

Datasheet

Microcompact frequency/analogue converter

(UK) (D) (F)

Technical data sheet - Interface Technology

Microcompact frequency/analogue converter



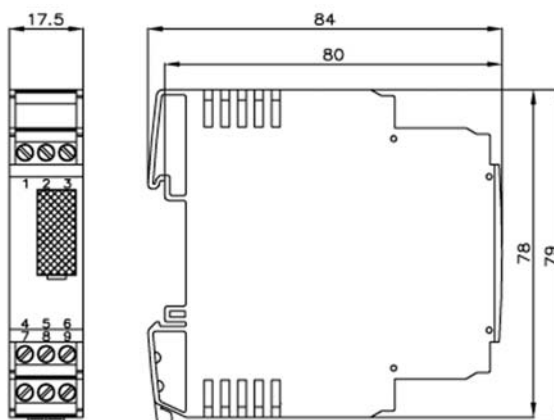
Identification	Type	WNFA 6-0524		
	Part-No.	7948524		
Input				
Input signal	0–100, 0–200, 0–250, 0–400, 0–500, 0–750 Hz 0–1, 0–1,5, 0–2, 0–2,5, 0–3, 0–4, 0–5, 0–6, 0–8 kHz 0–10, 0–12, 0–16, 0–20, 0–24, 0–28,8 kHz adjustable via switch			
Galvanic isolation I/O	3-way isolation			
Frequency signal	AC/DC 0.8–30 V			
Input characteristic impedance	50 kΩ			
Hysteresis	0.5 V _{ss} / 5 V _{ss} , can be converted via switch			
Pulse width	min. 10 μs			
Load Side				
	0/10 V	0–20 mA	4–20 mA	
Max. load impedance at I-output		400 Ω	400 Ω	
Max. load impedance at U-output	>1 kΩ			
Load impedance	55			
Output current	max. 21 mA			
Output signal	Adjustable via switch			
Ripple	<5 mV _{eff}			

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General

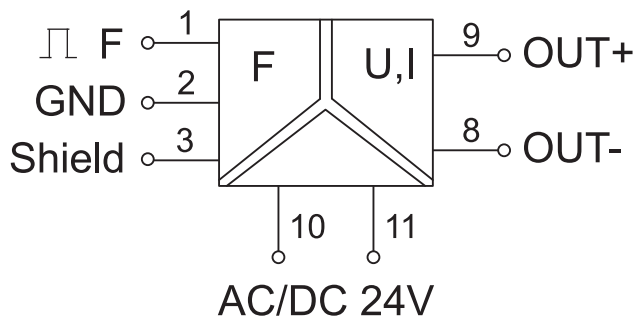
Nominal voltage	AC/DC 24 V
Operation voltage range	DC: 16,8–30 V, AC: 19,2–28,8 V
Rated current	20.0 mA
Status Indication	LED yellow
Input/output protection	AC/DC 30 V overvoltage, short circuit-proof output
Accuracy	0.1 % FSR (23 °C)
Linearity error	0.02 %
Ripple	approx. 0.1%, range 2...28.8 kHz from 200 Hz
Build-up time (Accuracy 1%)	200 ms
Temperature coefficient	70 ppm / K
Insulation voltage input/output	2.5 kV _{eff}
Housing material	PPE
Field installation	rail TS 35 (EN 60715)
Protection class	IP 20
Installation position	Optional
Termination	screw terminal: 0.14–1.5 mm ²
Operation temperature range	-25 °C – 60 °C
Storage temperature range	-40 °C – 85 °C
Dimensions (w × h × d)	17.5 × 79.0 × 84.0 mm
Weight (kg/piece)	0.070 kg/piece

Dimensions



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PIN assignment



Range adjustment

S2 ● → Switch On														
Range*	1	2	3	4	5	6	8	Range*	1	2	3	4	5	6
0 – 100Hz	●	●	●	●				0 – 5kHz	●			●	●	
0 – 200Hz	●	●	●	●	●			0 – 6kHz		●		●	●	
0 – 250Hz	●	●			●	●		0 – 8kHz	●	●		●	●	
0 – 400Hz	●	●	●		●			0 – 10kHz	●			●	●	
0 – 500Hz	●	●			●			0 – 12kHz	●	●		●	●	
0 – 750Hz	●				●			0 – 16kHz	●	●				
0 – 1kHz	●	●				●		0 – 20kHz	●					
0 – 1.5kHz		●				●		0 – 24kHz		●				
0 – 2kHz	●	●		●	●	●		0 – 28.8kHz						
0 – 2.5kHz	●			●	●	●								
0 – 3kHz		●		●	●	●								
0 – 4kHz	●	●	●	●										
Hysteresis	0.5V _{pp}													
	5V _{pp}						●							

