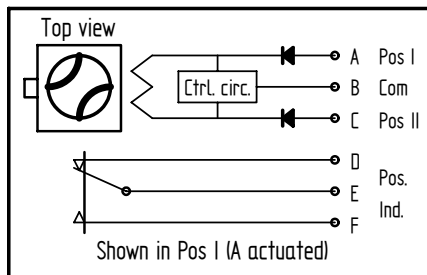
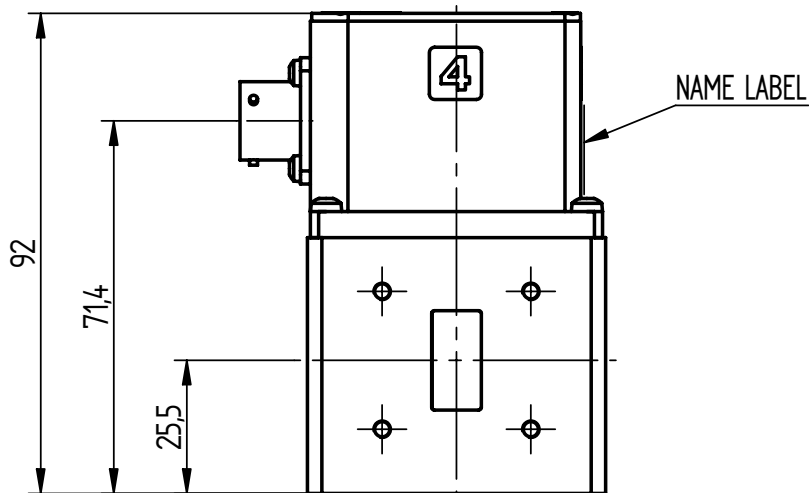
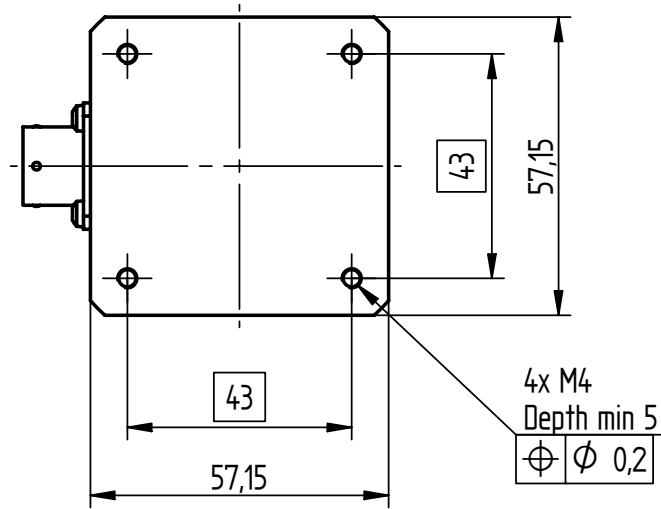
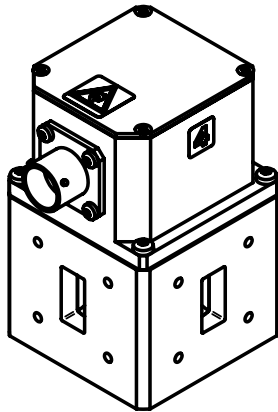


CAD-dokument
Får ej revideras manuellt

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 - Europ. proj.	Ref.	020828	Sign.	CEL
Tolerancing principle	ISO 8015		Chkd.		Sign.	HW
Dimensions in mm			Appvd.		Sign.	HW
SIVERS	Title		Designed	Sheet 1 (2)		
	WAVEGUIDE SWITCH WR75/R120/WG17 Latching		Scale	1:15	Issue B	
			Doc. no.	WS8086M/00		

© SIVERS LAB AB



Reference	Approved	Origin date	Issue date	Issue	Page	Document
HNg	HW	2002-08-28	2003-11-04	B	2 (2)	WS 8086M/00

