

Semaphore Indicator



BM 18

BM 24



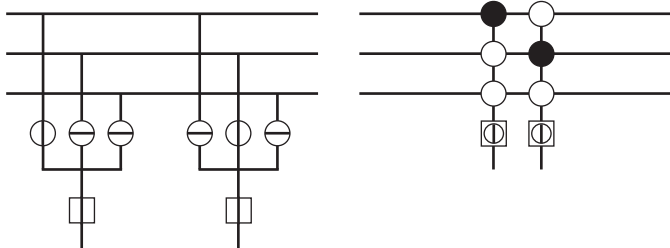
The products described in this brochure are intended for industrial use and meet the requirements laid down by the EU directive 73/23/EU (issued by the Council for Coordination of the Regulations of EU Member Countries regarding the electrical equipment for use within certain voltage limits, revised by directive 93 / 68 EU issued by the council).

The contents may be subject to modification for the purpose of technical improvement. The general regulations applicable to installation and commissioning must be observed. No warranty can be accepted.

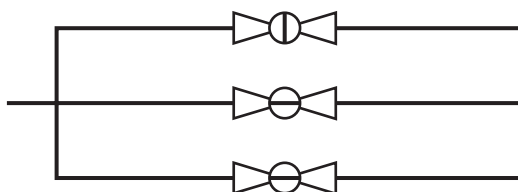
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Application

The semaphore indicator is preferably used in situations that require visual simulation of the circuit or operating state of a device and indication of the fault position in addition to the ON and OFF positions. Semaphore indicators are particularly suitable for monitoring power breakers and disconnectors in complex transformer substations which are represented in the form of a mimic diagram of relatively small dimensions.



Semaphore indicators are also used by the chemical industry for the monitoring of slides, valves, etc. in supervisory flow diagrams.



Design and Principle of Operation

The semaphore indicators of the type BM 18 and BM 24 can be used in mosaic systems of the type M18 and M24, respectively.

The control electronics and the precision d.c. motor with a disk at the shaft end are the main components of the semaphore indicator. When the semaphore indicator is activated, the disk rotates into the defined position indicating an "ON", "OFF" or "Fault" state.

A simple mechanism ensures that the semaphore precisely holds the defined position.

The components of the semaphore are contained in a robust plastic case.

The semaphore indicator is completely wired up and is supplied with a three-core cable of 2.2 m length with plug connector.

Technical Characteristics

Exciter end

Type of current	Direct current
Nominal voltage	24 V
Continuous overload capability	$1.2 V_{\text{rated}}$
Response voltage	$\geq 0.8 V_{\text{rated}}$
Power consumption at V_{rated}	1.0 W approx.

General Characteristics

Type of protection	IP 40 (acc. to DIN 40050)
Test voltage	2 kV (VDE 0435 m/9.72)
Ambient temperature range	-20 °C to +50 °C
Mechanical life	5×10^4 operations
Mounting position	Any position
Weight	110 g

Bar Colour

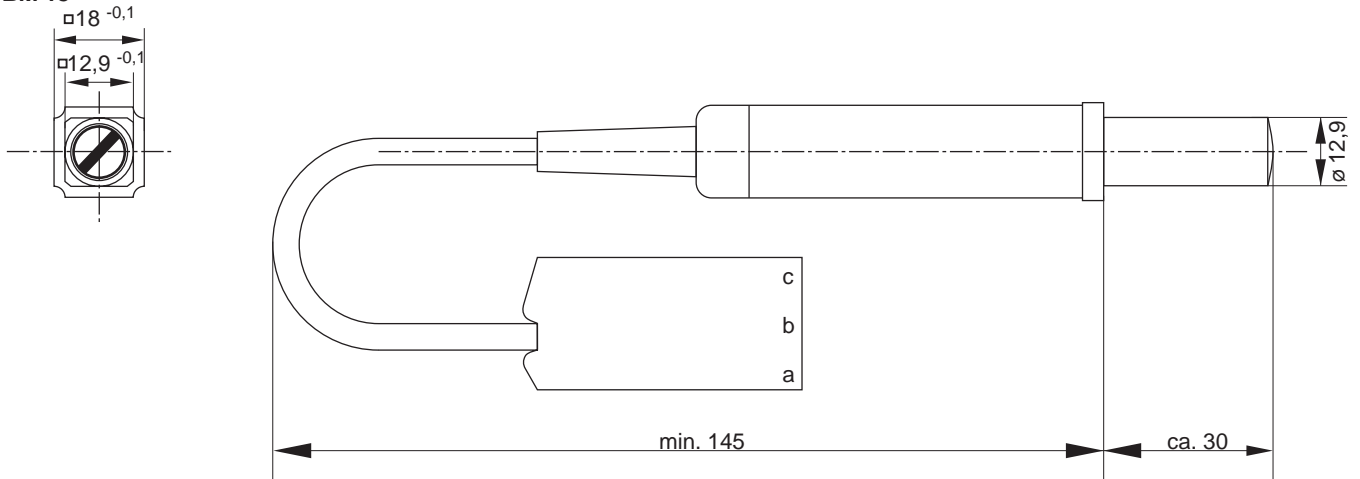
	(on white background)
Black	RAL 9005
Red	RAL 2002
Yellow	RAL 1018
Green	RAL 6018
Blue	RAL 5012

