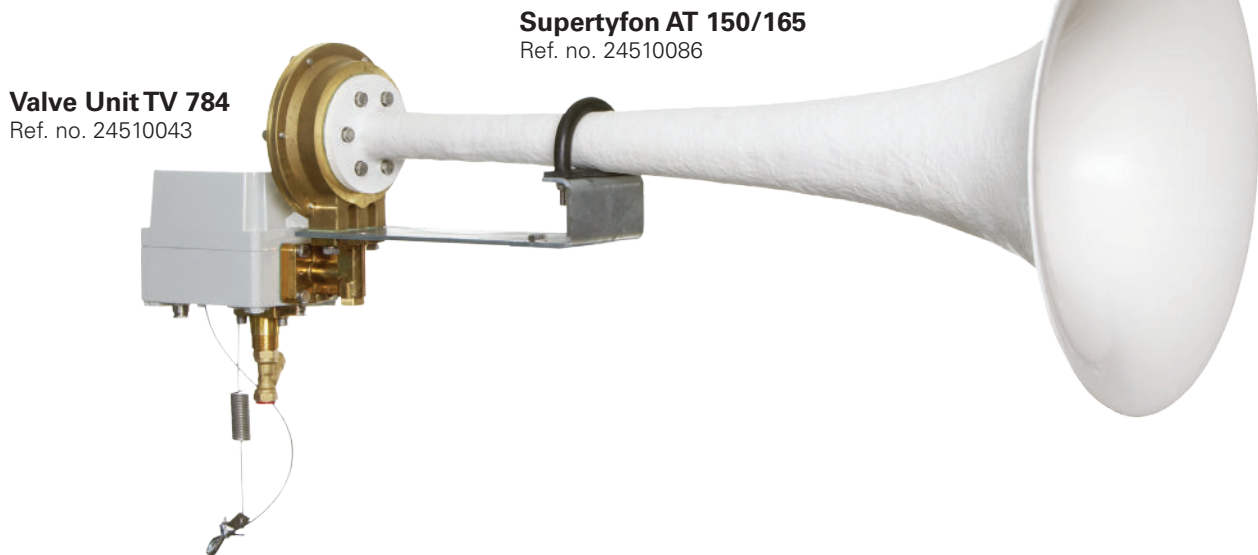


SUPERTYFON® AT 150/165 **with Valve Unit TV 784**

A high-power whistle according to IMO
for vessels of 75 - 200 m (246 - 656 feet) in length.



General Information

Before "COLREG 1972" (the International Regulations for Preventing Collisions at Sea), a popular practice was to use low-pitched tones even for smaller vessels. In other words, the principle of a low tone for large vessels was not followed with sufficient stringency.

According to the IMO regulations, the very low tones are strictly reserved for the largest ships. For middle-sized and smaller vessels, there are rather wide limits as to the choice of frequencies. Preference has been given to signals which, even at some distance, have capability to be heard. For vessels of 75 - 200 m (246 - 656'), Whistles with frequencies between 130 and 350 Hz are appropriate.

Positioning Whistles

For an all-round radiation and a limited noise level from the ship's whistles at the listening posts, the positioning of the ship's whistles is very important. For further information regarding installation regulations and "Combined Systems", see our leaflet "IMO Regulations, KSM 265E".

Valve Unit

The **VALVE UNIT TV 784** has a good air flow section, thermostatic heating, exchangeable choke flanges and filters. The apparatus is fitted with two coils for normal and emergency operation and lanyard as standard (see separate leaflet KSM 264).

Installation

SUPERTYFON® 150/165 is to be fixed with four M10 bolts to an outrigger or similar construction. To avoid functional trouble blow the supply pipe thoroughly clean before connecting to the signalling whistle. If the pipe line above deck is longer than 100 m (328'), a primary **FILTER TP 15/2** should be installed at the foot of the mast to protect the signalling apparatus from water condensate and rust particles. This filter is recommended to be drained regularly, approximately once a month.

