



---

Reference	Approved	Origin date	Issue date	Issue	Page	Document
HNg	HW	2003-01-08	2003-11-03	B	2 (2)	<b>WS 8086H/00</b>

---

### RF DATA

Frequency range	7.05 – 10.0 GHz
VSWR	1.10
Insertion loss	0.1 dB
Isolation	80 dB
Peak power	350 kW at 0.1 MPa abs., +25°C
Average power	4 kW
Flange interface	MIL-DTL-3922/53D-004 Modified with M4, thread depth min 5

### ACTUATOR DATA

Operating voltage	28±3 V DC
Operating current	1 A, Self cut off
Switching time	300 ms
Duty (min time between successive operations)	500 ms -40°C to +40°C linearly increasing to 2 s at +85°C
Connector	MS 3112E 10-6P
Mating connector	MS 3116F 10-6S or eq.

### POSITION INDICATOR

Voltage / Current	30 V Max, 100 mA Max Resistive load
-------------------	-------------------------------------

### MECHANICAL DATA

Material	Aluminium alloy, Cu free
Finishing	Chromate per MIL-C-5541 and black painted
Air pressure	0.1 MPa overpr. Max
Air leakage	10 cm <sup>3</sup> /min (0.1 MPa overpr.) Max
Weight	0.5 kg Max
Life	250 000 actuations

### ENVIRONMENTAL DATA

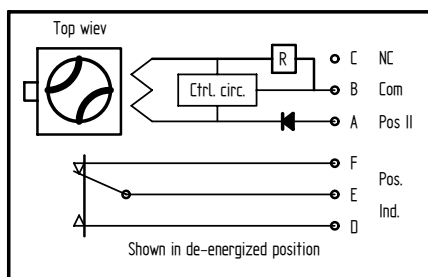
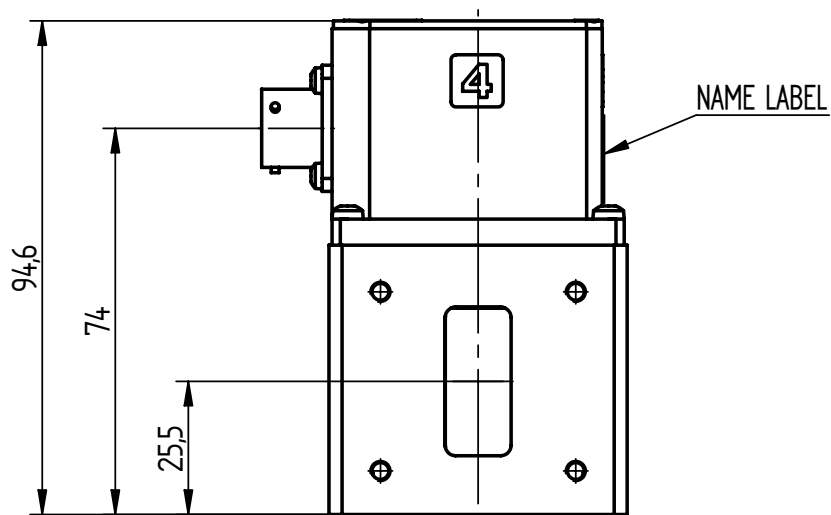
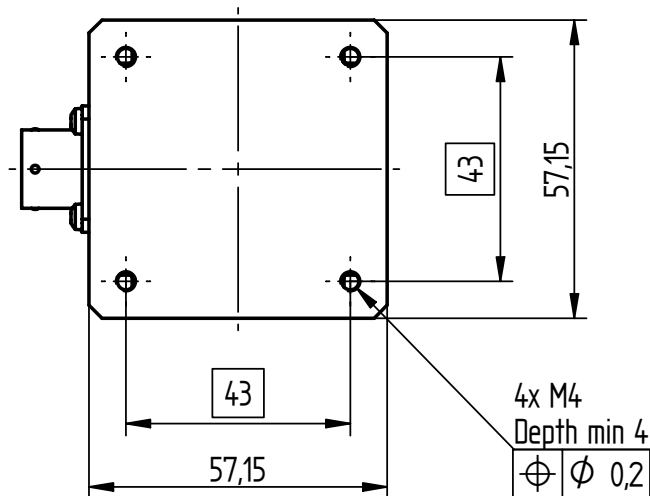
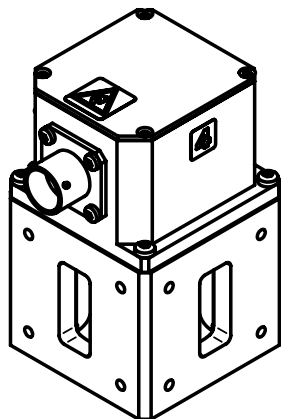
Ambient temperature	-40°C to +85°C
Vibration	5 – 18 Hz, 3 mm amplitude 18 – 2000 Hz, 15 g
Humidity	100%RH if dry air in waveguide

