

# Directional Couplers

for Monitoring Various Power Levels



## PRODUCT FEATURES

- Forward and reverse couplers
- Adjustable coupling
- Low VSWR
- Low cost

## PRODUCT PROFILE

Directional couplers consist of a short loop inserted in the rigid line. Each end of the loop is then connected to a suitable contact, i.e. an N-type contact. Between the inner conductor and the loop there are two types of coupling - inductive and capacitive. The inductive coupling resembles a short coil with the voltage at each end 180 degrees apart. The capacitive coupling generates a phase voltage at both ends.



All our directional couplers deliver excellent directivity, stable performance and low VSWR.

Other combinations than those shown below are available on request.

| SINGLE DIRECTIONAL COUPLERS INCLUDING MOUNTING KIT |                    |                    |                    |                    |
|--|--------------------|--------------------|--------------------|--------------------|
| ARTICLE  | DIRC-R158-A0       | DIRC-R318-A0       | DIRC-RL98-A0       | DIRC-R412-A0       |
| DIRECTIVITY  | 40 dB              | 40 dB              | 40 dB              | 40 dB              |
| COUPLING RANGE                                     | Customer specified | Customer specified | Customer specified | Customer specified |
| OUTPUT JACK  | Type N female      | Type N female      | Type N female      | Type N female      |
| IMPEDANCE  | 50 Ohm             | 50 Ohm             | 50 Ohm             | 50 Ohm             |
| MOUNTING   | 1 5/8" unflange    | 3 1/8" unflange    | RL98 unflange      | 4 1/2" unflange    |

| ARTICLE        | DIRC-R120-A0       | DIRC-R618-A0       | DIRC-R230-A0       |
|----------------|--------------------|--------------------|--------------------|
| DIRECTIVITY    | 40 dB              | 40 dB              | 40 dB              |
| COUPLING RANGE | Customer specified | Customer specified | Customer specified |
| OUTPUT JACK    | Type N female      | Type N female      | Type N female      |
| IMPEDANCE      | 50 Ohm             | 50 Ohm             | 50 Ohm             |
| MOUNTING       | NAX120 unflange    | 6 1/8" unflange    | RL230 unflange     |

# 1 Directional Coupler

for Monitoring Various Power Levels



ARTICLE: MDIR-100N0-AA00

| ARTICLE        | MDIR-100N0-AA00    |
|----------------|--------------------|
| DIRECTIVITY    | 40 dB              |
| COUPLING RANGE | Customer specified |
| OUTPUT JACK    | SMA                |
| IMPEDANCE      | 50 Ohm             |
| MOUNTING       | N male/female      |
| LENGTH         | 102 mm             |



ARTICLE: MDIR-17160-AA00

| ARTICLE        | MDIR-17160-AA00    |
|----------------|--------------------|
| DIRECTIVITY    | 40 dB              |
| COUPLING RANGE | Customer specified |
| OUTPUT JACK    | Type N female      |
| IMPEDANCE      | 50 Ohm             |
| MOUNTING       | 7/16 male/female   |
| LENGTH         | 95 mm              |



ARTICLE: MDIR-1078R-AA00

| ARTICLE        | MDIR-1078R-AA00    |
|----------------|--------------------|
| DIRECTIVITY    | 40 dB              |
| COUPLING RANGE | Customer specified |
| OUTPUT JACK    | Type N female      |
| IMPEDANCE      | 50 Ohm             |
| MOUNTING       | 7/8" unflange      |
| LENGTH         | 71 mm              |



ARTICLE: MDIR-1158R - MDIR-1618R

Other combinations than those shown below are available on request

| 1 DIRECTIONAL COUPLER MOUNTED ON A PIECE OF RIGID LINE |                    |                    |                    |                    |
|--|--------------------|--------------------|--------------------|--------------------|
| ARTICLE  | MDIR-1158R-AA00    | MDIR-1158R-XXXX    | MDIR-1120R-AA00    | MDIR-1120R-XXXX    |
| DIRECTIVITY  | 40 dB              | 40 dB              | 40 dB              | 40 dB              |
| COUPLING RANGE   | Customer specified | Customer specified | Customer specified | Customer specified |
| OUTPUT JACK  | Type N female      | Type N female      | Type N female      | Type N female      |
| IMPEDANCE  | 50 Ohm             | 50 Ohm             | 50 Ohm             | 50 Ohm             |
| MOUNTING   | 1 5/8" unflange    | 1 5/8" unflange    | NAX 120 unflange   | NAX 120 unflange   |
| LENGTH   | 150 mm             | > 150 mm           | 150 mm             | > 150 mm           |

| ARTICLE        | MDIR-1318R-AA00    | MDIR-1318R-XXXX    | MDIR-1098R-AA00    | MDIR-1098R-XXXX    |
|----------------|--------------------|--------------------|--------------------|--------------------|
| DIRECTIVITY    | 40 dB              | 40 dB              | 40 dB              | 40 dB              |
| COUPLING RANGE | Customer specified | Customer specified | Customer specified | Customer specified |
| OUTPUT JACK    | Type N female      | Type N female      | Type N female      | Type N female      |
| IMPEDANCE      | 50 Ohm             | 50 Ohm             | 50 Ohm             | 50 Ohm             |
| MOUNTING       | 3 1/8" unflange    | 3 1/8" unflange    | RL98 unflange      | RL98 unflange      |
| LENGTH         | 150 mm             | > 150 mm           | 150 mm             | > 150 mm           |

