

RMQ Titan Indicator Lights

		Front ring titanium		
	Actuator lens style	Type Article no.	Price See Price List	Std. pack
Indicator light IP 66				
Flush 		M22-L-W 216771		10 off
		M22-L-R 216772		
		M22-L-G 216773		
		M22-L-Y 216774		
		M22-L-B 216775		
	Without lens	M22-L-X 216776		
	Without lens	M22-L-X-GVP 216777		50 off
Extended 		M22-LH-W 216778		10 off
		M22-LH-R 216779		
		M22-LH-G 216780		
		M22-LH-Y 216781		
		M22-LH-B 216782		

RMQ Titan

Illuminated Push-Buttons

		Front ring titanium	Front ring black	
	Actuator lens style	Type Article no.	Type Article no.	Price See Price List
Illuminated push-button actuators IP 66				
Flush, spring-return 		M22-DL-W 216922	M22S-DL-W 216924	10 off
		M22-DL-R 216925	M22S-DL-R 216926	
		M22-DL-G 216927	M22S-DL-G 216928	
		M22-DL-Y 216929	M22S-DL-Y 216930	
		M22-DL-B 216931	M22S-DL-B 216932	
	Without	M22-DL-X 216933	M22S-DL-X 216935	
	Without	M22-DL-X-GVP 216934	—	50 off
		M22-DL-R-X0 216936	M22S-DL-R-X0 216937	10 off
		M22-DL-G-X1 216938	M22S-DL-G-X1 216939	
		M22-DL-W-X1 216942	M22S-DL-W-X1 216943	
Flush, stay-put  Programmable stay-put/spring-return function		M22-DRL-W 216944	M22S-DRL-W 216945	5 off
		M22-DRL-R 216946	M22S-DRL-R 216947	
		M22-DRL-G 216948	M22S-DRL-G 216949	
		M22-DRL-Y 216950	M22S-DRL-Y 216951	
		M22-DRL-B 216952	M22S-DRL-B 216953	
	Without	M22-DRL-X 216954	M22S-DRL-X 216956	
	Without	M22-DRL-X-GVP 216955	—	50 off
		M22-DRL-R-X0 216957	M22-DRL-R-X0 216958	5 off
		M22-DRL-G-X1 216959	M22S-DRL-G-X1 216960	
		M22-DRL-W-X1 216963	M22S-DRL-W-X1 216964	

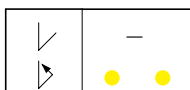
RMQ Titan

Illuminated Push-Buttons

		Front ring titanium	Front ring black	
Actuator lens style		Type Article no.	Type Article no.	Price See Price List
Illuminated push-button actuators IP 66				
Extended, spring-return 		M22-DLH-W 216965	M22S-DLH-W 216966	5 off
		M22-DLH-R 216967	M22S-DLH-R 216968	
		M22-DLH-G 216969	M22S-DLH-G 216970	
		M22-DLH-Y 216971	M22S-DLH-Y 216972	
		M22-DLH-B 216973	M22S-DLH-B 216974	
		M22-DLH-R-X0 216975	M22S-DLH-R-X0 216976	
		M22-DLH-G-X1 216977	M22S-DLH-G-X1 216978	
		M22-DLH-W-X0 216979	M22S-DLH-W-X0 216980	
		M22-DLH-W-X1 216981	M22S-DLH-W-X1 216982	
Extended, stay-put 		M22-DRLH-W 216788	M22S-DRLH-W 216791	5 off
		M22-DRLH-R 216789	M22S-DRLH-R 216792	
		M22-DRLH-G 216796	M22S-DRLH-G 216798	
		M22-DRLH-Y 216799	M22S-DRLH-Y 216801	
		M22-DRLH-B 216802	M22S-DRLH-B 216803	
		M22-DRLH-R-X0 216804	M22S-DRLH-R-X0 216808	
		M22-DRLH-G-X1 216805	M22S-DRLH-G-X1 216809	
		M22-DRLH-W-X0 216806	M22S-DRLH-W-X0 216810	
		M22-DRLH-W-X1 216807	M22S-DRLH-W-X1 216811	
Programmable stay-put/spring-return function				

RMQ Titan

Illuminated Selector Switch Actuators

				Front ring titanium	Front ring black			
Function			Thumb-grip colour	Type	Type	Price	Std. pack	
└ = stay-put				Article no.	Article no.	See Price List		
└ = spring-return								
Illuminated selector switch actuators, thumb-grip handle IP 66								
Two positions								
	Spring-return	└	40°		M22-WLK-W 216812	M22S-WLK-W 216813	5 off	
		└	40°		M22-WLK-R 216814	M22S-WLK-R 216815		
		└	40°		M22-WLK-G 216816	M22S-WLK-G 216817		
		└	40°		M22-WLK-Y 216818	M22S-WLK-Y 216819		
		└	40°		M22-WLK-B 216820	M22S-WLK-B 216821		
	Stay-put	└	60°		M22-WRLK-W 216823	M22S-WRLK-W 216824		
		└	60°		M22-WRLK-R 216825	M22S-WRLK-R 216826		
		└	60°		M22-WRLK-G 216827	M22S-WRLK-G 216828		
		└	60°		M22-WRLK-Y 216829	M22S-WRLK-Y 216830		
		└	60°		M22-WRLK-B 216831	M22S-WRLK-B 216832		
Three positions								
	Spring-return	40°	└└	40°		M22-WLK3-W 216833	5 off	
		40°	└└	40°		M22-WLK3-R 216835		M22S-WLK3-R 216836
		40°	└└	40°		M22-WLK3-G 216837		M22S-WLK3-G 216838
		40°	└└	40°		M22-WLK3-Y 216839		M22S-WLK3-Y 216840
		40°	└└	40°		M22-WLK3-B 216841		M22S-WLK3-B 216842
	Stay-put	60°	└└	60°		M22-WRLK3-W 216843		M22S-WRLK3-W 216844
		60°	└└	60°		M22-WRLK3-R 216845		M22S-WRLK3-R 216846
		60°	└└	60°		M22-WRLK3-G 216847		M22S-WRLK3-G 216848
		60°	└└	60°		M22-WRLK3-Y 216849		M22S-WRLK3-Y 216850
		60°	└└	60°		M22-WRLK3-B 216851		M22S-WRLK3-B 216852
Stay-put, spring-return ¹⁾	40°	└└	60°		M22-WRLK3-*/ 217438	M22S-WRLK3-*/ 216439		
Coding adapters, for all selector switch actuators								
For converting between stay-put and spring-return functions								
				M22-XC-Y 216407	M22-XC-Y 216407		10 off	

Notes

¹⁾ Example: M22-WRLK3-*/*

1 = , 2 = 
Colour

RMQ Titan

Fixing Adapters, Contact Elements

Contacts¹⁾
M = Make, B = Break, ⊕ = Positive
opening safety function to
IEC/EN 60 947-5-1

Configuration²⁾

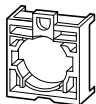
Type
Article no.

Price
See Price
List

Std.
pack

Fixing adapter (front fixing)

for M22-K contact elements.
Sequence numbers on fixing adapter



1 3 2

1 3 2

M22-A
216374

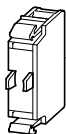
M22-A-GVP
216375

50 off

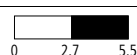
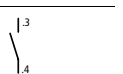
500 off

Contact elements with screw terminals

Front fixing



1 M –



1 3 2

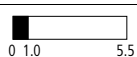
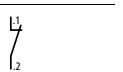
M22-K10
216376

M22-K10-GVP
216377

50 off

500 off

– 1 B ⊕



1 3 2

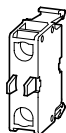
M22-K01
216378

M22-K01-GVP
216379

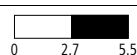
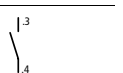
50 off

500 off

Base fixing



1 M –



2 3 1

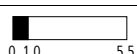
M22-KC10
216380

M22-KC10-GVP
216381

20 off

200 off

– 1 B ⊕



2 3 1

M22-KC01
216382

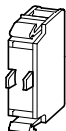
M22-KC01-GVP
216383

20 off

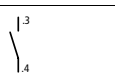
200 off

Contact elements with cage clamp³⁾

Front fixing



1 M –



1 3 2

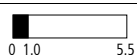
M22-CK10
216384

M22-CK01
216385

10 off

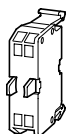
10 off

– 1 B ⊕

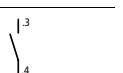


1 3 2

Base fixing



1 M –



2 3 1

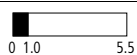
M22-CKC10
216386

M22-CKC01
216387

10 off

10 off

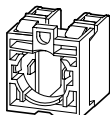
– 1 B ⊕



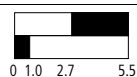
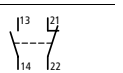
2 3 1

Complete modules

Combination of contact element and fixing adapter,
Front fixing



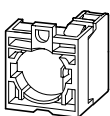
1 M 1 B ⊕



1 3 2

M22-AK11
216505

5 off



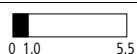
1 M –



1 3 2

M22-AK10
216504

– 1 B ⊕



1 3 2

M22-AK01
216503

Notes

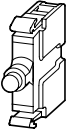
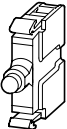
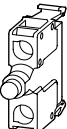
¹⁾ $\begin{matrix} |_{xy} \\ |_{xy} \end{matrix}$ x = Sequence numbers on fixing adapter
y = Function numbers on contact element

²⁾ Configuration of fixing adapter with sequence numbers to EN 50 013

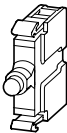
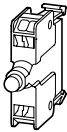
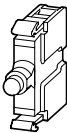
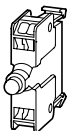
³⁾ Cage Clamp is a registered trademark of Wago Contact Technik GmbH, Minden

RMQ Titan

LED Elements

	Rated operational voltage	Rated operational current	Rated lifespan at $T_a = +25\text{ °C}$	Colour	Type Article no.	Price See Price List	Std. pack
LED elements with screw terminals							
Front fixing 	18 – 30 V AC/DC	8 – 15 mA	100,000 h		M22-LED-W 216557		20 off
					M22-LED-R 216558		
					M22-LED-G 216559		
					M22-LED-B 218057		
Base fixing 	18 – 30 V AC/DC	8 – 15 mA	100,000 h		M22-LEDC-W 216560		20 off
					M22-LEDC-R 216561		
					M22-LEDC-G 216562		
					M22-LEDC-B 218058		
Front fixing 	85 – 264 V AC	5 – 15 mA	100,000 h		M22-LED230-W 216563		20 off
					M22-LED230-R 216564		
					M22-LED230-G 216565		
					M22-LED230-B 218059		
Base fixing 	85 – 264 V AC	5 – 15 mA	100,000 h		M22-LEDC230-W 216566		20 off
					M22-LEDC230-R 216567		
					M22-LEDC230-G 216568		
					M22-LEDC230-B 218060		

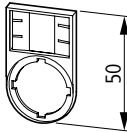
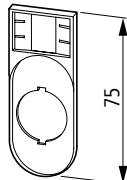
RMQ Titan LED Elements

	Rated operational voltage	Rated operational current	Rated lifespan at $T_a = +25\text{ }^{\circ}\text{C}$	Colour	Type Article no.	Price See Price List	Std. pack
LED elements with Cage Clamp¹⁾							
Front fixing							
	18 – 30 V AC/DC	8 – 15mA	100,000 h		M22-CLED-W 216569		10 off
					M22-CLED-R 216570		
					M22-CLED-G 216571		
					M22-CLED-B 218061		
Base fixing							
	18 – 30 V AC/DC	8 – 15 mA	100,000 h		M22-CLEDC-W 216572		10 off
					M22-CLEDC-R 216573		
					M22-CLEDC-G 216574		
					M22-CLEDC-B 218062		
Front fixing							
	85 – 264 V AC	5 – 15 mA	100,000 h		M22-CLED230-W 216575		10 off
					M22-CLED230-R 216576		
					M22-CLED230-G 216577		
					M22-CLED230-B 218063		
Base fixing							
	85 – 264 V AC	5 – 15 mA	100,000 h		M22-CLEDC230-W 216578		10 off
					M22-CLEDC230-R 216579		
					M22-CLEDC230-G 216580		
					M22-CLEDC230-B 218064		

