

FRD-57

Remote Display LED

Technical Manual



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Table of Contents

- 1 Safety Instructions..... 2
- 2 Introduction 3
- 3 Specifications 3
- 4 Installation..... 4
- 5 Electrical Connections..... 4
- 6 Connection Examples 5
 - 6.1 FRD-57 and FT-1x / FT-10 / FT-11x..... 5
 - 6.2 FRD-57 and DAD14x.x / DAS72.1 / LDUxx.x..... 5
- 7 Dimensions 6

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1 Safety Instructions



CAUTION: READ this manual BEFORE operating or servicing this equipment. FOLLOW these instructions carefully. SAVE this manual for future reference. DO NOT allow untrained personnel to operate, clean, inspect, maintain, service, or tamper with this equipment. ALWAYS DISCONNECT this equipment from the power source before cleaning or performing maintenance.

CALL Flintec for parts, information, and service.



WARNING: Only permit qualified personnel to service this equipment. Exercise care when making checks, tests and adjustments that must be made with power on. Failing to observe these precautions can result in bodily harm.



WARNING: For continued protection against shock hazard connect to properly grounded outlet only. Do not remove the ground prong.



WARNING: Disconnect all power to this unit before removing the fuse or servicing.



WARNING: Before connecting/disconnecting any internal electronic components or interconnecting wiring between electronic equipment always remove power and wait at least thirty (30) seconds before any connections or disconnections are made. Failure to observe these precautions could result in damage to or destruction of the equipment or bodily harm.



CAUTION: Observe precautions for handling electrostatic sensitive devices.

2 Introduction

The Remote Display Type FRD-57 in the wall housing can be used in many weighing applications, where good readability is required.

The following Flintec devices are supported:

- FT-1x, FT-10 und FT-11x
- FT-0x
- DAD72.1, DAD141.1

The remote display is characterized by low power consumption.
The device has very bright LEDs and wide reading angel, the 6 digits display is 57mm.
The communication can be chosen via serial port: RS232, RS485 or 20mA current loop.

The remote display is designed in a stainless-steel housing, IP65.

3 Specifications

Display	
Display	6 digits, red LED-7-segments, 57 mm
Point	adjustable, between every digit
Polarity	minus sign
Memory	serial EEPROM
Communication	
Serial Port	RS232, RS485, or 20mA current loop
	Baud rate adjustable with DIP-switches: 1200, 2400, 9600, 19600 baud
	Data Bits adjustable with DIP-switches
Power Supply	
	230 VAC; +/-20%; 50...60Hz
Power Consumption	max. 7W
Environment	
Operation Temperature	-20°C...+50°C
Storage Temperature	-10°C...+70°C
Humidity	90% RH max, non-condensing
Enclosure	
Material	Stainless steel
Protection Class	IP65
Dimensions:	365 x 130 x 75

4 Installation

Open the rear wall and choose the required connection. The serial connection can be established over RS232, RS485 or 20mA current loop. Only one of the connections can be used at the same time. The connections of the unused interfaces must not be connected.

There are two jumpers next to the connection terminal. These are used to select the serial interface.

The communication parameters of the selected interface can be changed via S1 DIP-switch

5 Electrical Connections

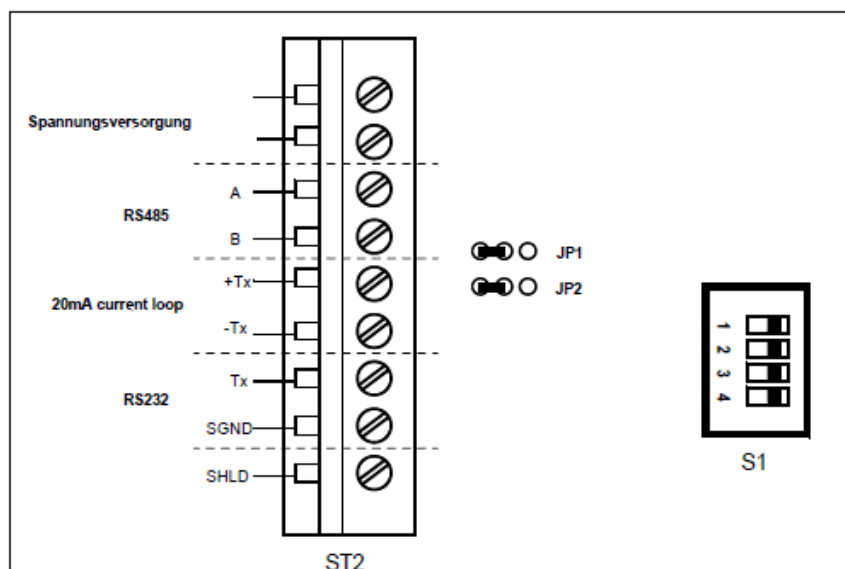


Figure 1

Settings DIP Switch (S1)

Baud rate	1200	2400	9600	19200
Dip SW (on)	---	1	2	1,2

Device	FT-1x, FT-10, FT-11x	FT-0x / LDU, DAD14x.x, DAS72.1	FT-0x
Data	N,8,1	N,8,1	E,7,1
Dip SW (on)	3	3	---

Operation mode (Jumper JP1, JP 2)