CAD-dokument  
 Får ej revideras manuellt

This document is our property and shall not without our written permission be altered, copied or communicated to a third party.

© SIVERS LAB AB

Issue	Modification	Date	Sign.	Chkd.



**CAUTION!**  
ESD SENSITIVE

Drawing principle	SS 1902	UNLESS OTHERWISE STATED THE FOLLOWING APPLIES: General tolerances, linear and angular dimensions: ISO 2768-c • $\nabla$ • $\oplus$ Europ. proj.	Ref. 2003-1112	Sign. HNg
Tolerancing principle	ISO 8015		Chkd.	Sign. HW
Dimensions in mm			Appvd.	Sign. HW
	Title WAVEGUIDE SWITCH WR112/R84/WG15 Fail-safe	Designed	Sheet 1 (2)	
		Scale 1:1,5	Issue A	
		Doc. no. WS8087H/00		

---

Reference HNg	Approved HW	Origin date 2003-11-12	Issue date 2003-11-12	Issue A	Page 2 (2)	Document <b>WS 8087H/00</b>
------------------	----------------	---------------------------	--------------------------	------------	---------------	--------------------------------

---

**RF DATA**

Frequency range	7.05 – 10.0 GHz
VSWR	1.10
Insertion loss	0.1 dB
Isolation	80 dB
Peak power	350 kW at 0.1 MPa abs., +25°C
Average power	4 kW
Flange interface	MIL-DTL-3922/53D-004 Modified with M4, thread depth min 5

**ACTUATOR DATA**

Operating voltage	28±3 V DC
Operating current	1 A, Auto switch on to holding current after 200 ms
Holding current	300 mA
Switching time	300 ms
Duty (min time between successive operations)	500 ms -40°C to +40°C linearly increasing to 2 s at +85°C
Connector	MS 3112E 10-6P
Mating connector	MS 3116F 10-6S or eq.

**POSITION INDICATOR**

Voltage / Current	30 V Max, 100 mA Max Resistive load
-------------------	-------------------------------------

