

# QUALITROL AKM345 GEN3 OTIWTI™

THE FUTURE OF OIL AND WINDING TEMPERATURE INDICATION  
FOR TRANSFORMERS OF ALL CLASSES



### The future of oil and winding temperature indication from the industry leader

- Over 75 years of experience providing world class temperature measurement devices
- New features to support the digitization of transformers
- New and improved design for an even more reliable and robust product
- The original bellows technology temperature indicator with integrated winding temperature simulation

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### New features to support the digitization of transformers

- All new RS-485 Modbus digital communication option to allow more data to be easily integrated into monitoring systems
- Dual analog output options for installations where local and remote monitoring is required

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### Standard options to meet all specification requirements

- Up to 6 fully independent switches for most control and alarming circuits
- Optional adjustable switching differential to fine tune cooling operation
- Standard switch rated for up to 15 Amps VAC and up to 10 Amp DC switches available for higher VDC loads (magnetic blow out, M.B.O.)
- Various analog output types available – 4-20mA, 0-5VDC, Pt100

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### New and improved design for an even more reliable and robust design

- Improved standard features to support longevity of the product
- IP66 standard ingress protection
- C5-High standard as per ISO 12944
- Updated enclosure design to enhance durability
- Polar option for operation down to -60°C

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### Bellows technology with integrated winding temperature simulation

- The same great bellows temperature indication technology from the original OTIWTI™
- Easy all-in-one winding temperature installation, no need for external equipment
- Reliable and accurate technology proven over time

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### Reduced installation complexity

- New hinged or removable cover for easy access to wiring when mounting on a bracket or in a control cabinet
- Same installation footprint and mounting options as the previous generations AKM345
- Single enclosure design eliminates the need for additional external accessories

## AKM345 GEN3 OTIWTI™

**QUALITROL**  
Defining Reliability

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### NEW ROBUST CASE DESIGN

New case design that provides industry leading IP66 GORE® vented ingress protection and C5-High corrosion protection standard

### UPDATED MAX TEMPERATURE POINTER

Inverted max temperature pointer to prevent accidental damage during installation

### INTEGRATED WINDING SIMULATION

Integrated heating element in AKM bellows for winding temperature indication allows for an all-in-one winding temperature simulation

### NEW COVER HINGE DESIGN

Swing out or removable cover for even easier wiring and installation for all applications

### AKM BELLOWS TECHNOLOGY

Robust and reliable original AKM OTIWTI™ bellows system allows for life-long accuracy and durability

### UPDATED REMOTE INDICATION

New Modbus and Dual Remote output capability with updated design

### 6 SWITCH CAPABILITY

2, 4, or 6 fully adjustable independent switches flexible enough for all cooling and alarm requirements





