

Disabling ERMS on Masterpact MTZ with ESM Module

When MTZ has the ERMS feature with the external switch and ESM module, the circuit breaker will go into ERMS mode when power is removed from the ESM module (examples: removed from cell for primary or secondary injection, no control power to breaker/switchgear).

The ESM module installed in the breaker, while in normal (ERMS off) mode, will have a constant voltage on it supplied from the ERMS switch. When the switch is flipped to turn on ERMS, the voltage is removed from the ESM module and ERMS is activated. If you are testing (primary or secondary) and the breaker is in ERMS mode you will be testing the ERMS settings, not the normal ones.

There are a couple of options to disable the ESM input:

- Before removing the breaker from the cell, with the control unit powered up via 24v control power (using the USB cable alone to power the control unit will not work) and voltage applied to the ESM (ERMS off), connect to the MTZ breaker with EcoStruxure Power Commission (using USB) and click on the “Breaker Accessories” pencil. Find “ESM” in the list and switch it off. This will prevent the ESM from sending the command to engage ERMS. **Remember to turn it back on when done!**



Simulator040 ● ✎

Masterpact MTZ - Micrologic 5.0 X | Serial : 00003N1805310006

Application Type : Distribution
Product model : Micrologic 5.0 X
Rated current : 1000A
Standard : IEC
IO 1 : Yes
Breaker Accessories : MX1,XF,MN,M2C,BPFE ✎
Assembly date : N/A
Date/Time : 0

View Trip Curve

DISCONNECT

Configure Accessories

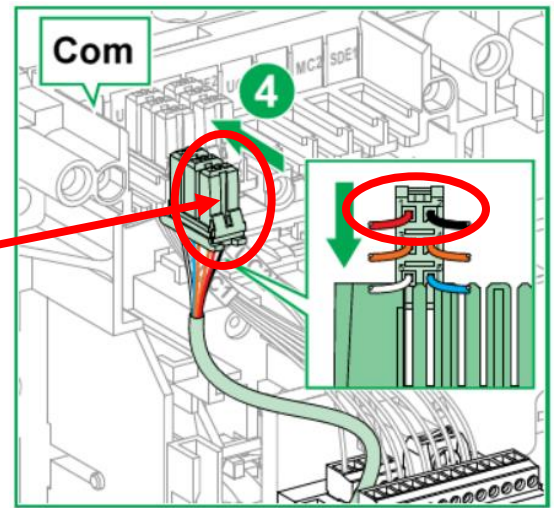
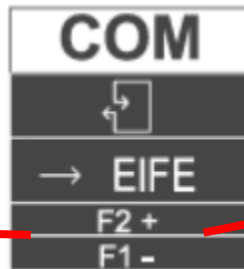
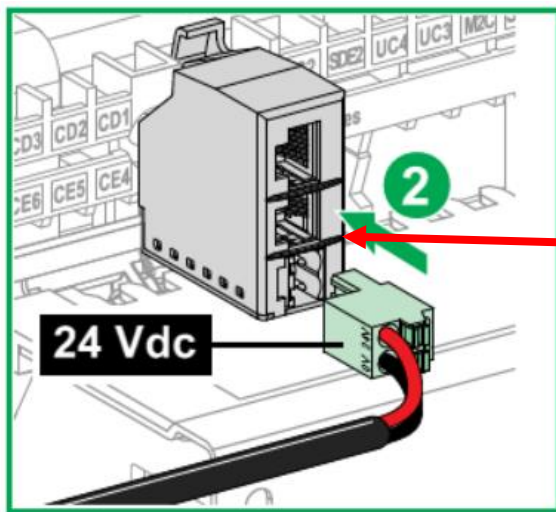
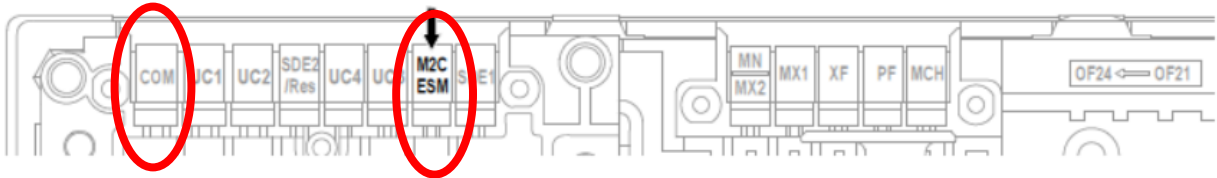
MX2 - Opening Voltage Release	☐
MCH - Gear Motor	☐
M2C - Programmable Contacts	☐
ESM - ERMS Switch module (ERMS)	☒
RAR - Automatic Reset	☐
BPFE - Electrical Closing Pushbutton	☒

⚠ Changing the accessories settings would impact the functions of the breaker.

CANCEL

APPLY TO DEVICE

- If the breaker has been removed from the cell or control power is off, use a 24VDC power supply to apply voltage to the control unit (through a ULP COM port or the F1/F2 terminals, see picture below) and to ESM terminals 484/471. ERMS will remain off while the 24VDC is applied to the ESM module. In this configuration you can also use EcoStruxure Power Commission to disable the ESM module as described above.



COM	UC1	UC2	SDE2/Res	UC4	UC3	M2C/ESM	SDE1	CE3	CE2	CE1
→ EIFE	T6 M1 M2	M3/T1 T5	184/K2	V3	-	484	84	334	324	314
F2 +	Z3 Z4	AF3 T2	182/-	V2	VN	474	82	332	322	312
F1 -	Z1 Z2	AF1 AF2	181/K1	V1	-	471	81	331	321	311
1	2	3	4	5	6	7	8	9	10	11

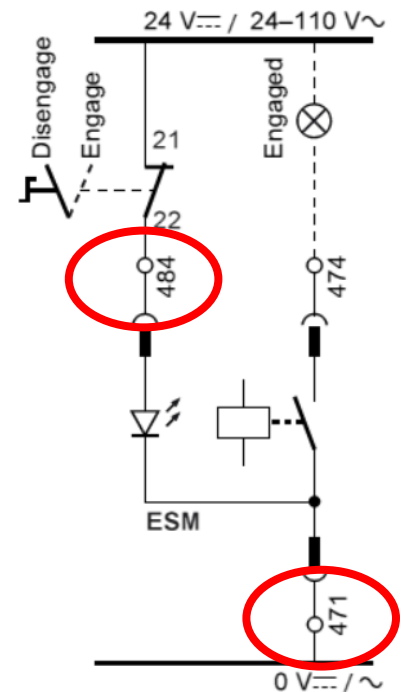




Photo credit: Jesse Massman

Using a 24V power supply to feed F1/F2 for the control unit and 484/471 on ESM module using fixed mount Wago terminal block connectors.