



## MAKROFON YM75F/260-370 HVEF

The ZÖLLNER MAKROFON YM75F is a diaphragm sound transmitter operating on compressed air. The signal is released by an electromagnet.

Typically the MAKROFON YM75F will operate on air pressures between 4 and 10 bar. For electric release a connection to 230 or 115 V AC 1phase or 24 V DC power supply is required.

### Essentials

- » full compliance with the COLREG 1972 Annex III
- » type approved by all wellknown international authorities and classification societies

Application:

- » yachts and other vessels of class II (YM75F/260), (75 m but less than 200 m in length)
- » yachts and other vessels of class III (YM75F/370 and YM75F/260), (20 m but less than 75 m in length)

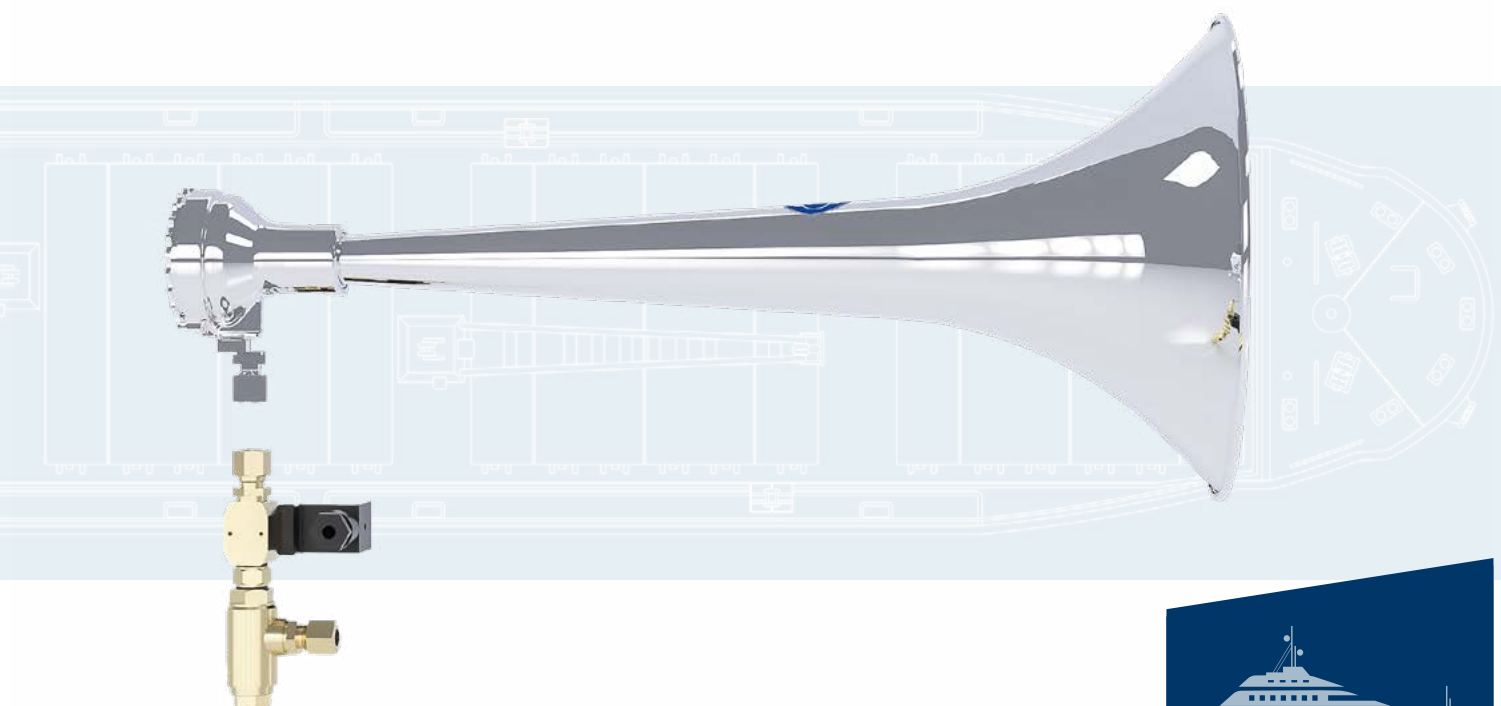
### Advantages

- » decades of experience
- » best material and workmanship - made in Germany
- » entirely made of best non-corrosion, seawater resistant materials

- » sound horn made of sheet-copper, chrome-plated or painted in RAL colour at buyer's option
- » easy exchange of all parts with onboard tools
- » easy installation – relatively low weight