*see instruction leaflet

● → Switch On	S1		
Output	1	2	3
0-10V	●		
0-20mA		●	
4-20mA			●


Identifikation

Typ	WNFA 6-0524
Art.-Nr.	7948524

Eingangsseite

Eingangssignal	0–100, 0–200, 0–250, 0–400, 0–500, 0–750 Hz 0–1, 0–1,5, 0–2, 0–2,5, 0–3, 0–4, 0–5, 0–6, 0–8 kHz 0–10, 0–12, 0–16, 0–20, 0–24, 0–28,8 kHz einstellbar über Schalter
galv. Trennung E/A	3-Wege Trennung
Frequenzsignal	AC/DC 0,8–30 V
Eingangswiderstand	50 k Ω
Hysterese	0,5 V _{ss} / 5 V _{ss} , umschaltbar über Schalter
Impulsbreite	min. 10 μ s

Ausgangsseite

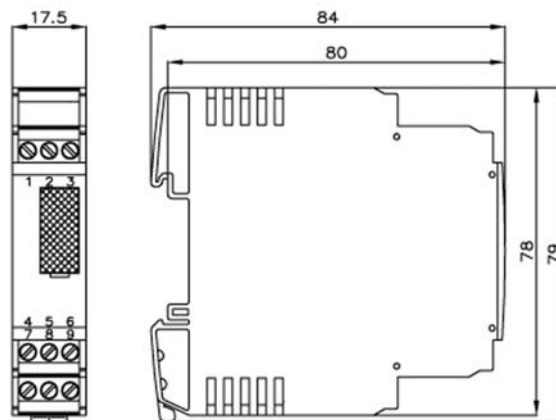
	0–10 V	0–20 mA	4–20 mA
maximale Bürde bei I - Ausgang		400 Ω	400 Ω
maximale Bürde bei U - Ausgang	>1 k Ω		
Ausgangsimpedanz	55		
Ausgangsstrom	max. 21 mA		
Ausgangssignal	einstellbar über Schalter		
Restwelligkeit	<5 mV _{eff}		

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Allgemeine Daten

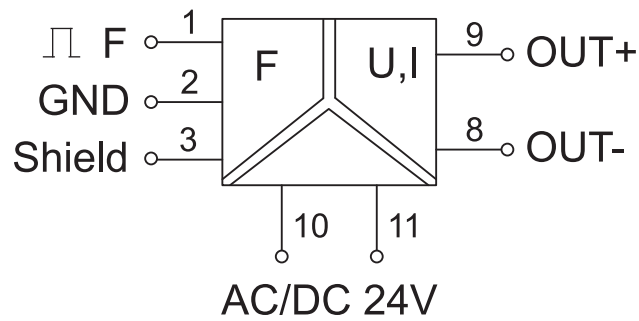
Nennspannung	AC/DC 24 V
Arbeitsspannungsbereich	DC: 16,8–30 V, AC: 19,2–28,8 V
Nennstrom	20,0 mA
Statusanzeige	LED gelb
Ein-/Ausgangsschutz	Überspannung AC/DC 30 V, Ausgang kurzschlussfest
Genauigkeit	0,1 % FSR (23 °C)
Linearitätsfehler	0,02 %
Ripple	ca. 0,1%, Bereich 2...28,8 kHz ab 200 Hz
Einschwingzeit (Genauigkeit 1%)	200 ms
Temperaturkoeffizient	70 ppm / K
Isolationsspannung Ein-/Ausgang	2,5 kV _{eff}
Gehäusematerial	PPE
Montage	aufrastbar auf TS 35 (EN 60715)
Schutzart	IP 20
Einbaulage/Einbauart	beliebig
Anschlussart	Schraubanschluss: 0,14–1,5 mm ²
Arbeitstemperaturbereich	-25 °C – 60 °C
Lagertemperaturbereich	-40 °C – 85 °C
Maße (B×H×T)	17,5 × 79,0 × 84,0 mm
Gewicht (kg/Stk.)	0,070 kg/Stück

Maßzeichnung



Technisches Datenblatt • Interfacetechnik

Anschlussbild



Bereichseinstellung

S2 ● → Switch On														
Range*	1	2	3	4	5	6	8	Range*	1	2	3	4	5	6
0-100Hz	●	●	●	●				0-5kHz	●			●	●	
0-200Hz	●	●	●		●	●		0-6kHz		●		●	●	
0-250Hz	●	●			●	●		0-8kHz	●	●		●	●	
0-400Hz	●	●	●		●			0-10kHz	●			●	●	
0-500Hz	●	●			●			0-12kHz		●		●	●	
0-750Hz	●				●			0-16kHz	●	●				
0-1kHz	●	●				●		0-20kHz	●					
0-1.5kHz	●		●			●		0-24kHz		●				
0-2kHz	●	●			●	●		0-28.8kHz						
0-2.5kHz	●				●	●								
0-3kHz	●	●			●	●								
0-4kHz	●	●			●	●								
Hysteresis	0.5V _{pp}							5V _{pp}						●

