

Flaresonic Flow Meter

A single path meter specifically designed for measuring the flaring of natural gas



Flaresonic-H			901-07-02B001
item			product code
1	General	Meter system	Ultrasonic Gas flowmeter
		Meter model	Flaresonic-H
		Pipe diameter	max. 64"
		method	digital travel time
		Fluid	Gas
		Gas velocity	-30 m/s to + 30 m/s
		Gas temperature	-20°C...+80°C
		Gas pressure	0 - 5 barg
		T ambient	+60°C
		Inaccuracy	<= ± 5%of reading; ± 5mm/s, Re > 10e+5
		Repeatability	< 5 mm/s
		Resolution	< 1 mm/s
		Output	Volume Flow at line conditions
		Units	SI [m3/s]
		Communication protocol	Instromet standard
Required straight lengths	upstream 10 D, downstream 3D		
1	SPU-1 Signal processing unit		901-40-06B003
7	SPU EEx marking	EExd IIB T6 Tamb=+60°C ISSeP 95D.103.1207	
	SPU total weight	approx. 15 kg	
7	TIP-1		901-42-01F049
8	TIP-1	Transducer Interface Processor	
	Power supply	12-30 Vdc (typical 24Vdc)	
	Power consumption	10 W	
	Storage temperature	max. +80°C	
	Frequency output	0 - 10 KHz	
	Digital I/O	RS485	
			Data valid signal
		Flow direction signal	
8	SPU-1 housing		901-41-44A013
9	Ex-box		-
10	Enclosure	CCA-03E	
	Enclosure material / IP class	Alluminium cast alloy / IP65	
	Enclosure EEx marking	EEx d IIC T6 Tamb=+60°C ISSeP no. 95D.103.1207	
	Weight (empty)	approx. 9 kg	
	Size	240 x 240 x 210 (L x W x H)	
10	Sensor glands		760-03-000211
11	type	Hawke 501/453/UNIV/OS/M20	
	Inner Sheath	min. 3.0mm max. 8.1mm	
	Material / IP class	Brass / IP 66 with nylon sealing washer	
	Ambient temperature	-60°C / +80°C	
	Cable gland EEx marking	EEx d IIC and EEx e II BAS01ATEX2078X	
11	Signal glands		760-03-000611
2	type	Hawke 501/453/UNIV/O/M20	
	Inner Sheath	min. 7.5mm max. 11.9mm	
	Material / IP class	Brass / IP 66 with nylon sealing washer	
	Ambient temperature	-60°C / +80°C	
	Cable gland EEx marking	EEx d IIC and EEx e II BAS01ATEX2078X	
2	Bracket		901-41-40B002
	Bracket CCA03E	240 x 240 x 120 mm (L x W x H)	
	Bracket material	ASTM A105 with 2.2 certificate	

3	SPU-1 mounting set		901-43-70B001
4	Sensor Assembly		901-07-41B003
13	EEx m Transducer		901-10-05B004
	Model	Ultrasonic Transducer model Zg	
	Type	Online retractable	
	Storage temperature	max.+100°C	
	Sensor material	Ceramic / Epoxy	
	Sensor head	SS 316 with 3.1.B certificate / NACE MPR 0175	
	Sensor pipe	SS 316 with 3.1.B certificate / NACE MPR 0175	
	Sensor EEx marking	EEx m II T6 Tamb=-20°C / +80°C Bas no. Ex 94C8128X	
14	EEx d Junction box		901-41-45B001
	Junction box	SL-14.1 ½" NPT	
	Junction box material / IP class	Alluminium cast alloy / IP 65	
	Ambient temperature	-20°C / +40°C	
15	EEx d Adapter plug		760-03-050200
	Adapter plug AD-D-10-29-04	½"NPT male - M20 female	
	Adapter material / IP class	Brass / IP 66 68	
	Ambient temperature	-50°C / +85°C	
16	EEx d Cable gland		760-03-000101
	Cable gland	Hawke A501/421/O/M20	
	Cable gland material / IP class	Brass / IP 66 67 68	
	Ambient temperature	-60°C / +100°C	
17	Earthing clamp		760-02-000400
	type	½" for pipediameter 21-22 mm	
	Material	nickel plated red copper	
18	Ground wire		680-00-012345
	type	standard wire yellow/green 6mm2	
19	Cable		901-11-57E001
	type	ZZ 2219 MSTR STR2	
	Ambient temperature	max. 90°C	
20	Sensor Holder		901-07-43B001
	Sensor holder connection size	1½" ANSI B16.5 150# RF	
	Sensor holder material	Flange: ASTM 316L with 3.1.B certificate/NACE MPR 0175	
		Holder: ASTM 316L with 3.1.B certificate/NACE MPR 0175	
	Tube fitting	1" NPT	
21	Gasket		900-06-001500
	Gasket size	1½" 150# RF ANSI B16.21	
	Gasket material	Novapress 815, asbestosfree	
22	Studbolt		901-07-46B001
	Studbolts	½" UNC x 70mm with 2.2 certificate	
	Studbolt material	ASTM A4-70	
5	Mounting Block		901-07-42B001
	Mounting block	1½" ANSI B16.5 150# RF	
	Mounting block material	ASTM A105 with 3.1.B certificate/NACE MPR 0175	