### Sound Characteristics

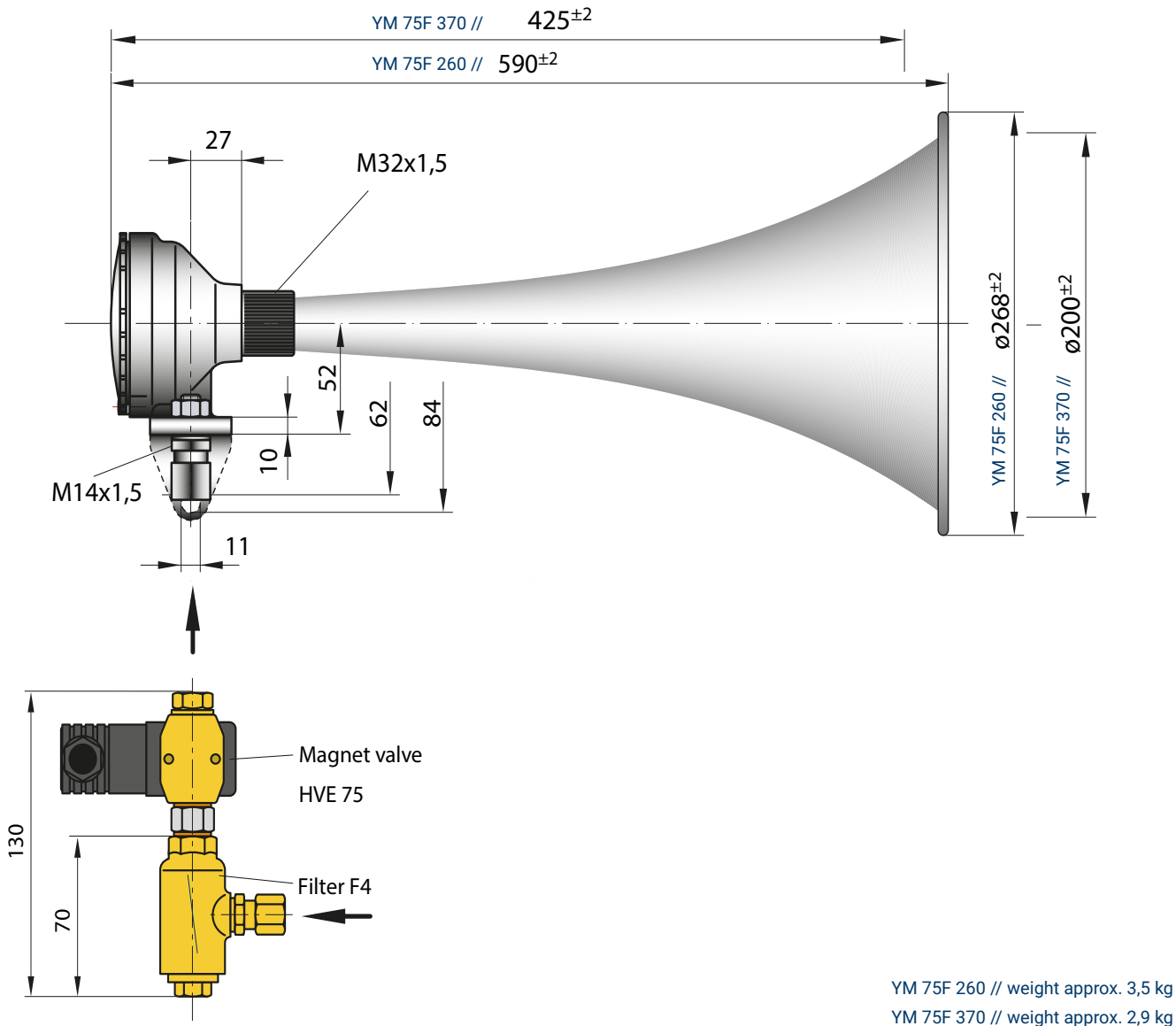
- » broad frequency spectrum with many higher harmonics
- » signals with strong over tones for best penetration of background noise level. Even when a background noise covers the actual basic frequency the residual tone forms a parent frequency in the human hearing. Two or three harmonics are sufficient for the hearing to perceive the basic frequency.
- » sound frequency of 260 / 370 Hz very advantageously ranks in the lower admissible range (class II 130-350 Hz, class III 250-700 Hz)
- » sound pressure level YM75F/260: 138 dB in 1/3rd-octave band level at 1 m distance for class II or class III
- » sound pressure level YM75F/370: 130 dB in 1/3rd-octave band level at 1 m distance for class III



## Technical information

### Positioning and installation

Position as high as practicable on the vessel to reduce interception of the emitted sound by obstructions and to avoid hearing damage risk to the personnel. The sound pressure level of a vessel's own signal at listening posts must not exceed 110 dB(A). Installation - compressed air supply pipe preferably of copper with a filter (type F4) preceding the Makrofon operating valve. Supply pipe must be free from any dirt particles and moisture.



TYPE	SHIP LENGTH	FUNDAMENTAL FREQUENCY	SOUND INTENSITY IN 1/3RD-OCT. BAND LEVEL AT 1 M	TYPE APPROVAL	AIR PRESSURE	AIR CONSUMPTION FREE, DRY AIR	AIR PIPE CONNECTION	SYSTEM VOLTAGE	PROTECTION TYPE
YM75F/370	20-<75 m	370 Hz	130 dB	✓	4-10 bar	8- 12 l/sec	10x1 mm	115 V AC 230 V AC 24 V DC	IP 56
YM75F/260	20-<200 m	260 Hz	138 dB	✓	4-10 bar	8-12 l/sec	10x1 mm	115 V AC 230 V AC 24 V DC	IP 56