Notes¹⁾ Cage Clamp is a registered trademark of Wago Contact Technik GmbH, Minden

RMQ Titan

Label Mounts Complete, Insert Plates

	Type Article no.	Price See Price List	Std. pack			
Complete Legend Plates						
30 × 50 mm, round, black						
0 I	M22S-ST-X88 216485		10 off			
I 0 II	M22S-ST-X89 216486					
0 I	M22S-ST-X93 218147					
STOP	M22S-ST-GB0 216494					
START	M22S-ST-GB1 216495					
Aus	M22S-ST-D5 218299					
OFF	M22S-ST-GB5 218300					
Ein	M22S-ST-D6 216487					
ON	M22S-ST-GB6 216496					
Störung	M22S-ST-D8 216489					
FAULT	M22S-ST-GB8 216498					
Betrieb	M22S-ST-D7 216488					
RUN	M22S-ST-GB7 216497					
HAND AUTO	M22S-ST-D11 216492					
MAN. AUTO	M22S-ST-GB11 216500					
Aus Ein	M22S-ST-D10 216490					
OFF ON	M22S-ST-GB10 216499					
HAND 0 AUTO	M22S-ST-D12 216493					
MAN. 0 AUTO	M22S-ST-GB12 216501					
Insert plates for label mounts, 18 × 27 mm						
	Aluminium blank	M22-XST 216480	100 off			
	Aluminium blank	M22-XST-GVP 216481	500 off			
	With individual text	M22-XST- 216482	1 off	Letter height mm	No. of lines max.	Characters per line max.
				3	3	12
				5	2	8
Legend plates, without labels						
Round, black, 30 mm wide						
	M22S-ST-X 216392		100 off			
	M22S-ST-X-GVP 216393		500 off			
For double actuators	M22S-STDD-X 216394		10 off			
						

RMQ Titan

Button Plates, Button Lenses, Lenses

For use with	Colour	Style: Flush Type Article no.	Price See Price List	Style: Extended Type Article no.	Price See Price List	Std. pack
Button plates, Push-button actuator						
M22(S)-D-X M22(S)-DR-X		M22-XD-S 216421		M22-XDH-S 216428		1 off
		M22-XD-W 216422		M22-XDH-W 216429		
		M22-XD-R 216423		M22-XDH-R 216430		
		M22-XD-G 216424		M22-XDH-G 216431		
		M22-XD-Y 216425		M22-XDH-Y 216432		
		M22-XD-B 216426		M22-XDH-B 216433		
	With individual text ¹⁾	M22-XD-*. * 216427		M22-XDH-*. * 216434		
Button lenses, Push-button actuator						
M22(S)-DL-X M22(S)-DRL-X		M22-XDL-W 216441		M22-XDHL-W 216447		10 off
		M22-XDL-R 216442		M22-XDHL-R 216448		
		M22-XDL-G 216443		M22-XDHL-G 216449		
		M22-XDL-Y 216444		M22-XDHL-Y 216450		
		M22-XDL-B 216445		M22-XDHL-B 216451		
	With individual text ¹⁾	M22-XDL-*. * 216446		M22-XDHL-*. * 216452		1 off
Button plates, Mushroom actuator						
M22-L-X M22-LC-X		M22-XDP-S 216435		—		10 off
		M22-XDP-W 216436		—		
		M22-XDP-R 216437		—		
		M22-XDP-G 216438		—		
		M22-XDP-Y 216439		—		
	With individual text ¹⁾	M22-XDP-*. * 216440		—		1 off
Lens, Indicator light						
		M22-XL-W 216453		M22-XLH-W 216459		10 off
		M22-XL-R 216454		M22-XLH-R 216460		
		M22-XL-G 216455		M22-XLH-G 216461		
		M22-XL-Y 216456		M22-XLH-Y 216462		
		M22-XL-B 216457		M22-XLH-B 216463		
	With individual text ¹⁾	M22-XL-*. * 216458		—		1 off

Notes¹⁾ Example: M22-X...-*. *

Symbol (new or designator from library e. g. GB12)

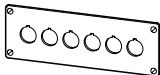
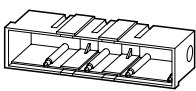
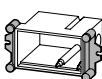
Colour: e. g. -R, -G, -B, -W, -Y

Height of letters 3 mm: Max. 8 character in 1st line, 10 characters in 2nd line 8 characters in 3rd line

Height of letters 5 mm: Max. 5 characters in one line

RMQ Titan

Flush Mounting Plates, Shrouds

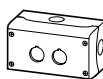
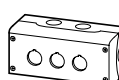
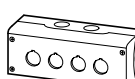
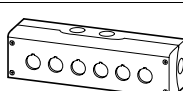
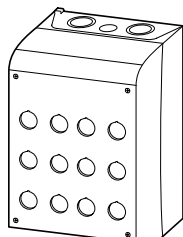
	Number of locations		Cable entry knockouts	Type Article no.	Price See Price List	Std. pack
	Number	Colour ¹⁾	Number × M20			
Flush mounting panels IP 54						
Legend plates cannot be used if push-buttons are fitted in vertical column Without apertures, if required						
						
Aluminium with yellow paint finish for Emergency-Stop buttons	1		–	M22-EY1 2165472		5 off
Aluminium, light anodized	1		–	M22-E1 216541		
	2		–	M22-E2 216543		
	3		–	M22-E3 216544		
	4		–	M22-E4 216545		
	5		–	M22-E5 216546		1 off
	6		–	M22-E6 216547		
Shrouds, IP 40						
Plastic, light grey						
	1		3	M22-H1 216548		1 off
	2		4	M22-H2 216549		
	3		4	M22-H3 216550		
	4		4	M22-H4 216551		
	5		5	M22-H5 216552		
	6		6	M22-H6 216553		
Set of plaster keys						
Consists of two plaster keys as an aid to flush mounting of shrouds in plaster						
	–	–	–	M22-UPE 216554		1 off

Notes

¹⁾ yellow RAL 1004,
light gray RAL 7035

RMQ Titan

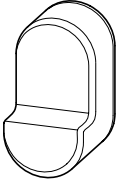
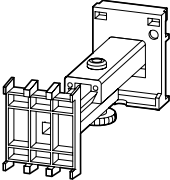
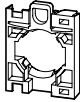
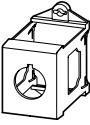
Surface Mounting Enclosures

	Number of locations	Cable entry knockouts			Type Article no.	Price See Price List	Std. pack
		Bottom	Sides:				
	Number	Number × M...		Colour ¹⁾			
Surface mounting enclosure IP66 totally insulated							
With stainless steel screws							
For Emergency-Stop actuator	1	2 × 16	2 × 25/20 1 × 20		M22-IY1 216536		2 off
	1	2 × 16	2 × 25/20 1 × 20		M22-I1 216535		2 off
	2	2 × 16	1 × 20 2 × 25/20		M22-I2 216537		1 off
	3	2 × 16	2 × 25/20 2 × 20		M22-I3 216538		
	4	2 × 16	2 × 25/20 2 × 20		M22-I4 216539		
	6	2 × 16	2 × 25/20 2 × 20		M22-I6 216540		
Surface mounting enclosure IP 65 totally insulated							
	12	2 × 32/25	4 × 32/25 2 × 20		M22-I12 222688		1 off

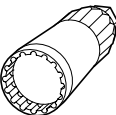
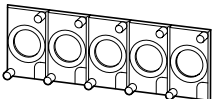
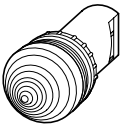
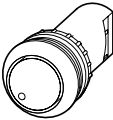
Notes

¹⁾ Colour: yellow RAL 1004, enclosure cover light grey RAL 7035, enclosure base anthracite RAL 9005

RMQ Titan Accessories

For use with	Colour	Type Article no.	Price See Price List	Std. pack
Blanking plugs, IP 66				
For blanking off reserve locations				
Round design 		M22S-B 216390		50 off
		M22S-B-GVP 216391		250 off
		M22-B 216388		50 off
		M22-B-GVP 216389		250 off
Actuator diaphragms for IP 67				
Transparent diaphragms for severe environmental conditions and use in the food industry. Do not use with label mounts since degree of protection is not guaranteed				
	Push-button actuators M22(S)-D(R)-... Illuminated push-button actuators M22(S)-DL-..., M22(S)-DRL-... Indicator light, flush M22(S)-L(C)-...	M22-T-D 216395		10 off
	Double actuators M22(S)-DD(L)-...	M22-T-DD 216396		10 off
Telescopic clip				
For adjusting depth of rear mounting devices in CI enclosures and panels with a mounting depth of 125 – 157mm. Stepless adjustment from 64 – 95 mm, screw and snap fastener. Maximum of 10 × M22-TC per CI enclosure, five of which can hold stay-put actuators. Do not use with Emergency-Stop actuators.				
		M22-TC 216398		10 off
Centring adapter				
for use with M22-TC telescopic clips				
		M22-ZA 216399		10 off
IVS top-hat rail adapter				
For front fixing				
		M22-IVS 216400		1 off
Plunger bridge				
For medium contact (1 piece), black				
		M22-XW 216405		10 off

RMQ Titan Accessories

	For use with	Colour	Type Article no.	Price See Price List	Std. pack
Threaded ring M22 × 1,5 mm 			M22-GR 216401		50 off
			M22-GR-GVP 216404		500 off
Adapter ring set 30/22.5 mm Black, consisting of adapter ring and lock nut 	for mounting of Ø 22.5 units in Ø 30.5 holes		M22S-R30 216408		10 off
Combination box spanner 	For front ring and lock nuts as well as illuminated actuator lens assemblies	—	M22-MS 216402		5 off
Fixing plate 	For fixing shrouds (M22-H...) to M22-E... flush mounting panel, for 5 locations		M22-XE5 218945		1 off
Indicator light, compact IP 66 Flush, with BA 9s lamp socket 		     Without lens	M22-LC-W 216907 M22-LC-R 216908 M22-LC-G 216909 M22-LC-Y 216910 M22-LC-B 216911 M22-LC-X 216912		10 off
Extended, with BA 9s lamp socket 			M22-LCH-W 216914		
			M22-LCH-R 216915		
			M22-LCH-G 216916		
			M22-LCH-Y 216917		
			M22-LCH-B 216918		
Acoustic indicator, IP 40 Front black incl. buzzer 18 – 30 V DC			M22-AM 216913		10 off
Bulb extractor 	for compact indicator light M22-LC(H)...	—	M22-LG 216403		5 off

