

## RESIDUAL CURRENT (RCD) RELEASE RELAY, FIR



MC900001



MC900002



MC900003

### SCHRACK INFO

Residual current release relay in combination with core-balance transformers. Switch-off can be achieved with undervoltage- and shunt releases or a contactor.

### TECHNICAL DATA

Version corresponds to:	IEC 947-2, IEC 755, IEC 1008, IEC 1009			
Sensitivity:	Pulse current sensitive, type A			
Rated control voltage $U_s$ (V):	230 +/- 20% (50/60 Hz)			
Rated operational voltage $P_e$ (W):	3			
Relay contacts:	1 integral C/O			
Rated voltage of the relay contacts:	250 V AC			
	100 V DC			
Rated current of the relay contacts:	6 A			
Rated fault currents:	FIR-003	$I_{\Delta n}$	A	0.03
	FIR-03	$I_{\Delta n}$	A	0.3
	FIR-5	$I_{\Delta n}$	A	0.03 – 0.1 – 0.3 – 0.5 – 1 – 3 – 5
Time delay:	FIR-003	$t_v$	s	0.02 (non-delayed)
	FIR-03	$t_v$	s	0.02 (non-delayed)
	FIR-5	$t_v$	s	0.02 – 0.1 – 0.3 – 0.5 – 1 – 3 – 5
Fault current warning with FIR-5 through flashing red LED:	0.5Hz: 25% – 50% $I_{\Delta n}$			
	1Hz: 50% – 75% $I_{\Delta n}$			
	2Hz: 75% – <100% $I_{\Delta n}$			

DESCRIPTION	TYPE	ORDER NO.
Rated fault current $I_{\Delta n} = 0.03$ A Pulse current sensitive	FIR-003	MC900001
Rated fault current $I_{\Delta n} = 0.3$ A Pulse current sensitive	FIR-03	MC900002
Rated fault current $I_{\Delta n} = 0.03...5$ A Pulse current sensitive	FIR-5	MC900003

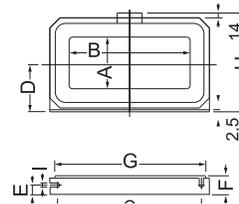
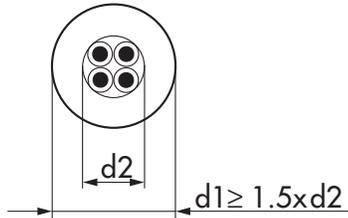
## ■ CORE-BALANCE TRANSFORMER FIR-WS, FIR-WR



MC900070



MC910305



## ■ SCHRACK INFO

The internal diameter of the transformer  $d_1$  must be 1,5x wider than the average cross-section  $d_2$  of the inserted conductors. For load circuits with inrush current  $> 4 \times I_n$ , magnetic shielding is required (see bottom of this page).

## ■ TECHNICAL DATA

### Rectangular core-balance transformer

Type	A	B	C	D	E	F	G	H	I
FIR-WR-175	70	175	225	85	22	46	261	176	7,5
FIR-WR-305	115	305	360	116	25	55	402	240	8
FIR-WR-350	150	350	415	140	28	55	460	285	8

### Round core-balance transformer

Max. nominal current		Diameter	
Power distribution (A)	Motor/capacitor (A)	Transformer type FIR-W-... d1	Maximum conductor cross-section (mm) d2
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	ORDER NO.
<b>ROUND CORE-BALANCE TRANSFORMER</b>		
Internal diameter 20 mm	FIR-WS-20	<b>MC900020</b>
Internal diameter 30 mm	FIR-WS-30	<b>MC900030</b>
Internal diameter 35 mm	FIR-W-35	<b>MC900035</b>
Internal diameter 70 mm	FIR-W-70	<b>MC900070</b>
Internal diameter 105 mm	FIR-W-105	<b>MC900105</b>
Internal diameter 140 mm	FIR-W-140	<b>MC900140</b>
Internal diameter 210 mm	FIR-W-210	<b>MC900210</b>
<b>RECTANGULAR CORE-BALANCE TRANSFORMER</b>		
70x175 mm	FIR-WR-175	<b>MC910175</b>
115x305 mm	FIR-WR-305	<b>MC910305</b>
150x350 mm	FIR-WR-350	<b>MC910350</b>
<b>MAGNETIC SHIELDING</b>		
Shielding for FIR-W-35	TT-35	MC900010
Shielding for FIR-W-70	TT-70	MC900011
Shielding for FIR-W-105	TT-105	MC900012
Shielding for FIR-W-140	TT-140	MC900013
Shielding for FIR-W-210	TT-210	MC900014

Order numbers marked in bold are priority types which are available in standard quantities.