ADDRESSABLE MANUAL RELEASE STATION
UDP 513-3AM

ИСО 9001

INSTRUCTION MANUAL

1 TECHNICAL DATA

1.1 General

UDP 513-3AM Addressable Manual Release Station (hereinafter referred to as the UDP) is used with an S2000-KDL or S2000-KDL-2I polling loop controller within an Orion integrated security system in order to release the agent discharge manually.

The UDP is powered and communicates data with the controller over the controller's Polling Loop (hereinafter referred to as the PL). The UDP supports DPLS_v2.xx Multiplex Addressable Polling Loop Protocol enabling monitoring addressable loop voltage at the detector's location. The design of the UDP meets the requirements of the Category "B" of Russian Standard ГОСТ Р 53325-2012.

The version of UDP firmware is 1.10. The UDP is equipped with a built-in short circuit isolator (SCI). The UDP is intended for round-the-clock operation.

1.2 Specifications

1)	Input Polling Loop Voltage	- 8 V ÷ 11 V
2)	Consumed Current	- 0.6 mA max
3)	Consumed Current (Active BRIZ)	- 3 mA max
4)	Pre-operation Time	- 15 s max
5)	BRIZ Activation Time	- 0.2 s max
6)	Ingress Protection Rating	- IP20
7)	Category of ГОСТ Р 53325-2012	- B
8)	Operating Temperatures	- Minus 30°C to +55°C
9)	Relative Humidity	- Up to 93% at 40°C
10)	Transportation and Storage Temperatures	- Minus 50°C to +55°C
11)	Overall Dimensions	- 94 mm × 94 mm × 54 mm
12)	Weight	- 0.2 kg max

13) Content of precious materials: not subject to inventory accounting in case of storage, disposal and recycling (Clause 1.2 of Russian Standard GOST 2.608-78)

14) Content of nonferrous materials: not subject to inventory accounting in case of storage, disposal and recycling

1.3 Standard Delivery

For an *individual* delivery:

– UDP 513-3AM	- 1 pc.;
– Instruction Manual	- 1 pc.;
– Special Key	- 1 pc.;
– Woodscrew 3.5×20	- 2 pcs.;
– Woodscrew 3×13	- 2 pcs.;
– Wall Plug 7×22	- 2 pcs.;
– Lead Seal	- 3 pcs.;
– ∅0.25 mm Copper Wire	- 3 pcs.;
– Package	- 1 pc.

For a *group* delivery:

– UDP 513-3AM	- 10 pc.;
– Instruction Manual	- 1 pc.;
– Special Key	- 10 pcs.;
– Woodscrew 3.5×20	- 20 pcs.;
– Woodscrew 3×13	- 20 pcs.;
– Wall Plug 7×22	- 20 pcs.;
– Package	- 10 pc.;
– Lead Seal	- 30 pcs.;
– ∅0.25 mm Copper Wire	- 30 pcs.;
– Group Package	- 1 pc.

2 OPERATION INSTRUCTIONS

2.1 Using the UDP

Figure 1 shows (from left to right) the schematic for connecting the UDP into the PL and wiring diagrams for ring, tree, and mixed loop topologies respectively. The built-in BRIZ is symmetrical. The contacts 2 and 4 ("+PL") are isolated from each other while contacts 1 and 3 ("-PL") are coupled.

In PLC configurations the input type for the UDP is set to the value "**18**" - "**Remote Release**". To provide actuation of the fixed fire-fighting system, link the UDP with outputs of the system and select the relevant control programs. The input type also can be set to "**6**" – "**Auxiliary**" or "**16**" – "**Auxiliary**". To get more information about configuring, control programs, and input types please refer to the manuals of PLC, S2000M panel, or Orion Pro Suite.
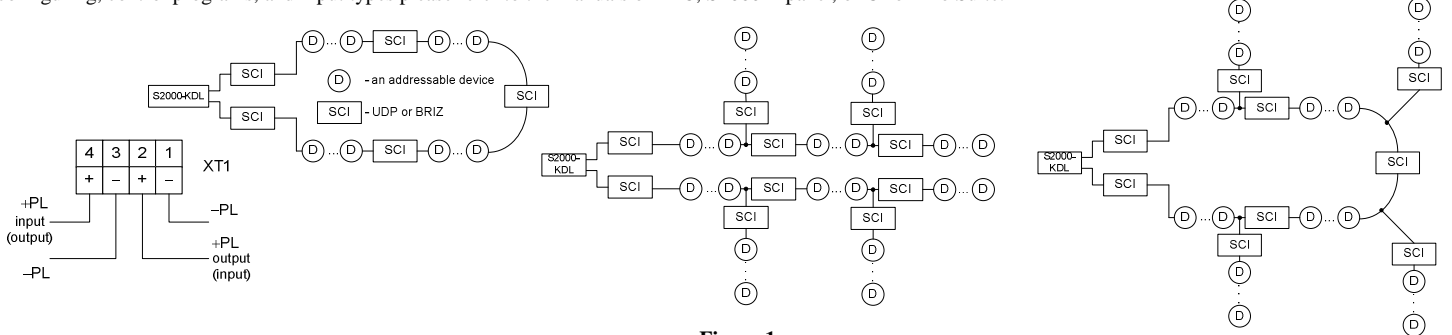

Figure 1

To get access to the actuator (keybutton), lift the transparent cover sealed with the copper wire (the wire will be broken) and actuate the release station by pushing the keybutton located behind the cover.