Technical Data

Frequency: 165 Hz

Sound Pressure Level (1m):

Total: 148 dB

1/3 octave IMO limit: 138 dB

Air consumption: 25 - 35 l/s

Air supply pressure with choke regulation:

0,6 - 3 MPa (6 - 30 bar)

Electric power:

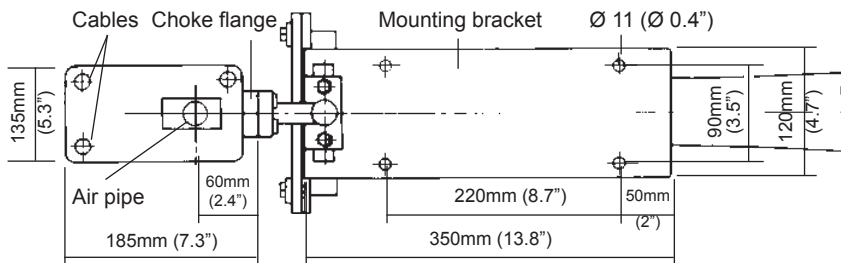
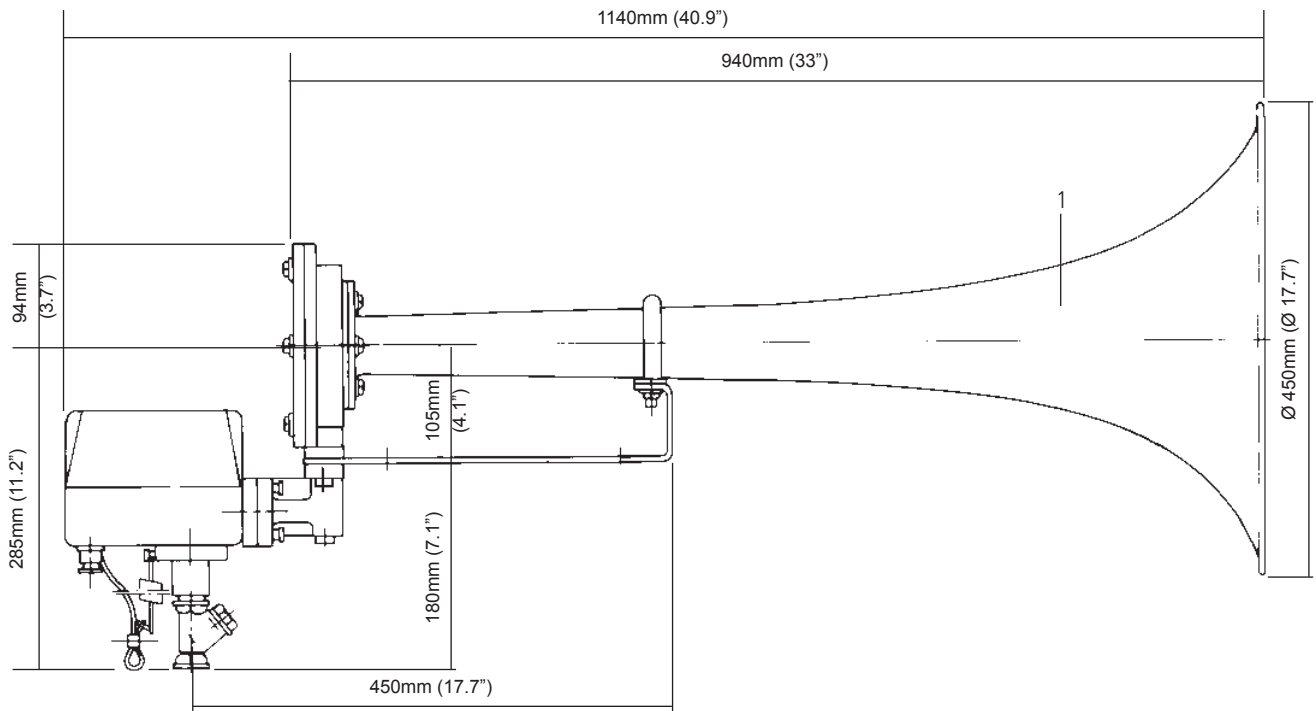
Thermostat heating: 24 W

