15,000	---
	80	5,200	11,000	---	---
	100	6,500	---	---	---
20	125	7,700	---	---	---
	30	2,100	4,600	6,000	---
	50	3,600	8,000	12,500	---
	60	4,100	8,800	15,000	---
	80	5,200	11,000	---	---
	100	6,500	---	---	---
125	7,700	---	---	---	

Specifications: Continued

Maximum Flow Rates for 0.6 Specific Gravity Gas: as listed in Tables numbered 1 to 4.

Main Orifice Diameter(s), inches: 1/4, 3/8, 1/2 and 3/4.

Main Body Connections, NPT: 3/4 x 1, 1 x 1, 1 1/4 x 1 1/4, 1 1/2 x 1 1/2, 2 x 2, and 2 inch ANSI class 125 flat-face flanged.

Main Regulator Spring Identification:

(i) Number: ON0394 - 27222

(ii) Colour: Zinc (plated)

Pilot Spring Identification:

(i) Number: 1B9860 - 27212

(ii) Colour: dark green

Ambient Operating Temperature Range:
-20 to +170°F (-29° to +77°C).

Terms and Conditions:

(1) Approval is granted for use of the above described apparatus in Pressure Factor Measurement. This approval applies only to installations which conform strictly to Part VIII of the "Departmental Instructions for Inspection of Gas Meters and Auxiliary Devices" issued by the Legal Metrology Branch.

(2) For field test procedures refer to Technical Gas Circular G-75-3.

(3) The regulator is to be set using the following criteria:

- i) the average expected inlet service pressure.
- ii) the contract outlet pressure.
- iii) a flow rate of 250 ft³/h air.

Spécifications: Suite

Débit maximal pour un gaz ayant une densité de 0.6: Valeurs figurant aux tableaux numérotés de 1 à 4;

Diamètre des orifices principaux, pouces: 1/4, 3/8, 1/2 et 3/4.

Raccords principaux aux corps, NPT: 3/4 x 1, 1 x 1, 1 1/4 x 1 1/4, 1 1/2 x 1 1/2, 2 x 2 et raccord AINSI de 2 po, classe 125 à bride plate;

Désignation du ressort principal:

i) référence: ON0394 - 27222

ii) couleur: zinc (plaqué)

Désignation du ressort pilote:

i) référence: 1B9860-27212

ii) couleur: vert foncé

Plage de la température ambiante de service: -20 à +170°F (-29° à +77°C)

Conditions d'approbation:

(1) L'utilisation de l'appareil décrit ci-dessus est approuvée aux fins de mesurage par le facteur de pression. La présente approbation ne vise que les installations rigoureusement conformes à la partie VIII des directives ministérielles pour l'inspection des compteurs à gaz et des appareils auxiliaires publiées par la Direction de la métrologie légale.

(2) Se référer à la Circulaire technique du gaz G-75-3 pour la méthode d'essai sur le terrain.

(3) Le régulateur doit être réglé en fonction des critères suivants:

- i) la pression d'entrée moyenne prévue
- ii) la pression de sortie convenue par contrat
- iii) un débit équivalent à 250 pi³/h d'air.

Terms and Conditions: Continued

(4) The orifice size is to be selected to meet the accuracy requirements at maximum flow and minimum inlet pressure.

Reference No.: G6635-F206

Conditions d'approbation: Suite

(4) Le diamètre de l'orifice choisi doit répondre aux exigences de précision au débit maximal et à la pression d'entrée minimale.

Référence N°: G6635-F206



W.R. Virtue

Chief
Legal Metrology Laboratories

Chef
Laboratoires de la métrologie légale

FEB 25 1983



Consumer and Corporate Affairs Canada Consommation et Corporations Canada

Legal Metrology Branch

Direction de la Métrologie légale

Holland Avenue
Ottawa, Ontario
K1A 0C9

Avenue Holland
Ottawa, Ontario
K1A 0C9

Your file *Voire référence*

Legal Metrology Laboratories
Telephone: (613) 952-0639

Our file *Notre référence*

O6635-F206
AP-GL-87-0014
September 1, 1987
AML-G-31

Fisher Controls of Canada Ltd.
1039 Dundas Street
Woodstock, Ontario
N4S 7Z6
Attention: Ms. Lynn Stajcer

Dear Ms. Stajcer:

This is in response to your letter dated July 27, 1987, regarding Notice of Approval G-114-1 and proposing to modify the Type S301D Pressure Regulator approved therein by adding a 5/8" main orifice size to the 2" Regulator. See reverse for applicable capacities.