RF DATA

Frequency range	10 - 15 GHz
VSWR	1.08
Insertion loss	0.1 dB
Isolation	90 dB
Peak power	250 kW at 0.1 MPa abs., +25°C
Average power	2 kW
Flange interface	MIL-DTL-3922/70B-005 Modified with 6-32 UNC-2B, 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 1 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 ³ /min (0.1 MPa overpr.) Max
Weight	0.5 kg Max
Life	250 000 actuations

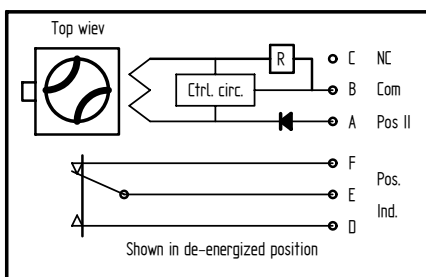
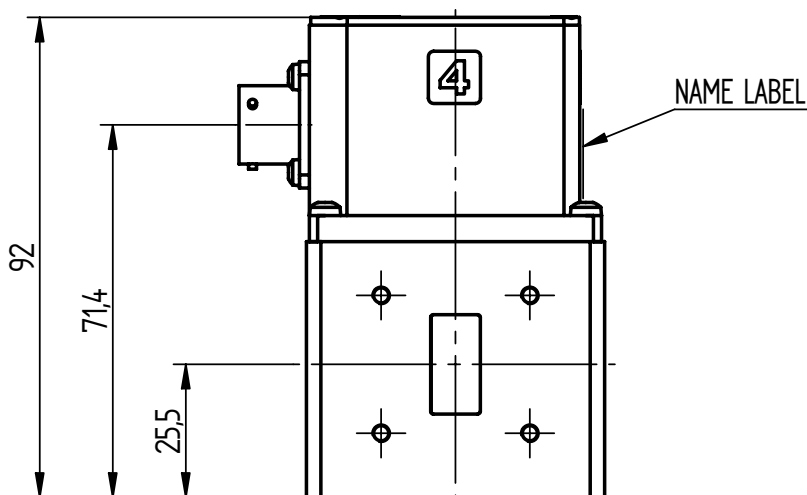
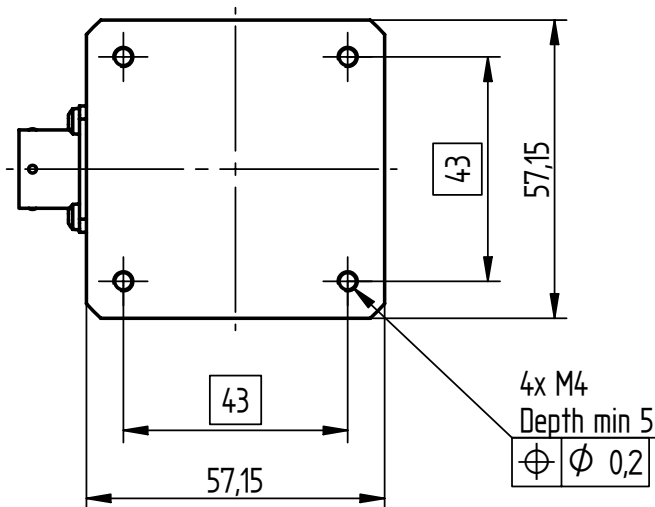
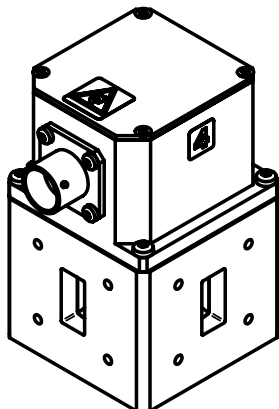
ENVIRONMENTAL DATA

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

WS 8086M/00

CAD-dokument
Får ej revideras manuellt

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 ⚠ ⚙ Europ. proj.	Ref. 2003-1112	Sign. HNg
Tolerancing principle	ISO 8015		Chkd.	Sign. HW
Dimensions in mm			Appvd.	Sign. HW
SIVERS	Title WAVEGUIDE SWITCH WR75/R120/WG17 Fail-safe		Designed	Sheet 1 (2)
			Scale 1:15	Issue B
			Doc. no. WS8087M/00	

