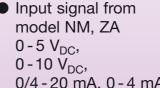


Flow, Level and **Temperature Control and Indicating Devices**



measuring . monitoring analysing





- 0-10 V_{DC}, 0/4-20 mA
- for additional display



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KOBOLD Messring GmbH Nordring 22-24 D-65719 Hofheim/Ts. **a** +49(0)6192 299-0 Fax +49(0)6192 23398 E-Mail: info.de@kobold.com Internet: www.kobold.com

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Model: DFA DFM DST



Description

The display and monitoring device model DFA is a universal device for evaluating a transmitter signal. The simple design of the instruments allows fast and secure installation.

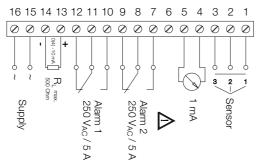
The instruments comprise the following components:

- Analogue indicator 0-100%
- Two adjustable limit contacts
- 0-1 mA output for additional analogue indicator
- 0-20 mA, 4-20 mA or 0-10 V_{DC} output signal

The following transmitters can be connected to the instruments:

- Level transmitter model NM (0-5 k Ω ; 0-40 k Ω)
- Potentiometer (0-1 kΩ)
- Standard signals 0-5 V_{DC}, 0-10 V_{DC}, 0-4 mA, 0-20 mA, 4-20 mA

Wiring diagram



PIN	ZA, NM	0(4)-20 mA 0-10 V
1	1 (yellow)	-
2	2 (red)	GND
3	3 (black)	SIGN
6	-	-

Important!

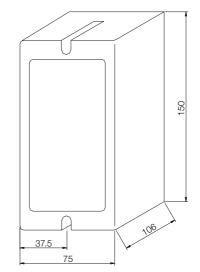
During installation make sure that the electrical wiring between remote transmitter and electronics transducer is carried out exactly as shown in the wiring diagram. Should the connection be incorrect the transmitter may be destroyed during initial operation. The warranty is then null and void.

Order Details (Example: DFA-24GZA 0A)

Technical Details

Supply voltage:	24 V _{DC} ; 24 V _{AC} ; 115 V _{AC} ; 230 V _{AC} ±10%, 50-60 Hz
Power input:	approximately 3 VA
Output:	0 or 4 - 20 mA (load 0 - 500 Ω) 0 - 10 V _{DC} (R \ge 500 Ω)
Accuracy:	$\pm 0.3\%$ of full scale value
Integral indicating	
instrument:	0-100%, category 2.5
Relay:	two limit value relays, changeover contact max. 250 V_{AC} , 5 A, 1300 VA; finely adjustable switch point indication with LEDs two keys for short-circuiting the display when adjusting the contacts
Housing:	plastic pluggable
Dimensions:	150 x 75 x 106 mm
Protection:	IP 40
Ambient temperature:	-20°C to +60°C
Weight:	600 g

Dimensions



Input signal	Order no.			Output signal	
	Supply 24 V _{DC}	Supply 24 V _{AC}	Supply 115 V _{AC}	Supply 230 V _{AC}	
Potentiometer (0 - 1 kΩ))	DFA-24GZA	DFA-24WZA	DFA-11WZA	DFA-23WZA	
Level transducer NM	DFA-24GNM	DFA-24WNM	DFA-11WNM	DFA-23WNM	0A = 0 - 20 mA
Standard signal 0 - 20 mA	DFA-24G0A	DFA-24W0A	DFA-11W0A	DFA-23W0A	4A = 4 - 20 mA
Standard signal 4 - 20 mA	DFA-24G4A	DFA-24W4A	DFA-11W4A	DFA-23W4A	V = 0 - 10 V _{DC}
Standard signal 0 - 10 V _{DC}	DFA-24GV	DFA-24WV	DFA-11WV	DFA-23WV	



Description

The universal transmitters of model DFM are universal devices for evaluating a transmitter signal. The simple design of the instruments allows fast and secure installation.

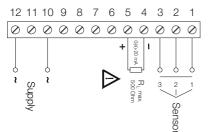
The instruments comprise the following components:

- 0-1 mA output for additional analogue indicator
- 0-20 mA, 4-20 mA or 0-10 V_{DC} output signal

The following transmitters can be connected to the instruments:

- Temperature sensors Pt 100 (0 to +100°C, -20 to +150°C or 0 to +200°C)
- Level transmitter model NM (0-5 kΩ; 0-40 kΩ)
- Potentiometer (0 1 $k\Omega$)
- Standard signals 0-5 V_{DC}, 0-10 V_{DC}, 0-4 mA, 0-20 mA, 4-20 mA

Wiring diagram



PIN	ZA, NM	0(4)-20 mA Pt100 0-10 V 2-wire		Pt100 4-wire
1	1 (yellow)	-	-	SIGN (+)
2	2 (red)	GND	SIGN ()	SIGN ()
3	3 (black)	SIGN	SIGN (+)	SIGN (+)
6	-	-	-	SIGN ()

Important!