I am advised that, upon evaluation of the proposed modifications, the Gas Laboratory has concluded that they may be regarded as immaterial in relation to the approval provisions of the Electricity and Gas Inspection Act. Accordingly, pursuant to the authority delegated to me under the said Act:

1. your letter is hereby acknowledged as satisfying the notification requirements of section 13, Part III of the Electricity and Gas Inspection Regulations, SOR/86-131, 16 January, 1986, and
2. the proposed alteration is hereby accepted, in accordance with the aforementioned section, as being an immaterial one and hence included within the approval.

All recipients of Notices of Approval under the Electricity and Gas Inspection Act are being informed of this decision by copy of this letter.

Yours truly,

W.R. Virtue
Chief

cc: Mailing List (Gas Approvals)

Canada

REGULATOR TYPE/Type de régulateur: S301D
 REGULATOR CONNECTIONS/Taille de régulateur: 2 inches/pouces
 MAIN ORIFICE SIZE/Taille de l'orifice principal: 5/8 inches/pouces

OUTLET PRESSURE Pression de sortie psig lb/po ² mano	INLET PRESSURE Pression d'entrée psig lb/po ² mano	CAPACITY IN scfh OF 0.6 SPECIFIC GAS / Débit maximal, en pi ³ étalons/h pour un gaz ayant une densité de 0.6
2	5 10 15 20 30	1400 3700 4600 4960 6900
5	10 15 20 30	3000 5200 9000 15000
10	15 20 30	4600 9000 14000
15	20 25 30	5600 10200 13000
20	25 30	5000 11000



Consumer and
Corporate Affairs Canada

Consommation
et Corporations Canada

Legal Metrology
Branch

Direction de la
Métrologie légale

Holland Avenue
Ottawa, Ontario
K1A 0C9

Avenue Holland
Ottawa, Ontario
K1A 0C9

Your file *Voire référence*

Legal Metrology Laboratories
Telephone: (613) 952-0639

Our file *Notre référence*

O6635-F206
AP-GL-87-0015
September 11, 1987
AML-G-32

Fisher Controls of Canada Ltd.
1039 Dundas Street
Woodstock, Ontario
N4S 7Z6
Attention: Ms. Lynn Stajcer

Dear Ms. Stajcer:

This is in response to your letter dated July 27, 1987, regarding Notice of Approval G-114 dated September 2, 1975 and proposing to modify the Type S301F Pressure Regulator approved therein by adding a 5/8" main orifice size to the 1 1/4" and 2" regulators. See reverse for approved capacities.

I am advised that, upon evaluation of the proposed modifications, the Gas Laboratory has concluded that they may be regarded as immaterial in relation to the approval provisions of the Electricity and Gas Inspection Act. Accordingly, pursuant to the authority delegated to me under the said Act:

1. your letter is hereby acknowledged as satisfying the notification requirements of section 13, Part III of the Electricity and Gas Inspection Regulations, SOR/86-131, 16 January, 1986, and
2. the proposed alteration is hereby accepted, in accordance with the aforementioned section, as being an immaterial one and hence included within the approval.

All recipients of Notices of Approval under the Electricity and Gas Inspection Act are being informed of this decision by copy of this letter.

Yours truly,

W.R. Virtue
Chief

cc: Mailing List (Gas Approvals)

Canada

REGULATOR TYPE/Type de Régulateur: S301F
 REGULATOR CONNECTIONS/Taille de régulateur: 1½" and/et 2"
 MAIN ORIFICE/Taille de l'orifice principal: 5/8"

OUTLET PRESSURE Pression de sortie PSIG lb/po ² (mano)	INLET PRESSURE Pression d'entrée PSIG lb/po ² (mano)	CAPACITY, IN s.c.f.h., OF 0.6 SPECIFIC GRAVITY GAS Débit maximal, en pi ³ étalon/h, pour un gaz ayant une densité de 0.6	
		1½ in./po.	2 in./po.
2	5	280	600
	10	500	2900
	15	3650	4600
	20	4100	4600
	30	4700	6800
5	10	300	600
	15	900	3250
	20	3000	4300
	30	5300	6100
10	15	2700	1300
	20	3900	4800
	30	7700	8200
15	20	3300	2550
	25	6000	6500
	30	7300	6500
20	20	5200	2400
	30	7150	3300