© SIVERS LAB AB

Reference	Approved	Origin date	Issue date	Issue	Page	Document
HNg	HW	2003-11-12	2003-11-12	B	2 (2)	WS 8087M/00

RF DATA

Frequency range	10 - 15 GHz
VSWR	1.08
Insertion loss	0.1 dB
Isolation	90 dB
Peak power	250 kW at 0.1 MPa abs., +25°C
Average power	2 kW
Flange interface	MIL-DTL-3922/70B-005 Modified with 6-32 UNC-2B, 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 ³ /min (0.1 MPa overpr.) Max
Weight	0.5 kg Max
Life	250 000 actuations

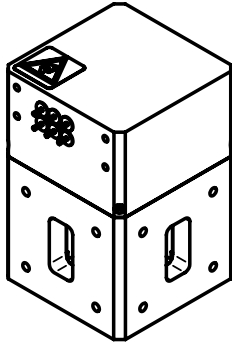
ENVIRONMENTAL DATA

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

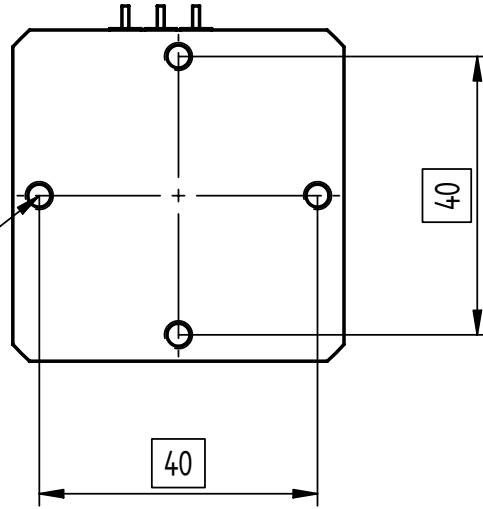
WS 8087M/00

CAD-dokument
Får ej revideras manuellt

Issue	Modification	Date	Sign.	Chkd.
C	ECO	2004-0426	HNg	HW

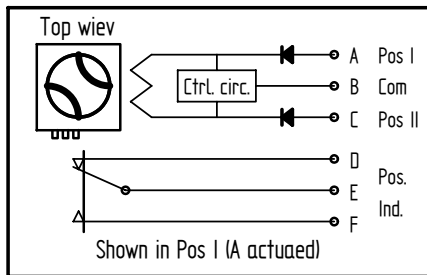
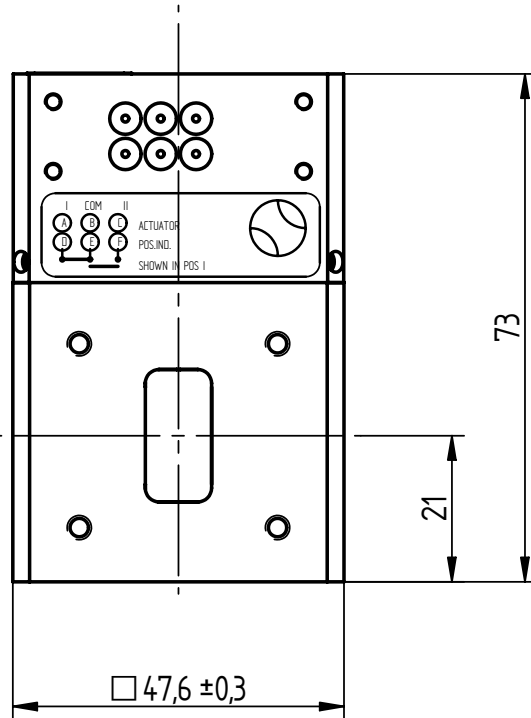


4x M4
Depth min 5
 $\begin{matrix} \oplus & \ominus \\ \oplus & \ominus \end{matrix} \quad \phi 0,2$



CAUTION!
Never connect supply voltages to pins A and C simultaneously. Severe damage will result.