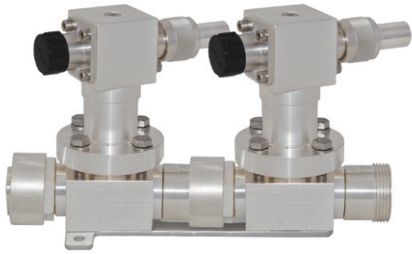
  

| ARTICLE        | MDIR-1412R-AA00    | MDIR-1412R-XXXX    | MDIR-1618R-AA00    | MDIR-1618R-XXXX    |
|----------------|--------------------|--------------------|--------------------|--------------------|
| DIRECTIVITY    | 40 dB              | 40 dB              | 40 dB              | 40 dB              |
| COUPLING RANGE | Customer specified | Customer specified | Customer specified | Customer specified |
| OUTPUT JACK    | Type N female      | Type N female      | Type N female      | Type N female      |
| IMPEDANCE      | 50 Ohm             | 50 Ohm             | 50 Ohm             | 50 Ohm             |
| MOUNTING       | 6 1/8" unflange    | 6 1/8" unflange    | 6 1/8" unflange    | 6 1/8" unflange    |
| LENGTH         | 160 mm             | > 150 mm           | 180 mm             | > 150 mm           |

Flange connection also available with adapters

# 2 Directional Couplers

## for Monitoring Various Power Levels



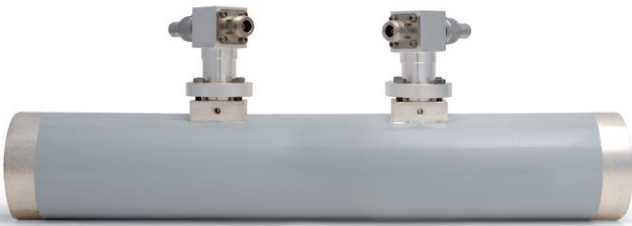
ARTICLE: MDIR-27160-AA00

| ARTICLE        | MDIR-27160-AA00    |
|----------------|--------------------|
| DIRECTIVITY    | 40 dB              |
| COUPLING RANGE | Customer specified |
| OUTPUT JACK    | Type N female      |
| IMPEDANCE      | 50 Ohm             |
| MOUNTING       | 7/16 male/female   |
| LENGTH         | 182 mm             |



ARTICLE: MDIR-2078R-AA00

| ARTICLE        | MDIR-2078R-AA00    |
|----------------|--------------------|
| DIRECTIVITY    | 40 dB              |
| COUPLING RANGE | Customer specified |
| OUTPUT JACK    | Type N female      |
| IMPEDANCE      | 50 Ohm             |
| MOUNTING       | 7/8" unflange      |
| LENGTH         | 127 mm             |



ARTICLE: MDIR-2158R - MDIR-2618R

Other combinations than those shown below are available on request

### 2 DIRECTIONAL COUPLERS MOUNTED ON A PIECE OF RIGID LINE

| ARTICLE        | MDIR-2158R-AA00    | MDIR-2158R-XXXX    | MDIR-2158R-AB00    | MDIR-2120R-AA00    | MDIR-2120R-XXXX    |
|----------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| DIRECTIVITY    | 40 dB              | 40 dB              | 40 dB              | 40 dB              | 40 dB              |
| COUPLING RANGE | Customer specified | Customer specified | Customer specified | Customer specified | Customer specified |
| OUTPUT JACK    | Type N female      | Type N female      | Type N female      | Type N female      | Type N female      |
| IMPEDANCE      | 50 Ohm             | 50 Ohm             | 50 Ohm             | 50 Ohm             | 50 Ohm             |
| MOUNTING       | 1 5/8" unflange    | 1 5/8" unflange    | 1 5/8" unflange    | NAX120 unflange    | NAX120 unflange    |
| LENGHT         | 300 mm             | >300 mm            | 90 mm              | 300 mm             | >300 mm            |

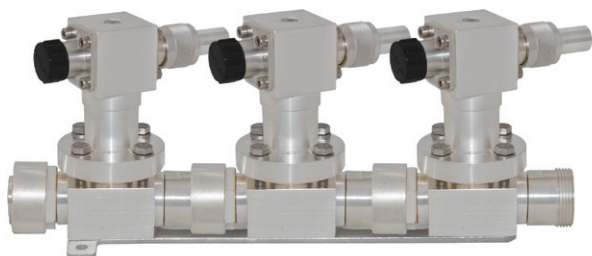
| ARTICLE        | MDIR-2318R-AA00    | MDIR-2318R-XXXX    | MDIR-2098R-AA00    | MDIR-2098R-XXXX    | MDIR-2412R-AA00    |
|----------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| DIRECTIVITY    | 40 dB              | 40 dB              | 40 dB              | 40 dB              | 40 dB              |
| COUPLING RANGE | Customer specified | Customer specified | Customer specified | Customer specified | Customer specified |
| OUTPUT JACK    | Type N female      | Type N female      | Type N female      | Type N female      | Type N female      |
| IMPEDANCE      | 50 Ohm             | 50 Ohm             | 50 Ohm             | 50 Ohm             | 50 Ohm             |
| MOUNTING       | 3 1/8" unflange    | 3 1/8" unflange    | RL98 unflange      | RL98 unflange      | 4 1/2" unflange    |
| LENGHT         | 300 mm             | >300 mm            | 300 mm             | >300 mm            | 300 mm             |

