

The NDT series LED displays are designed particularly for displaying psalm and hymn numbers during religious services. They can also be used in other applications, as versatile remote-controlled numerical displays.

Features

- Wireless control of a display with a hand-held infrared (IR) control from up to 15 m;
- Wireless control of a display through a radio (RF) repeater from up to 50 m;
- Direct input of a number (3 to 4 digits, according to the display format);
- Possibility to display some characters of the alphabet (A, b, C, d, E, F, H, P, U, -, space, decimal point);
- Simple increase/decrease of a number with cursor keys (up/down arrows);
- Alternating display of a hymn and verse numbers;
- Memory for 30 numbers (possibility to prepare the numbers of hymns in advance for the whole service);
- Simple displaying of numbers stored in the memory with cursor keys (up/down arrows);
- 2 adjustable brightness levels for a day/night mode, switched with a single button;
- Adjustable period of alternating display of a hymn and a verse number in seconds;
- Possibility of mutual interconnection of up to 32 devices (displays and an RF repeater) with a 2-wire cable through a serial interface RS485;
- Unlimited number of displays controlled by a radio signal from an RF repeater.

The technical solution of the NDT series of displays and its accessories has been designed with consideration of their usage in simple applications with a single display, or in large-scale systems with several displays. The versatility of the solution allows creating a required final system by gradual extension, not just in terms of the number of connected displays, but also in terms of their control.

Technical specifications

	NDT 57/3	NDT 57/4	NDT 100/3	NDT 100/4	NDT 160/3
Height of characters	57 mm		100 mm		160 mm
Number of digits	3	4	3	4	3
Format	8.8.8.	8.8.8.8.	8.8.8.	8.8.8.8.	8.8.8.
Readability range	approx. 23 m		approx. 40 m		approx. 70 m
Type of displaying elements	7-segment superbright LEDs				diffused LED Ø5 mm
Inputs/Outputs	input – output for serial communication RS485, IR remote control receiver, possibility to equip the IR receiver with an antenna (RF kit)				
Power supply	AC mains adapter 230 VAC/12 VDC, 0.5 A				
Protection class	IP 30				
Operating temperature	-5 ÷ +40°C				

In the simplest setup, all that is required is a single display and a single IR remote control. Such a combination is suitable for small churches, where the maximum direct distance between the display and the operator does not exceed 15 m. In larger churches and cathedrals, where the distance from which the displays are controlled is longer, it is possible to use the advantage of wireless transmission by means of an RF repeater. The RF repeater is also controlled by an IR remote control, while it increases the range of the remote control by a radio signal transmission (see figures with setup schemes). This solution substantially simplifies and shortens the time of installation of displays, which eventually leads to decreased costs.

In case a 2-wire cable is already available for some reason, the RF repeater allows connecting up to 31 displays to such a cable. The length of this cable may be up to hundreds of meters. The displays may be interconnected also between each other, while one of them (set as a master) receives control commands (either from an IR remote control or from an RF repeater).

Good readability in different light conditions is secured by the ability to set the displays' brightness.

The ELEN company lays strong emphasis on the design and workmanship of our products. This is the reason why the frames of these displays are made of round aluminium profiles with a special surface finish. The displays are normally supplied in matt platinum grey, or in dark gold colours. Other colours (glossy white, silver matt, or white, black matt, or other) are also available on special order.