RMQ Titan

Technical Data

				Contact elements	LED elements	Push-button actuators Mushroom actuators	Double actuators	Selector switch actuators Illuminated selector actuators
General								
Standards				IEC/EN 60 947, VDE 0660				
Lifespan, mechanical	Operations	$\times 10^6$		10	–	5	0.2	0.1
Maximum operating frequency		Ops/h		3600	–	3600	3600	2000
Operating force		N		≤ 5	–	≤ 5	≤ 5	–
Operating torque		Nm		–	–	–	–	$\leq 0,3$
Degree of protection to IEC/EN 60 529				IP 20	IP 20	IP 66	IP 66	IP 66
Climatic proofing				Damp heat, constant, to IEC 60 068-2-3 Damp heat, cyclical, to IEC 60 068-2-30				
Ambient temperature								
	Min./Max.	$^{\circ}\text{C}$		–25/+70	–25/+70 ¹⁾	–25/+70	–25/+70	–25/+70
Mounting position				As required	As required	As required	As required	As required
Mechanical shock resistance (shock duration 11 ms) to IEC 60 068-2-27				> 30	> 30	> 30	> 30	> 30
Terminal capacity								
	Solid	Min./Max.	mm ²	0.75/2.5	0.75/2.5	–	–	–
	Stranded	Min./Max.	mm ²	0.5/1.5	0.5/1.5	–	–	–
Dimensions				→ Page 34	–	→ Page 33	→ Page 33	→ Page 33
Contacts								
Rated impulse withstand voltage U_{imp}				6000	4000	–	–	–
Rated insulation voltage U_i				500	250	–	–	–
Overvoltage category/pollution degree				III/3	III/3	–	–	–
Control circuit reliability at								
	24 V DC/5 mA	Fault probability H_F		$< 10^{-7}$, < 1 fault in 10^7 operations				
	5 V DC/1 mA	Fault probability H_F		$> = \times 10^{-6}$, < 1 fault in 5×10^6 operations				
Max. short-circuit protective device								
	Fuseless	Type		PKZM0–10/ FAZ-B6	–	–	–	–
	Fuse	A gL/gG		10	–	–	–	–
Switching capacity								
Rated operational current I_e								
AC-15	115 V	A		6	–	–	–	–
	230 V	A		6	–	–	–	–
	400 V	A		4	–	–	–	–
	500 V	A		2	–	–	–	–
DC-13	24 V	A		3	–	–	–	–
	42 V	A		1.7	–	–	–	–
	60 V	A		1.2	–	–	–	–
	110 V	A		0.8	–	–	–	–
	220 V	A		0.3	–	–	–	–
Lifespan, electrical								
AC-15	230 V/0.5 A	Operations	$\times 10^6$	1.6	–	–	–	–
	230 V/1.0 A	Operations	$\times 10^6$	1.0	–	–	–	–
	230 V/3.0 A	Operations	$\times 10^6$	0.7	–	–	–	–
DC-13	12 V/2.8 A	Operations	$\times 10^6$	1.2	–	–	–	–

Notes1) > 200 V AC/60 Hz: –25/+55 $^{\circ}\text{C}$

RMQ Titan

Technical Data

				Key-operated actuators	Indicator lights	Illuminated push-button actuators, Push-button actuators Mushroom actuators Stay-put	Emergency-Stop actuators
General							
Standards				IEC/EN 60 947, VDE 0660			
Lifespan, mechanical	Operations	$\times 10^6$		0.1	–	3 ²⁾	0.1
Maximum operating frequency			Ops/h	100	–	1800	600
Operating force			N	–	–	≤ 5	≤ 50
Operating torque			Nm	≤ 0.5	–	–	–
Degree of protection to IEC/EN 60 529				IP 66	IP 66	IP 66	IP 66
Climatic proofing				Damp heat, constant, to IEC 60 068-2-3 Damp heat, cyclical, to IEC 60 068-2-30			
Ambient temperature							
	Min./Max.		°C	–25/+70	–25/+70	–25/+70	–25/+70
Mounting position				As required	As required	As required	As required
Mechanical shock resistance (shock duration 11 ms) to IEC 60 068-2-27			g	> 30	> 30	> 30	> 50
Terminal capacity							
Solid	Min./Max.		mm ²	–	–	–	–
Stranded	Min./Max.		mm ²	–	–	–	–
Dimensions				→ Page 33	→ Page 33	→ Page 33	→ Page 33

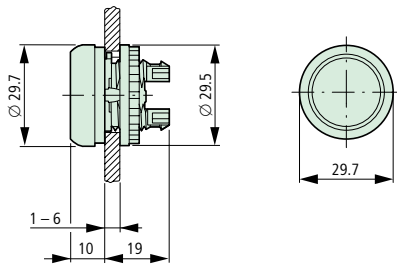
Notes

2) 0.3 for M22-DRL-...

RMQ Titan

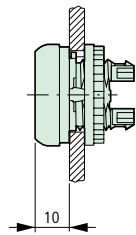
Dimensions

Actuators and indicators

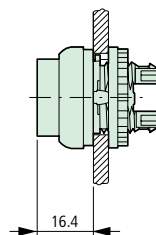


Push-button actuators

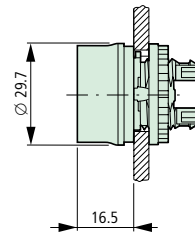
M22-D



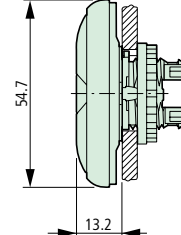
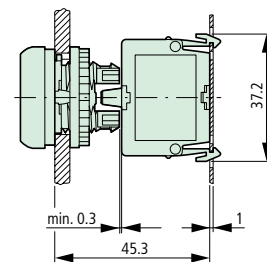
M22-DH



M22-DG

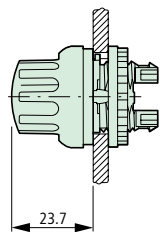
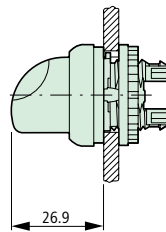


M22-DD

Push-button actuator in
base fixing

Selector switch actuators

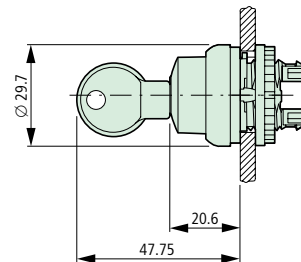
M22-W(R)...

M22-W(R)K...
M22-W(R)LK...

Key-operated actuators

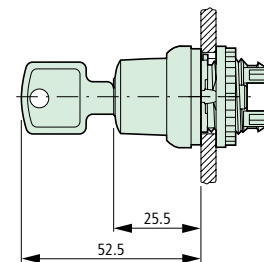
Individual lock mechanism

M22(S)-W(R)S-(MS...)



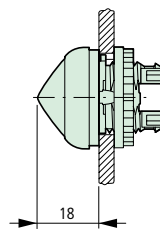
Master key systems

M22(S)-W(R)S-SA...

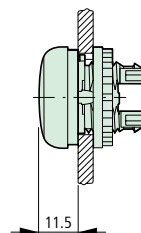


Indicator lights

M22-LH

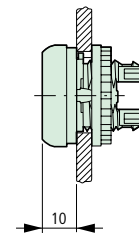


M22-L

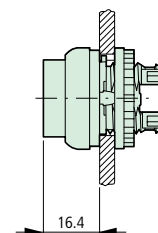


Illuminated push-button actuators

M22-DL

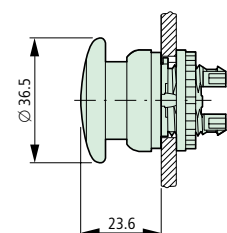


M22-DLH

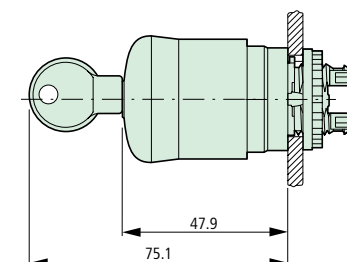


Mushroom actuators

M22-DP



Emergency-Stop actuator

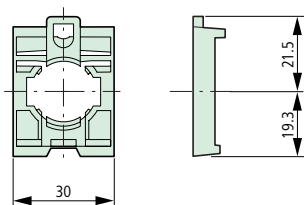
M22-PV, M22S-PV
M22-PVL, M22-PVS-...

RMQ Titan Dimensions

Front fixing (style: flush mounting)

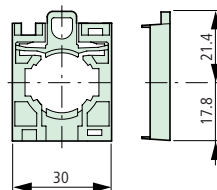
Fixing adapter

M22-A

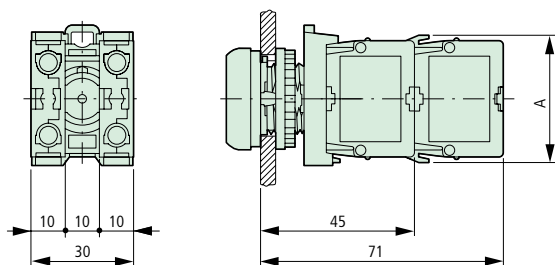


Centring adapter

M22-ZA

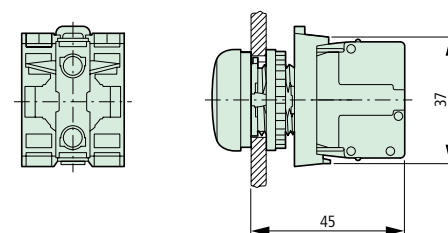


Actuator with M22-(C)K...

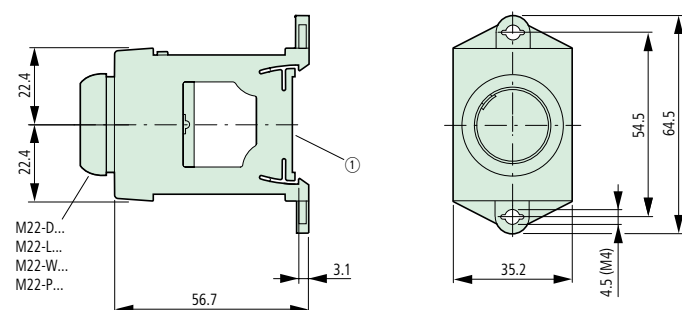


	1 × M22-K...	2 × M22-K...	1 × M22-CK...	2 × M22-CK...
A	37.2	37.2	39	39

Indicator light/Illuminated actuator

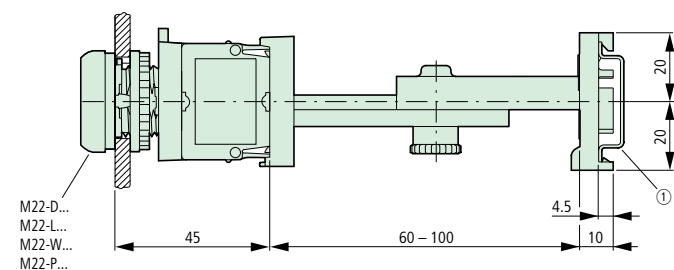


IVS Top-hat rail adapter



① For top-hat rails to EN 50 022

Button, illuminated push-button, indicator light With telescopic clip



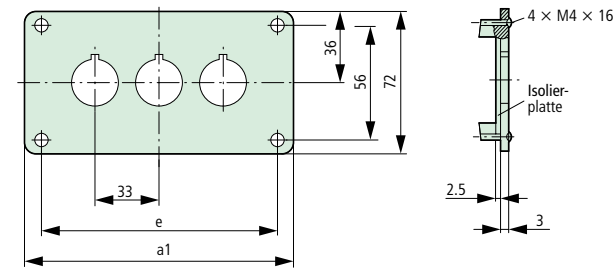
① Top-hat rail to EN 50 022

RMQ Titan

Dimensions

Front fixing (style: flush mounting)

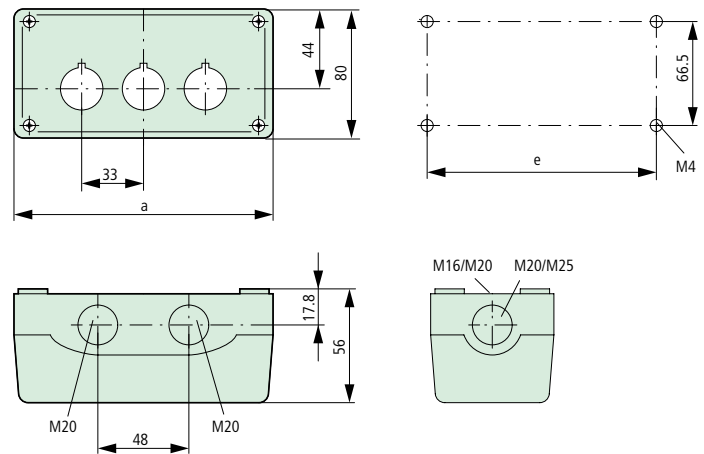
Flush mounting panel M22-E...



