

**Auxiliary contact module, 4 pole, 3 N/O, 1 NC, Front fixing, Screw terminals, DILE(E)M, DILER**

**Part no.** 31DILE  
**048912**  
**EL Number** 4130367  
**(Norway)**

General specifications	
Product name	Eaton Moeller® series DILE Accessory Auxiliary contact module
Part no.	31DILE
EAN	4015080489122
Product Length/Depth	36 millimetre
Product height	32 millimetre
Product width	45 millimetre
Product weight	0.04 kilogram
Certifications	UL 508 CSA Class No.: 3211-03 CSA-C22.2 No. 14-05 CE UL Category Control No.: NKCR IEC/EN 60947-4-1 CSA File No.: 012528 CSA IEC/EN 60947 VDE 0660 UL File No.: E29184 UL
Product Tradename	DILE
Product Type	Accessory
Product Sub Type	Auxiliary contact module
Catalog Notes	Auxiliary contacts used as mirror contacts (according to IEC/EN 60947-4-1 Appendix F (not N/C late open)) Conventional thermal current at maximum permissible ambient air temperature. Interlocked opposing contacts according to IEC/EN 60947-5-1 appendix L, inside the auxiliary contact modules, also for the integrated auxiliary contacts of the DILE(E)M Rated operational current: Switch-on and switch-off conditions based on DC-13, time constant as specified. Switching elements according to EN 50012 are to be preferred. Version E combinations correspond to EN 50011 and are to be preferred.
Features & Functions	
Electric connection type	Screw connection
Features	Interlocked opposing contacts within an auxiliary contact module (according to IEC 60947-5-1 Annex L)
Fitted with:	Interlocked opposing contacts Switching elements according to EN 50005
Functions	For standard applications
Number of poles	Four-pole
General information	
Degree of protection	IP20
Lifespan, mechanical	150,000 Operations (at 240 V, DC, L/R = 50 ms: 2 contacts in series 0.5 A) 20,000,000 Operations (DC operated) 10,000,000 Operations (AC operated) 200,000 Operations (at 240 V, AC-15)
Model	Top mounting
Mounting method	Front fastening
Mounting position	As required (except vertical with terminals A1/A2 at the bottom)
Operating frequency	9000 Operations/h
Overvoltage category	III
Pollution degree	3
Protection	Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)
Rated impulse withstand voltage (Uimp)	6000 V AC
Shock resistance	10 g, N/O contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms

		8 g, N/C contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
<b>Climatic environmental conditions</b>		
Ambient operating temperature - min		-25 °C
Ambient operating temperature - max		50 °C
Ambient operating temperature (enclosed) - min		25 °C
Ambient operating temperature (enclosed) - max		40 °C
Ambient storage temperature - min		40 °C
Ambient storage temperature - max		80 °C
Climatic proofing		Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
<b>Terminal capacities</b>		
Terminal capacity (flexible with ferrule)		2 x (0.75 - 1.5) mm <sup>2</sup> 1 x (0.75 - 1.5) mm <sup>2</sup>
Terminal capacity (solid)		2 x (0.75 - 2.5) mm <sup>2</sup> 1 x (0.75 - 2.5) mm <sup>2</sup>
Terminal capacity (solid/stranded AWG)		Single 18 – 14, double 18 – 14
Screw size		M3.5, Terminal screw
Screwdriver size		0.8 x 5.5/1 x 6 mm, Terminal screw, Standard screwdriver 2, Terminal screw, Pozidriv screwdriver
Tightening torque		1.2 Nm, Screw terminals
<b>Electrical rating</b>		
Rated operational voltage (Ue) at AC - max		600 V
Rated insulation voltage (Ui)		690 V
Rated operational current (Ie)		2.5 A at 24 V, DC L/R ≤ 15 ms (with 1 contact in series) 1.5 A at 110 V, DC L/R ≤ 15 ms (with 3 contacts in series) 0.5 A at 220 V, DC L/R ≤ 15 ms (with 3 contacts in series) 2.5 A at 60 V, DC L/R ≤ 15 ms (with 2 contacts in series)
Rated operational current (Ie) at AC-15, 220 V, 230 V, 240 V		4 A
Rated operational current (Ie) at AC-15, 380 V, 400 V, 415 V		2 A
Rated operational current (Ie) at AC-15, 500 V		1.5 A
Safe isolation		300 V AC, Between auxiliary contacts, According to EN 61140 300 V AC, Between coil and auxiliary contacts, According to EN 61140
<b>Short-circuit rating</b>		
Short-circuit protection rating		10 A fast, 500V, Maximum fuse, Short-circuit rating without welding, Contacts
Short-circuit protection rating without welding		6 A gG/gL, 500 V, Max. Fuse, Contacts
<b>Conventional thermal current Ith</b>		
Conventional thermal current Ith of auxiliary contacts (1-pole, open)		10 A
<b>Switching capacity</b>		
Switching capacity (auxiliary contacts, general use)		10 A, 600 V AC, (UL/CSA) 0.5 A, 250 V DC, (UL/CSA)
Switching capacity (auxiliary contacts, pilot duty)		A600, AC operated (UL/CSA) P300, DC operated (UL/CSA)
<b>Contacts</b>		
Code number		71E in combination with DILER-40(-G) 62 in combination with DILER-31(-G) 53 in combination with DILER-22
Control circuit reliability		< 2 λ, < 1 failure at 100,000,000 Operations (at U# = 24 V DC, Umin = 17 V, Imin = 5.4 mA)
Number of contacts (change-over contacts)		0
Number of contacts (normally closed contacts)		1
Number of contacts (normally open contacts)		3
<b>Design verification</b>		
Equipment heat dissipation, current-dependent Pvid		0 W
Heat dissipation capacity Pdis		0 W
Heat dissipation per pole, current-dependent Pvid		0.24 W
Rated operational current for specified heat dissipation (In)		4 A
Static heat dissipation, non-current-dependent Pvs		0 W
10.2.2 Corrosion resistance		Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures		Meets the product standard's requirements.

10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Meets the product standard's requirements.
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of assemblies			Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances			Meets the product standard's requirements.
10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.
10.10 Temperature rise			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

## Technical data ETIM 9.0

Low-voltage industrial components (EG000017) / Auxiliary contact block (EC000041)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ec1@ss13-27-37-13-02 [AKN342018])			
Number of contacts as change-over contact			0
Number of contacts as normally open contact			3
Number of contacts as normally closed contact			1
Number of fault-signal switches			0
Rated operation current I <sub>e</sub> at AC-15, 230 V		A	4
Type of electric connection			Screw connection
Model			Clip-on
Mounting method			Front fastening
Lamp holder			None