2.2 Mounting

The disassembled UDP is shown in in Figure 2. The UDP is to be mounted using the two screws to a flat vertical surface in accordance with your applicable local standards, codes, regulations, and ordinances. The installation order is as follows.

Attach the base (3) with two woodscrews (7) to the wall. Then remove the front cover (1) from the central frame (2) and thread the wire (8) through the two lower holes of the central frame. Next, connect the wires passed within the base to the terminal block on the rear side of the central frame and fasten the last one to the base with two woodscrews (6). The assembled unit appears as shown in Figure 3. Finally, put the front cover on the assembled unit threading the wire ends through the key hole of the first one. One of the wire ends should be passed through the hole in the transparent cover. Run the wire ends through the lead seal, twist the wire ends together placing the twist within the seal, and seal the UDP by special sealing pliers. After sealing the seal should be located not far then 15 mm from the cover as shown in Figure 4 to avoid unauthorized actuation of the UDP without breaking the wire.

Do not use wires other than copper wire of 0.25 mm in diameter.

1: Front cover;
2: Central frame;
3: Base;
4: Transparent cover;
5: Special key;
6: Woodscrews 3×13;
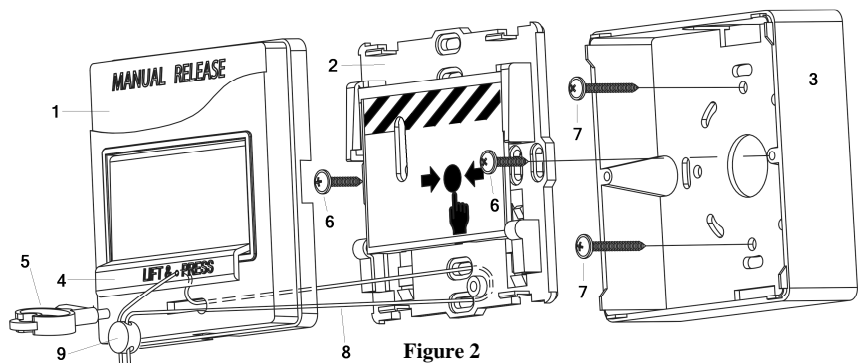7: Woodscrews 3.5×20;
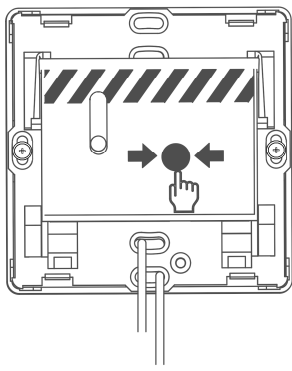8: Copper wire 0.25 mm;
9: Lead seal.

Figure 2

Figure 3

15 mm max

Figure 4

2.3 Max Number of UDP to Be Brought into a Polling Loop

Due to the UDP's being equipped with a built-in short circuit isolator the number of these manual release stations and other similar addressable devices with built-in short circuit isolators cannot exceed 80 devices per a single polling loop.

2.4 LED Indication

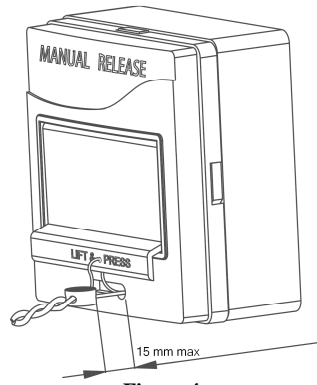| LED Performance	Condition (Event)
Flashes every 4 seconds	OK
Flashes twice every 4 seconds	UDP is activated (the keybutton is pressed)
Flashes four times every 4 seconds	Programming

2.5 Setting a Poling Loop Address

The UDP provides storing its PL address in its non-volatile memory. The address can be assigned in the range of 1 to 127. The factory address value is 127.