*see instruction leaflet

● → Switch On	S1		
Output	1	2	3
0-10V	●		
0-20mA		●	
4-20mA			●

Fiche technique • Interface



Convertisseur Microcompact fréquence /
Analogique

Identification	Type	WNFA 6-0524
	Référence	7948524

Entrée

Signal d'entrée	0–100, 0–200, 0–250, 0–400, 0–500, 0–750 Hz 0–1, 0–1,5, 0–2, 0–2,5, 0–3, 0–4, 0–5, 0–6, 0–8 kHz 0–10, 0–12, 0–16, 0–20, 0–24, 0–28,8 kHz réglable par interrupteur
Séparation galvanique E/S	séparation 3 voies
Signal de fréquence	AC/DC 0,8–30 V
Résistance d'entrée	50 k Ω
hystérésis	0,5 V _{ss} / 5 V _{ss} , commutable par interrupteur
Largeur d'impulsion	min. 10 μ s

Côté de charge

	0–10 V	0–20 mA	4–20 mA
Charge maximale pour sortie I		400 Ω	400 Ω
Charge maximale pour sortie U	>1 k Ω		
Impédance de sortie	55		
Courant de sortie	21 mA maxi		
Signal de sortie	réglable par interrupteur		
Ondulation résiduelle	<5 mV _{eff}		

Données générales

Gamme de tensions	AC/DC 24 V
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Fiche technique • Interface

Plage de tensions de travail	DC : 16,8–30 V, AC: 19,2–28,8 V
Courant nominal	20,0 mA
Visualisation d'état	LED jaune
Protection entrée/sortie	Surtension CA/CC 30 V, sortie protégée contre les courts-circuits
Précision	0,1 % FSR (23 °C)
Erreur de linéarité	0,02 %
Ripple	env. 0,1 %, plage 2...28,8 kHz à partir de 200 Hz
Temps de réponse (précision 1 %)	200 ms
Coefficient de température	70 ppm / K
Tension d'isolement entrée / sortie	2,5 kV _{eff}
Matière du boîtier	PPE
Montage	clipsable sur TS 35 (EN 60715)
Degré de protection	IP 20
Position/type de montage	au choix
Raccordement	Bornes à vis : 0,14–1,5 mm ²
Plage de température de travail	-25 °C – 60 °C
Plage de température de stockage	-40 °C – 85 °C
Dimensions (l×h×p)	17,5 × 79,0 × 84,0 mm
Poids (kg/pièce)	0,070 kg/pièce

Plan d'encombrement

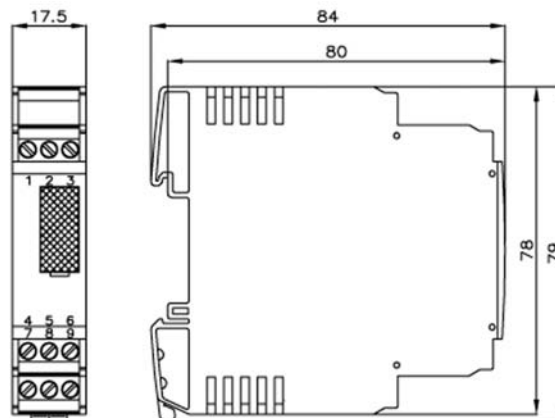
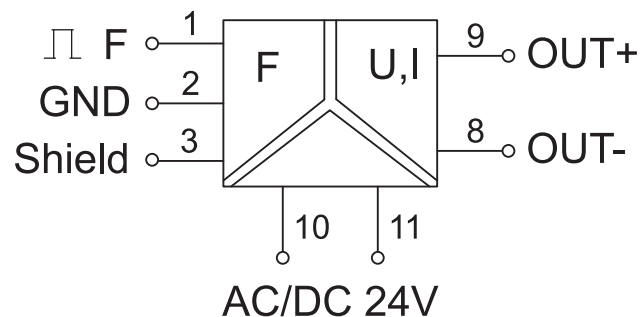


Schéma de connexion



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Réglage par switch

S2 ● → Switch On														
Range*	1	2	3	4	5	6	8	Range*	1	2	3	4	5	6
0 – 100Hz	●	●	●	●				0 – 5kHz	●			●	●	
0 – 200Hz	●	●	●		●	●		0 – 6kHz		●		●	●	
0 – 250Hz	●	●			●	●		0 – 8kHz	●	●		●	●	
0 – 400Hz	●	●	●		●			0 – 10kHz	●			●	●	
0 – 500Hz	●	●			●			0 – 12kHz		●		●	●	
0 – 750Hz		●			●			0 – 16kHz	●	●				
0 – 1kHz	●	●				●		0 – 20kHz	●					
0 – 1.5kHz		●				●		0 – 24kHz		●				
0 – 2kHz	●	●		●	●	●		0 – 28.8kHz						
0 – 2.5kHz	●			●	●	●								
0 – 3kHz		●	●		●	●								
0 – 4kHz	●	●		●	●									
Hysteresis	0.5V _{pp}							5V _{pp}						●

*see instruction leaflet

● → Switch On	S1		
Output	1	2	3
0-10V	●		
0-20mA		●	
4-20mA			●