

Data sheet

KMAi-F8

Page 1/6

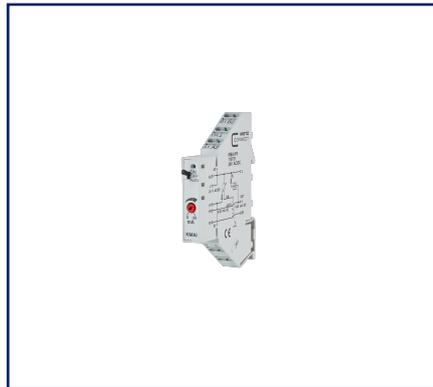
P/N
110731

EAN 4250184123231

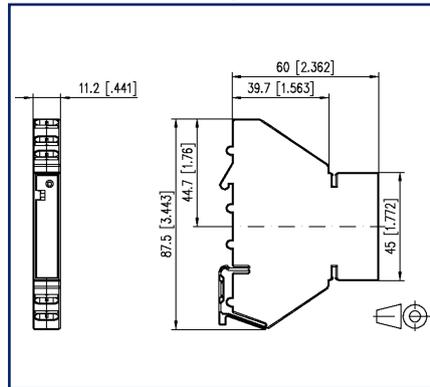
2026/03/04

Version: I

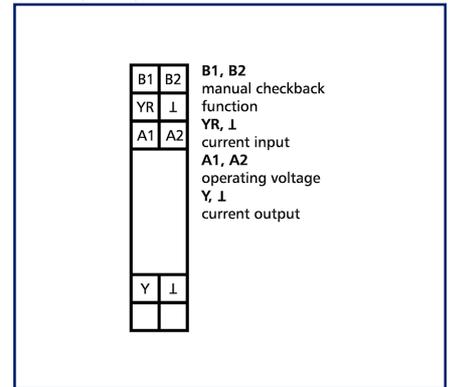
Illustrations



Dimensional drawing



Wiring diagram



See enlarged drawings at the end of document

Product specification

The analog encoder is used for manual control variable settings for example for mixing valves, valve positions, temperature values etc. The module can be controlled in two operating modes that are set by means of the three level switch (ON, OFF, AUTO) on the front. The switch position is confirmed via the two external control contacts B1 and B2. Switch position ON The control variable can be set with the potentiometer on the front. The output signal 0 to 20 mA is available at contact Y. The current flow at input YR is not interrupted when the switch is in position ON or OFF. Switch position AUTO The input current (YR) is transmitted to the control variable output Y with a tolerance of $\pm 5\%$ (full scale value).

- Connection by spring clamp terminal blocks (push-in)
- Setpoint generator
- Manual control level with checkback function
- LED brightness proportional to control variable

Data sheet
KMAi-F8

Page 2/6

P/N
110731
EAN 4250184123231
2026/03/04
Version: I

Technical Data

Supply

Operating voltage	24 V AC/DC -15% ... +20%
Power consumption AC (max.)	30 mA
Power consumption DC (max.)	19 mA
Duty cycle relative	100 %

Manual control level

Mechanical life	1x10 ³ switching cycles
Switching capacity (min.)	3 V AC/DC / 50 µA
Switching capacity (max.)	24 V AC/DC / 50 mA
Test voltage	100 V, 50 Hz, 1 min

Inputs

Current input (YR)	0 ... 20 mA DC
--------------------	----------------

Outputs

Current output (Y)	0 ... 20 mA DC
Output current (max.) switch position "ON"	20 mA
Switch AUTO/ON	shortcircuit proof
Indicator	red LED

Housing

Dimensions	
Dimension (W x H x D)	11.2 mm x 87.5 mm x 60 mm
Dimension (W x H x D)	0.441 in. x 3.445 in. x 2.362 in.
Weight	43 g
Mounting style	Standard rail TH35
Mounting position	any
Apposition	without distance
Connection type	Spring clamp terminal blocks

