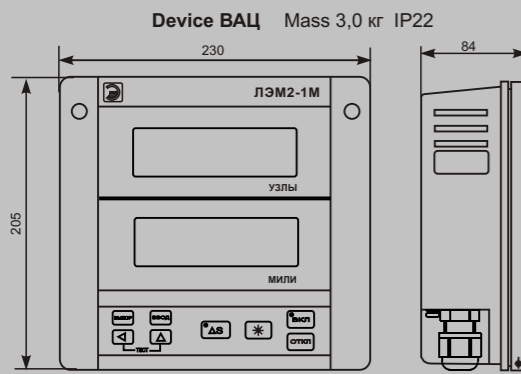
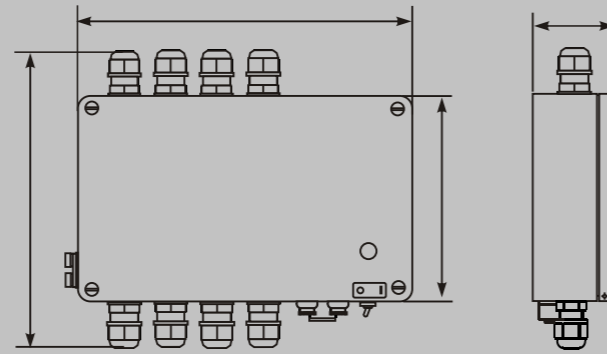