In order to assign a polling loop address to the UDP, send one of the following commands from the S2000M panel or the connected personal computer to the PLC:

Set the Device Address

If the UDP address is unknown or two devices have the same address then use the *Set Device Address* command specifying a required address as the parameter. When the UDP receives the command its LED starts flashing four times every four seconds. Then, within 5 min activate the UDP twice (with the duration of pushing of 0.5 s to 3 s and the pause between presses of 0.5 s to 4 s). Verify that a message about detecting the device with the newly assigned address is displayed by a network controller (S2000M) or UProg Configuration Tool.

Change the Device Address

Use the *Change Device Address* command specifying the old device address and the new device address as the parameters (see more information in the referred Manuals). The network controller will display the messages about disconnecting the device with the old address and then detecting the device with newly set address.

The address also can be set using an S2000-APA standalone addressable device programmer.

2.6 Routine Testing

2.6.1. Before testing the manual station, please disconnect executive outputs of all system devices and modules that can release an extinguishing agent. Notify the proper authorities that the system is undergoing maintenance.

2.6.2. Remove the lead seal from the protective cover of the UDP.

2.6.3. Arm the manual release station by means of the S2000M panel or the PC.

2.6.4. Activate the UDP by pressing on the keybutton. Verify that the UDP's LED flashes twice every four seconds indicating activation of the manual release while the network controller displays a Manual Release message for the address of the UDP.

2.6.5. Reset the UDP to its Norm state by inserting the special key provided (5 in Figure 2). Verify the UDP LED starts flashing once per 4 s. From the panel or PC issue a command to cancel the alarm sent by the UDP.

2.6.6. If no Manual Release messages have been received by the network controller, it means that the UDP is defective and must be replaced.

2.6.7. Repeat steps 2.6.3 - 2.6.5 three times or more.

2.6.8. Check activation of the built-in short circuit isolator (BRIZ). To do so, couple a "-PL" contact of the XT1 contact block with the contact 2 ("+PL"). If tree topology is in use, the network controller shall display messages about missing the addressable devices which are connected father than the UDP. If, otherwise, ring topology is in use, the network controller shall display messages about missing the addressable devices which are between the UDP and the next device with a short circuit isolator, without disconnecting the UDP itself. Then disconnect the contacts "+PL" with the number 2 and "-PL". Verify the network controller indicates detecting the devices which were disconected before. Next, repeat this step for the contact 4 ("+PL") and the contact "-PL". Avoid coupling the contacts "-PL" and "+PL" which are connected directly to the PLC output.

2.6.9. After testing, verify that the UDP is ready to operate properly. Then restore operability of all the system components disconnected before testing and seal the UDP as described in 2.2. Finally, notify the proper authorities that the system is back in operation.

2.6.10. Inspect activation of the UDP at least twice per year. **All the equipment used in testing must be known functioning.**

3 MAINTENANCE

The UDP should be maintained at least annually by specialists having at least third electrical safety qualification level.

Maintenance works shall include:
– Ensuring the UDP casing is not damaged and wire terminals are fastened properly;
– Removing dust, debris, and corrosion from the contact connections and the casing of the UDP;
– Testing operability of the UDP as discussed in Section 2.6 of this manual.

4 WARRANTY

4.1. The average lifetime of the UDP 513-3AM is at least 10 years.

4.2. The manufacturer warrants its product to be free from defects in materials and workmanship under normal use and service for 18 months since putting it into operation, but no more than 24 months since the acceptance date.

4.3. If you have any problems with configuring and operating the UDP please contact the technical support by phone **+7 495 775-7155** or by email **support@bolid.ru.**

4.4. While sending the product for repair please apply a report describing the potential failure.

Claims should be submitted to the address: ZAO NVP Bolid, 4 Pionerskaya Str., Korolev 141070, Moscow Region, Russia.

Phone/fax: +7 495 775-7155 (PBX)   **E-mail:** info@bolid.ru,   **Technical Support:** support@bolid.ru, http://bolid.ru

5 CONFORMITY CERTIFICATES

5.1. UDP 513-3AM is approved by Conformity Certificate № C-RU.ЧС13.В.00911.

5.2. Conformity Declaration TC № RU C-RU.ME61.B.01548 certifies that UDP 513-3AM meets the requirements of Technical Regulations of Custom Union TR CU 020/2011.

5.3. UDP 513-3AM is a part of Orion Addressable Fire Alarm System which is approved by Conformity Certificate № BY/112 02.01.033 00573.

5.4. Production of UDP 513-3AM is certified in line with Russian ГОСТ Р ИСО 9001-2015 by a Conformity Certificate № СДС.ВСМ1.0106.CMK.29.08.18.

6 ACCEPTANCE CERTIFICATE

UDP 513-3AM addressable manual release stations (the serial numbers are inside their cases) are accepted in accordance with mandatory requirements of state standards and current technical documentation, qualified as proper for operation and packaged by CJSC NVP "Bolid".

Responsible for acceptance and packaging

QCD   _____   _____

Full Name   Date, Month, Year