**MECHANICAL DATA**

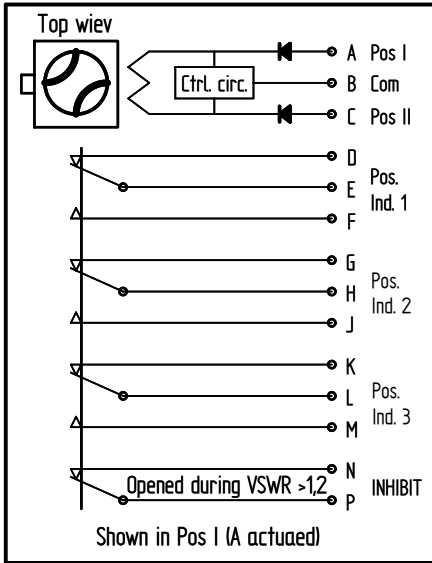
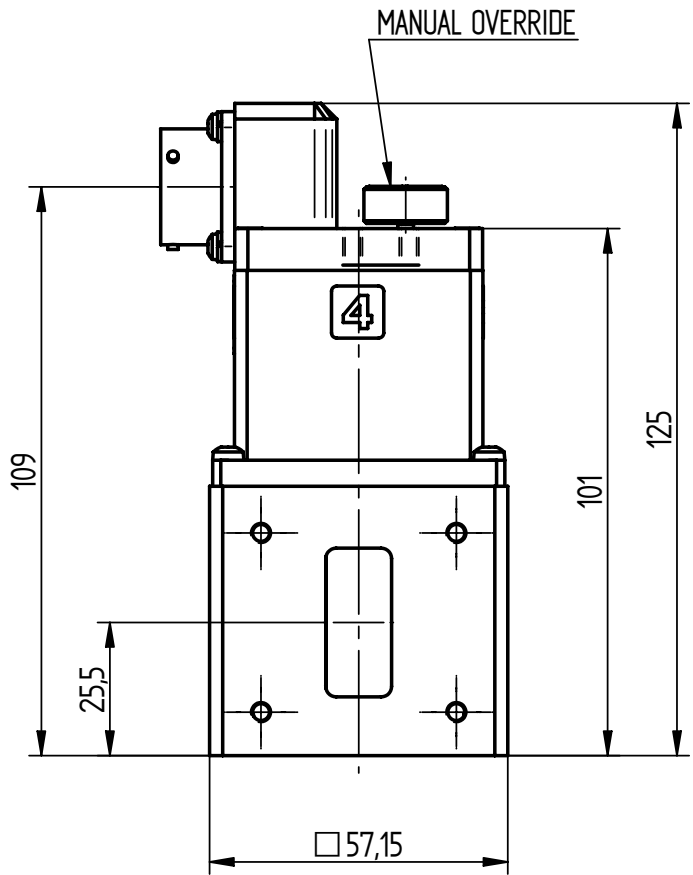
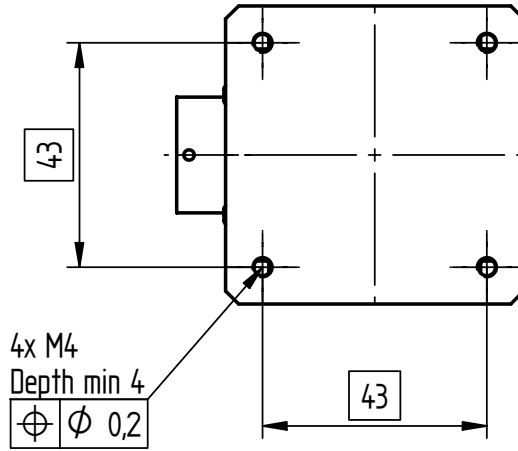
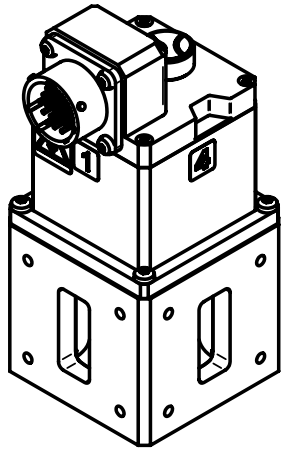
Material	Aluminium alloy, Cu free
Finishing	Chromate per MIL-C-5541 and black painted
Air pressure	0.1 MPa overpr. Max
Air leakage	10 cm <sup>3</sup> /min (0.1 MPa overpr.) Max
Weight	0,5 kg Max
Life	250 000 actuations

**ENVIRONMENTAL DATA**

Ambient temperature	-40°C to +85°C
Vibration	5 – 18 Hz, 3 mm amplitude 18 – 2000 Hz, 15 g
Humidity	100%RH if dry air in waveguide

CAD-dokument  
Får ej revideras manuellt

Issue	Modification			Date	Sign.	Chkd.
B	ECO			2003-1016	HNg	HW



**CAUTION!**  
ESD SENSITIVE

This document is our property and shall not without our written permission be altered, copied or communicated to a third party.

© SIVERS LAB AB

Drawing principle	SS 1902	UNLESS OTHERWISE STATED THE FOLLOWING APPLIES: General tolerances, linear and angular dimensions: ISO 2768-c -   Europ. proj.	Ref.	020430	Sign.	CEL
Tolerancing principle	ISO 8015		Chkd.		Sign.	HW
Dimensions in mm			Appvd.		Sign.	HW
	Title	WAVEGUIDE SWITCH WR112R84/WG15 Latching	Designed		Sheet	1 (2)
			Scale	1:15	Issue	B
			Doc. no.	WS8186H/00		

---

Reference	Approved	Origin date	Issue date	Issue	Page	Document
HNg	HW	2002-04-30	2003-11-05	B	2 (2)	<b>WS 8186H/00</b>

---

### RF DATA

Frequency range	7.05 – 10.0 GHz
VSWR	1.10
Insertion loss	0.1 dB
Isolation	80 dB
Peak power	350 kW at 0.1 MPa abs., +25°C
Average power	4 kW
Flange interface	MIL-DTL-3922/53D-004 Modified with M4, thread depth min 5

### ACTUATOR DATA

Operating voltage	28±3 V DC
Operating current	1 A, Self cut off
Switching time	250 ms
Duty (min time between successive operations)	500 ms -20°C to +40°C linearly increasing to 2 s at +70°C
Connector	MS 3112E 14-19P
Mating connector	MS 3116F 14-19S or eq.