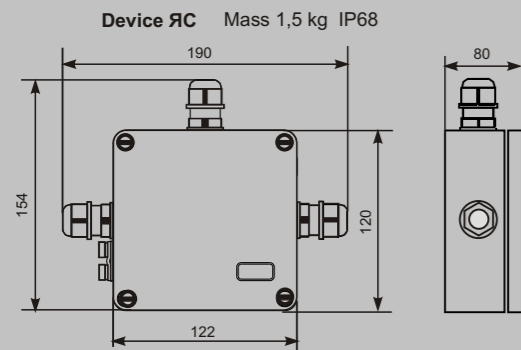
ELECTROMAGNETIC LOG LEM2-1M



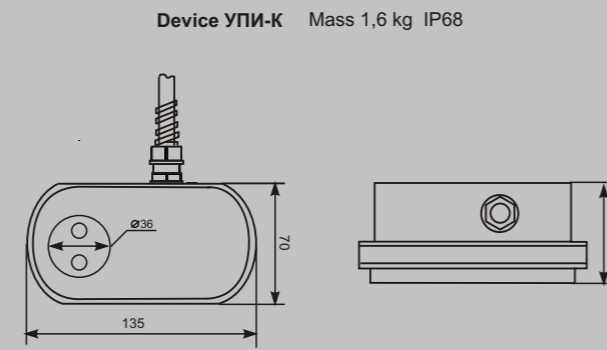
Primary device



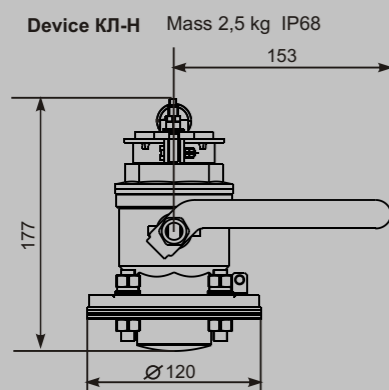
Receiver



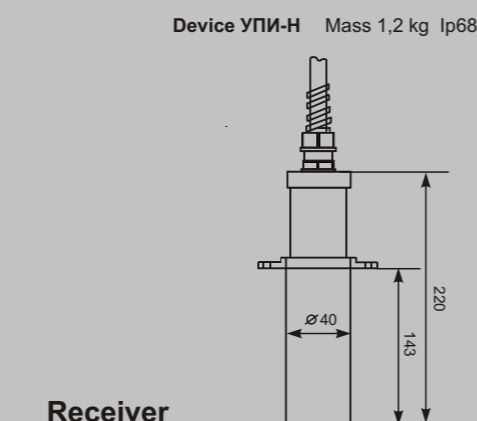
Junction box



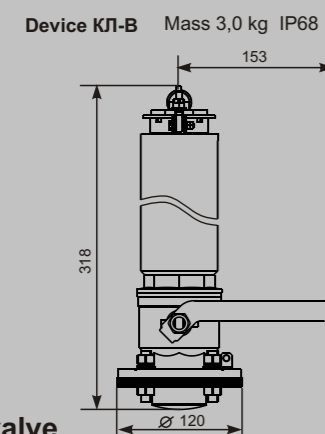
Receiver



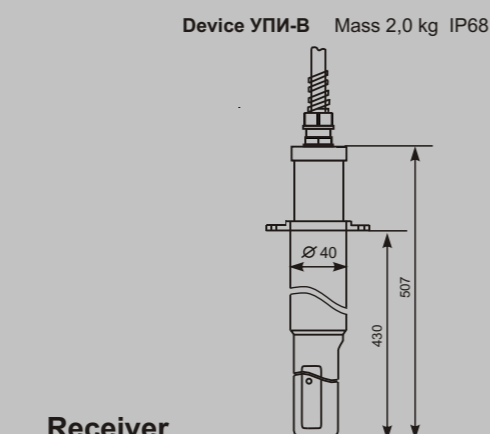
Gate valve



Receiver



Gate valve



Receiver

- Speed measurement up to 60 kt
- Operation in conditions of water aeration, broken ice, snow and ice slush
- Primary device installation in the steersman console and on the bulkhead
- Data display on two six-bit LED indicators with 20 mm high digits
- Three types of induction receivers for different conditions of operation onboard displacement-type and hydrofoil vessels
- Cable routing between the receiver and the primary device up to 110 m long
- Semiautomatic input of corrections during alignment
- Digital interface for communication with shipborne systems

The article satisfies the requirements of the Russian Maritime Register of Shipping

Log LEM2-1M is intended for measuring relative speed of displacement-type and hydrofoil vessels. Log LEM2-1M is a developed modification of electromagnetic logs of LI2-1, LEM2-1 type designed in CSRI ELEKTROPRIBOR.

Three basic modifications of the log are available – LEM2-1MN, LEM2-1MV, LEM2-1MK, which differ in types of induction receivers and the ways of their installation onboard the ship.

In log LEM2-1MN the induction receiver is installed onboard the ship in the gate valve flush with the ship's bottom. The small diameter and the way of installing the receiver in the gate valve ensure high level of its protection against mechanical damage when sailing in shallow water and in broken ice.

In log LEM2-1MV the induction receiver is installed onboard the ship in the gate valve with 150 mm projection from the ship's bottom. This modification is recommended to be used onboard ships sailing in water areas with active biological fouling of the ship's hull.

In log LEM2-1MK the induction receiver is fixed on the stationary part of the hydrofoil vessel wing. Such mounting ensures depth measurement both in displacement condition and during takeoff.

The construction design of receivers and digital processing of their signals provide generation of speed data by the log when the ship is sailing in broken ice, snow and ice slush and water aeration at the receiver location.

Besides the log provides for:

- measurement of effective covered distance;
- measurement of average speed at the effective section;
- input of corrections during alignment.

The log is equipped with a semiautomatic fault monitoring system.

Data output by digital interfaces is provided for communication with shipborne systems.

Repeaters of speed and covered distance installed in enclosed service spaces and on the open deck can be supplied in addition to the log.

SPECIFICATIONS

- Speed measurement rangefrom - 6 to 60 kt
Instrumental error
of speed measurement does not exceed:
at speed from - 6 to 50 kt± 0.1 kt
at speed more than 50 kt± 0.15 kt
- Computation range
for covered distance0.0 - 9999.9 miles
calculation error.....0.1%
- Interfaces:
- IEC61162-1 (NMEA 0183 version 2.2).....VMVBW, VMVLW
- 200 pulses per a mile,
- 200 closures of relay contacts per a mile
- Power consumption
mains ~ 50 Hz 220 V.....no more than 20 W
mains = 24/27 V.....no more than 20 W
- Range of operating temperatures.....from -15 to +55C

Basic modifications (complete sets):

LEM2-1MN		LEM2-1MV		LEM2-1MK	
Device ВАЦ	1	Device ВАЦ	1	Device ВАЦ	1
Device ПК-Л	1	Device ПК-Л	1	Device ПК-Л	1
Device ЯС	1	Device ЯС	1	Device ЯС	1
Device УПИ-Н	1	Device УПИ-В	1	Device УПИ-К	1
Device КЛ-Н	1	Device КЛ-В	1		

Devices supplied in addition:

- Device РСЦ – digital speed repeater for installation in enclosed service spaces.
- Device РСЦП – digital speed repeater for installation on the open deck.
- Device РКЦ – digital repeater of speed and covered distance for installation in enclosed service spaces.