Valve: 8-15 W

Weight: 14 kg

For wiring diagram: see Valve Unit TV 784, KSM 264

AT 150/165: Spare Parts and Dimensions



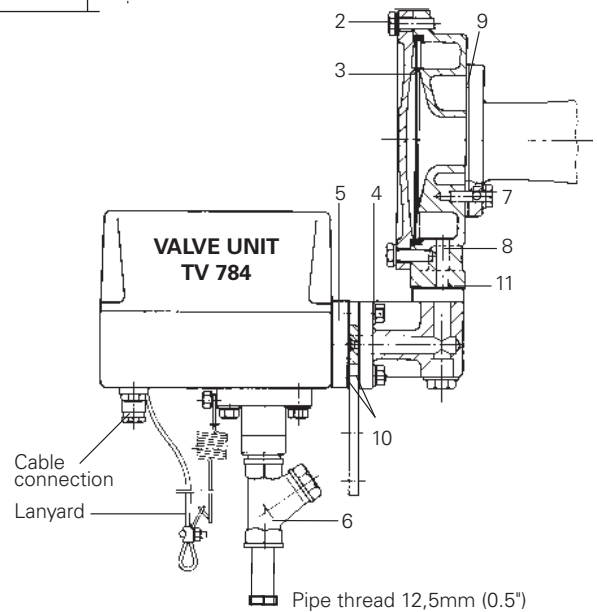
View from beneath

Spare Parts AT 150/165			
No.	Name	Material	Ref. no.
1	Horn AT 150/165	Glass-fibre reinf. polyester	21750127
2	Screw M6S 8 x 16	Stainl. steel	20801121
3	Diaphragm KM 150 AT compl. with O-rings	Titan/ Nitrile rubber	21758006
4	Screw M6S 8 x 30	Stainl. steel	20801124
5	Choke flange (state pressure)	Brass	21768201
6	Filter	Brass	32170418
7	Screw M6S 8 x 25	Stainl. steel	20801123
8	Housing 150 AT	Brass	21754100
9	Packing 120/36 x 1	Nitrile rubber	37710245
10	Packing 62 x 62 x 1	Nitrile rubber	21765037
11	Packing 80 x 39 x 1	Nitrile rubber	37710278

Spare parts can be obtained from Kockum Sonics or their agents. When ordering, please, give working pressure, reference number and part name. Spare parts for valve unit, see Valve Unit TV 784, KSM 264.

Pipe line dimensions		
Working pressure MPa (overpressure)	Length of pipe metres	Inside diam. of pipe, mm (inches)
below 2.0	Max. 150	Min. 25 (1")*
	150 - 350	Min. 32 (1 1/4")*
above 2.0	Max. 150	Min. 19 (3/4")*
	150 - 350	Min. 25 (1")*

*Converting muff necessary for connection to signal apparatus



Air Pressure Choking

The basic condition for good performance and reliable function is the appropriate air pressure activating the diaphragm.

When ordering, please state the working pressure. If the connection pipe is dimensioned in accordance with the recommendations (see table), the pressure gauge reading at the air receiver in the engine room is adequate for choice of choke.

Subject to alteration without notice.

Valve Unit TV 784

For installation together with TYFON® and SUPERTYFON® Whistles



Valve Unit TV 784
 Ref. no. 24800362

General Information

One of the most important parts assembled to a whistle is the valve. The new Valve Unit TV 784 designed for this purpose provides the following:

- Good air flow section with low electric power consumption.
- Electric heating provided by a 25W element with thermostat.
- Exchangeable flange choke for different pressures.
- Two solenoid coils for normal and emergency operation.
- Lanyard for stand-by operation.

Normally comes assembled to one of our Tyfon's but can also be purchased as stand-alone, for example as a complete spare part.

Technical Data

Mains operation	230V AC 50/60 Hz
	110V AC 50/60 HZ
	24V DC
Power consumption	27 W
Emergency operation	230V AC 50/60 Hz
	110V AC 50/60 HZ
	24V DC
Power consumption	27 W
Heating	230V AC 50/60 Hz
	110V AC 50/60 HZ
	24V DC
Power consumption	25 W
Working pressure	0,3 - 3,0 MPa (different chokes)
Air consumption	8 - 100 l/s (for different whistle types)
Dimensions	See last page
Protection class	IP56
Weight	3,8 kg

Inspection, Troubleshooting and Repair

Valve unit TV 784 and Tyfon MKT 150 /- Series

Inspection:

Our MKT 150 /- series Tyfon with Valve unit TV784 is a maintenance free design, but periodic inspection is advisable to get an early indication of faults that might develop. At least annual check is recommended.