### POSITION INDICATOR

Voltage / Current	30 V Max, 100 mA Max Resistive load
Position indicator	Three sets of C-form contacts and one set of inhibit contact, opened during VSWR >1,2

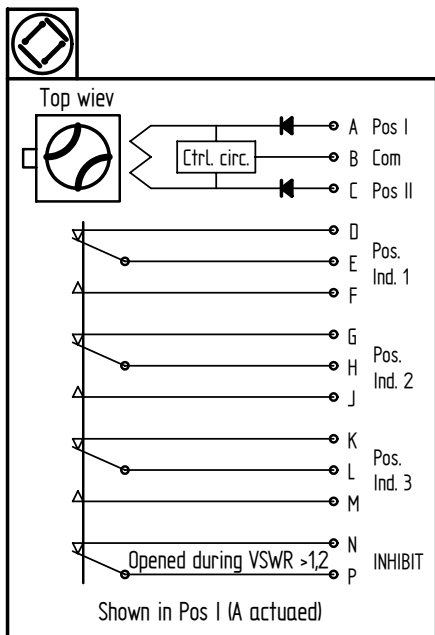
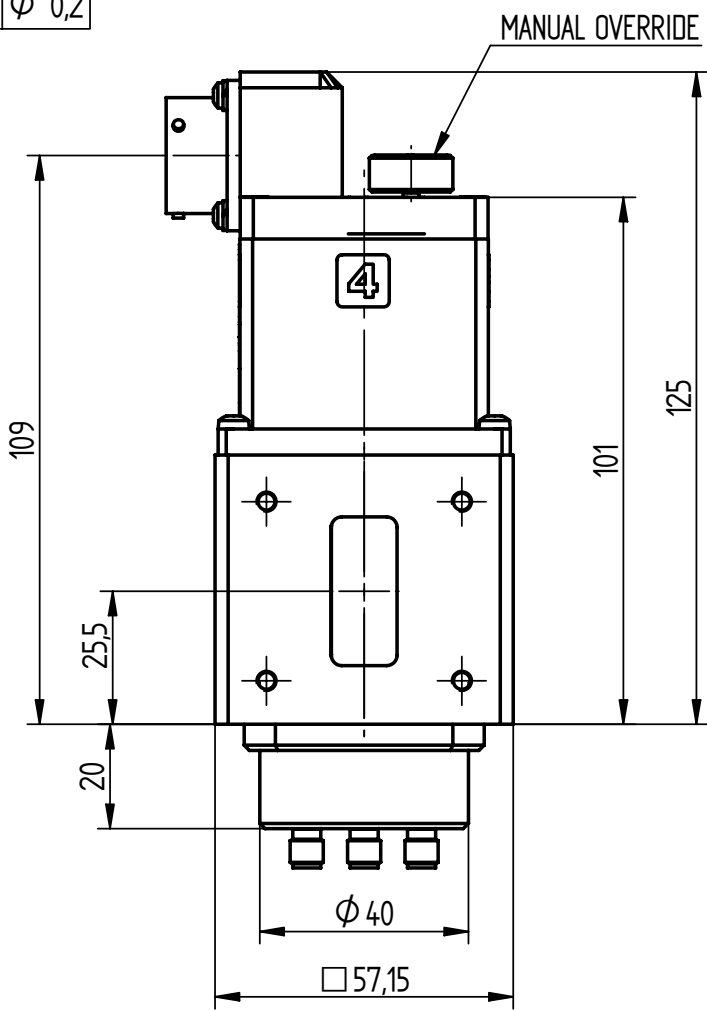
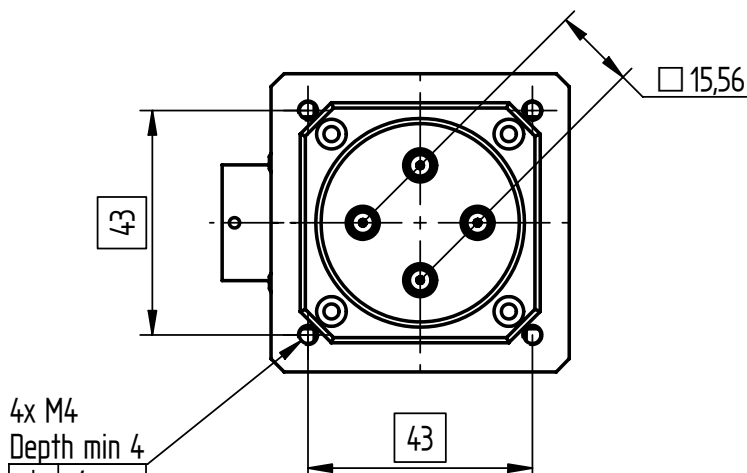
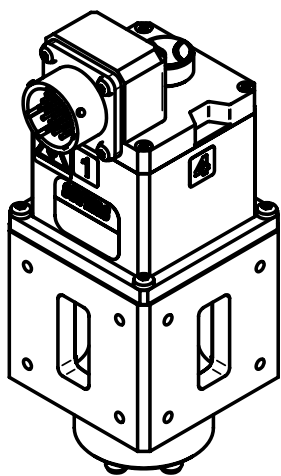
### MECHANICAL DATA