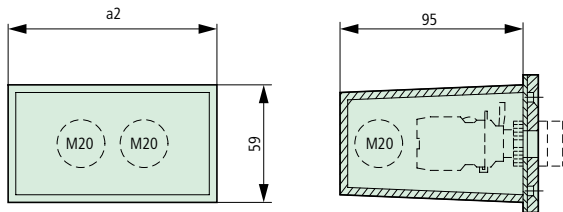
Type	a1	e
E (Y) 1	72	56
E 2	105	89
E 3	138	122
E 4	171	155
E 5	204	188
E 6	237	221

Base fixing (style: surface mounting)

Surface mounting enclosure M22-I...



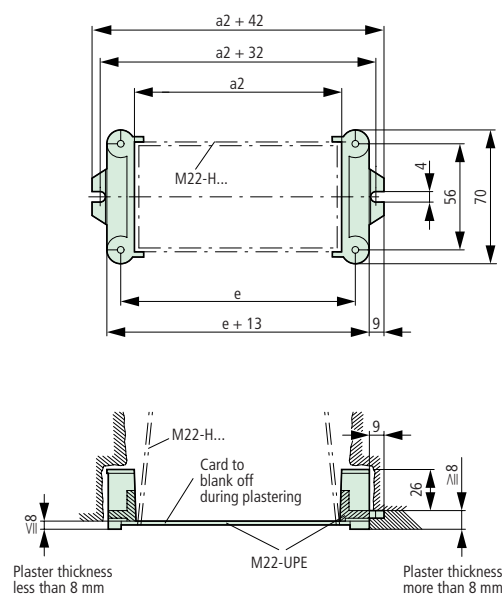
Shroud M22-H...



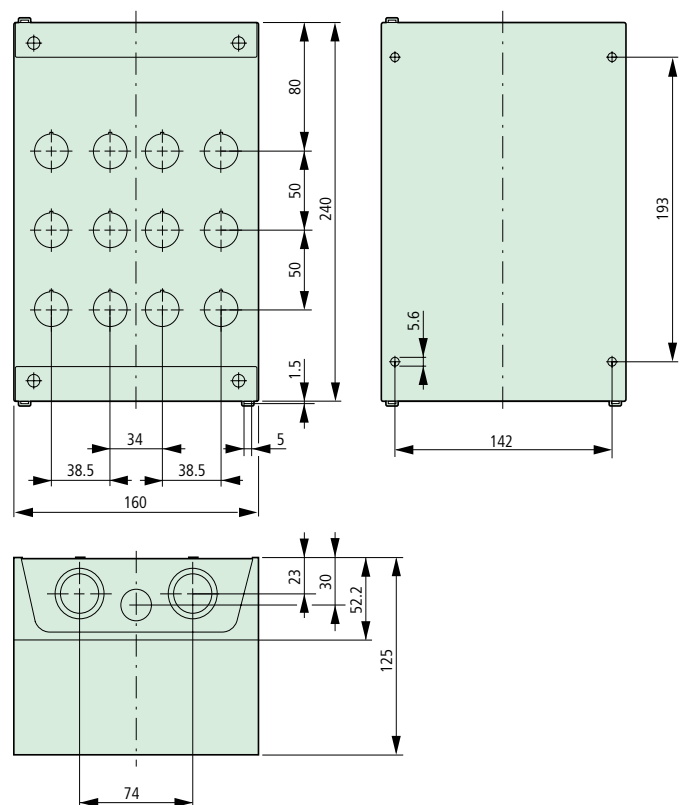
Type	a2	Cable entry	Style
H 1	42	3 × M20	One-part
H 2	75	4 × M20	
H 3	108	4 × M20	
H 4	141	4 × M20	Multi-part
H 5	174	5 × M20	
H 6	207	6 × M20	

Type	Number of locations	a	e	Cable entries		
M22-I (Y) 1	1	72	58.5	2 × M16	3 × M20	2 × M25
M22-I2	2	120	106.5	2 × M16	3 × M20	2 × M25
M22-I3	3	153	139.5	2 × M16	2 × M25	4 × M20
M22-I4	4	186	172.5	2 × M16	2 × M25	4 × M20
M22-I6	6	252	238.5	2 × M16	2 × M25	4 × M20

Shroud with plaster keys M22-UPE



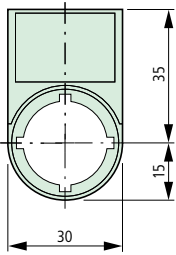
Surface mounting enclosure for 12 locations M22-I12



RMQ Titan Dimensions

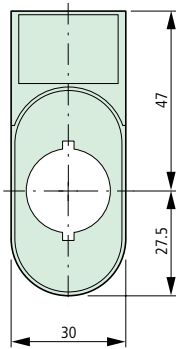
Label mounts

M22-ST



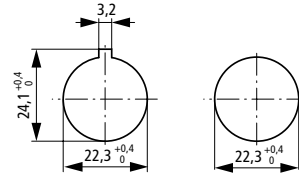
Grid dimension to IEC/EN 60 947

M22-STDD

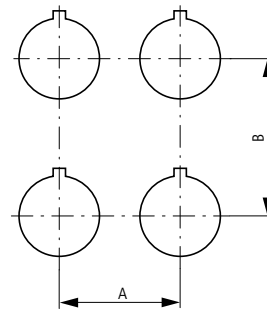
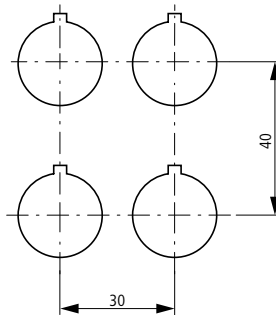
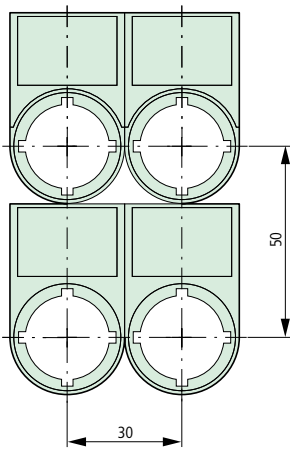


Minimal grid dimension

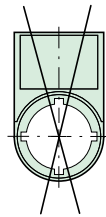
Mounting holes with/without lug slot



Grid dimension for different combinations

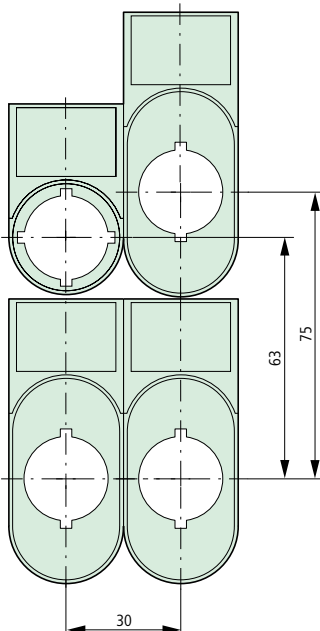


Do not use actuator diaphragm with label mounts since the mounts do not conform to IP 67.

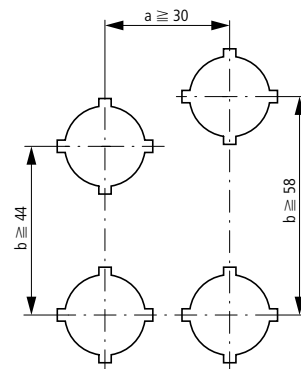


	A ≧	B ≧
IEC/EN 60 947	30	50
RMQ Titan min.	30	40
D + T-D	33	
DP	37	
D+DP	30	
PV	38	
PV+PL-PV	48	56
DD	30	55
DD+T-DD	33	58
DD+STDD	30	75

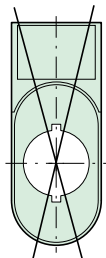
Grid dimension for M22-DD...



Grid dimension for QDD double actuators plus MT-DD diaphragms



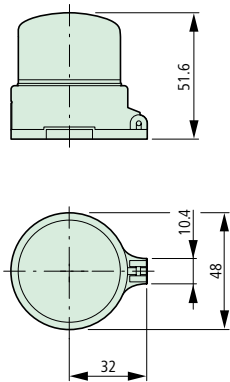
Do not use actuator diaphragm with label mounts since the mounts do not conform to IP 67.



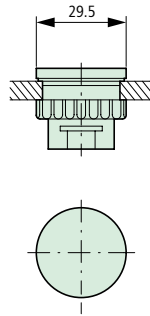
RMQ Titan Dimensions

Accessories

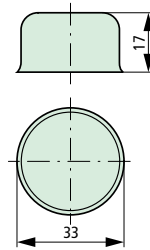
M22-PL-PV



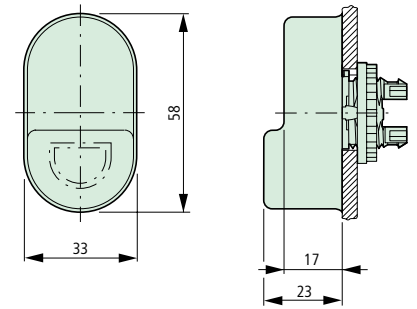
M22-B



M22-T-D

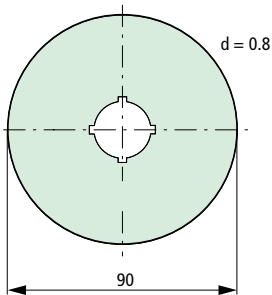


M22-T-DD

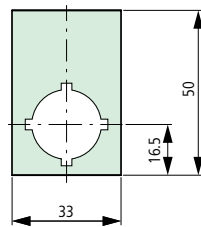


Emergency-Stop label

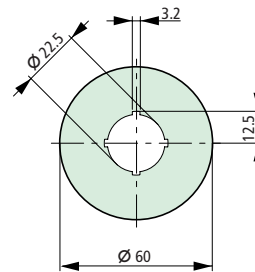
M22-XAK



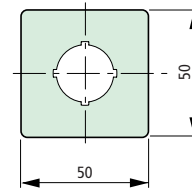
M22-XZK...



