GSU 710/66 — Double Sheet Testing Unit

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18 - 30 V
DC

- Reliable detection of multi-layer paper and plastic sheets and metal foils
- Measurement range from 20g/m² paper to 800g/m² cardboard
- Plug connection
- Operating state indicators via light-emitting diodes
- Push-pull switching outputs

IP 40

IEC 68...

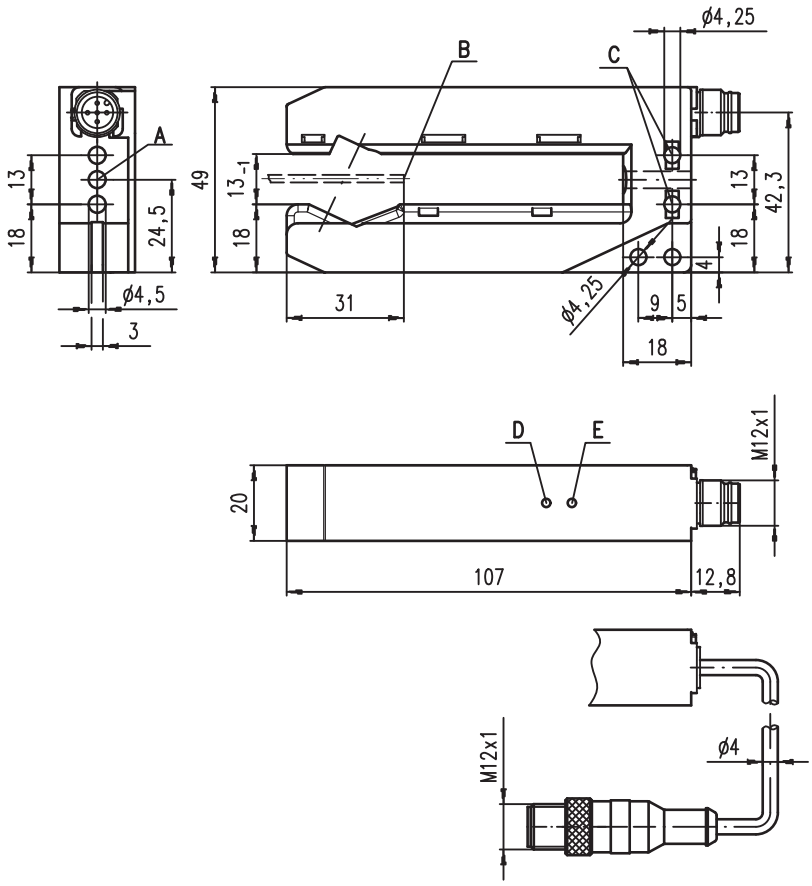
IEC 801...

Accessories:

(available separately)

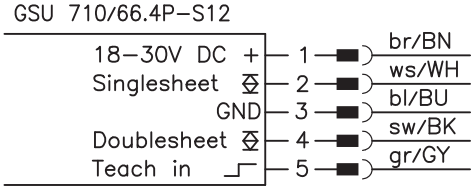
- M12 connectors (KD …)
- Ready-made cables (K-D …)

Dimensioned drawing



A Through hole
B Minimum intrusion depth of sheet edge
C Inlay nut M4 possible
D Red indicator diode
E Yellow indicator diode

Electrical connection



Specifications

Physical data

Mouth width	13mm
Mouth depth	89mm
Minimum intrusion depth	31mm
Converter frequency	approx. 330kHz

Timing

Switching frequency	200Hz
Response time	5ms
Delay before start-up	≤ 300ms acc. to IEC 60947-5-2

Electrical data

Operating voltage U_B	18 … 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Open-circuit current	≤ 50mA
Switching outputs	2 push-pull switching outputs [1]
Function characteristics	single sheet detected, or ≥ 1 sheet double sheet detected, or ≥ 2 sheets
Signal voltage high/low	≥ (U_B-2V)/≤ 2V
Output current	max. 100mA per output

Indicators

Yellow LED	single sheet detected
Red LED	double sheet detected

Mechanical data

Housing	plastic
Color	red
Weight	approx. 100g
Connection type	M12 connector, 5-pin, or cable 400mm with M12 connector, 5-pin

Environmental data

Ambient temp. (operation/storage)	0°C … +50°C/-40°C … +70°C
Protective circuit [2]	1, 2, 3
VDE safety class	II, all-insulated
Protection class	IP 40
Standards applied	IEC 60947-5-2

Options

Teach-in input

Teach-in input resistance	R_{in}: 10kΩ
Teach-in active/not active	…/…P (PNP): ≥ 10V/≤ 2V or floating
Teach-in duration	max. 100ms
Teach-in delay	approx. 300ms

1) Function: …/…P = active high (+24V); not active low (0V)
The push-pull switching outputs must not be connected in parallel
2) 1=transient protection, 2=polarity reversal protection, 3=short circuit protection for all outputs

Mode of operation

The "singlesheet" output signals that an object is within the detection range. This output may be used to check for presence.

A detected double sheet is signaled at the "double sheet" output.

In the standard mode, 2-layer paper sheets with weights between approx. 40g/m² and approx. 400g/m² are detected without additional calibration.

With the "teach-in", the measurement range limits can be expanded to between approx. 20g/m² and approx. 800g/m².

The calibration process is started by applying a high signal at the "teach-in" input.

Calibration is performed either directly on a medium - if a sheet is in the detection range at the calibration time - or calibration is performed automatically if a medium is inserted into the detection range after the calibration time.

The calibration process is concluded after approx. 100ms.

When switched back on, the sensor again functions in standard mode 40g/m²…400g/m².

Order guide

	Designation	Part No.
M12 connector	GSU 710/66.4P-S12	50108702
400mm cable with M12 connector	GSU 710/66.4P, 400-S12	50112912

Remarks

- **Intended use**:
  The GSU 710 double sheet testing unit is a monitoring unit predominately designed for single sheet checking in paper processing machines.

Operate in accordance with intended use!

- This product is not a safety sensor and is not intended as personnel protection.
- The product may only be put into operation by competent persons.
- Only use the product in accordance with the intended use.