



**DEUTROPULS**  
Hand Yoke for Magnetic Particle Inspection

Types  
230 V  
42 V

**KARL DEUTSCH**

# DEUTROPULS

## Mobile Crack Detection – Safe and Reliable

The DEUTROPULS Hand Yoke is a mobile yoke for magnetic particle inspection with extra high magnetization performance, easy handling and for miscellaneous applications. The robust design allows reliable magnetic particle crack detection also under harsh conditions. The mechanical design takes the highest safety demands into account. The instrument is fully sealed with high-quality casting resin against humidity. The optimal positioning onto the different work-pieces is possible with the help of interchangeable extended, angled or flexible attachment poles respectively.

**The features of the DEUTROPULS Hand Yoke are shown below at a glance:**

- Weight optimized design with high magnetization performance
- Ergonomic shape with a switch with a small stroke
- High voltage – protection
- High quality resin casted housing
- Easy exchangeable cable
- Replaceable switch with small stroke, sealed acc. to IP65, very high switching stability
- High-duty cycle
- Characteristics in compliance with EN ISO 9934-3:2015, ASTM E1444-16

### Versions

The DEUTROPULS Hand Yoke is available in two versions:

The **230-V-AC-version** can be connected to the power supply system either directly or via an isolating transformer (230 V primary/230 V secondary) for galvanic isolation.

The **42-V-AC-version** (low supply voltage) is fed by an isolating transformer (Ord.-Nr. 3850.242), which is connected primary to 230 V and provides a secondary voltage of 42 V or 35 V respectively.

This version is to be used for the inspection within tanks and containers.

### Safety

Before delivery each DEUTROPULS Hand Yoke is tested for...

- proper electric grounding
- high voltage resistance
- The 230-V-version is protected against overheating by an integrated temperature sensor.



DEUTROPULS Hand Yoke with accessories in a sturdy hard case



Wide choice of attachment poles for the different measuring tasks

Technical Data		
Versions	42-V-version	230-V-version
Power supply	42 V~ 50/60 Hz	230 V~ 50/60 Hz
Duty cycle	50 %	50 %
Protection class (EN 60529)	IP 65	
Pole distance	140 mm	
with movable attachment poles	48 up to 235 mm	
<b>Tangential field strength</b>		
Steel block acc. to EN ISO 9934-3:2015	3,7 kA/m	
Steel block: 300 / 80 / 25 mm	5,8 kA/m	
Dimensions (W x H x D)	approx. 240 mm x 136 mm x 45 mm	
Weight	approx. 3,6 kg (incl. cable and pole shoes 10 mm)	
Cross sectional area of the poles	23 mm x 27,5 mm	
Maximum switch-on time	2 min.	
Lifting force	better than EN ISO 9934-3:2015 and ASTM E1444-16	

Order data / accessories / consumables	
	order no.
<b>DEUTROPULS Hand Yoke 230 V</b>	3446.230
without attachment poles, 5 m cable	
<b>DEUTROPULS Hand Yoke 42 V</b>	3446.042
without attachment poles, 5 m cable	
<b>Attachment poles 10 mm</b> (2 ea)	3852.102
<b>Attachment poles 45°</b> (2 ea)	3852.302
<b>Attachment poles 60 mm</b> (2 ea)	3852.402
<b>Attachment poles 100 mm</b> flexible	3852.202
<b>Two-windings transformer</b>	3850.322
primary 230 V, secondary 230 V	
<b>Two-windings transformer</b>	3850.242
primary 230 V/110 V, secondary 35 V/42 V	
<b>Extension cable</b> for Hand Yoke, 20 m	3839.200
<b>Carrying case</b> for DEUTROPULS Hand Yoke	3850.502
<b>FLUXA testing agent</b> for high contrast indications	refer to leaflet P90E

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