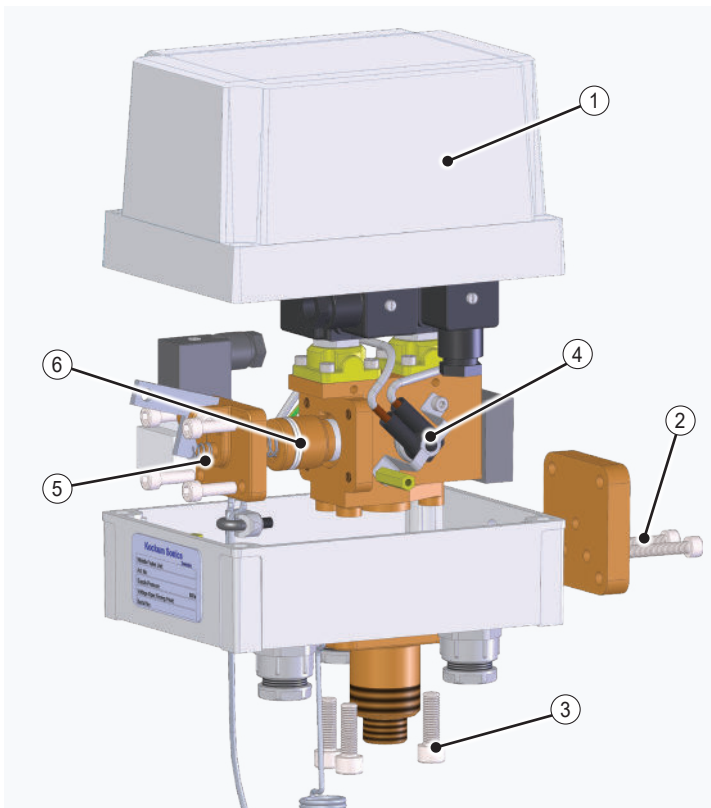
- Check mechanic attachments. All screw and pipe joints in place and correctly tightened? No air leakage?
- Check air filter (see picture 1)

Troubleshooting:

- Horn not sounding?
 - Solenoids getting signal voltage? If not, check Tyfon control unit.
 - Valve unit getting air? Hand manoeuvre working but not electrical? Replace solenoid. Easily accessible by removing box cover (see picture 5).
 - Valve unit clearly blowing through solenoid vents but still no sound? Check main piston. (see picture 3 and 4). Shall compress and return smoothly. If not, try inserting some rust resolvent and compress the piston repeatedly until it does. If heavily stuck, valve unit will have to be opened (see picture 4 and 7). If piston found heavily corroded it should be replaced. Cylinder mostly can be refurbished with rust resolvent and very fine sandpaper.

* If new valve unit; Check choking plate (see picture 4). Correct diameter or drilled at all?

- Horn sounding distorted?
 - Open housing (see picture 2). Check for dirt or damages in housing seat.
 - Check for damages in diaphragm.
- Delay at activation / deactivation?
 - Check valve main piston. (see picture 3 and 4)
 - Check for dirt or damages in housing seat. (see picture 2)
- Heating defective? (see picture 6)



To access valve units internal parts.

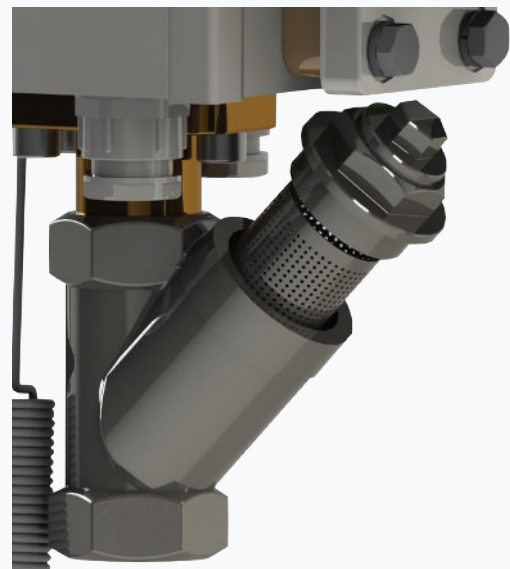
Access heater / thermostat unit:

1. Release and remove cover
2. Release and remove the flange
3. Release valve body
4. Heater / thermostat unit

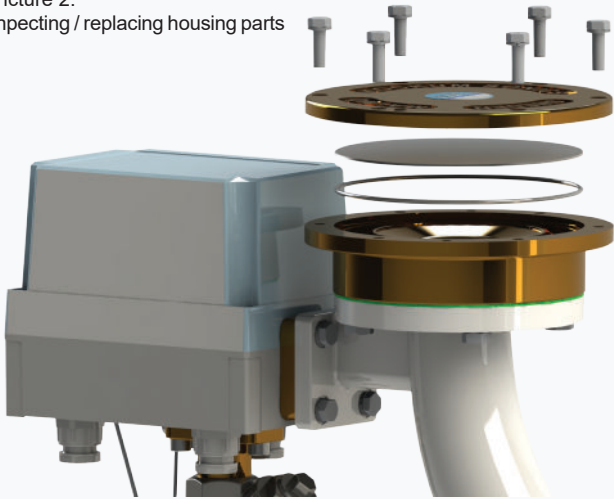
Access piston valve / cylinder:

5. Release valve lid
6. Piston valve / cylinder

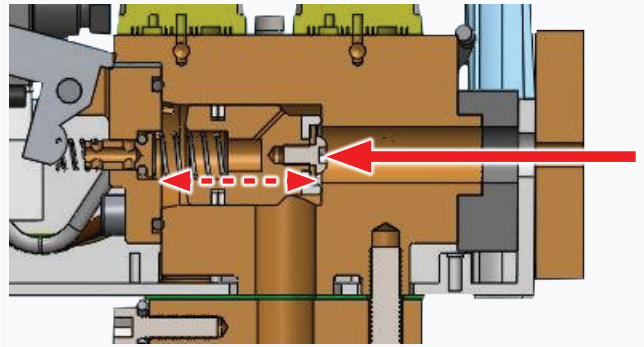
Picture 1.
Checking / rinsing filter



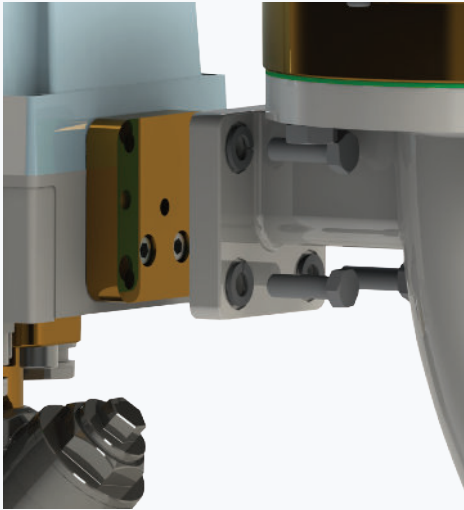
Picture 2.
Inspecting / replacing housing parts



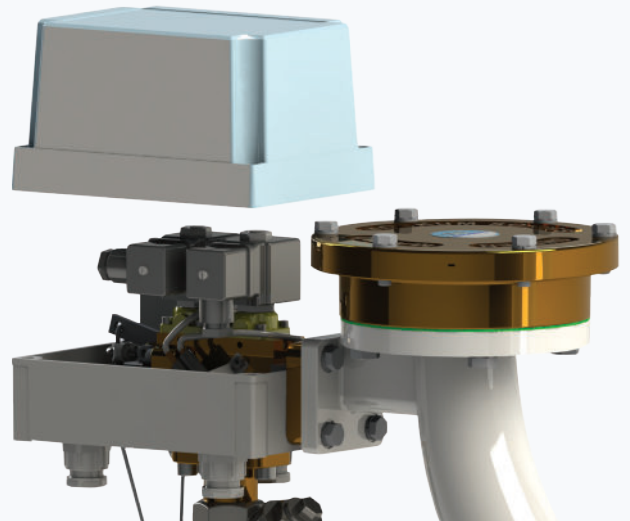
Picture 3.
Checking piston mobility. Compress piston via air outlet