Terminal blocks

Wire cross section solid	0.08 mm ² - 2.5 mm ² / AWG 28-14
Wire cross section multi	0.08 mm ² - 2.5 mm ² / AWG 28-14
Wire cross section with wire ferrule	0,14 mm ² - 1,5 mm ² / AWG 26-16
Stripping length (min.)	10 mm

Data sheet
KMAi-F8

Technical Data

Material

Material - Housing	Polyamid 6.6 V0
Color	gray
Material - Terminal block	Polyamid 6.6 V0

Protection category according to IEC 60529

Protection category - housing (acc. to IEC 60529)	IP40
Protection category - terminal blocks (acc. to IEC 60529)	IP20

Climatic Data

Operating	
Temperature - Operating °C	-5 °C - 55 °C
Temperature - Operating °F	23 °F - 131 °F
Relative humidity	max. 85 % non-condensing
Storage	
Temperature - Storage °C	-20 °C - 70 °C
Temperature - Storage °F	-4 °F - 158 °F

Power loss

Power loss (typical) during 24 V DC operation	620 mW
Power loss (typical) during 24 V AC operation	780 mW

Classifications

ETIM 7.0	EC000310
ETIM 8.0	EC000310
ETIM 9.0	EC000310
ETIM 10.0	EC000310

Application note

This product is a standard product of METZ CONNECT. METZ CONNECT is not aware of the specific intended use of the goods by the Customer or any customers of the Customer. The Customer guarantees that it has fully and sufficiently tested the use of the goods and any product modifications, product changes or product enhancements with regard to the specific intended use in accordance with the state of the art or in any other way. At METZ CONNECT's request, the Customer shall submit and make available meaningful evidence (e.g. test and laboratory protocols, certifications, etc.).

