

Transducer mounting kits

- Robust design for field use
- Strong fixation for accurate measurement
- Versatile tools for different circuit breaker types



Description

The transducer mounting kit is a set of tools designed for mounting different transducer types to on various types of circuit breakers.

User is usually allowed to mount transducers on accessible parts of the circuit breaker's mechanical linkage. Transducers are connected to a rotating shaft of the circuit breaker or to an operating rod or the main contact.

Transducers can be connected to DV Power CAT series circuit breaker timers and analyzers with transducer input channels (models: CAT34, CAT64, CAT64A, CAT35, CAT65, CAT66, CAT124A, CAT125 & CAT126). Either an analog or a digital transducer can be connected to these universal channels.

Transducer mounting kits are designed as a fixation tool for rotary digital and analog transducers:

- Emeta MA306-10-2500-3
- Novotechnik IP6501-A502

Novotechnik rod type and side actuated linear transducers TS, TLH or LWG series can be used with the transducer mounting kit.

Universal transducer mounting kit

The kit is basic set of fixation tools, which can be used for mounting different types of transducers to different positions on the circuit breakers poles and operating mechanisms. Parts included in the Universal transducer mounting kit are:

- **Big clamping base**
- **Small clamping base**
- **Articulated arm**
- **Magnetic base**

The clamping base or magnetic base is used on the one end of the articulated arm to fix the entire tool on the circuit breaker.

Articulated arm can be positioned easily in any desired position. All joints are fixed precisely and held securely with the central tightening knob.

Second clamping base is used as transducer holder and it is connected to the other end of the articulated arm.



Universal transducer mounting kit
(art.# UTM-KIT-0000)

Universal transducer mounting kit – Extended version

Universal transducer mounting kit – Extended version contains the same parts as the Universal transducer mounting kit except additional set of clamping bases and an articulated arm:

- Big clamping base (2x)
- Small clamping base (2x)
- Articulated arm (2x)
- Magnetic base



Big clamping base
(Clamping range 80-85 mm)
(art.# UTM-LCB-0080)



Small clamping base
(Clamping range 30-35 mm)
(art.# UTM-SCB-0030)



Articulated arm (M8 screw holder;
Length: 288 mm)
(art.# UTM-AA-0288)



Magnetic base
(M8 screw holder; Holding force: 800 N;
Base size: 63 mm x 50 mm x 55 mm)
(art.# UTM-MAG-0800)



**Universal transducer mounting kit – Extended
version (art.# UTM-KIT-0001)**



**Universal transducer mounting kit – Extended
version (unpacked)**

Digital rotary transducer

CAT series circuit breaker analyzers and timers can be used with Emeta **MA306-10-2500-3** digital rotary transducers:

- 58 mm radius
- 10mm solid rotating shaft with face
- Weight: up to 300 g (without cables)
- Short circuit and reversed polarity proof
- Protection class IP65
- Power supply: 5V
- Puls rate: 2500
- Axial 6-pin male MS connector



Digital rotary transducer with 5 m connection cable (art.# DRT-250-C605)

Analog rotary transducer

CAT series circuit breaker analyzers and timers can be used with NOVOTECHNIK IP6501 analog rotary transducers:

- Mechanical travel: 360°
- Defined electrical travel: 355° ±2°
- 55 mm radius
- 6 mm rotating shaft
- Weight: 180 g (without cables)
- Short circuit and reversed polarity proof
- Dust and splash proof up to IP67
- Max. permissible applied voltage: 42 V
- Axial 6-pin male MS connector



Analog rotary transducer with 5 m connection cable (art.# ART-250-C605)

Rotary transducer accessories

Connection of the rotary transducer to a rotating shaft of the circuit breaker requires additional accessories:

- **Carrier (L - profile)** for digital rotary transducer
- **Bellow coupling** – should be used for connecting the transducer shaft to the test object
- **Mechanical adapters (M6, M8, M10, M12)** - different adapter bolts can be used to connect the rotary transducer shaft to the test object



Carrier (L profile) for digital rotary transducer (art.# DRT-CRL-0090)



Bellow coupling (art.# DRT-COUP-001)



Four mechanical adapters (M6, M8, M10, M12) (art.# DRT-MADP-004)

Plastic transport case for 3 digital rotary transducer set



Plastic case for 3 digital rotary transducer set (art.# PLCAS-TRN-R3)

Measurement of circuit breaker motion parameters is usually performed on all three phases. This practice is common when testing single pole circuit breakers.

In that case it is convenient to have available one plastic case for three transducers along with all required mounting accessories.

Analog linear transducer

CAT series circuit breaker analyzers and timers can be used with Novotechnik rod type and side actuated linear transducers TS, TLH or LWG series:

- very high operating speed
- outstanding linearity - up to $\pm 0.02\%$
- high resolution – better than 0.01 mm
- protection class IP 54 -
- Housing: aluminium, anodized
- Resistance element: conductive plastic



Analog linear transducer TLH series



Analog linear transducer LWG series



Analog linear transducer TS series

The above linear analog transducers are available in several lengths. Please contact DV Power for more information

Application examples



Digital rotary transducer mounted on ABB LTB 245 kV SF6 circuit breaker

Mounting kit accessories used:

- Clamping base
- Articulated arm
- Carrier (L-profile)
- Bellow coupling
- Mechanical adapter
- Digital rotary transducer



Digital rotary transducer mounted on Siemens 3AP1FI 245 kV SF6 circuit breaker

Mounting kit accessories used:

- Clamping base
- Articulated arm
- Carrier (L-profile)
- Bellow coupling
- Mechanical adapter
- Universal adapter for mounting of rotary transducer
- Digital rotary transducer



Analog linear TLH transducer mounted on Mitsubishi SF6 138 kV 120-SFMP-40HE

Mounting kit accessories used:

- Clamping base (4x)
- Articulated arm (2x)
- Analog linear transducer (TLH series)



Mounting kit accessories used:

- Clamping base (4x)
- Articulated arm (2x)

Analog linear transducer (TLH series)

Analog linear TLH transducer mounted on ABB 145 PM 40-20, SF6 dead tank circuit breaker

Order info

Transducers	Article No
Digital rotary transducer with 5 m (16.4 ft) connection cable	DRT-250-C605
Digital rotary transducer with 10 m (32.8 ft) connection cable	DRT-250-C610
Digital rotary transducer with 5 m (16.4 ft) connection cable with accessories	DRT-SET-0005
Digital rotary transducer with 10 m (32.8 ft) connection cable with accessories	DRT-SET-0010
Linear analog transducer 150 mm (5.9 in) with 5 m (16.4 ft) connection cable	LAT-150-C305
Linear analog transducer 225 mm (8.85 in) with 5 m (16.4 ft) connection cable	LAT-225-C305
Linear analog transducer 300 mm (11.8 in) with 5 m (16.4 ft) connection cable	LAT-300-C305
Linear analog transducer 500 mm (19.68 in) with 5 m (16.4 ft) connection cable	LAT-500-C305
Transducer mounting kits	
Universal transducer mounting kit	UTM-KIT-0000
Universal transducer mounting kit - extended version	UTM-KIT-0001
Big clamping base	UTM-LCB-0080
Small clamping base	UTM-SCB-0030
Articulated arm	UTM-AA-0288
Magnetic base	UTM-MAG-0800
Carrier (L profile) for digital rotary transducer	DRT-CRL-0090
Bellow coupling	DRT-COUP-001
Four mechanical adapters (M6, M8, M10, M12)	DRT-MADP-004
Plastic case for 3 digital rotary transducer set	PLCAS-TRN-R3

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