M22-XBK1



M22-XYK1



RMQ Titan Conversion Table

Unit	Type RMQ22	New type RMQ Titan	Unit	Type RMQ22	New type RMQ Titan
Push-button actuators			Double actuators		
Flush, spring-return	RD-01	M22-D-S	Non-illuminated	QDD-X	M22-DD-GR
	RD-02	M22-D-W		QDD-11/10	M22-DD-GR-X1/X0
	RD-03	M22-D-R		QDD-111/110	M22-DD-GR-GB1/GB0
	RD-04	M22-D-G		QDD-X	M22-DD-WS
	RD-05	M22-D-Y		QDD-20/19	M22-DD-WS-X1/X0
	RD-06	M22-D-B		QDD-122/112	M22-DD-WS-GB1/GB0
	RD-X	M22-D-X		QDD-32/32	M22-DD-S-X7/X7
				QDD-37/38	M22-DD-S-X4/X5
	RD-10	M22-D-R-X0	Illuminated	QDDL-X	M22-DDL-GR
	RD-11	M22-D-G-X1		QDDL-11/10	M22-DDL-GR-X1/X0
	RD-19	M22-D-S-X0		QDDL-111/110	M22-DDL-GR-GB1/GB0
	RD-20	M22-D-W-X1		QDDL-X	M22-DDL-WS
Flush, stay-put	–	M22-DR-S		QDDL-20/19	M22-DDL-WS-X1/X0
	–	M22-DR-W		QDDL-122/112	M22-DDL-WS-GB1/GB0
	–	M22-DR-R		QDDL-32/32	M22-DDL-S-X7/X7
	–	M22-DR-G		QDDL-37/38	M22-DDL-S-X4/X5
	–	M22-DR-Y	Mushroom actuators		
	–	M22-DR-B	Spring-return	RP-SW01	M22-DP-S
	–	M22-DR-X		RP-RT03	M22-DP-R
	–			RP-GN04	M22-DP-G
	–			RP-GE05	M22-DP-Y
	–				
	–	M22-DR-R-X0		RP-RT10	M22-DP-R-X0
	–	M22-DR-G-X1		RP-RT11	M22-DP-G-X1
	–	M22-DR-S-X0		RP-SW19	M22-DP-S-X0
	–	M22-DR-W-X1		RP-SW20	M22-DP-W-X1
Extended, spring-return	RDH-SW01	M22-DH-S			
	–	M22-DH-W		RP-SW-X	M22-DP-S-X
	RDH-RT03	M22-DH-R		RP-RT-X	M22-DP-R-X
	RDH-GN04	M22-DH-G		RP-GN-X	M22-DP-G-X
	RDH-GE05	M22-DH-Y		RP-GE-X	M22-DP-Y-X
	–	M22-DH-B	Stay-put	–	M22-DRP-S
				–	M22-DRP-R
	RDH-RT10	M22-DH-R-X0		–	M22-DRP-G
	RDH-GN11	M22-DH-G-X1		–	M22-DRP-Y
	RDH-SW19	M22-DH-S-X0		–	M22-DRP-R-X0
	RDH-SW20	M22-DH-W-X1		–	M22-DRP-G-X1
Extended, stay-put	–	M22-DRH-S		–	M22-DRP-S-X0
	–	M22-DRH-W		–	M22-DRP-W-X1
	–	M22-DRH-R		–	
	–	M22-DRH-G		–	M22-DRP-S-X
	–	M22-DRH-Y		–	M22-DRP-R-X
	–	M22-DRH-B		–	M22-DRP-G-X
	–			–	M22-DRP-Y-X
	–	M22-DRH-R-X0			
	–	M22-DRH-G-X1			
	–	M22-DRH-S-X0			
	–	M22-DRH-W-X1			
With guard ring	RDK-X	M22-DG-X			
Emergency-Stop actuators	RPV	M22-PV			
	–	M22-PVL			
Emergency-Stop Key-operated actuators	RPSR	M22-PVS			
	RPSR-KMS...	M22-PVS-MS*			

RMQ Titan

Conversion Table

Unit	Type RMQ22	New type RMQ Titan	Unit	Type RMQ22	New type RMQ Titan
Illuminated push-button actuators			Illuminated selector switch actuators		
Flush, spring-return	RLT-WS	M22-DL-W	Thumb-grip, Two positions, spring-return	RLWK1-WS	M22-WLK-W
	RLT-RT	M22-DL-R		RLWK1-RT	M22-WLK-R
	RLT-GN	M22-DL-G		RLWK1-GN	M22-WLK-G
	RLT-GE	M22-DL-Y		RLWK1-GE	M22-WLK-Y
	RLT-BL	M22-DL-B		RLWK1-BL	M22-WLK-B
	—	M22-DL-X	Thumb-grip, Two positions, stay-put	RLWK1R-WS	M22-WRLK-W
	—	M22-DL-R-X0		RLWK1R-RT	M22-WRLK-R
	—	M22-DL-G-X1		RLWK1R-GN	M22-WRLK-G
	—	M22-DL-W-X0		RLWK1R-GE	M22-WRLK-Y
	RLT-WS11	M22-DL-W-X1		RLWK1R-BL	M22-WRLK-B
Flush, stay-put	RLTR-WS	M22-DRL-W	Thumb-grip, Three positions, spring-return	RLWK3-WS	M22-WLK3-W
	RLTR-RT	M22-DRL-R		RLWK3-RT	M22-WLK3-R
	RLTR-GN	M22-DRL-G		RLWK3-GN	M22-WLK3-G
	RLTR-GE	M22-DRL-Y		RLWK3-GE	M22-WLK3-Y
	RLTR-BL	M22-DRL-B		RLWK3-BL	M22-WLK3-B
	—	M22-DRL-X	Thumb-grip, Three positions, stay-put	RLWK3R-WS	M22-WRLK3-W
	—	M22-DRL-R-X0		RLWK3R-RT	M22-WRLK3-R
	—	M22-DRL-G-X1		RLWK3R-GN	M22-WRLK3-G
	—	M22-DRL-W-X0		RLWK3R-GE	M22-WRLK3-Y
	—	M22-DRL-W-X1		RLWK3R-BL	M22-WRLK3-B
Extended, spring-return	RLTH-WS	M22-DLH-W	Indicator lights		
	RLTH-RT	M22-DLH-R			
	RLTH-GN	M22-DLH-G			
	RLTH-GE	M22-DLH-Y			
	RLTH-BL	M22-DLH-B			
	—	M22-DLH-R-X0	Flush	RLF-WS	M22-L-W
	—	M22-DLH-G-X1		RLF-RT	M22-L-R
	—	M22-DLH-W-X0		RLF-GN	M22-L-G
Extended, stay-put	RLTH-WS11	M22-DLH-W-X1		RLF-GE	M22-L-Y
	—	M22-DRLH-W		RLF-BL	M22-L-B
	—	M22-DRLH-R		—	M22-L-X
	—	M22-DRLH-G	Extended	RL-WS	M22-LH-W
	—	M22-DRLH-Y		RL-RT	M22-LH-R
	—	M22-DRLH-B		RL-GN	M22-LH-G
	—	M22-DRLH-R-X0		RL-GE	M22-LH-Y
	—	M22-DRLH-G-X1	Compact, flush	RL-BL	M22-LH-B
	—	M22-DRLH-W-X0		—	M22-LC-W
	—	M22-DRLH-W-X1		—	M22-LC-R
	—			—	M22-LC-G
	—			—	M22-LC-Y
	—			—	M22-LC-B
	—			—	M22-LC-X
	—		Compact, extended	—	M22-LCH-W
	—			—	M22-LCH-R
	—			—	M22-LCH-G
	—			—	M22-LCH-Y
	—			—	M22-LCH-B
			Acoustic indicator		
			—		M22-AM

RMQ Titan Conversion Table

Unit	Type RMQ22	New type RMQ Titan	Unit	Type RMQ22	New type RMQ Titan
Key-operated actuators			LED elements		
Two positions	RS-KMS1-A1	M22-WS	Screw terminal	EF + GL24	M22-LED-W
	RS-KMS...-A1	M22-WS-MS*		EF + GL24	M22-LED-R
	RS-SA(...)	M22-WS-SA(*)-*		EF + GL24	M22-LED-G
	RS	M22-WRS		EF + GL24	M22-LED-B
	RS-KMS...	M22-WRS-MS*		EFC + GL24	M22-LEDC-W
	RS-KMS...	M22-WRS-MS*-A1		EFC + GL24	M22-LEDC-R
	RS-SA(...)	M22-WRS-SA(*)-*		EFC + GL24	M22-LEDC-G
Three positions	RS3-KMS1-A1	M22-WS3		EFC + GL24	M22-LEDC-B
	RS3-KMS...-A1	M22-WS3-MS*		EF3 + GL130	M22-LED230-W
	RS3-SA(...)	M22-WS3-SA(*)-*		EF3 + GL130	M22-LED230-R
	RS3	M22-WRS3		EF3 + GL130	M22-LED230-G
	RS3-KMS...	M22-WRS3-MS*		EF3 + GL130	M22-LED230-B
	RS3-KMS...	M22-WRS3-MS*-A*		EF3C + GL130	M22-LEDC230-W
	RS3-SA(...)	M22-WRS3-SA(*)-*		EF3C + GL130	M22-LEDC230-R
Replacement key				EF3C + GL130	M22-LEDC230-G
Individual lock mechanism MS1	ES-KMS1	M22-ES-MS1		EF3C + GL130	M22-LEDC230-B
Individual lock mechanism MS2-20	ES-KMS...	M22-ES-MS*	Cage Clamp	–	M22-CLED-W
for SA(...)	ES-NS...	M22-ES-SA(*)-*		–	M22-CLED-R
Selector switch actuators				–	M22-CLED-G
Rotary head, Two positions	RW1	M22-W		–	M22-CLED-B
	RW1R	M22-WR		–	M22-CLED-W
	RW1R+92T	M22-WR-X92		–	M22-CLED-R
	RW1R+97T	M22-WR-X91		–	M22-CLED-G
Rotary head, Three positions	RW3	M22-W3		–	M22-CLED-B
	RW3R	M22-WR3		–	M22-CLED230-W
Thumb-grip, Two positions	RWK1	M22-WK		–	M22-CLED230-R
	RWK1R	M22-WRK		–	M22-CLED230-G
Thumb-grip, Three positions	RWK3	M22-WK3		–	M22-CLED230-B
	RWK3R	M22-WRK3		–	M22-CLED230-W
	RWK3R-...	M22-WRK3-*		–	M22-CLED230-R
V position	RWK1V	M22-WKV		–	M22-CLED230-G
Functional elements				–	M22-CLED230-B
Make contact, Screw terminal	EK10	M22-K10		–	M22-CLED230-W
	EK10C	M22-KC10		–	M22-CLED230-R
Break contact, Screw terminal	EK01	M22-K01		–	M22-CLED230-G
	EK01C	M22-KC01		–	M22-CLED230-B
Make contact, Cage Clamp	–	M22-CK10		–	M22-CLED230-W
	–	M22-CKC10		–	M22-CLED230-R
Break contact, Cage Clamp	–	M22-CK01		–	M22-CLED230-G
	–	M22-CKC01		–	M22-CLED230-B
Fixing adapter (front)	BE3, BE6	M22-A		–	M22-CLED230-W
				–	M22-CLED230-R
				–	M22-CLED230-G
				–	M22-CLED230-B