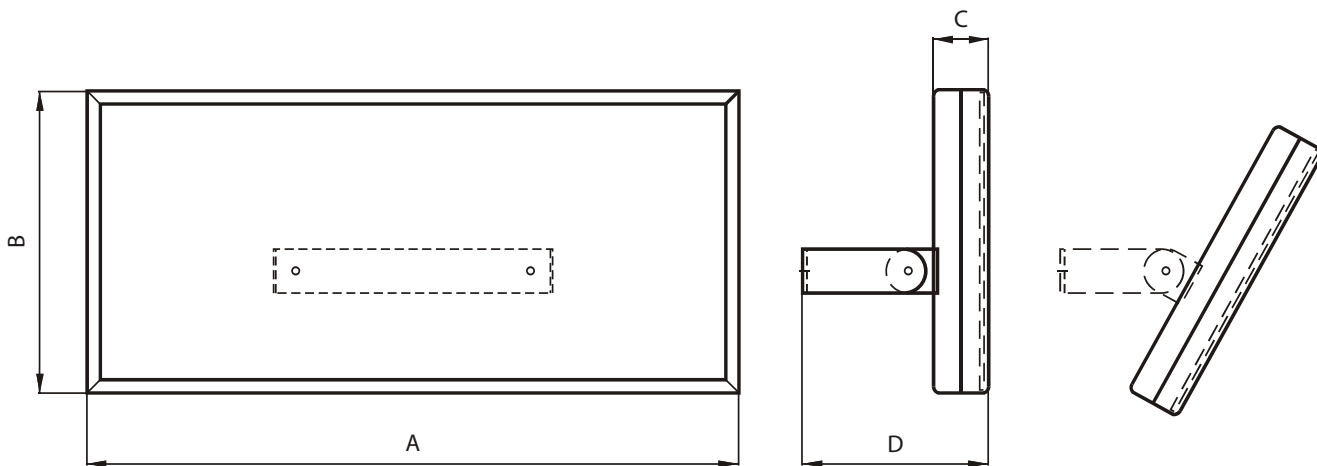
Standard accessories

- AC mains adapter;
- Installation holder.

Optional accessories

- Handheld IR control (up to 15 m);
- RF repeater with a control display, AC/DC mains adapter;
- RF kit for the extension of the display with radio signal receiver from the RF repeater (RF receiver, antenna).

Dimensions of NDT series displays



TYPE	A	B	C	D
NDT 57/3	228	154	38	127
NDT 57/4	276	154	38	127
NDT 100/3	354	206	38	127
NDT 100/4	444	206	38	127
NDT 160/3	478	273	38	127

Setup options and control of NDT series displays

A specific method of controlling NDT series displays depends on the operator's position and the distance between that position and a display. In the case of a shorter distance (approx. up to 15 m) and direct visibility of the display from the place of control, a handheld IR remote control is sufficient. If the distance is longer, or if the display is not in direct visibility of the operator, it is necessary to use an RF repeater to secure wireless transmission of data from the handheld IR remote control to the displays. The repeater, however, can also be directly connected to displays through a 2-wire cable (RS485).

In the case of the control of several displays through radio transmission from an RF repeater, it is not necessary to interconnect the displays.

Individual options of possible setups are shown in the following figures:

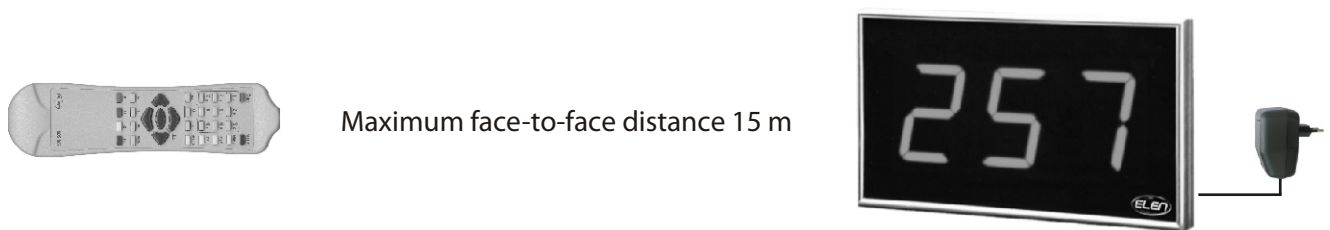


Fig. 1/ The most simple control of a display with an IR control form a shorter distance



Fig. 2/ Remote control of displays from a longer distance with an IR remote control and an RF repeater

NDT Series

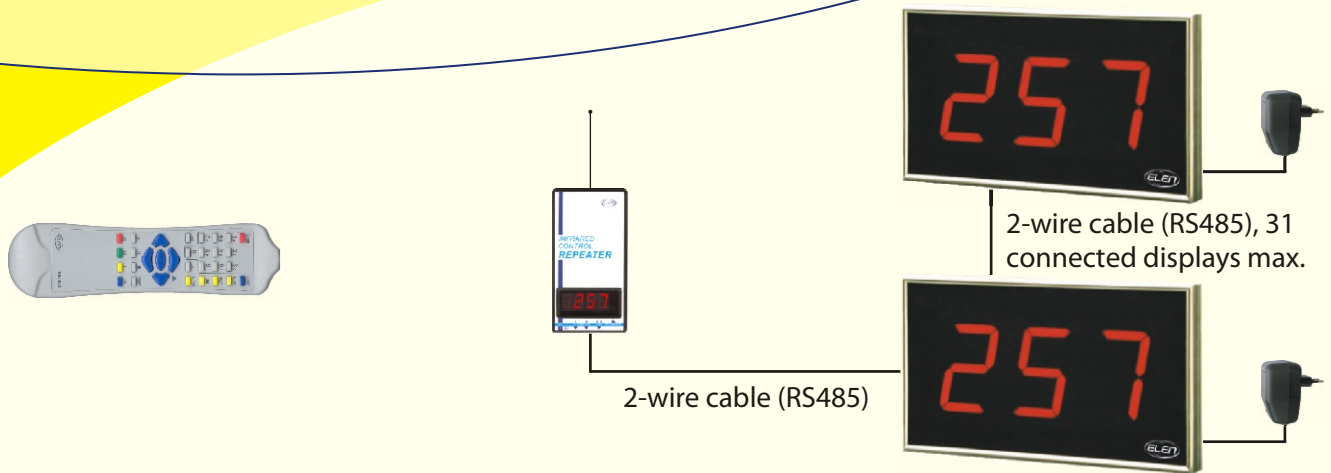


Fig. 3/ Remote control of displays via an RF repeater and an RS485 cable interconnection