Additional colour combinations are available on request.

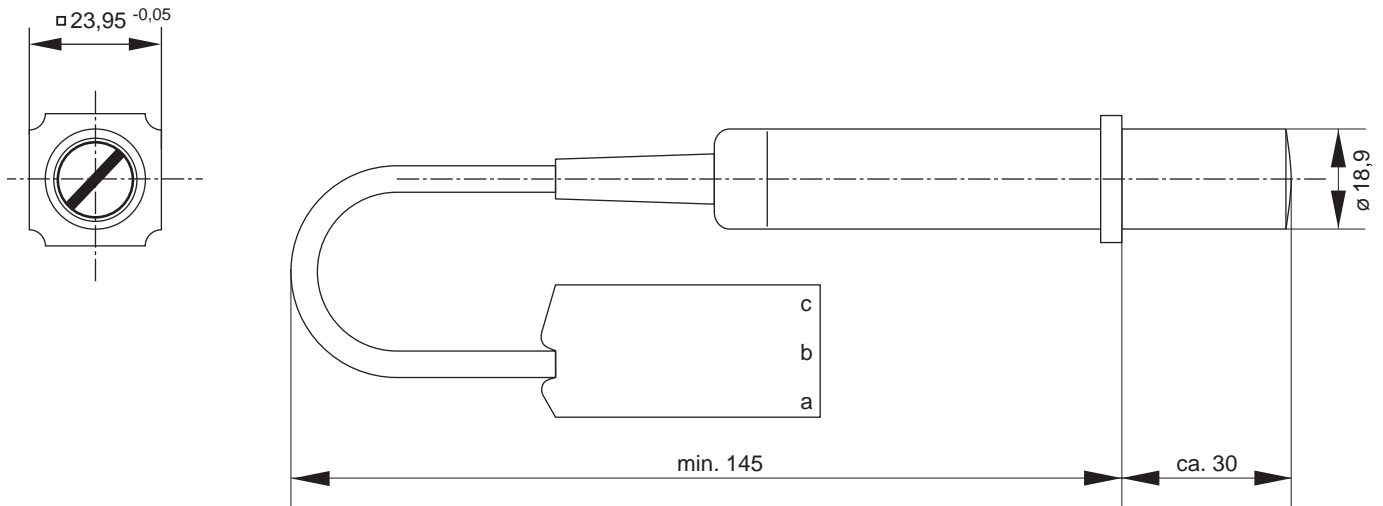
Bar Width

BM 18	2 mm
BM 24	2 mm or 4 mm

BM 18

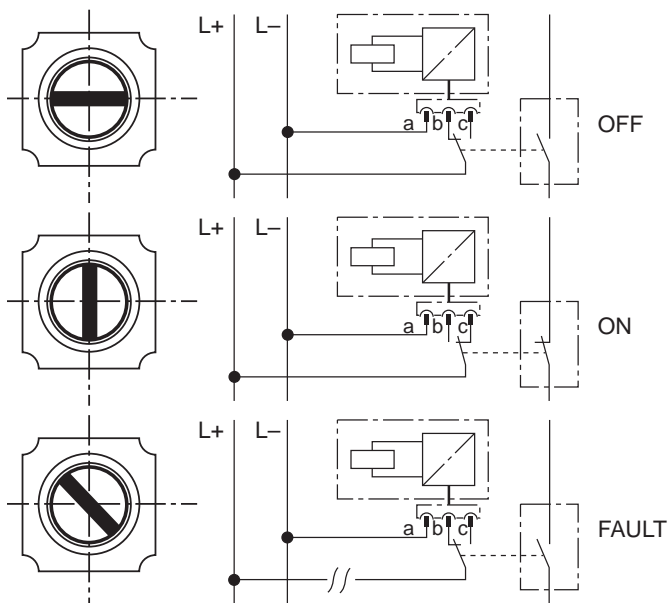


BM 24

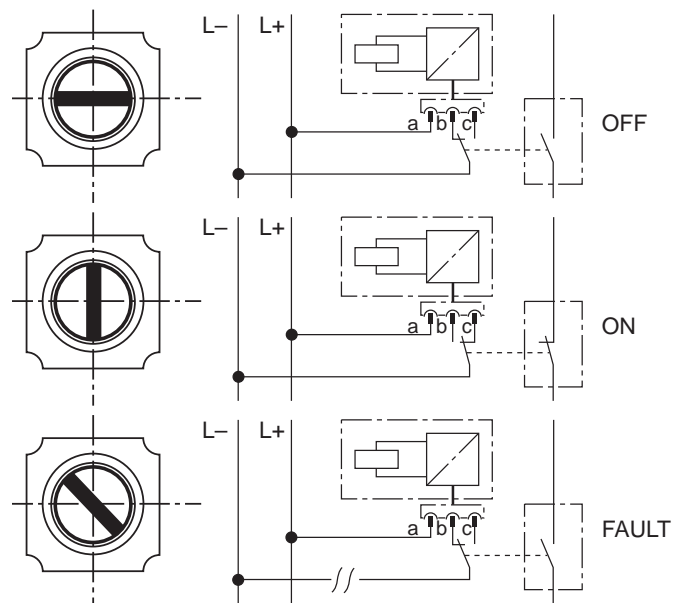


Diagrams

BM ..-01



BM ..-02



Technical Brochures Available

Power Station Control and Process Control

Automation system	ME 400
Process control system	ME 4012
Data sheets	ME 4012
Fail-safe control system	ME 4002S
Couplers, electrical power controllers	
Electronic control system	ME 4002
Data sheets: Electronic control system	ME 4002
Data sheets: Electronic control system	ME 4022
Electronic measuring and monitoring system	ME 7002

Application Reports

- Digital turbine control
- Optimal control of industrial steam generators
- Sample documentation ME 4012
(Flue gas desulfurization, absorber circulation)
- Computer-aided design with the
process control system ME 4012
- Reference list of completed process control installations

Power Distribution Control/Remote Control

Remote control system	ME 800
Microprocessor remote control system	ME 8008
Terminal control system	ME 8010
Terminal control system	ME 8012
Remote control system	ME 8012
Microprocessor remote control system	ME 8018
Power distribution control system	ME 6005

Alarm and Event Recording Systems