RMQ Titan Conversion Table

Unit	Type RMQ22	New type RMQ Titan	Unit	Type RMQ22	New type RMQ Titan	
Enclosures			Button lenses, Illuminated			
Surface mounting enclosure	I1M	M22-I1	Push-button actuator, flush	LLT-WS	M22-XDL-W	
	IGE1M	M22-IY1		LLT-RT	M22-XDL-R	
	I2M	M22-I2		LLT-GN	M22-XDL-G	
	I3M	M22-I3		LLT-GE	M22-XDL-Y	
	I4M	M22-I4		LLT-BL	M22-XDL-B	
	I5M	M22-I6		Sond	M22-XDL-*. *	
	I12M	M22-I12	Push-button actuator, extended	LLTH-WS	M22-XDLH-W	
Flush mounting panel	E1M	M22-E1		LLTH-RT	M22-XDLH-R	
	EGE1M	M22-EY1		LLTH-GN	M22-XDLH-G	
	E2M	M22-E2		LLTH-GE	M22-XDLH-Y	
	E3M	M22-E3		LLTH-BL	M22-XDLH-B	
	E4M	M22-E4		Sond	M22-XDLH-*. *	
	E5M	M22-E5				
	E6M	M22-E6				
Shroud	H1M	M22-H1	Flush	LLF-WS	M22-XL-W	
	H2M	M22-H2		LLF-RT	M22-XL-R	
	H3M	M22-H3		LLF-GN	M22-XL-G	
	H4M	M22-H4		LLF-GE	M22-XL-Y	
	H5M	M22-H5		LLF-BL	M22-XL-B	
	H6M	M22-H6		Sond	M22-XL-*. *	
Plaster Fixing key	UPE	M22-UPE	Extended	LL-WS	M22-XLH-W	
				LL-RT	M22-XLH-R	
Button plates, Non-illuminated				LL-GN	M22-XLH-G	
				LL-GE	M22-XLH-Y	
Push-button actuators, flush	01T	M22-XD-S		LL-BL	M22-XLH-B	
	02T	M22-XD-W	Emergency-Stop labels			
	03T	M22-XD-R				
	04T	M22-XD-G				
	05T	M22-XD-Y				
	06T	M22-XD-B				
	Sond	M22-XD-*. *				
Push-button actuators, extended	01T	M22-XDH-S			1AK	M22-XAK
	02T	M22-XDH-W			1AK-...	M22-XAK1
	03T	M22-XDH-R			1AK-...	M22-XAK2
	04T	M22-XDH-G			1AK-...	M22-XAK3
	05T	M22-XDH-Y	1AK-...	M22-XAK4		
	06T	M22-XDH-B	1AK-...	M22-XAK4		
	Sond	M22-XDH-*. *	Sond	M22-XAK-*		
			SR22	M22-XBK1		
Mushroom actuator	01T	M22-XDP-S	SQ22	M22-XYK1		
	02T	M22-XDP-W				
	03T	M22-XDP-R	ZK05	M22-XZK		
	04T	M22-XDP-G	ZK-199	M22-XZK-D99		
	05T	M22-XDP-Y	ZK-299	M22-XZK-GB99		
	Sond	M22-XDP-*. *	ZK-399	M22-XZK-F99		
			ZK-899	M22-XZK-I99		
			ZK-599	M22-XZK-NL99		
			ZK-499	M22-XZK-S99		
			ZK-699	M22-XZK-SF99		
Insert plate For label mounts			ZK-1099	M22-XZK-DK99		
			Sond	M22-XZK-*		
			XB	M22-XST		
			Sond	M22-XST-*		

RMQ Titan Conversion Table

Unit	Type RMQ22	New type RMQ Titan	Unit	Type RMQ22	New type RMQ Titan
Legend plate complete	RBS-90	M22S-ST-X88	Accessories		
	RBS-98	M22S-ST-X89	Blanking plug	RB22G	M22-B
	RBS-93	M22S-ST-X93	Blanking plug	RB22S	M22S-B
	RBS-117	M22S-ST-D5	Legend plate Label mounts; without label	RBS-X	M22S-ST-X
	RBS-121	M22S-ST-D6	Legend plate Label mounts f. DD(L)	QBS-X	M22S-STDD-X
	RBS-183	M22S-ST-D7	Actuator protectivediaphragm	MT-D	M22-T-D
	RBS-150	M22S-ST-D8	Actuator protectivediaphragm	MT-DD	M22-T-DD
	RBS-196	M22S-ST-D10	Sealable shroud	PL-RPV	M22-PL-PV
	RBS-195	M22S-ST-D11	Telescopic clip	TC-RMQ	M22-TC
	RBS-197	M22S-ST-D12	Centring adapter	BE3Z	M22-ZA
	RBS-110	M22S-ST-GB0	IVS Top-hat rail adapter	–	M22-IVS
	RBS-111	M22S-ST-GB1	Threading ring	GR22	M22-GR
	RBS-217	M22S-ST-GB5	Combination box spanner	R22-MS	M22-MS
	RBS-221	M22S-ST-GB6	Bulb extractor	R22-MS	M22-LG
	RBS-283	M22S-ST-GB7	Plunger bridge	–	M22-XW
	RBS-250	M22S-ST-GB8	Coding adapter	SP-RMQ-RT	M22-XC-R
	RBS-296	M22S-ST-GB10	Coding adapter	SP-RMQ-GE	M22-XC-Y
	RBS-395	M22S-ST-GB11	Set of adapter rings 30/22.5mm	R22/30-SW	M22S-R30
	RBS-397	M22S-ST-GB12	Fixing plate	Z2116-171.03.5	M22-XE5
Complete modules	BK01	M22-AK01			
	BK10	M22-AK10			
	BK11	M22-AK11			
Complete units	QDD-11/10/K11	M22-DD-GR-X1/X0/K11			
	QDDL-11/10/K11/F	M22-DDL-GR-X1/X0/K11/230-W			
	RD-10/K01	M22-D-R-X0/K01			
	RD-10/K11	M22-D-R-X0/K11			
	RD-11/K10	M22-D-G-X1/K10			
	RD-11/K11	M22-D-G-X1/K11			
	RPSR/K01	M22-PVS/K01			
	RPV/K01	M22-PV/K01			
	RPV/K11	M22-PV/K11			
	RS/K11	M22-WRS/K11			
	RWK1R/K10	M22-WRK/K10			
	RWK1R/K11	M22-WRK/K11			
	RWK3R/K20	M22-WRK3/K20			
	RD-10/KC/I	M22-D-R-X0/KC11/I			
	RD-11/KC/I	M22-D-G-X1/KC11/I			
	RPSR/KC/I	M22-PVS/KC11/IY			
	RPV/K02C/I	M22-PV/KC02/IY			
	RPV/KC/I	M22-PV/KC11/IY			
	RS/KC/I	M22-WRS/KC11/I			
	1M/I	M22-I1-M1			
	1M/IGE	M22-I1Y-M1			
	R2M/I	M22-I2-M1			
	R3M/I	M22-I3-M1			
	R3M-L/I	M22-I3-M2			
	R4M/I	M22-I4-M1			

17. FIȘA TEHNICĂ: E-CCIE - CHEIE COMANDĂ ILUMINAT EXTERIOR / CHEIE COMANDĂ ÎNCĂLZIRE

Nr. crt.	Specificațiile tehnice impuse prin Caietul de sarcini	Correspondența propunerii tehnice cu specificațiile tehnice impuse prin Caietul de sarcini	Producător
0	1	2	3
1.	Parametrii tehnici și funcționali: – Mâner negru, fond gri și marcaj negru 0-1, unghi 90° – Număr etaje: 2 – Număr poziții :2 – Tensiune de izolare minim 600 Vca – Anduranță mecanică: 500.000 cicluri – Anduranță electrică: 200.000 cicluri – Curent nominal: minim 20A, – Tensiune nominal: 230/400V; 50/60Hz-AC; – Montaj: pe panou minishelter/ pe ușă TGA – Poziția cheilor vor fi preluate în PLC; – Grad de protecție: minim IP 65 – Domeniu de temperatura: -25 ...+50 grade Celsius	DA DA DA DA DA DA DA DA DA DA DA DA DA DA	SCHNEIDER
2.	Specificații de performanță și condiții privind siguranța în exploatare: – Protecția terminalelor la atingere cu mana. – Carcasă din material ABS; – Parte frontală clasa 2		
3.	Condiții privind conformitatea cu standarde relevante: – SR EN 60947 – 3 – SR EN 60529		
4.	Condiții de garanție și postgaranție: – Producătorul va garanta calitatea și buna funcționare a produsului timp de 24 luni de la punerea în funcțiune sau de 36 luni de la data livrării. – Produsul va corespunde normelor tehnice și standardelor europene.		
5.	Condiții cu caracter tehnic: – Nu vor fi luate în considerație decât ofertele însoțite de documentație completă pentru selecție și montaj în limba română. – Vor fi anexate: ▪ instrucțiuni de montaj (scheme de conectare, broșuri, cataloage); ▪ instrucțiuni de exploatare; ▪ buletine de încercări, verificări, probe; ▪ declarație de conformitate.		





Comutator Cu Came - 1 Pol - 45° -
20 A - Montare Cu Suruburi

K2A001ALH

Principale

gama de produse	Harmony K
Tip produs sau componenta	Comutator cu came complet
nume componenta	K2
[Ith] curent termic conventional in aer liber	20 A
locul de montare	Fata
mod de fixare	Fixare multipla
tipul capului comutatorului cu came	Cu placă frontală 45 x 45 mm
tip de operator	Negru maner, lungime = 35 mm
blocare cu lacat pentru maner rotativ	Fara
prezentarea legendei	Cu metalic legenda, 0 - 1 negru marcaj
functie de comutare cam	Comutator
revenire	Fara
pozitie decuplata	Cu pozitie Oprit
descriere poli	1P
pozitii de comutare	Dreapta: 0° - 45°
grad de protectie IP	IP40 conforming to SR EN 60529

Suplimentare

unghi de comutatie	45 °
[Ui] tensiune nominala de izolatie	690 V (grad de poluare 3) conformitate cu IEC 60947-1
[Ithe] curent termic conventional in incinta	16 A
durabilitate electrica	200000 cic AC-23 200000 cic AC-3 600000 cic AC-15 600000 cic AC-21
viteza maxima de functionare	2,5 cic/mn AC-21 2,5 cic/mn AC-23 2,5 cic/mn AC-3 8,333 cic/mn AC-15
curent de scurtcircuit	10000 A
protectie la scurtcircuit	20 A cartuş fuzibil, tip gG
[Uimp] tensiune de tinere la impuls	4 kV în funcția de izolație 6 kV conformitate cu IEC 947-1
operare contacte	Decuplare lenta

Declinare de responsabilitate: Această documentație nu se substituie și nu trebuie utilizată pentru stabilirea adecvării sau fiabilității acestor produse pentru aplicații utilizator

deschidere pozitiva	Cu
conexiune electrica	Terminale captive cu șurub flexibil, capacitate de prindere: 2 x 1,5 mm² Terminale captive cu șurub solid, capacitate de prindere: 1 x 2,5 mm²
durabilitate mecanica	1000000 cic
CAD latime globala	45 mm
CAD inaltime globala	45 mm
CAD adancime globala	77 mm
greutate neta	0,103 kg

Mediu

standarde	SR EN 60947-3 pentru circuit de alimentare SR EN 60947-5-1 pentru circuit de comanda CENELEC EN 50013 GB/T 14048.5 pentru circuit de comanda GB/T 14048.3 pentru circuit de alimentare
certificari produs	CSA 240 V 3 CP 3 faze 2 -pol(i) UL 240 V 0,33 CP 1 fază 2 -pol(i) CSA 240 V 1 CP 1 fază UL 240 V 1 CP 3 faze CCC
tratament protector	TC
temperatura ambientala de functionare	-25...55 °C
temperatura ambietala pentru depozitare	-40...70 °C
rezistenta la socuri	30 gn conformitate cu IEC 68-2-27
rezistenta la vibratii	5 gn (f = 10...150 Hz) conformitate cu IEC 68-2-6
categorie de supratensiune	Clasa II conforming to IEC 536 Clasa II conforming to NF C 20-030

Unitati de ambalare

Unitate de masura pentru prima forma de impachetare	PCE
Numar unitati in prima forma de impachetare	1
Inaltime prima forma de impachetare	6,500 cm
Latime prima forma de impachetare	6,500 cm
Lungime prima forma de impachetare	11,000 cm
Greutate prima forma de impachetare	126,000 g
Unitate de masura pentru a doua forma de impachetare	S01
Numar unitati in a doua forma de impachetare	10
Inaltime a doua forma de impachetare	15,000 cm
Latime a doua forma de impachetare	15,000 cm
Lungime a doua forma de impachetare	40,000 cm
Greutate a doua forma de impachetare	1,450 kg

Garanție contractuală

Garantie	18 luni
----------	---------



Environmental Data

Schneider Electric isi propune sa atinga nivelul Net Zero pana in 2050 prin parteneriate la nivelul lantului de aprovizionare, materiale cu impact mai redus si circularitate, prin campania „Use Better, Use Longer, Use Again” pentru a extinde durata de viata a produselor si reciclabilitatea.