## TECHNICAL DATA

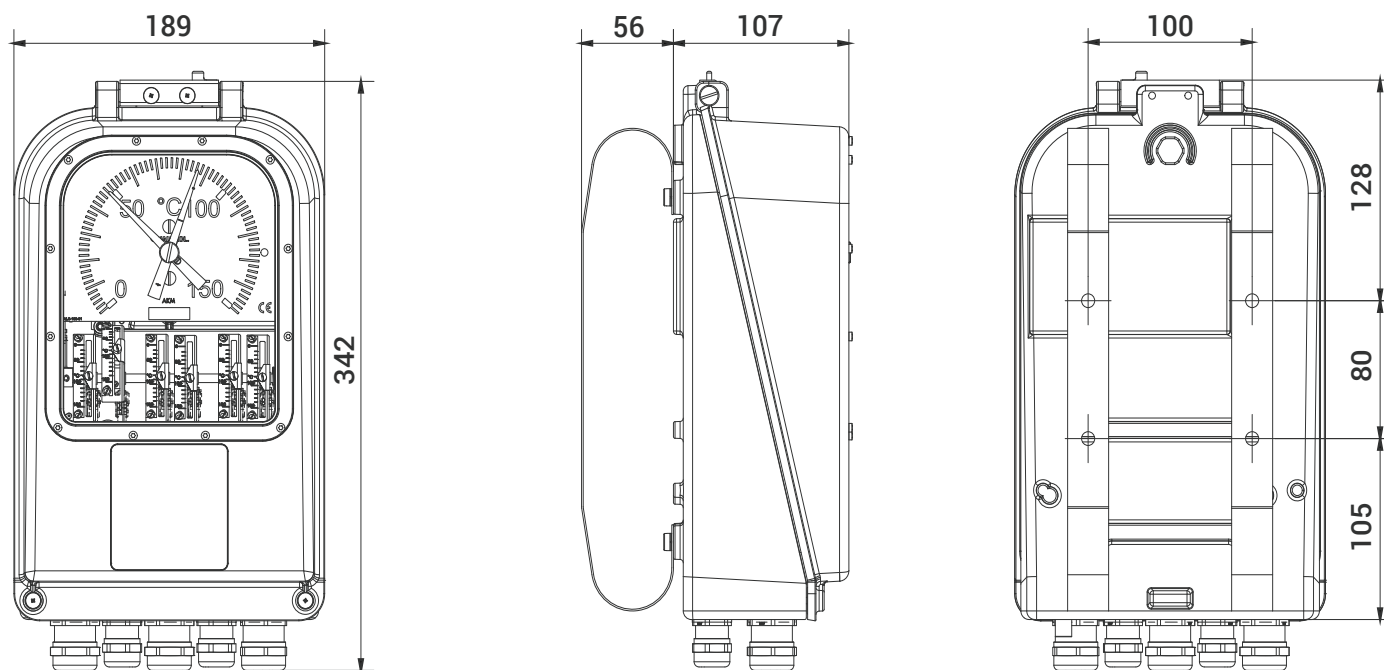
## Features and Parameters

MECHANICAL	
Indication Accuracy	±2% of full dial range
Standard Measurement Range	0°C to 150°C
Winding Temperature Simulation	Internal option for: CT ≤ 2.2A, CT ≤ 2.65A, or CT ≤ 5A
Mounting Style	Stainless Steel anti-vibration mount (standard), Elastomeric seismic mount, or Universal mount
Cover Style	Swing up cover design, easily removed if required
Cable Entry	3 x M25, 2 x M20
ELECTRICAL	
Number of Switches	2, 4, or 6 independently adjustable switches
Switch Types	Standard, High-DC, and Gold options
Switching Differential	12°C ± 2°C - Standard Option for all switches adjustable from 5°C to 25°C
Switching Accuracy	±3% of full dial range
Remote Outputs	Non-powered: Pt100 Powered: 4-20mA, 2 x 4-20mA, or 4-20mA & 0-5VDC
Communications	RS-485 MODBUS
Dielectric Isolation Switches	2000VAC to earth for 60 seconds
Dielectric Isolation Remote Output	500VAC to earth for 60 seconds
MATERIALS	
Housing	Die-cast aluminum, powder coated finish in RAL7000 or RAL7035
Capillary	Copper-nickel element with protective stainless steel cover
Lens	UV stabilized polycarbonate or glass
ENVIRONMENTAL	
Corrosion Protection	C5-High as per ISO 12944
Ingress Protection	IP66
Ambient Operating Temperature	-40°C to 70°C - Standard -60°C to 70°C - Polar
Storage Temperature	-50° to 80°C
Humidity	95% non-condensing relative humidity @ 95°C
General Requirements	Per IEC 60076-22-1
Over-voltage category, Pollution Degree, Class	Category III, Pollution degree 2, Insulation Class 1

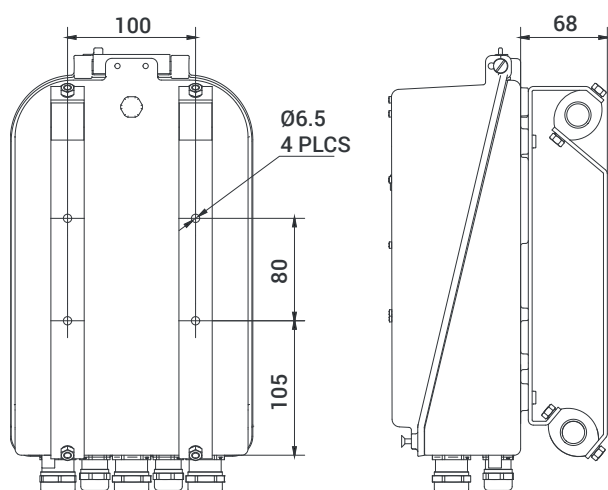


## DIMENSIONS

### Standard Mounting



### Seismic Mounting



### Universal Mounting

