## RESIDUAL CURRENT RELEASE RELAY WITH CONVERTER

### RESIDUAL CURRENT RELEASE RELAY FIR







#### SCHRACK INFO

- Residual current release relay in combination with external corebalance transformers. Switch-off can be achieved with undervoltageand shunt voltage releases or a contactor.
- For dimensions, see page 712.

### **■** TECHNICAL DATA

Version corresponds to:	IEC 947-2, IEC 755, IEC 1008, IEC 1009				
Sensitivity:	Pulse current sensitive, type A				
Rated control supply voltage U <sub>s</sub> (V):	230 +/- 20% (50/60 Hz)				
Rated operational power P <sub>e</sub> (W):	3				
Relay contacts:	1 CO integrated				
Rated voltage of relay contacts:	250 V AC				
	100 V DC				
Rated current of the relay contacts:	6 A				
Rated residual currents:	FIR-003	l△n	А	0.03	
	FIR-03	l△n	А	0.3	
	FIR-5	l△n	А	0.03 - 0.1 - 0.3 - 0.5 - 1 - 3 - 5	
Time delay:	FIR-003	003 t <sub>V</sub> s		0.02 (non-delayed)	
	FIR-03	t <sub>v</sub>	S	0.02 (non-delayed)	
	FIR-5	t <sub>v</sub>	S	0.02 - 0.1 - 0.3 - 0.5 - 1 - 3 - 5	

Residual current warning with FIR-5

0.5 Hz: 25% - 50%  $I_{\Delta_n}$  (every 2 s)

by flashing red LED, flashing frequency: 1 Hz: 50% – 75% I<sub>△n</sub> (every 1 s)

2 Hz: 75% – <100%  $I_{\Delta}_n$  (2 x per second)

DESCRIPTION		TYPE	EAN CODE	AVAILABLE	ORDER NO.
RESIDUAL CURRENT RELEASE RELAY					_
Rated residual current I <sub>n</sub> = 0.03 A pulse	e current sensitive	FIR-003	9004840421538		MC900001
Rated residual current I <sub>n</sub> = 0.3 A pulse	e current sensitive	FIR-03	9004840421545	988	MC900002
Rated residual current I <sub>n</sub> = 0.035 A pulse	e current sensitive	FIR-5	9004840421552	-000 0-1	MC900003

### RESIDUAL CURRENT RELEASE RELAY WITH DISPLAY

Rated residual current $I_n = 0.033$ A pulse current sensitive	FIRD-3	on request
Rated residual current $I_n = 0.0330$ A pulse current sensitive	FIRD-30	on request



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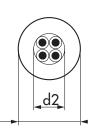


# RESIDUAL CURRENT RELEASE RELAY WITH CONVERTER \_\_\_\_\_\_

## CORE-BALANCE TRANSFORMER FIR-WS, FIR-W, FIR-WR







.d1≥ 1.5xd2

d1 ... Internal diameter of transformer

d2 ... External diameter of cable

### SCHRACK INFO

- The internal diameter of the transformer d1 must be 1.5x larger than the total diameter d2 of the inserted conductors.
- For load circuits with inrush current . 4 x l<sub>n</sub>, magnetic shielding is required.
- For dimensions, see page 712.

#### Core-balance transformer, round

Maximum nominal current		Diameter		
Energy distribution	Motor/capacitor	Transformer type	Maximum wire diameter	
(A)	(A)	FIR-W d1(mm)	d2 (mm)	
50	50	20	13	
150	100	30	20	
150	100	35	23	
400	200	70	47	
600	250	105	70	
1200	630	140	93	
1800	800	210	140	

DESCRIPTION	TYPE	EAN CODE	AVAILABLE	ORDER NO.
CORE-BALANCE TRANSFORMER, ROUND				
Inner diameter 20 mm	FIR-WS-20	9004840421569		MC900020
Inner diameter 30 mm	FIR-WS-30	9004840421576		MC900030
Inner diameter 35 mm	FIR-W-35	9004840421583		MC900035
Inner diameter 70 mm	FIR-W-70	9004840421590	000 0-0	MC900070
Inner diameter 105 mm	FIR-W-105	9004840421606		MC900105
Inner diameter 140 mm	FIR-W-140	9004840421613	988 0-9	MC900140
Inner diameter 210 mm	FIR-W-210	9004840421620		MC900210

#### CORE-BALANCE TRANSFORMER, RECTANGULAR

70x175 mm (inner opening)	FIR-WR-175	9004840421637	080 000	MC910175
115x305 mm (inner opening)	FIR-WR-305	9004840421644		MC910305
150x350 mm (inner opening)	FIR-WR-350	9004840421651		MC910350

### SHIELDING FOR ROUND CORE-BALANCE TRANSFORMER

For FIR–W–35	9004840465471	MC900010
For FIR–W–70	9004840465488	MC900011
For FIR–VV–105	9004840465495	MC900012
For FIR–VV–140	9004840465501	MC900013
For FIR-W-210	9004840465518	MC900014