Material	Aluminium alloy, Cu free
Finishing	Chromate per MIL-C-5541 and black painted
Air pressure	0.1 MPa overpr. Max
Air leakage	10 cm <sup>3</sup> /min (0.1 MPa overpr.) Max
Weight	0.7 kg Max
Life	250 000 actuations

### ENVIRONMENTAL DATA

Ambient temperature	-20°C to +70°C
Vibration	5 – 18 Hz, 3 mm amplitude 18 – 2000 Hz, 15 g
Humidity	100%RH if dry air in waveguide

Issue	Modification			Date	Sign.	Chkd.
B	ECO			2003-1016	HNg	HW



**CAUTION!**  
ESD SENSITIVE

Drawing principle	SS 1902	UNLESS OTHERWISE STATED THE FOLLOWING APPLIES: General tolerances, linear and angular dimensions: ISO 2768-c • $\oplus$ • $\ominus$ Europ. proj.	Ref. 030917	Sign. MTr
Tolerancing principle	ISO 8015		Chkd.	Sign. HW
Dimensions in mm			Appvd.	Sign. HW
<b>SIVERS</b>	Title		Designed	Sheet 1 (2)
	WAVEGUIDE SWITCH WR112/R84/WG15 Latching with COAX DPDT		Scale 1:1,5	Issue B
			Doc. no.	WS8186H/70

---

Reference HNg	Approved HW	Origin date 2003-09-17	Issue date 2003-11-05	Issue B	Page 2 (2)	Document <b>WS 8186H/70</b>
------------------	----------------	---------------------------	--------------------------	------------	---------------	--------------------------------

---

**RF DATA**

**Waveguide**

Frequency range	7.05 – 10.0 GHz
VSWR	1.1
Insertion loss	0.1 dB
Isolation	75 dB
Peak power	350 kW at 0.1 MPa abs., +25°C
Average power	4 kW
Flange interface	MIL-DTL-3922/53D-004 Modified with 10 – 32 UNC-2B, thread depth min 8

**Coax**

Frequency range	7.05 – 10.0 GHz
VSWR	1.3
Insertion loss	0.5 dB
Isolation	60 dB
Peak power	5 kW
Average power	15 W max
Coax connector	SMA-female

Isolation, waveguide-coax	120 dB
---------------------------	--------

**ACTUATOR DATA**

Operating voltage	28±3 V DC
Operating current	1 A, Self cut off
Switching time	250 ms
Connector	MS 3112E 14-19P
Mating connector	MS 3116F 14-19S or eq.

**POSITION INDICATOR**

Voltage / Current	30 V Max, 100 mA Max Resistive load
Position indicator	Three sets of C-form contacts and one set of inhibit contact, opened during VSWR >1.2

**MECHANICAL DATA**

Material	Aluminium alloy; Cu-free
Finishing	Chromate per MIL-C-5541
Air pressure	0.1 MPa overpr. Max
Air leakage	10 cm <sup>3</sup> /min (0.1 MPa overpr.) Max
Weight	0.7 kg Max
Life	250 000 actuations

**ENVIRONMENTAL DATA**

Ambient temperature	-20°C to +70°C
Vibration	5 – 18 Hz, 3 mm amplitude 18 – 2000 Hz, 15 g
Humidity	100%RH if dry air in waveguide

---