Data sheet
KMAi-F8

Page 4/6

P/N
110731

EAN 4250184123231

2026/03/04

Version: I

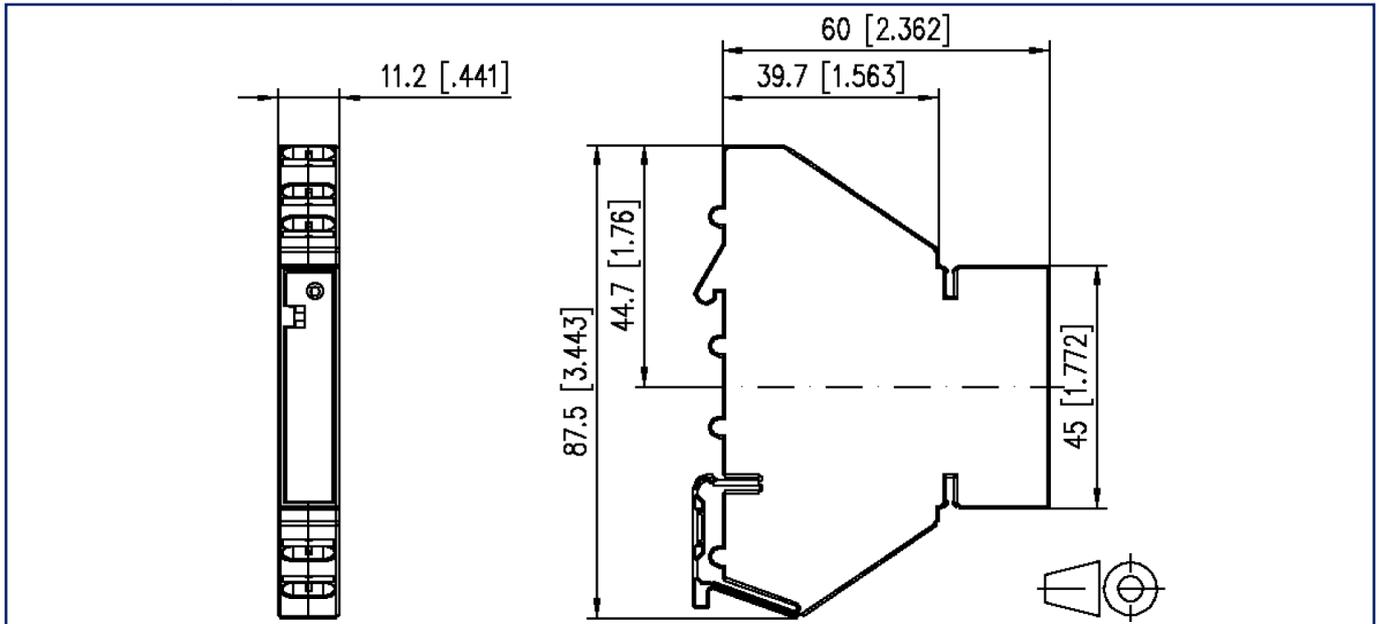
Accessories

P/N	Designation
110727	Labeling plate for KMA-F8
110728	Connecting bridge, 10 pole

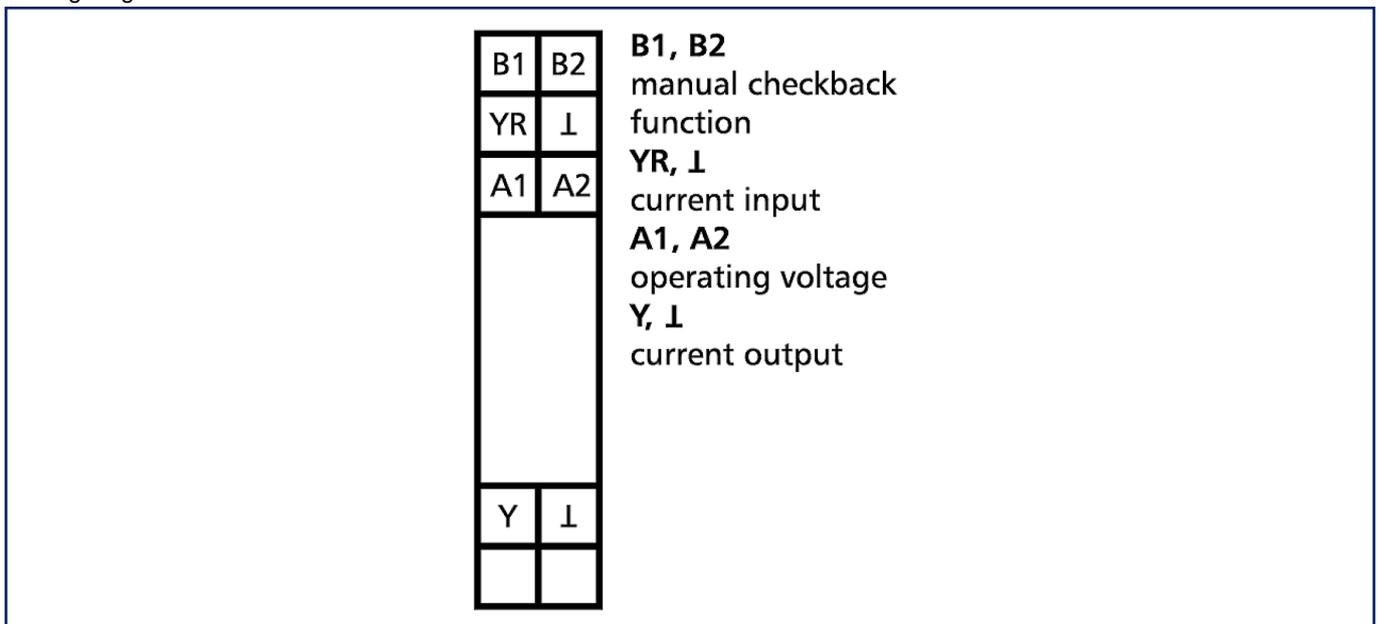


Illustrations

Dimensional drawing



Wiring diagram



Illustrations

Circuit diagram

