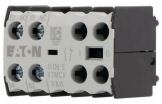
DATASHEET - 11DILE



Auxiliary contact module, 2 pole, 1 N/O, 1 NC, Front fixing, Screw terminals, DILE(E)M, DILER

Part no.	**11DILE**
	010224
EL Number (Norway)	**4130372**

General specifications

Product name	Eaton Moeller® series DILE Accessory Auxiliary contact module
Part no.	11DILE
EAN	4015080102243
Product Length/Depth	36 millimetre
Product height	32 millimetre
Product width	45 millimetre
Product weight	0.03 kilogram
Certifications	IEC/EN 60947-4-1 UL UL 508 UL Category Control No.: NKCR CE CSA IEC/EN 60947 CSA-C22.2 No. 14-05 CSA File No.: 012528 UL File No.: E29184 VDE 0660 CSA Class No.: 3211-03
Product Tradename	DILE
Product Type	Accessory
Product Sub Type	Auxiliary contact module

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	Two-pole

General information

Degree of protection	IP20
Lifespan, mechanical	10,000,000 Operations (AC operated) 150,000 Operations (at 240 V, DC, L/R = 50 ms: 2 contacts in series 0.5 A) 20,000,000 Operations (DC 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

Climatic environmental conditions

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
Terminal capacities	
Terminal capacity (flexible with ferrule)	2 x (0.75 - 1.5) mm^2 1 x (0.75 - 1.5) mm^2
Terminal capacity (solid)	1 x (0.75 - 2.5) mm^2 2 x (0.75 - 2.5) mm^2
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
Electrical rating	
Rated operational voltage (Ue) at AC - max	600 V
Rated insulation voltage (Ui)	690 V
Rated operational current (Ie)	1.5 A at 110 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) 0.5 A at 220 V, DC L/R ≤ 15 ms (with 3 contacts in series) 2.5 A at 24 V, DC L/R ≤ 15 ms (with 1 contact 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 coil and auxiliary contacts, According to EN 61140 300 V AC, Between auxiliary contacts, According to EN 61140
Short-circuit rating	
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
Conventional thermal current Ith	
Conventional thermal current ith of auxiliary contacts (1-pole, open)	10 A
Switching capacity	
Switching capacity (auxiliary contacts, general use)	0.5 A, 250 V DC, (UL/CSA) 10 A, 600 V AC, (UL/CSA)
Switching capacity (auxiliary contacts, pilot duty)	A600, AC operated (UL/CSA) P300, DC operated (UL/CSA)
Contacts	
Code number	51E 33 in combination with DILER-22 42 in combination with DILER-31(-G)
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)	1
Design verification	
Equipment heat dissipation, current-dependent Pvid	0 W
Heat dissipation capacity Pdiss	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 (ecl@ss13-27-37-13-02 [AKN342018])			
Number of contacts as change-over contact			0
Number of contacts as normally open contact			1
Number of contacts as normally closed contact			1
Number of fault-signal switches			0
Rated operation current Ie at AC-15, 230 V		A	4
Type of electric connection			Screw connection
Model			Clip-on
Mounting method			Front fastening
Lamp holder			None

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DATASHEET - 22DILE



Auxiliary contact module, 4 pole, 2 N/O, 2 NC, Front fixing, Screw terminals, DILE(E)M, DILER

Part no.	**22DILE**
	010288
EL Number (Norway)	**4130375**

General specifications

Product name	Eaton Moeller® series DILE Accessory Auxiliary contact module
Part no.	22DILE
EAN	4015080102885
Product Length/Depth	36 millimetre
Product height	32 millimetre
Product width	45 millimetre
Product weight	0.04 kilogram
Certifications	VDE 0660 CE UL CSA Class No.: 3211-03 UL 508 UL Category Control No.: NKCR UL File No.: E29184 CSA File No.: 012528 CSA-C22.2 No. 14-05 IEC/EN 60947-4-1 IEC/EN 60947 CSA
Product Tradename	DILE
Product Type	Accessory
Product Sub Type	Auxiliary contact module

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:	Switching elements according to EN 50005 Interlocked opposing contacts
Functions	For standard applications
Number of poles	Four-pole

General information

Degree of protection	IP20
Lifespan, mechanical	10,000,000 Operations (AC operated) 20,000,000 Operations (DC operated) 200,000 Operations (at 240 V, AC-15) 150,000 Operations (at 240 V, DC, L/R = 50 ms: 2 contacts in series 0.5 A)
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	8 g, N/C contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms 10 g, N/O contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms

Climatic environmental conditions

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, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Terminal capacities	
Terminal capacity (flexible with ferrule)	1 x (0.75 - 1.5) mm^2 2 x (0.75 - 1.5) mm^2
Terminal capacity (solid)	2 x (0.75 - 2.5) mm^2 1 x (0.75 - 2.5) mm^2
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
Electrical rating	
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
Short-circuit rating	
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
Conventional thermal current Ith	
Conventional thermal current ith of auxiliary contacts (1-pole, open)	10 A
Switching capacity	
Switching capacity (auxiliary contacts, general use)	0.5 A, 250 V DC, (UL/CSA) 10 A, 600 V AC, (UL/CSA)
Switching capacity (auxiliary contacts, pilot duty)	P300, DC operated (UL/CSA) A600, AC operated (UL/CSA)
Contacts	
Code number	44 in combination with DILER-22 53 in combination with DILER-31(-G) 62E in combination with DILER-40(-G)
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)	2
Number of contacts (normally open contacts)	2
Design verification	
Equipment heat dissipation, current-dependent Pvid	0 W
Heat dissipation capacity Pdiss	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 (ecl@ss13-27-37-13-02 [AKN342018])			
Number of contacts as change-over contact			0
Number of contacts as normally open contact			2
Number of contacts as normally closed contact			2
Number of fault-signal switches			0
Rated operation current Ie at AC-15, 230 V		A	4
Type of electric connection			Screw connection
Model			Clip-on
Mounting method			Front fastening
Lamp holder			None

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