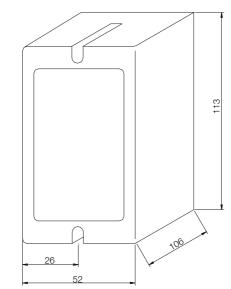
During installation make sure that the electrical wiring between remote transmitter and electronics transducer is carried out exactly as shown in the

Order Details (Example: DFM-24GZA 0A)

Technical Details	
Supply voltage:	

Supply voltage:	24 V _{DC} ; 24 V _{AC} ; 115 V _{AC} ; 230 V _{AC} ±10%, 50-60 Hz
Power input:	approximately 3 VA
Output:	0 or 4-20 mA (load 0-500 $\Omega)$ 0-10 $V_{DC}~(R \ge 500~\Omega)$
Accuracy:	$\pm 0.3\%$ of full scale value
Housing:	plastic pluggable
Dimensions:	132 x 52 x 106 mm
Protection:	IP 40
Ambient temperature:	-20°C to +60°C
Weight:	380 g

Dimensions



wiring diagram. Should the connection be incorrect the transmitter may be destroyed during initial operation. The warranty is then null and void.

Input signal	Order no.			Output signal	
	Supply 24 V _{DC}	Supply 24 V _{AC}	Supply 115 V _{AC}	Supply 230 V _{AC}	
Potentiometer (0 - 1 kΩ)	DFM-24GZA	DFM-24WZA	DFM-11WZA	DFM-23WZA	
Level transducer NM	DFM-24GNM	DFM-24WNM	DFM-11WNM	DFM-23WNM	
Pt 100 (0 to +100 °C), 2-wire	DFM-24GP1	DFM-24WP1	DFM-11WP1	DFM-23WP1	
Pt 100 (-20 to +150 °C), 2-wire	DFM-24GP2	DFM-24WP2	DFM-11WP2	DFM-23WP2	
Pt 100 (0 to +200 °C), 2-wire	DFM-24GP3	DFM-24WP3	DFM-11WP3	DFM-23WP3	0A = 0 - 20 mA
Pt 100 (0 to +100 °C), 4-wire	DFM-24GP4	DFM-24WP4	DFM-11WP4	DFM-23WP4	4A = 4 - 20 mA
Pt 100 (-20 to +150°C), 4-wire	DFM-24GP5	DFM-24WP5	DFM-11WP5	DFM-23WP5	$V = 0 - 10 V_{DC}$
Pt 100 (0 to +200°C), 4-wire	DFM-24GP6	DFM-24WP6	DFM-11WP6	DFM-23WP6	
Standard signal 0 - 20 mA	DFM-24G0A	DFM-24W0A	DFM-11W0A	DFM-23W0A	
Standard signal 4 - 20 mA	DFM-24G4A	DFM-24W4A	DFM-11W4A	DFM-23W4A	
Standard signal 0 - 10 V _{DC}	DFM-24GV	DFM-24WV	DFM-11WV	DFM-23WV	



Description

Transmitters of model DST are universal devices for evaluating a transmitter signal. The simple design of the instruments allows fast and secure installation.

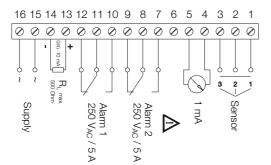
The instruments comprise the following components:

- Two adjustable limit contacts
- 0-1 mA output for additional analogue indication
- 0-20 mA, 4-20 mA or 0-10 V_{DC} output signal

The following transmitters can be connected to the instruments:

- Level transmitter model NM (0-5 kΩ; 0-40 kΩ)
- Potentiometer (0 1 kΩ)
- Standard signals 0-5 V_{DC}, 0-10 V_{DC}, 0-4 mA, 0-20 mA, 4-20 mA

Wiring diagram



PIN	ZA, NM	0(4)-20 mA 0-10 V		
1	1 (yellow)	-		
2	2 (red)	GND		
3	3 (black)	SIGN		
6	-	-		

Important!

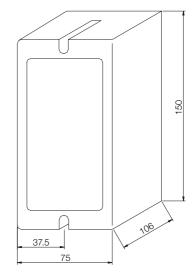
During installation make sure that the electrical wiring between remote transmitter and electronics transducer is carried out exactly as shown in the wiring diagram. Should the connection be incorrect the transmitter may be destroyed during initial operation. The warranty is then null and void.

Order Details (Example: DST-24GZA 0A)

Technical Details

Power supply:	24 V _{DC} ; 24 V _{AC} ; 115 V _{AC} ; 230 V _{AC} ±10%, 50-60 Hz
Power input:	approximately 3 VA
Output:	0 or 420 mA (load 0-500 Ω) 0-10 V _{DC} (R ≥ 500 Ω)
Accuracy:	$\pm 0.3\%$ of full scale value
Output:	0-1 mA
Relay:	two limit value relays, changeover contact max. 250 $V_{\rm AC},$ 5 A, 1300 VA finely adjustable with potentiometer, switch point indication with LEDs
Housing:	plastic pluggable
Dimensions:	150 x 75 x 106 mm
Protection:	IP 40
Ambient temperature:	-20°C to +60°C
Weight:	600 g

Dimensions



Input signal		Order no.			Output signal
	Supply 24 V _{DC}	Supply 24 V _{AC}	Supply 115 V _{AC}	Supply 230 V _{AC}	
Potentiometer (0 - 1 kΩ)	DST-24GZA	DST-24WZA	DST-11WZA	DST-23WZA	
Level transducer NM	DST-24GNM	DST-24WNM	DST-11WNM	DST-23WNM	0A = 0 - 20 mA
Standard signal 0 - 20 mA	DST-24G0A	DST-24W0A	DST-11W0A	DST-23W0A	4A = 4 - 20 mA
Standard signal 4 - 20 mA	DST-24G4A	DST-24W4A	DST-11W4A	DST-23W4A	V = 0 - 10 V _{DC}
Standard signal 0 - 10 V _{DC}	DST-24GV	DST-24WV	DST-11WV	DST-23WV	

No responsibility taken for errors;

subject to change without prior notice.