[Environmental Data explicate >](#)

[Cum evaluam sustenabilitatea produselor >](#)

Use Better

🔗 Materiale si ambalare	
Pachet cu carton reciclabil	Nu
Ambalaj fara plastic	Nu
Directiva RoHS UE	Conformitate proactiva (Produs in afara domeniului de aplicare a EU RoHS)
Regulamentul REACH	Declaratia REACH

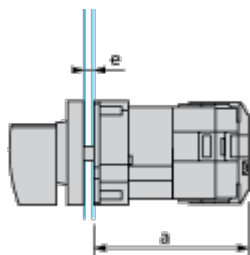
Use Again

🔄 Reambalare si refabricare	
Preluare la sfarsitul duratei de viata	No
DEEE	 Produsul trebuie sa fie eliminat de pe piata din Uniunea Europeana dupa colectarea specifica a deseurilor si sa nu ajunga niciodata in pubele de gunoi

Dimensions Drawings

Operating Head and Body

Front Mounting "Multi-Fixing"



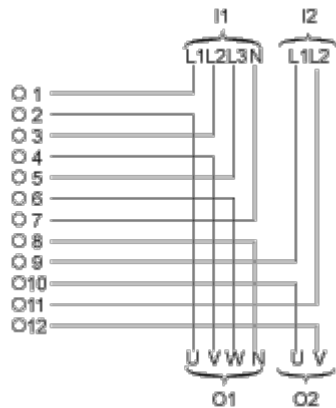
- a 53 mm/2.09 in.
- e support panel thickness 1 mm to 6 mm./0.039 in. to 0.24 in.

Technical Description

Link Positions (Factory Mounted)

Diagram for 1 to 6-pole Switches

Select the number of poles according to the product characteristics.

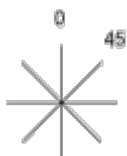


- I1 Input 1
- I2 Input 2
- O1 Output 1
- O2 Output 2

Marking



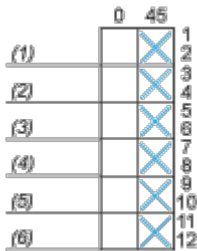
Angular Position of Switch



Switching Program

Diagram for 1 to 6-pole Switches

Select the number of poles according to the product characteristics.

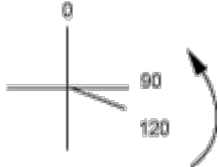


- (1) 1-pole
- (2) 2-pole
- (3) 3-pole
- (4) 4-pole
- (5) 5-pole
- (6) 6-pole

Convention Used for Switching Program Representation

-  Contact closed
-  Contact closed in 2 positions and maintained between the 2 positions
-  Sealed assembly for auto-maintain control
-  Overlapping contacts
-  Spring return position: for a switching angle of 90°, spring return is over 30° after the last position (for a maximum of 3 simultaneous contacts).

Example:



Offer Marketing Illustration

Product benefits / Features



Offer Marketing Illustration

Product benefits / Features

Features

Harmony K Cam switches



Modular design combining flexibility and adaptability



Simple design for easy installation



Compatible with standard 16mm and 22mm diameter cutout



Wide range of solutions for a majority of industrial applications



Wide choice of plastic and metal heads



The most complete Cam Switches range available globally



Image of product / Alternate images

Alternative





18. FIȘA TEHNICĂ: E- PLC - PLC AUTOMATIZARE

[illegible]

	– Siguranță ieșire 40 A; – Putere 960 W; – Contact monitorizare stare; – Standarde EN 61000, EN 60950-1, EN 50178 Modul inteligent gestionare surse de tensiune: – Montaj aparent, în dulap, pe șină DIN35; – Curent de intrare 2x40A; – Curent de ieșire 80A; – Gestionare inteligentă tensiune de ieșire; – Tehnologie ACB (auto current balancing); – Monitorizare permanentă a redundanței; – Tensiune de intrare tipic 2x24 Vcc +1% – Contact monitorizare stare; – Standarde EN 61000, EN 60204-1, 60950-1, EN 50178		
2.	Specificații de performanță și condiții privind siguranța în exploatare: – Conform Caietului de Sarcini.		
3.	Condiții privind conformitatea cu standarde relevante: – ISO 9001:2008 – Standard de management al calității; – SR EN 60439-1:2001+A1:2004 - Ansambluri de aparataj de joasă tensiune. Partea 1: Ansamblu prefabricat de aparataj de joasă tensiune și ansamblu derivat dintr-un ansamblu prefabricat de aparataj de joasă tensiune; – SR EN 60204-1:2007 - Securitatea mașinilor. Echipamentul electric al mașinilor. Partea 1: Cerințe generale; – SR HD 60364-5-54:2007 - Instalații electrice de joasă tensiune. Partea 5-54: Alegerea și montarea echipamentelor electrice. Sisteme de legare la pământ, conductoare de protecție și conductoare de echipotențializare; – Compatibilitate electromagnetica conform IEC 61000-4-3. – sau standarde echivalente		
4.	Condiții de garanție și postgaranție: – Producătorul va garanta calitatea și buna funcționare a produsului timp de 24 luni de la punerea în funcțiune sau de 36 luni de la data livrării. – Produsul va corespunde normelor tehnice și standardelor europene.		
5.	Condiții cu caracter tehnic: – Nu vor fi luate în considerare decât ofertele însoțite de documentație completă pentru montaj în limba română și/sau engleză. – Vor fi anexate: ▪ instrucțiuni de montaj (scheme de conectare, broșuri, cataloage); ▪ instrucțiuni de exploatare; ▪ buletine de încercări, verificări, probe; ▪ declarație de conformitate.		

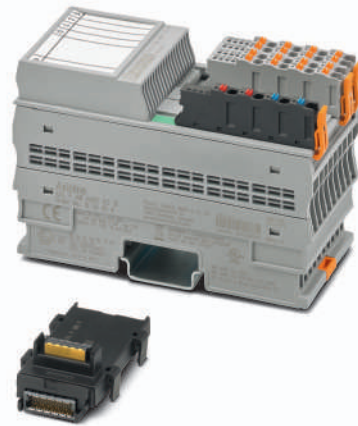


AXL F AI8 HART XC 1F

**Axioline F analog input module,
extreme conditions version, HART functionality,
8 inputs, 2-conductor connection technology**

Data sheet
109492_en_00

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1 Description

The module is an Axioline F I/O module for use in the Axioline F modular I/O system.

The module is a modular I/O device that can be affixed to the Axioline F local bus, to communicate I/O data up to the Axioline F controller or bus coupler, which forms the head of the station.

The analog input I/O module with HART capabilities collects analog input and HART data from the field I/O terminals and makes this information available to the controller / bus coupler through the Axioline F local bus.

The module allows the connection of up to 8 passive loop powered HART transmitters.

Features

- 8 active analog inputs for HART transmitters
- Connection of sensors in 2-wire technology
- Current range: 4 mA ... 20 mA
- Can be used under extreme ambient conditions
- Extended temperature range of -40 °C ... +70 °C (see “Tested successfully: use under extreme ambient conditions” in the data sheet)



This data sheet is only valid in association with the UM EN AXL F SYS INST user manual.



Make sure you always use the latest documentation.

It can be downloaded at: phoenixcontact.net/product/1052434

2 Table of contents

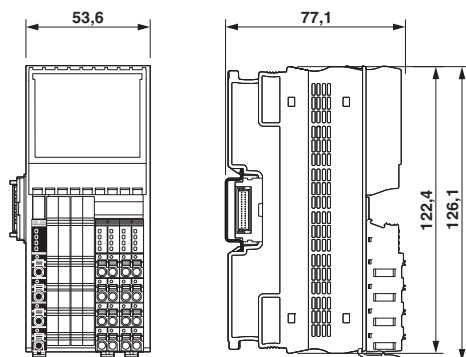
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2	Table of contents	2
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3 Ordering data

Description	Type	Order No.	Pcs./Pkt.
Axioline F XC, Analog input module, Analog inputs: 8, 4 mA ... 20 mA, connection method: 2-wire, transmission speed in the local bus: 100 Mbps, Extreme conditions version, degree of protection: IP20, including bus base module and Axioline F connectors	AXL F AI8 HART XC 1F	1052434	1
Accessories	Type	Order No.	Pcs./Pkt.
Axioline F bus base module for housing type F (Replacement item)	AXL F BS F	2688129	5
Axioline shield connection set (contains 2 shield bus holders and 2 SK 5 shield connection clamps)	AXL SHIELD SET	2700518	1
Zack marker strip for Axioline F (device labeling), in 2 x 20.3 mm pitch, unprinted, 25-section, for individual labeling with B-STIFT 0.8, X-PEN, or CMS-P1-PLOTTER (Marking)	ZB 20,3 AXL UNPRINTED	0829579	25
Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 10.15 mm, lettering field size: 4 of 10.15 x 5 mm and 1 of 5.8 x 5 mm, Number of individual labels: 50 (Marking)	ZBF 10/5,8 AXL UNPRINTED	0829580	50
Insert label, for the Axioline F series from Phoenix Contact, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK ROLL X1, THERMOMARK ROLL 2.0, THERMOMARK ROLL, mounting type: snapped into marker carrier, lettering field size: 35 x 46 mm, Number of individual labels: 500 (Marking)	EMT (35X46)R	0801604	1
Documentation	Type	Order No.	Pcs./Pkt.
User manual, English, Axioline F: System and installation	UM EN AXL F SYS INST	-	-
User manual, English, Axioline F: Diagnostic registers, and error messages	UM EN AXL F SYS DIAG	-	-

4 Technical data

Dimensions (nominal sizes in mm)



Width	53.6 mm
Height	126.1 mm
Depth	77.14 mm
Note on dimensions	The depth is valid when a TH 35-7,5 DIN rail is used (according to EN 60715).

General data

Color	traffic grey A RAL 7042
Ambient temperature (operation)	-25 °C ... 60 °C (Standard) -40 °C ... 70 °C (Extended, see section "Tested successfully: use under extreme ambient conditions" in the data sheet.)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Degree of protection	IP20
Maximum altitude	3000 m
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
Mounting position	any (no temperature derating)

Connection data: Axioline F connector

Connection method	Push-in connection
Conductor cross section solid / stranded	0.2 mm ² ... 1.5 mm ² / 0.2 mm ² ... 1.5 mm ²
Conductor cross section [AWG]	24 ... 16
Stripping length	8 mm



Please observe the information provided on conductor cross sections in the "Axioline F: system and installation" user manual.

Interface: Axioline F local bus

Number	2
Connection method	Bus base module
Transmission speed	100 Mbps

Axioline F local bus supply (U_{Bus})

Supply voltage	5 V DC (via bus base module)
Current consumption	typ. 40 mA max. 60 mA

Supply for analog modules (U_A)

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current consumption	max. 240 mA

Analog inputs

Number of inputs	8 (HART)
Description of the input	HART enabled analog input signals
Connection method	Push-in connection
Connection technology	2-wire, shielded, twisted pair
Current input signal	4 mA ... 20 mA
Precision	0.1 % (of measuring range final value for active mean-value generation and 30 Hz filter)

Electrical isolation/isolation of the voltage areas

Test section	Test voltage
5 V supply of the local bus (U_{Bus}) / 24 V supply (I/Os)	500 V AC, 50 Hz, 1 min.
5 V supply of the local bus (U_{Bus}) / functional ground	500 V AC, 50 Hz, 1 min.
24 V supply (I/O) / functional earth ground	500 V AC, 50 Hz, 1 min.
Field to functional earth	500 V AC, 50 Hz, 1 min.
Field to 5V or 24V supplies	1500 V AC, 50 Hz, 1 min.

