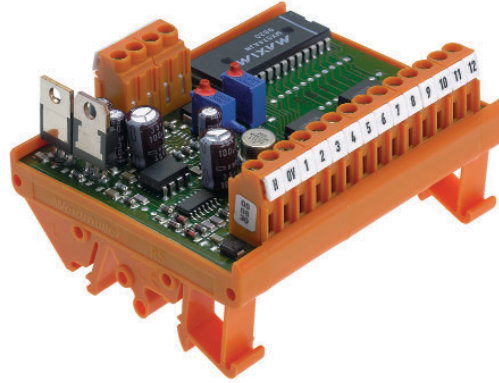


12-Bit Analog/Digital Converters

Hold function (H):

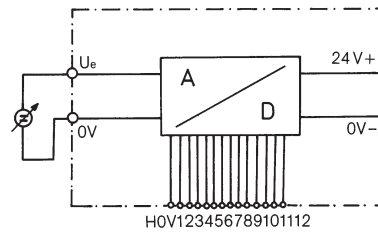
The converter can, for example, by means of the hold function (H) be matched to the cycle time of a PLC. Holding and release of the conversion. The Hold input (H) is internally connected to 0 V via a resistor. In order to store the last signal, the hold input (H) must be supplied with 24 V.



Functions table (example)

Digital value/ digital value	Terminal													
	PIN													
Analog current	MSB	12	11	10	9	8	7	6	5	4	3	2	1	LSB
4 mA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1	1	1	1	1	1	1	1	1	1	1	1	0	1
	1	1	1	1	1	1	1	1	1	1	1	1	1	0
20 mA	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Block diagram



Block diagram

Ordering data

Type	Part No.	Type	Part No.	Type	Part No.	Type	Part No.
RS/U-D 12	1168261001	RS/U-D 12	1168361001	RS/I-D 12	1168461001	RS/I-D 12	1169161001

Technical data

Input signal/measurement range	-10...+10 V	0...10 V	0...20 mA	4...20 mA
Max. input voltage	±15 V	15 V		
Max. input current			30 mA	30 mA
Input resistance	100 kΩ	100 kΩ	500 Ω	500 Ω
Prefix	MSB: H \triangleq positive, L \triangleq negative			
Resolution	4.88 mV \triangleq 1 LSB	2.44 mV \triangleq 1 LSB	4.9 μ A \triangleq 1 LSB	4 μ A \triangleq 1 LSB
Output signal	12 Bit (1 Bit prefix)	12 Bit	12 Bit	12 Bit
Output current	\leq 25 mA (as source)	\leq 25 mA (as source)	\leq 25 mA (as source)	\leq 25 mA (as source)
Output level	24 V \triangleq H, 0 V \triangleq L	24 V \triangleq H, 0 V \triangleq L	24 V \triangleq H, 0 V \triangleq L	24 V \triangleq H, 0 V \triangleq L
Load resistance				
Transmission error	\pm 1 LSB	\pm 1 LSB	\pm 1 LSB	\pm 1 LSB
Conversion time	\leq 50 μ s	\leq 50 μ s	\leq 50 μ s	\leq 50 μ s
Temperature coefficient	1 LSB *	1 LSB *	1 LSB *	1 LSB *
Supply	24 V-, \pm 20%	24 V-, \pm 20%	24 V-, \pm 20%	24 V-, \pm 20%
Max. power loss	4 W	4 W	4 W	4 W
Connection arrangement	Terminal 1 LSB : : : Terminal 12 MSB	Terminal 1 LSB : : : Terminal 12 MSB	Terminal 1 LSB : : : Terminal 12 MSB	Terminal 1 LSB : : : Terminal 12 MSB
	Hold function: High \triangleq +24 V \triangleq storage of digital signal Low \triangleq 0 V \triangleq enabling the conversion cycle	Hold function: High \triangleq +24 V \triangleq storage of digital signal Low \triangleq 0 V \triangleq enabling the conversion cycle	Hold function: High \triangleq +24 V \triangleq storage of digital signal Low \triangleq 0 V \triangleq enabling the conversion cycle	Hold function: High \triangleq +24 V \triangleq storage of digital signal Low \triangleq 0 V \triangleq enabling the conversion cycle
Storage temperature	-40°C...+80°C	-40°C...+80°C	-40°C...+80°C	-40°C...+80°C
Operating temperature	0°C...+50°C	0°C...+50°C	0°C...+50°C	0°C...+50°C
EMC EN 50 081-1/50 082-2				