Pulse NOT operation start, pulse NOT series connection, pulse NOT parallel connection

LDPI, LDFI, ANDPI, ANDFI, ORPI, ORFI

FX5S FX5UJ FX5U FX5UC

• LDPI: Rising edge pulse NOT operation start instruction

This instruction becomes conductive (ON) at OFF, ON and the falling edge (ON to OFF) of the bit device specified by (s).

• LDFI: Falling edge pulse NOT operation start instruction

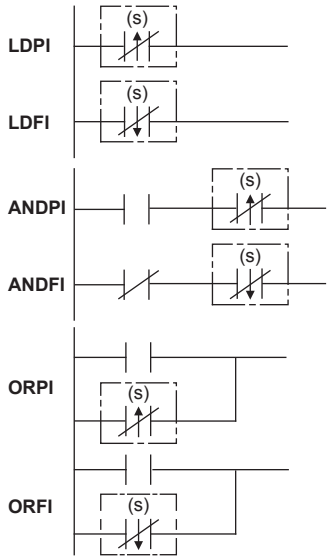
This instruction becomes conductive (ON) at the rising edge (OFF to ON), OFF and ON of the bit device specified by (s).

• ANDPI: Rising edge pulse NOT series connection instruction/ANDFI: Falling edge pulse NOT series connection instruction

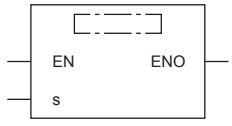
This instruction ANDs the bit devices specified by (s) with the operation result so far, and uses the result as the operation result.

• ORPI: Rising edge pulse NOT parallel connection instruction/ORFI: Falling edge pulse NOT parallel connection instruction

This instruction ORs the bit devices specified by (s) with the operation result so far, and uses the result as the operation result.

Ladder diagram	Structured text
	ENO:=LDPI(EN,s); ENO:=LDFI(EN,s); ENO:=ANDPI(EN,s); ENO:=ANDFI(EN,s); ENO:=ORPI(EN,s); ENO:=ORFI(EN,s);

FBD/LD



Setting data

■Descriptions, ranges, and data types

Operand	Description	Range	Data type	Data type (label)
(s)	Device used as a contact	—	Bit	ANY_BOOL
EN	Execution condition	—	Bit	BOOL
ENO	Execution result	—	Bit	BOOL

■Applicable devices

Operand	Bit	Word			Double word		Indirect specification	Constant			Others (DX)
	X, Y, M, L, SM, F, B, SB, S	T, ST, C, D, W, SD, SW, R	U□\G□	Z	LC	LZ		K, H	E	$	
(s)	○	○	○	—	○	—	—	—	—	—	○

Processing details

■LDPI, LDFI

- The LDPI instruction is the rising edge pulse NOT operation start instruction, and becomes conductive (ON) at OFF, ON and the falling edge (ON to OFF) of the specified bit device. When word devices are specified by bits, this instruction becomes conductive when the status of the specified bit is 0, 1, and when it changes 1→0.
- The LDFI instruction is the falling edge pulse NOT operation start instruction, and becomes conductive (ON) at the rising edge (OFF to ON), OFF and ON of the specified bit device. When word devices are specified by bits, this instruction becomes conductive (ON) when the status of the specified bit is 0, 1, and when it changes 0→1. The table below shows the ON/OFF information used by these instructions.

Device specified by LDPI, LDFI		LDPI status	LDFI status
Bit device	Bit specification of word device		
OFF to ON	0→1	OFF	ON
OFF	0	ON	ON
ON	1	ON	ON
ON to OFF	1→0	ON	OFF

■ANDPI, ANDFI

- The ANDPI instruction is the rising edge pulse NOT series connection instruction, and the ANDFI instruction is the falling edge pulse NOT series connection instruction. These instructions AND with the operation result so far, and use the result as the operation result. The table below shows the ON/OFF information used by these instructions.

Device specified by ANDPI, ANDFI		ANDPI status	ANDFI status
Bit device	Bit specification of word device		
OFF to ON	0→1	OFF	ON
OFF	0	ON	ON
ON	1	ON	ON
ON to OFF	1→0	ON	OFF

■ORPI, ORFI

- The ORPI instruction is the rising edge pulse NOT parallel connection instruction, and the ORFI instruction is the falling edge pulse NOT parallel connection instruction. These instructions OR with the operation result so far, and use the result as the operation result. The table below shows the ON/OFF information used by these instructions.

Device specified by ORPI, ORFI		ORPI status	ORFI status
Bit device	Bit specification of word device		
OFF to ON	0→1	OFF	ON
OFF	0	ON	ON
ON	1	ON	ON
ON to OFF	1→0	ON	OFF

Operation error

There is no operation error.