| ARTICLE        | MDIR-2412R-XXXX    | MDIR-2618R-AA00    | MDIR-2618R-XXXX    |
|----------------|--------------------|--------------------|--------------------|
| DIRECTIVITY    | 40 dB              | 40 dB              | 40 dB              |
| COUPLING RANGE | Customer specified | Customer specified | Customer specified |
| OUTPUT JACK    | Type N female      | Type N female      | Type N female      |
| IMPEDANCE      | 50 Ohm             | 50 Ohm             | 50 Ohm             |
| MOUNTING       | 4 1/2" unflange    | 6 1/8" unflange    | 6 1/8" unflange    |
| LENGHT         | >300 mm            | 300 mm             | >300 mm            |

Flange connection also available with adapters

# 3 Directional Couplers

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ARTICLE: MDIR-37160-AA00

| ARTICLE        | MDIR-37160-AA00    |
|----------------|--------------------|
| DIRECTIVITY    | 40 dB              |
| COUPLING RANGE | Customer specified |
| OUTPUT JACK    | Type N female      |
| IMPEDANCE      | 50 Ohm             |
| MOUNTING       | 7/16 male/female   |
| LENGTH         | 268 mm             |



ARTICLE: MDIR-3078R-AA00

| ARTICLE        | MDIR-3078R-AA00    |
|----------------|--------------------|
| DIRECTIVITY    | 40 dB              |
| COUPLING RANGE | Customer specified |
| OUTPUT JACK    | Type N female      |
| IMPEDANCE      | 50 Ohm             |
| MOUNTING       | 7/8" unflange      |
| LENGTH         | 182 mm             |



ARTICLE: MDIR-3158R - MDIR-3618R

Other combinations than those shown below are available on request

| 3 DIRECTIONAL COUPLERS MOUNTED ON A PIECE OF RIGID LINE |                    |                    |                    |                    |
|---|--------------------|--------------------|--------------------|--------------------|
| ARTICLE   | MDIR-3158R-AA00    | MDIR-3158R-XXXX    | MDIR-3120R-AA00    | MDIR-3120R-XXXX    |
| DIRECTIVITY   | 40 dB              | 40 dB              | 40 dB              | 40 dB              |
| COUPLING RANGE  | Customer specified | Customer specified | Customer specified | Customer specified |
| OUTPUT JACK   | Type N female      | Type N female      | Type N female      | Type N female      |
| IMPEDANCE   | 50 Ohm             | 50 Ohm             | 50 Ohm             | 50 Ohm             |
| MOUNTING  | 1 5/8" unflange    | 1 5/8" unflange    | NAX120 unflange    | NAX120 unflange    |
| LENGHT  | 450 mm             | >450 mm            | 450 mm             | >450 mm            |

| ARTICLE        | MDIR-3318R-AA00    | MDIR-3318R-XXXX    | MDIR-3098R-AA00    | MDIR-3098R-XXXX    |
|----------------|--------------------|--------------------|--------------------|--------------------|
| DIRECTIVITY    | 40 dB              | 40 dB              | 40 dB              | 40 dB              |
| COUPLING RANGE | Customer specified | Customer specified | Customer specified | Customer specified |
| OUTPUT JACK    | Type N female      | Type N female      | Type N female      | Type N female      |
| IMPEDANCE      | 50 Ohm             | 50 Ohm             | 50 Ohm             | 50 Ohm             |
| MOUNTING       | 3 1/8" unflange    | 3 1/8" unflange    | RL98 unflange      | RL98 unflange      |
| LENGHT         | 450 mm             | >450 mm            | 450 mm             | >450 mm            |

| ARTICLE        | MDIR-3412R-AA00    | MDIR-3412R-XXXX    | MDIR-3618R-AA00    | MDIR-3618R-XXXX    |
|----------------|--------------------|--------------------|--------------------|--------------------|
| DIRECTIVITY    | 40 dB              | 40 dB              | 40 dB              | 40 dB              |
| COUPLING RANGE | Customer specified | Customer specified | Customer specified | Customer specified |
| OUTPUT JACK    | Type N female      | Type N female      | Type N female      | Type N female      |
| IMPEDANCE      | 50 Ohm             | 50 Ohm             | 50 Ohm             | 50 Ohm             |
| MOUNTING       | 4 1/2" unflange    | 4 1/2" unflange    | 6 1/8" unflange    | 6 1/8" unflange    |
| LENGHT         | 450 mm             | >450 mm            | 450 mm             | >450 mm            |

Flange connection also available with adapters