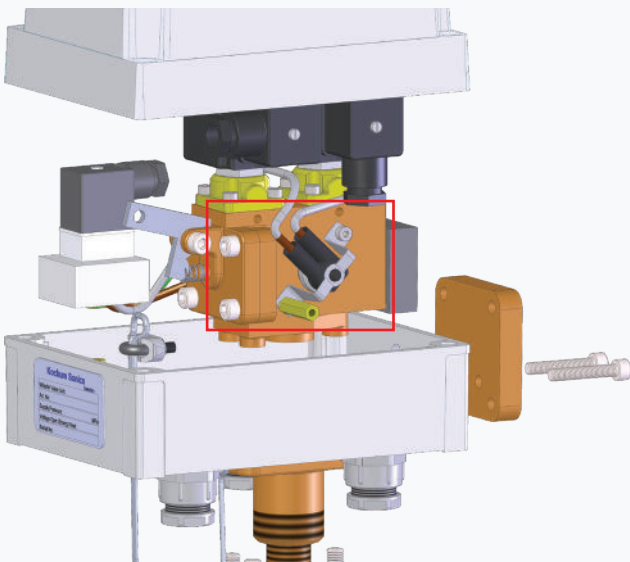
Picture 4.
Releasing valve unit



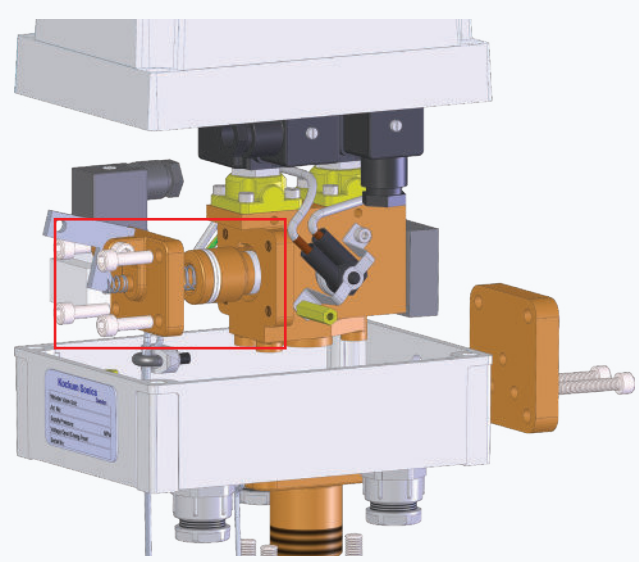
Picture 5.
Open valve box lid



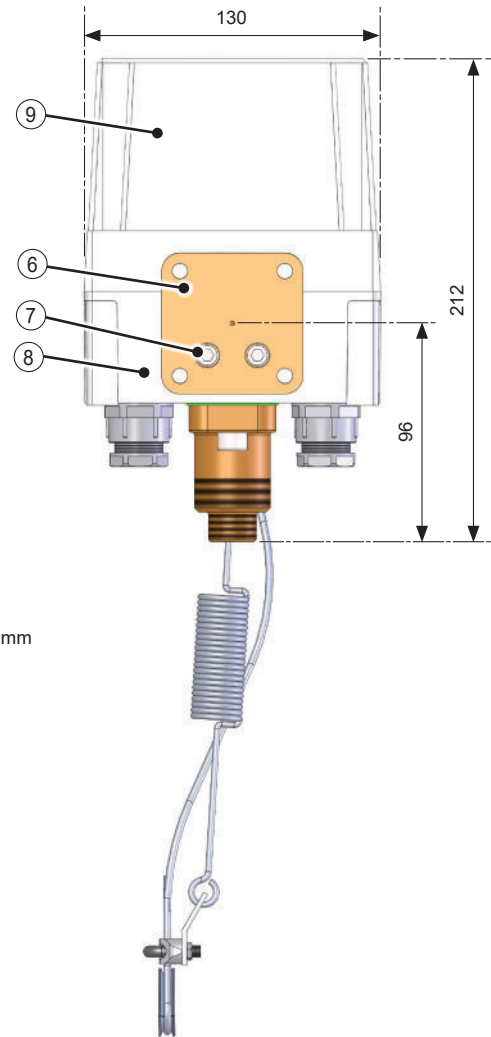
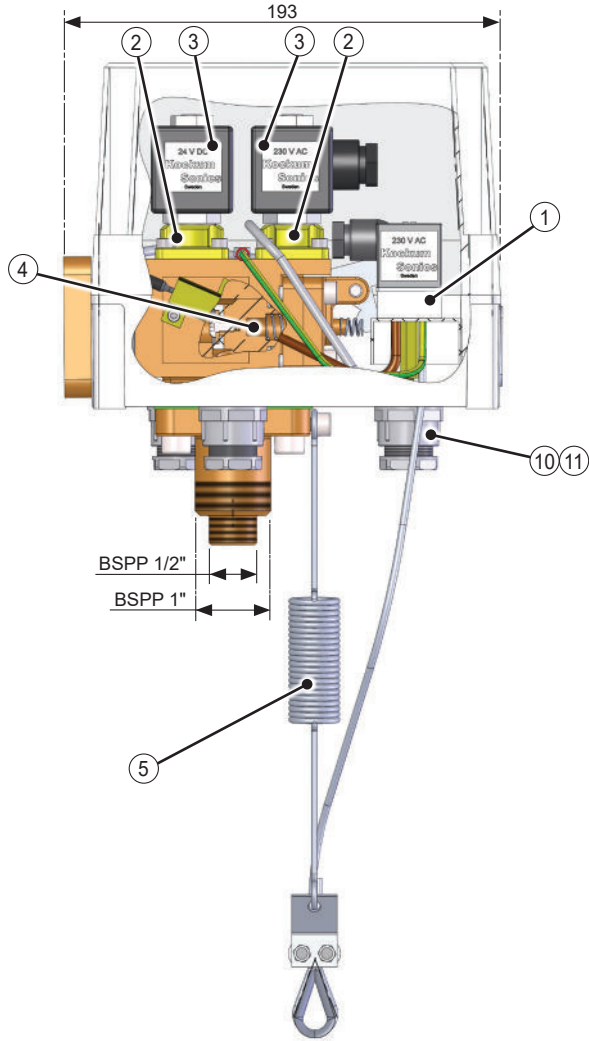
Picture 6.
Accessing heater unit



Picture 7.
Accessing piston



Wiring Diagram, Spare Parts and Dimensions



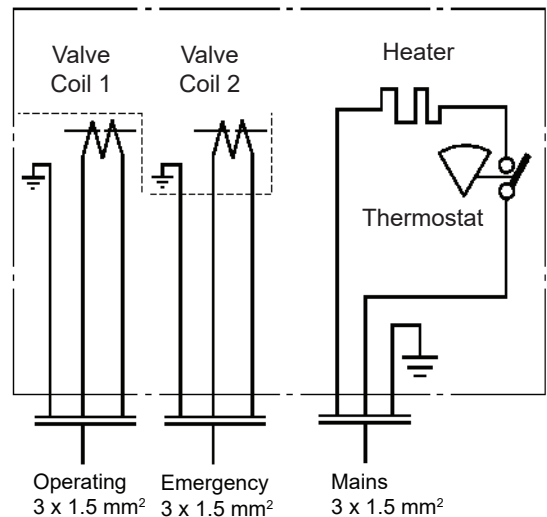
All units in mm

Spare Parts TV 784		
Item	Name	Ref. no.
*	Complete Valve unit	
1	Heating Complete	
	230VDC	24800072
	115VDC	24800073
	24VAC	24800074
2	Solenoid Valve Complete	
	230VAC	24510064
	115VAC	24510059
	24VDC	24510065
3	Solenoid Coil	
	230VAC	32170784
	115VAC	32170785
	24VDC	32170786
4 **	Piston Complete (including spring)	39880149
5	Lanyard device	24510042
6	Choke Flange	21800149
7	Screw insex M6x35	20801112
8	Box TV784	21800113
9	Cover TV784	24800021
10	Cable gland	20830066
11	Jam Nut	20830067

Spare parts can be obtained from Kockum Sonics or their agents.

* When ordering complete Valve unit, please state working pressure, voltages (main, emergency and heat) and which type of whistle to be used.

** Spare part recommended to be kept on board.



Wiring diagram



TEL: +31 (0) 10 4140411
Email: info@venteville.com
www.venteville.com

Kockum Sonics
Member of Kockumatation Group