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. 03-11-19	Sign. HNg
Tolerancing principle	ISO 8015		Chkd.	Sign.
Dimensions in mm			Appvd.	Sign.
	Title		Designed	Sheet 1(2)
	WAVEGUIDE SWITCH WR75/R120/WG17 Latching		Scale 1:1	Issue C
			Doc. no. WS8089M/00	



Reference	Approved	Origin date	Issue date	Issue	Page	Document
HNg	HW	1996-02-12	2004-04-26	C	2 (2)	WS 8089M/00

RF DATA

Frequency range	10 – 15 GHz
VSWR	1.08
Insertion loss	0.1 dB
Isolation	60 dB
Peak power	200 kW at 0.1 MPa abs., +25°C
Average power	3 kW
Flange interface	MIL-DTL-3922/70B-005 Modified with 6-32 UNC-2B, thread depth min 5

ACTUATOR DATA

Operating voltage	28±3 VDC
Operating current	1 A, Self cut off
Switching time	150 ms
Duty (min time between successive operations)	500 ms -40°C to +40°C linearly increasing to 2 s at +85°C
Connector	Soldering pins

POSITION INDICATOR

Position indicator current	60 V Max, 50 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 overpressure
Air leakage	10 cm ³ /min. (0.1 MPa overpr.) Max
Weight	0.35 kg Max
Life	250 000 actuations

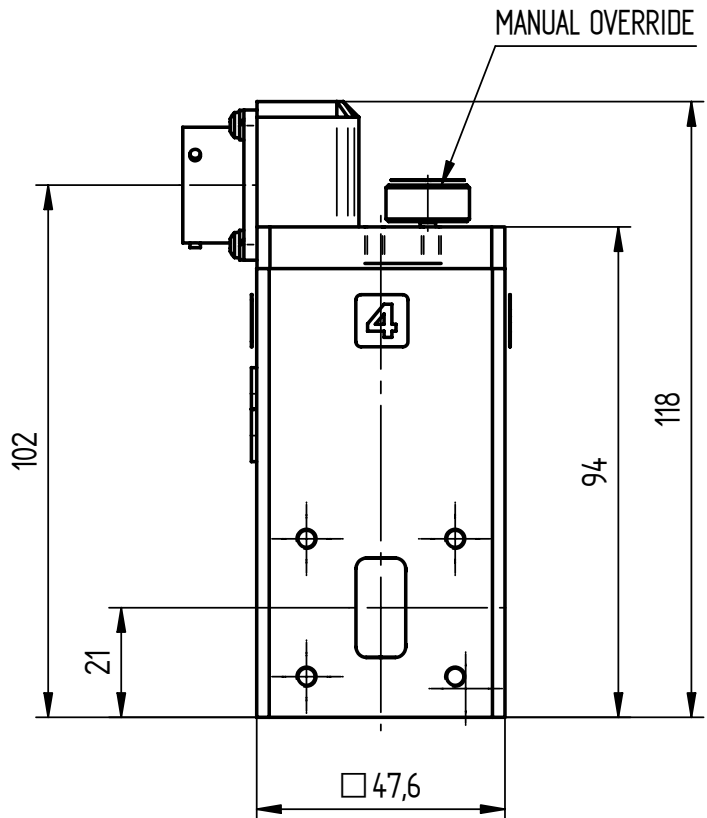
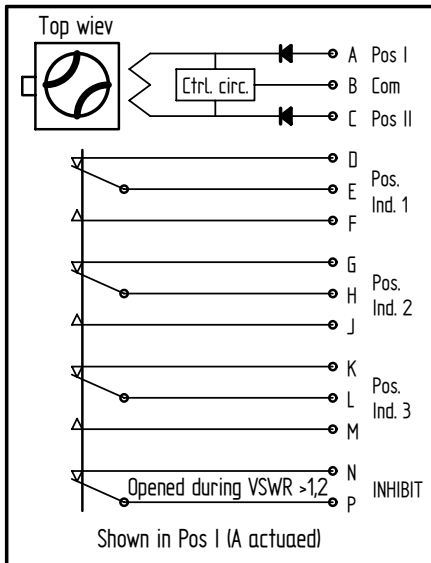
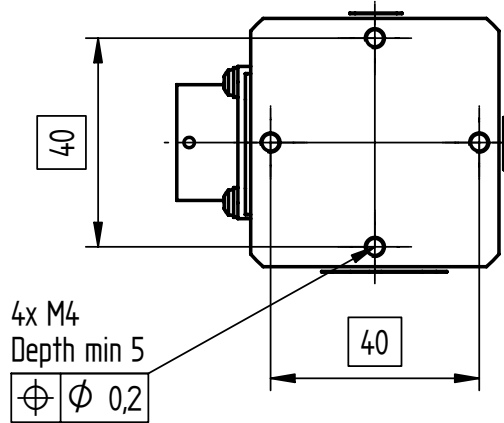
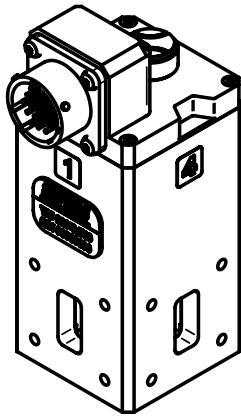
ENVIRONMENTAL DATA