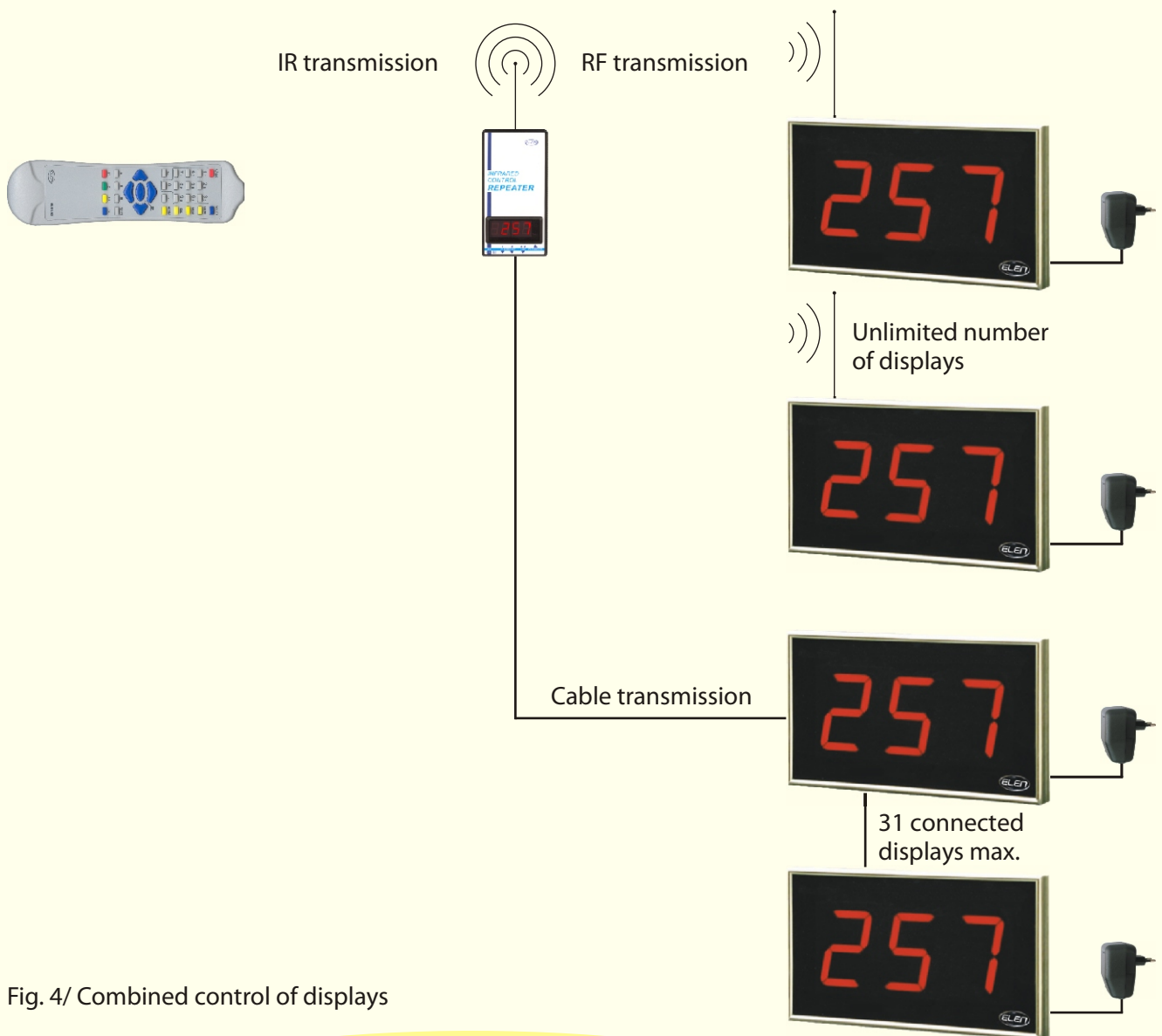


Fig. 4/ Combined control of displays