6	Ballvalve Assembly		901-07-46C001
	23	Ballvalve	
Ball valve connection size		1½" ANSI B16.5 150# RF	
Ball valve material		Body: ASTM A216 with 3.1.B certificate/NACE MPR 0175	
		Ball: SS 316 with 3.1.B certificate/NACE MPR 0175	
		Stem: SS 316 with 3.1.B certificate/NACE MPR 0175	
21	Gasket		900-06-001500
	Gasket size	1½" 150# RF ANSI B16.21	
	Gasket material	Novapress 815, asbestosfree	
22	Studbolt		901-07-46B001
	Studbolts	½" UNC x 70mm with 2.2 certificate	
	Studbolt material	ASTM A4-70	

OPTIONS

OPTION 1

	Analog ouput	4-20 mA	-
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OPTION 2

	Normalisation module	Volume flow at base conditions	-
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OPTION 3

8	SPU-1 housing		901-41-48C013	
	Ex-box	Enclosure	CCA-03	
		Enclosure material / IP class	Alluminium cast alloy / IP57	
		Enclosure EEx marking	EEx d IIB T6 Tamb=+40°C Iniecx no. 83.103.251	
		Weight (empty)	approx. 12 kg	
		Size	300 x 280 x 200 (L x W x H)	
	Sensor glands			760-03-000211
		type	Hawke 501/453/UNIV/OS/M20	
		Inner Sheath	min. 3.0mm max. 8.1mm	
		Material / IP class	Brass / IP 66 with nylon sealing washer	
		Ambient temperature	-60°C / +80°C	
	Signal glands	Cable gland EEx marking	EEx d IIC and EEx e II BAS01ATEX2078X	
				760-03-000611
		type	Hawke 501/453/UNIV/O/M20	
		Inner Sheath	min. 7.5mm max. 11.9mm	
		Material / IP class	Brass / IP 66 with nylon sealing washer	
	2	Bracket		901-41-40B001
			Bracket CCA03/GUB5	368 x 320 x 100 mm (L x W x H)
		Bracket material	ASTM A105 with 2.2 certificate	

OPTION 4

8	SPU-1 housing		901-41-43D013
	Ex-box		-
	Enclosure	GUB-5	
	Enclosure material / IP class	Alluminium cast alloy / IP65	
	Enclosure EEx marking	EEx d IIB T6 Tamb=+40°C InieX 87.B.103.620	
	Weight (empty)	approx.15 kg	
	Size	300 x 280 x 200 (L x W x H)	
	Sensor glands		760-03-000800
	type	Hawke ICG 653/UNIV/OS/M20	
	Inner Sheath	min. 8.9 mm max. 10.0 mm	
	Material / IP class	Brass / IP 66 with nylon sealing washer	
	Ambient temperature	-60°C / +80°C	
	Cable gland EEx marking	EEx d IIC and EEx e II BAS01ATEX2080X	
	Signal glands		760-03-000801
	type	Hawke 501/453/UNIV/O/M20	
	Inner Sheath	min. 8.9 mm max. 10.0 mm	
	Material / IP class	Brass / IP 66 with nylon sealing washer	
	Ambient temperature	-60°C / +80°C	
	Cable gland EEx marking	EEx d IIC and EEx e II BAS01ATEX2080X	
	2	Bracket	
Bracket CCA03/GUB5		368 x 320 x 100 mm (L x W x H)	
Bracket material		ASTM A105 with 2.2 certificate	

OPTION 5

8	SPU-1 housing		on request
	Ex-box		-
	Enclosure	TNCD 28 28 15	
	Enclosure material / IP class	SS 316L / IP66	
	Enclosure EEx marking	EEx d IIB T6 Tamb=+40°C NEMKO cert. of elec. apparatus	
	Weight (empty)	approx. 28kg	
	Size	280 x 280 x 180 mm (L x W x H)	
	Sensor glands		760-03-000800
	type	Hawke ICG 653/UNIV/OS/M20	
	Inner Sheath	min. 8.9 mm max. 10.0 mm	
	Material / IP class	Brass / IP 66 with nylon sealing washer	
	Ambient temperature	-60°C / +80°C	
	Cable gland EEx marking	EEx d IIC and EEx e II BAS01ATEX2080X	
	Signal glands		760-03-000801
	type	Hawke 501/453/UNIV/O/M20	
	Inner Sheath	min. 8.9 mm max. 10.0 mm	
	Material / IP class	Brass / IP 66 with nylon sealing washer	
	Ambient temperature	-60°C / +80°C	
	Cable gland EEx marking	EEx d IIC and EEx e II BAS01ATEX2080X	
	2	Bracket	
Bracket Technor		306 x 306 x 100 mm (L x W x H)	
Bracket material		ASTM A105 with 2.2 certificate	

OPTION 6

Retraction tool		901-07-45B001
Threaded bar	M16 x 1000	St. 8.8
Pressure plate	140 x 50 x 30	St. 37
Balance clamp	50 x 25 x 22,5	St. 37
Hex nut	M16	St. 8.8
Hexagon head screw + nut	M6 x 60	St. 8.8
Winged nut	M16	St. 8.8

About Elster Group

A world leader in advanced metering infrastructure, integrated metering, and utilization solutions to the gas, electricity and water industries. Elster's systems and solutions reflect over 170 years of knowledge and experience in measuring precious resources and energy.

Elster provides solutions and advanced technologies to help utilities more easily, efficiently and reliably obtain and use advanced metering intelligence to improve customer service, enhance operational efficiency, and increase revenues. Elster's AMI solutions enable utilities to cost-effectively generate, deliver, manage, and conserve the life-essential resources of gas, electricity, and water.

Elster has over 7,500 staff and operations in 38 countries in North and South America, Europe, and Asia.

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