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

WS 8089M/00

CAD-dokument
Får ej revideras manuellt

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	Ref. 2003-1117	Sign. HNg
Tolerancing principle	ISO 8015		Chkd.	Sign.
Dimensions in mm		·⊕· Europ. proj.	Appvd.	Sign. HW
	Title		Designed	Sheet 1 (2)
	WAVEGUIDE SWITCH WR75/R120/WG17 Latching		Scale 1:1,5	Issue F
			Doc. no	WS 8189M/00

© SIVERS LAB AB

Reference	Approved	Origin date	Issue date	Issue	Page	Document
HNg	HW	1999-06-17	2003-11-17	F	2 (2)	WS 8189M/00

RF DATA

Frequency range	10 – 15 GHz
VSWR	1.08
Insertion loss	0.1 dB
Isolation	70 dB
Peak power	250 kW at 0.1 MPa abs., +25°C
Average power	2 kW
Flange interface	MIL-DTL-3922/70B-005 Modified with 6-32 UNC-2B, thread depth min 5

ACTUATOR DATA

Operating voltage	28±3 V DC
Operating current	1 A, Self cut off
Switching time	100 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 ³ /min (0.1 MPa overpr.) Max
Weight	0.45 kg Max
Life	250 000 actuations

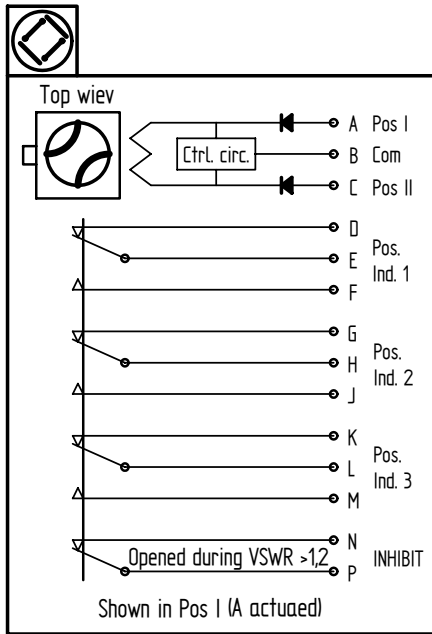
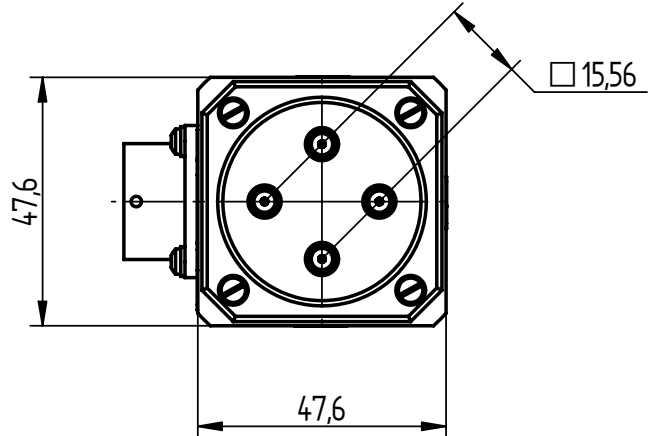
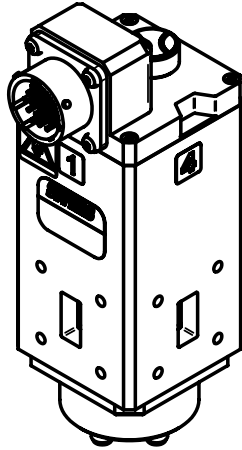
ENVIRONMENTAL DATA

