![EKF logo]
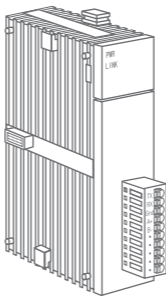
TECHNICAL MANUAL
Interface module
PRO-Logic EKF

1 DESCRIPTION

The interface modules for the programmable controller PRO-Logic are designed to expand the number of inputs/outputs and connect RS-232/RS-485 interfaces (to F200 only). The interface modules for the programmable controller PRO-Logic comply with IEC 61131-2:2017.

2 TECHNICAL DATA

Table 1 - Power supply characteristics

Characteristics	Value
Voltage	24 V DC (20,4...28,8 V)
Power consumption	<4,8 W
Max. operating time with power failure	10 ms

Table 2 - Operation conditions

Characteristics	Value
Operating temperature	0...55 °C
Storage temperature	-20...+70 °C
Humidity	5...95% RH (no condensate)
Noise immunity	±2500 V AC, ±1000 V DC
Degree of protection	IP20

Table 3 - Interfaces

Characteristics	Value
Interface type	RS-232/RS-485
Number of interfaces	1
RS-232/RS-485 communication protocols	Modbus RTU, Modbus ASCII
Communication speed via RS-485	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200

3 EXPANSION MODULE VERSIONS

Table 4

Item code	Name
EMF-I-1RS	Interface module EMF 1RS PRO-Logic EKF

4 OVERALL DIMENSIONS
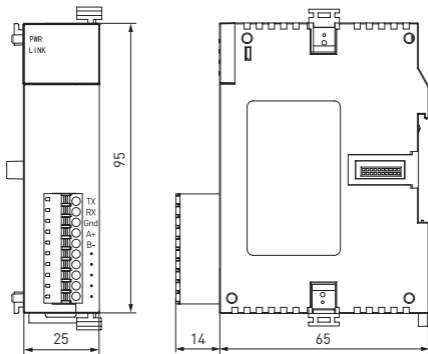

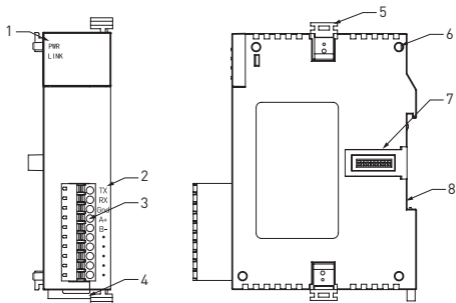Fig. 1 - Overall dimensions
of interface module

5 MAIN ELEMENTS

Fig. 2 - Main elements of interface module

1 – Indication panel
2 – Operating mode LED
3 – RS-232/RS-485 interface
4 – DIN rail mounting clamp
5 – Expansion module lock
6 – Holes for expansion module/controller connection
8 – Port for expansion module connection
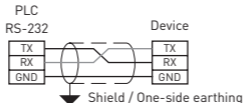9 – DIN rail mounting seat

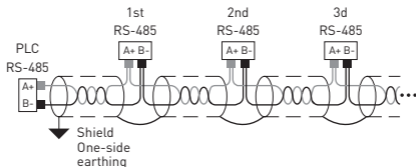**6 RS-232/RS-485 CONNECTION**

Fig. 3a - RS-232 connection

Fig. 3b – RS-485 connection

7 I/O SPECIFICATION

TX	RX	Gnd	A+	B-	•	•	•	•	•	•

8 INDICATION

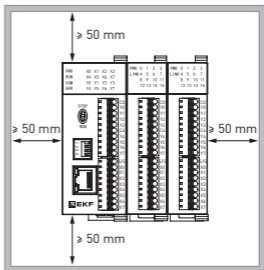**PWR:** power, green. Steady ON – power ON. OFF – power OFF.
LINK: communication status. Steady greed – module identified. Flashing green – communicating with controller. Flashing red – communication failed.

9 INSTALLATION AND CONNECTION

Install the programmable controller in the enclosed cabinet. Leave 50 mm gaps between the device and all sides of the cabinet for heat dissipation.

Mount the controller to a standard 35 mm DIN rail. Connect the programmable controller to the expansion modules concurrently via the built-in port (to the controller's right).

Power supply, input and output signals shall be connected with clamp terminals, max. wire cross-section of 1 mm^2.

WARNING! Follow the sequence for connecting the expansion modules to the controller! The interface modules shall be installed first in line.

10 DELIVERY SCOPE

Interface module - 1 pc.

Terminal block for RS-232/RS-485- 1 pc.

Technical manual - 1 pc.

11 SAFETY REQUIREMENTS

Warning! Do not operate expansion modules with visual mechanical damage.

Expansion modules shall be operated and serviced only by qualified personnel.

Failure to follow the guidelines herein may result in severe injuries and equipment damage.

12 TRANSPORTATION AND STORAGE

The interface modules can be transported by any means of enclosed transport that ensures protection of packed products from mechanical and atmospheric impacts.

The expansion modules shall be stored in the original package indoors at the ambient temperature from –20° C to +70° C and relative humidity of max. 98% at +25°C.

13 DISPOSAL

Life-expired and failed products shall be disposed of in compliance with the laws and regulations in force in the territory of product sale.

To dispose of the product, send it to an authorized company for recycling in compliance with the national and local laws and regulations in force.

14 MANUFACTURER'S WARRANTY

The manufacturer guarantees the products comply with the declared characteristics, provided that the consumer follows the operation, transportation and storage conditions.

Warranty period: 3 years from the date of sale.

Shelf life: 3 years from the date of manufacture.

Service life: 10 years.

Manufacturer: for information, refer to the product package.

Importer and EKF trademark service representative:
EKF ELECTRICAL SOLUTION – FZCO, Dubai Silicon Oasis, DDP, Building A2, Dubai, United Arab Emirates.

Importer and EKF trademark service representative on the territory of the Russian Federation: OOO «Electroresheniya», Otradnaya st., 2b bld. 9, 5th floor, 127273, Moscow, Russia. Tel.: +7 (495) 788-88-15.

Importer and EKF trademark service representative on the territory of the Republic of Kazakhstan: TOO «Energoresheniya Kazakhstan», Kazakhstan, Almaty, Bostandyk district, Turgut Ozal st., 247, apt 4.

15 CERTIFICATE OF ACCEPTANCE

The interface module has been manufactured in compliance with laws and regulations in force and has been approved for operation.

Date of manufacture:
For information, refer to the product package.

Quality control stamp