

# Manual Supplement

Manual Title: 28 II Ex Users  
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This supplement contains information necessary to ensure the accuracy of the above manual. This manual is distributed as an electronic manual on the following CD-ROM:

CD Title:	28 II Ex
CD Rev. & Date:	11/2011
CD PN:	3945765

## **Change #1, 60849 & 60854**

On page 1, replace the second paragraph with:

The Product is designed for operation in potentially explosive areas of Zone 1, 2, 21, 22, and M1 as specified in Directive 1999/92/EC and 94/9/EC (ATEX). There can be dangerous consequences if you do not follow these instructions.

On page 2, replace the last bullet with:

Industrial use in potentially explosive areas of zone 1, 2, 21, 22, or M1, in accordance with ATEX requirements (see the EX safety instructions & regulations section)

On page 7, replace the entire page with:

**Ex-Certification Data**

- Ex-Type certificate no: PTB 11 ATEX 2028 X  
IECEX PTB 11.0080X
- Ex-Designation: ATEX: II 2G Ex ia IIC T4 Gb  
II 2D Ex ia IIIC T130 °C Db  
I M1 Ex ia I Ma  
IECEX: Ex ia IIC T4 Gb  
Ex ia IIIC T130 °C Db  
Ex ia I Ma
- CE: CE0102
- Operating Temperature: -15 °C to 50 °C
- Storage Temperature: -40 °C to +60 °C
- Batteries: 3 AAA Alkaline batteries, NEDA 24A IEC LR03. Table 7 shows the approved batteries for this Product.

For connections to intrinsically-safe circuits, observe these Product connections:

Voltage – measurement input  $U_i = 65 \text{ V}$ :

$U_0 = 9.54 \text{ V}$   
 $C_i = \text{negligible}$   
 $I_0 = \text{negligible}$   $I_i = \text{negligible}$   
 $L_i = \text{negligible}$

$P_0 = 3.4 \text{ mW}$   $R_i = 2.47 \text{ K}$

Lo/Co						
Lo/mH	1000	100	2	0.5	0.1	0.01
Co/μF	0	0.61	1	1.4	2.1	3.6

Current – measurement input  $I_i = 5 \text{ A}$ :

$U_0 = 0 \text{ V}$   $U_i = 65 \text{ V}$   
 $C_0 = 1000 \mu\text{F}$   $C_i = \text{negligible}$   
 $I_0 = 0 \text{ mA}$   
 $L_0 = 1000 \text{ mH}$   $L_i = \text{negligible}$   
 $P_0 = 0 \text{ mW}$

mA/μA Jack

$U_0 = 1.95 \text{ V}$   $U_i = 65 \text{ V}$   
 $C_i = \text{negligible}$   
 $I_0 = 9.7 \mu\text{A}$   $I_i = \text{Internally limited by a } 440 \text{ mA fuse}$   
 $L_i = \text{negligible}$   
 $P_0 = \text{negligible}$

<b>Lo/Co</b>						
Lo/mH	1000	100	5	1	0.5	0.005
Co/ $\mu$ F	0	14	19	25	30	1000

For measurements on protected electric circuits:

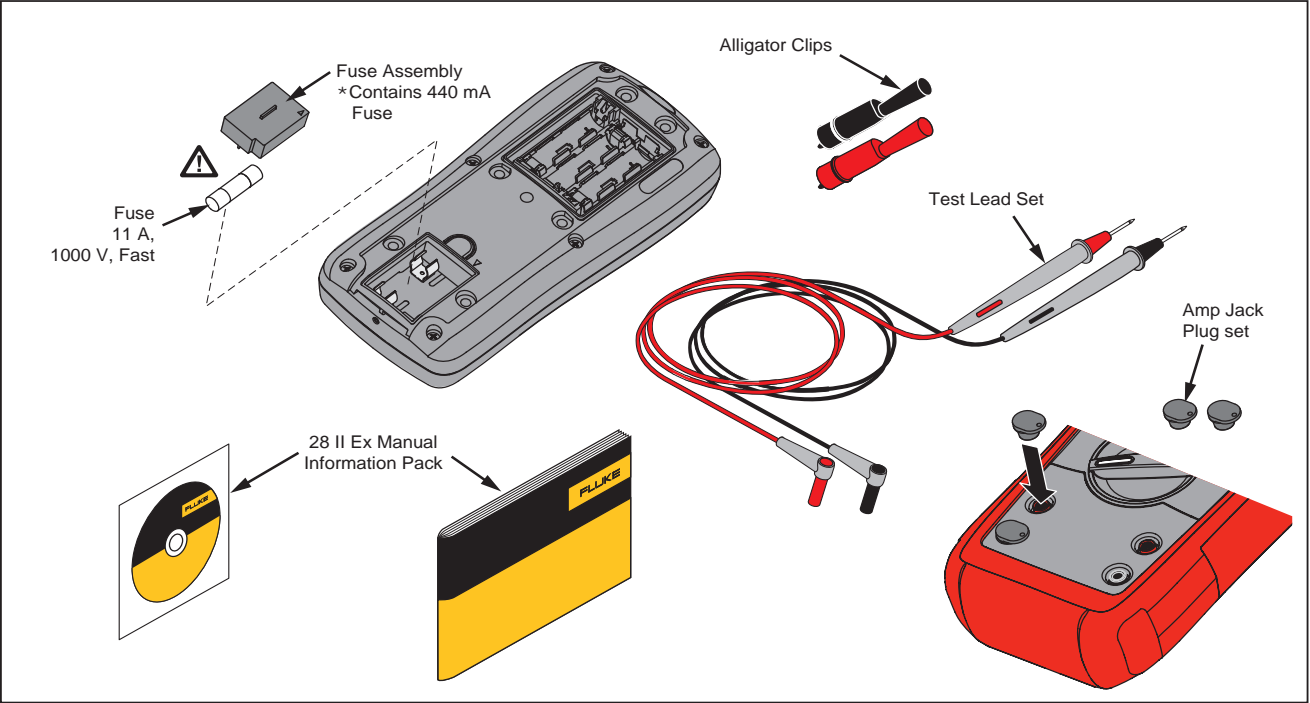
- Approved for Zones 2 and 1, device group II, explosion group IIC (explosive gases, vapors and mist), temperature class T4.
- Approved for Zones 21 and 22, device group II, explosion group IIIC, conducting and non-conducting dust, fibers, and flyings.
- Approved for use in mines. Device group I, explosion group I, methane, and coal dust.

On page 43, replace Table 10 with:

**Table 10. Replacement Parts**

Description	Qty.	Fluke Part or Model Number
Fuse, 11 A, 1000 V, FAST	1	803293
28 II Ex Fuse Assembly	1	4016494
Alligator Clip, Black	1	AC172 or AC175
Alligator Clip, Red	1	
Test Lead Set	1	TL175
28 II Ex Manual Information Pack (Includes Users Manual, CD & Getting Started Manual)	1	4013990
Fluke Input Cap, Amp Jack Plugs for DMM's (10 packs)	1	4145825
⚠ To ensure safety, use exact replacement only.		

On page 44, replace Figure 12 with:



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Figure 12. Replacement Parts

On page 45, Replace Table 11 with:


**Table 11. Accessories**

Item	Description
AC172 or AC175	Alligator Clips
TL175	Silicone test lead set with probes
Amp Jack Plug Set	2 Pack for DMM's
I400	⚠ AC Current Clamp <sup>[1]</sup>
80PK-27	⚠ Temperature Probe <sup>[2]</sup>
<p>All accessories in this table are approved for use in explosive hazardous environments. Fluke accessories are available from an authorized Fluke distributor.</p> <p>[1] ⚠ <b>Warning</b> - To prevent personal injury or property damage, do not use this accessory in hazardous areas where dust is moved, transported, or conveyed.</p> <p>[2] ⚠ <b>Warning</b> - To prevent personal injury or property damage, do not use this accessory in dust hazardous areas.</p>	

On page 46, under **Temperature** replace Storage with:

Storage      -40 °C to +85 °C (without battery)  
                 -40 °C to +60 °C (with battery)

On page 47, replace **Certifications** with:

**Certifications** .....CSA, TÜV, CE,  ATEX, IECEx