RS-232	20mA cur.Loop	RS-485
<div> <div>○ ○ ○ JP1</div> <div>○ ○ ○ JP2</div> </div>	<div> <div>⏏ ○ JP1</div> <div>⏏ ○ JP2</div> </div>	<div> <div>○ ⏏ JP1</div> <div>○ ⏏ JP2</div> </div>



Figure 2

6 Connection Examples

6.1 FRD-57 and FT-1x / FT-10 / FT-11x

- Operation port: RS232
- DIP Switch S1 (ON): 2, 3, 4 (=9600, 8N1)
- Jumper:



- PIN connection:

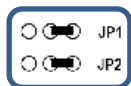
FT-1x, FT-10, FT-11x	Signal	FRD-57
Pin 2 / TxD	TxD	Tx
Pin 7 / GND	GND	SGND

- FT-1x and FT-11x Settings for RS232 Port

Parameter FT-1x	Parameter FT-10	Parameter FT-11x	Explanation
[000 1]	[000 1]	[111 CONST] Format: SARTOR	Continuously
[001 3]	[001 3]	[112 9600]	9600 Baud
[002 0]	---	---	No Handshake
[003 00]	[003 00]	[119 00]	Adres 0
[004 0]	[004 0]	[113 8]: [114 NO]	8, N, 1
[005 1]	[005 1]	[115 NO]	Check sum
---	[006 1]	[116 YES]	Carriage return
---	[007 0]	[117 NO]	Line Feed

6.2 FRD-57 and DAD14x.x / DAS72.1 / LDUxx.x

- Operation port: RS485
- DIP Switch S1 (ON): 2, 3 (=9600, 8N1)
- Jumper:



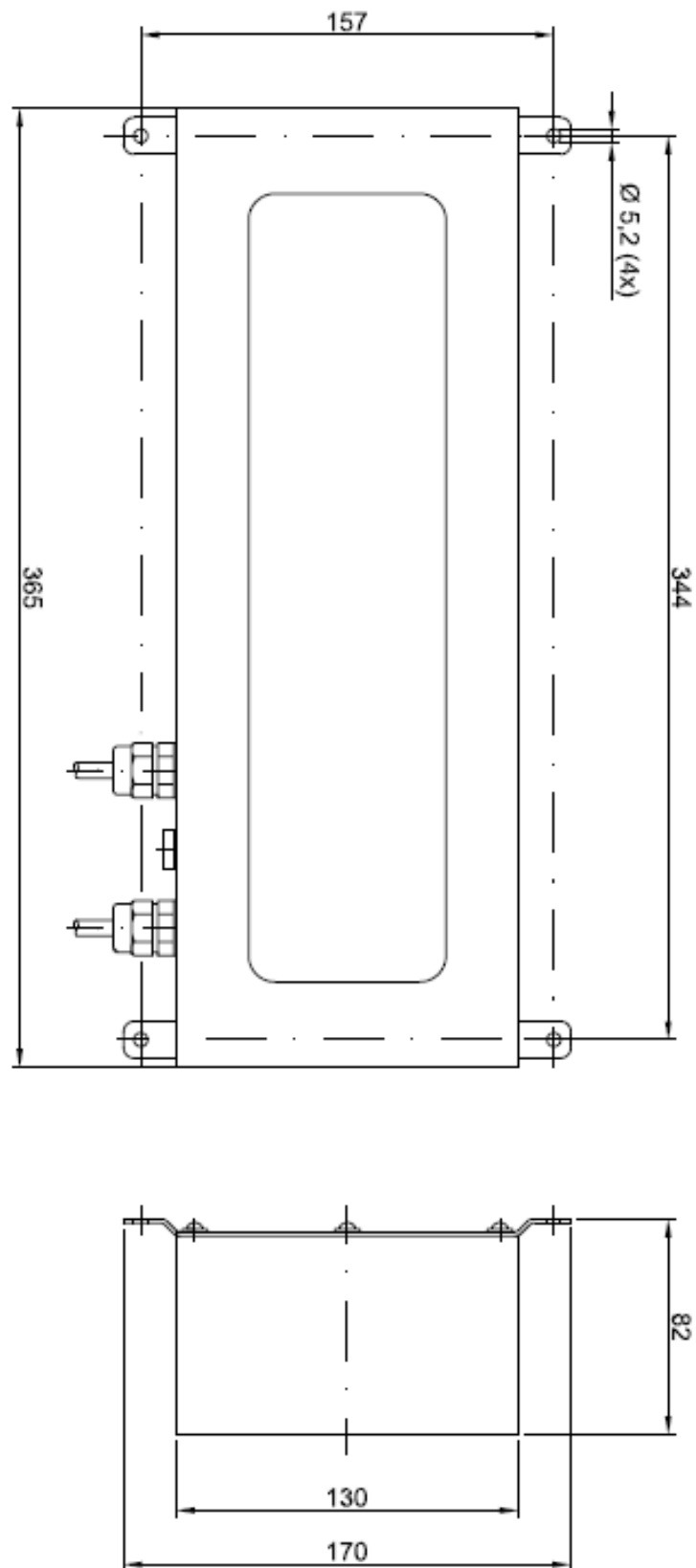
- PIN connection:

DAS, DAD, LDU 72.1, 14x.x, xx.x	Signal	FRD-57
Tx+	Tx+	A
Tx-	Tx-	B

- DAD14x.x; DAS72.1, LDUxx.x Settings for RS485 Port

Parameter	Explanation
Baud rate	9600
Ser. Port	485
Adres	0

7 Dimensions





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