Event data acquisition system	ME 300
System description	ME-NET
Alarm and event recording system	ME 2015
Criterion computer	ME 2015K
Alarm and event recording system	ME 2025
Electronic alarm system	ME 3008

Mosaic Systems/Control Room Technology

Mosaic systems M
Mosaic systems K
Mosaic systems T
Mosaic systems MK
Mosaic accessory parts
Display elements

Electronic Standard Device

Display units	ANZ
DC voltage monitoring unit	GEÜ 02/GESÜ 02
Alarm and event recording system	ME 2025/96
Compact alarm system	ME 3009
Illuminated annunciator system	ME 3012
Distributed alarm system	ME 3014
Alarm system	ME 3010
Intelligent alarm system	ME 30
Illuminated indicator board Type L	
Cables with connectors, terminal blocks	
Annunciator relays	
Illuminated annunciator relay	
Mosaic indicator boards	
Crosspoint relays	
Couplers	
Time-delay relays	
Illuminated pushbuttons/switches	
Annunciator module	
Flasher unit/flasher amplifiers	
Electronic flasher unit	
Test switch	
Switches and pushbuttons for auxiliary circuits	
Standard rack system	
Illuminated pushbuttons, eyeball indicators	
Reversing thyristor controllers	
Couplers	
Start-up and brake control modules	
Emergency OFF devices	
Two-hand safety relays	
Safety door monitor	
Electronic controllers	

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