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

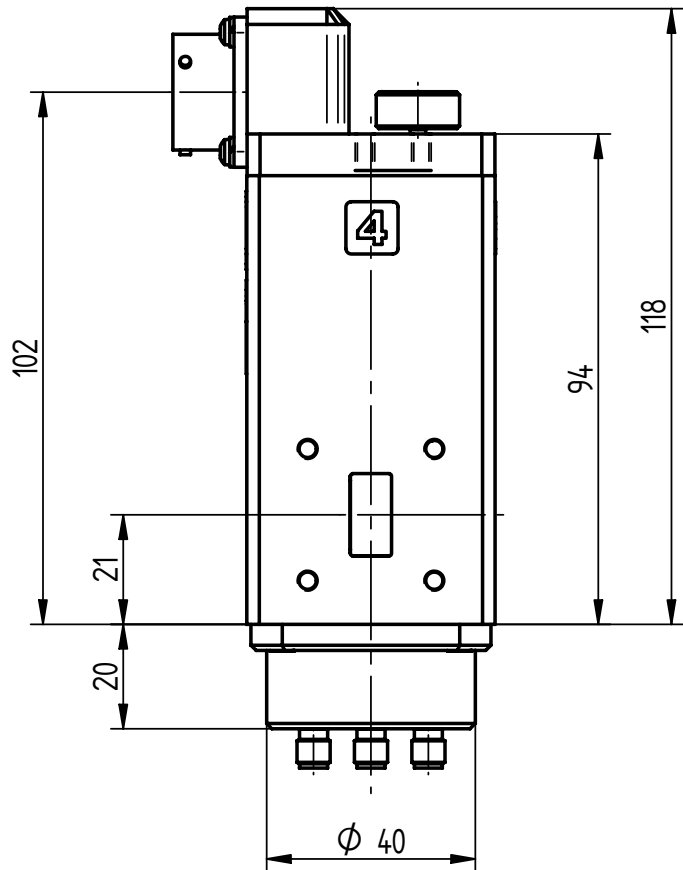
WS 8189M/00

CAD-dokument
Får ej revideras manuellt

Issue	Modification	Date	Sign.	Chkd.
B	Coax connectors twisted 45°	030710	MTr	HW
C	ECO	2003-1015	HNg	HW



CAUTION!
ESD SENSITIVE



Drawing principle	SS 1902	UNLESS OTHERWISE STATED THE FOLLOWING APPLIES: General tolerances, linear and angular dimensions: ISO 2768-c - Europ. proj.	Ref.	030317	Sign.	CEL
Tolerancing principle	ISO 8015		Chkd.		Sign.	HW
Dimensions in mm			Appvd.		Sign.	HW
SIVERS	Title		Designed	Sheet 1 (2)		
	WAVEGUIDE SWITCH WR75/R120/WG17 Latching with COAX DPDT		Scale	1:1,5	Issue C	
			Doc. no.	WS8189M/70		

© SIVERS LAB AB



Reference	Approved	Origin date	Issue date	Issue	Page	Document
HNg	HW	2003-03-17	2003-11-05	C	2 (2)	WS 8189M/70

RF DATA**Waveguide**

Frequency range	10 – 15 GHz
VSWR	1.08
Insertion loss	0.1 dB
Isolation	70 dB
Peak power	250 kW at 0.1 MPa abs., +25°C
Average power	2 kW
Flange interface	MIL-DTL-3922/70B-005 Modified with 6 – 32 UNC-2B, thread depth min 6

Coax

Frequency range	10 – 15 GHz
VSWR	1.5
Insertion loss	0.5 dB
Isolation	50 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	100 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	Tree 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 ³ /min (0.1 MPa overpr.) Max
Weight	0.6 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

WS 8189M/70