Mechanical tests

Vibration resistance in acc. with EN 60068-2-6/ IEC 60068-2-6	5g
Shock in acc. with EN 60068-2-27/IEC 60068-2-27	30g
Continuous shock according to EN 60068-2-27/ IEC 60068-2-27	10g

Conformance with EMC Directive 2014/30/EU**Noise immunity test in accordance with EN 61000-6-2**

Electrostatic discharge (ESD) EN 61000-4-2/IEC 61000-4-2	Criterion A, 6 kV contact discharge, 8 kV air discharge
Electromagnetic fields EN 61000-4-3/IEC 61000-4-3	Criterion A, Field intensity: 10 V/m
Fast transients (burst) EN 61000-4-4/IEC 61000-4-4	Criterion B, 2 kV

Conformance with EMC Directive 2014/30/EU

Transient overvoltage (surge) EN 61000-4-5/IEC 61000-4-5

Criterion A, supply lines DC: $\pm 0.5 \text{ kV}/\pm 0.5 \text{ kV}$ (symmetrical/asymmetrical), $\pm 1 \text{ kV}$ to shielded I/O cables

Conducted interference EN 61000-4-6/IEC 61000-4-6

Criterion A, Test voltage 10 V

Noise emission test as per EN 61000-6-4

Class A

Approvals

For the latest approvals, please visit phoenixcontact.net/products.

5 Tested successfully: Use under extreme ambient conditions

XC modules have been tested successfully over 250 temperature change cycles according to IEC 61131-2 in the range from -40°C to $+70^{\circ}\text{C}$.

The following conditions were observed:

- The Axioline F devices for all connecting cables were connected with a minimum conductor cross section of 0.5 mm^2
- The Axioline F station was installed on a wall-mounted horizontal DIN rail
- Fans were used to ensure continuous movement of air in the control cabinet
- The Axioline F station was not exposed to vibration or shock
- The Axioline F station was operated with a maximum of 24.5 V (ensured by using electronically regulated power supply units)



WARNING:

The module is not approved for use in potentially explosive areas.

The module is not approved for use in safety technology.

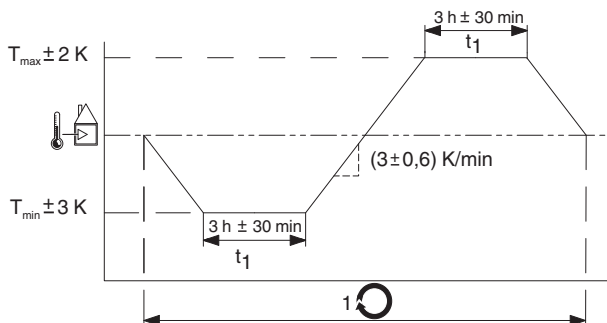


Figure 1 Temperature change cycle



Temperature in the control cabinet/ambient temperature



Cycle

6 Terminal point assignment

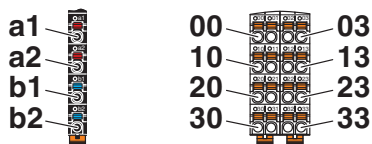


Figure 2 Terminal point assignment

Terminal point	Color	Assignment	
Supply voltage input			
a1, a2	Red	24 V DC (U _A)	Analog module feed-in (bridged internally)
b1, b2	Blue	GND	Reference potential of the supply voltage (bridged internally)
Analog inputs			
00 ... 03	Orange	IN01+ ... IN04+	Positive current connection for channel 1 ... 4
10 ... 13	Orange	IN01- ... IN04-	Negative current connection for channel 1 ... 4
20 ... 23	Orange	IN05+ ... IN08+	Positive current connection for channels 5 ... 8
30 ... 33	Orange	IN05- ... IN08-	Negative current connection for channels 5 ... 8

7 Connection examples

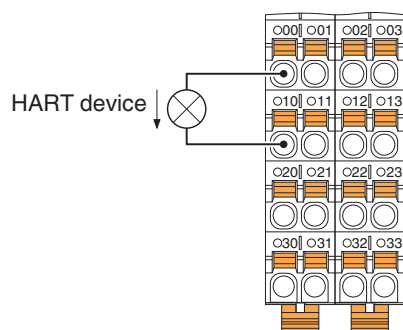
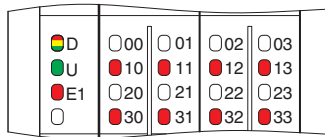


Figure 3 Connection for HART devices

8 Local diagnostic and status indicators



Channel errors are errors that can be associated with a channel.
I/O errors are errors that affect the entire module.

Figure 4 Local diagnostic and status indicators

Designation	Color	Meaning	State	Description
D	Red/yellow/green	Diagnostics of local bus communication		
		Run	Green on	The device is ready for operation, communication within the station is OK. All data is valid. An error has not occurred.
		Active	Green flashing	The device is ready to operate, communication within the station is OK. The data is not valid. The controller or superordinate network is not delivering valid data. There is no error on the module.
		Device application not active	Green/yellow flashing	The device is ready for operation, communication within the station is OK. Output data cannot be outputted and/or input data cannot be read. There is a fault on the periphery side of the module..
		Ready	Yellow on	The device is ready for operation but did not detect a valid cycle after power-up.
		Connected	Yellow flashing	The device is not (yet) part of the active configuration.
		Reset	Red on	The device is ready for operation but has lost the connection to the bus head.
		Not connected	Red flashing	The device is ready for operation but there is no connection to the previously existing device.
		Power down	Off	Device is in (power) reset.
U	Green	U _{Analog}	On	Supply for analog modules (U _A) present.
			Off	Supply for analog modules (U _A) not present.
E1	Red	Supply voltage error	On	Supply for analog modules (U _A) is faulty.
			Off	Supply for analog modules (U _A) is OK.
10 ... 13, 30 ... 33	Red	Diagnostics of the output	On	Short-circuit/open-circuit/overrange/underrange of the output.
			Off	No short-circuit/open-circuit/overrange/underrange of the output.

Error code and status of the E1 LED

Error	E1 LED
No error	off
Underrange	off
Overrange	off
Open circuit	off
Supply voltage faulty (supply for analog modules (U _A))	on
Parameter table invalid	off
Device error	off
Flash format error	off



The error that can actually be reported depends on the measuring range. For additional information please refer to the tables with significant measured values in various formats.

9 Process data

The module uses eight input process data words. Each channel is mapped to a word.

Input words IN0 to IN7

The measured values are transmitted to the controller board or the computer by means of the process data input words IN0 to IN7.

The measured values are depicted in IB IL, S7-compatible or standard format. In both cases, the measured value is displayed in 16 bit format. The data type is Integer 16 from a technical programming point of view.

INx															
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Analog value															

In the IB IL format a diagnostic code is mapped to the input data in the event of an error.

Code (hex)	Cause
8001	Measuring range exceeded (overrange)
8002	Open circuit
8004	Measured value invalid or no valid measured value available
8040	Device faulty / disabled
8080	Below measuring range (underrange)

10 Parameter, diagnostics and information (PDI)

Parameter and diagnostic data as well as other information is transmitted as objects via the PDI channel of the Axioline F station.

The standard and application objects stored in the module are described in the following section.

Please refer to the UM EN AXL F SYS INST for an explanation of the data types.

The following applies to all tables below:

Abbreviation	Meaning
A	Number of elements
L	Length of the elements in bytes
R	Read
W	Write



For detailed information on PDI objects, please refer to the UM EN AXL F SYS INST user manual.

11 Standard objects

11.1 Objects for identification (device rating plate)

Index (hex)	Object name	Data type	A	L	Rights	Meaning	Contents
Manufacturer							
0001	VendorName	Visible String	1	32	R	Vendor name	Phoenix Contact
0002	VendorID	Visible String	1	7	R	Vendor ID	00A045
0003	VendorText	Visible String	1	58	R	Vendor text	Components and systems for industrial automation
0012	VendorURL	Visible String	1	58	R	Vendor URL	http://www.phoenixcontact.com
Module - general							
0004	DeviceFamily	Visible String	1	Max. 58	R	Device family	I/O analog IN
0006	ProductFamily	Visible String	1	32	R	Product family	AXL F XC
000E	CommProfile	Visible String	1	Max. 4 + 1	R	Communication profile	633
000F	DeviceProfile	Visible String	1	Max. 4 + 1	R	Device profile	0010
0011	ProfileVersion	Record of Visible Strings	2	Max. 51	R	Profile version	2011-12-07; Basic - Profile V2.0
0017	Language	Array of Records	2	Max. 56	R	Language	en-us; English
Module - special							
0005	Capabilities	Array of Octet Strings	8	N x 8	R	Capabilities	44 77 55 70 64 74 5F 30
0007	ProductName	Visible String	1	32	R	Product name	AXL F AI8 HART XC 1F
0008	SerialNo	Visible String	1	22	R	Serial number	e. g., 1234512345
0009	ProductText	Visible String	1	58	R	Product text	8 analog input channels with HART
000A	OrderNumber	Visible String	1	32	R	Order No.	1052434
000B	HardwareVersion	Record of Visible Strings	2	11	R	Hardware version	e. g., 2010-06-21; 01
000C	FlexwareVersion	Record of Visible Strings	2	11	R	Firmware version	e. g., 2010-06-21; V1.10
000D	PChVersion	Record of Visible Strings	2	Max. 51	R	PDI version	2016-12-01; PDI V1.10
0037	DeviceType	Octet string	8	8	R	Device type	04 22 04 30 00 0B 0C A0 _{hex}
003A	VersionCount	Array of UINT16	4	8	R	Version counter	e. g., 0007 0001 0001 0001 _{hex}
Use of the device							
0014	Location	Visible String	1	58	R/W	Location	Can be completed by the user.
0015	EquipmentIdent	Visible String	1	58	R/W	Equipment identifier	Can be completed by the user.
0016	ApplDeviceAddr	UINT16	1	2	R/W	Application device address	Can be completed by the user.

11.2 Miscellaneous standard objects

Index (hex)	Object name	Data type	A	L	Rights	Meaning/contents	
Diagnostics objects							
0018	DiagState	Record	1 0	Max. 207	R	Diagnostic state	*
0019	ResetDiag	UINT8	1	1	R/W	Acknowledge diagnostic messages	*
Objects for process data management							
0025	PDIN	Array of Records	1	48	R	Input process data	*
003B	PDIN_Descr	Array of Records	3	24	R	Description of the IN process data	
003C	PDOOUT_Descr	Array of Records	3	12	R	Description of the output process data	
Objects for device management							
002D	ResetParam	UINT8	1	1	R/W	Reset parameterization	*

The objects identified with * in the last column are described in more detail in the following sections.

The description of the other objects is to be found in the user manual UM EN AXL F SYS INST.

The objects 003B_{hex} and 003C_{hex} are only applicable to tools.

11.3 Diagnostics objects

11.3.1 Diagnostics state (0018_{hex}: DiagState)

This object is used for a structured message of an error.

0018 _{hex} : Diagnostics state (read)				
Subindex	Data type	Length in bytes	Meaning	Contents
0	Record	21	Diagnostic state	Complete diagnostics information
1	UINT16	2	Error number	0 ... 65535 _{dec}
2	UINT8	1	Priority	00 _{hex} No error
				01 _{hex} Error
				02 _{hex} Warning
				81 _{hex} Error removed
				82 _{hex} Warning eliminated
3	UINT8	1	Channel/group/module	00 _{hex} No error
				01 _{hex} Channel 1
				: :
				08 _{hex} Channel 8
				FF _{hex} Entire device
4	UINT16	2	Error code	See table below
5	UINT8	1	More follows	00 _{hex}
6	Visible String	14	Text	See table below



The message with priority 81_{hex} or 82_{hex} is a one-off, internal message to the bus coupler. The bus coupler transfers this error message to the error mechanisms of the higher-level system.

Error and status of the local diagnostics and status indicators

Subindex	2	3	4	6					
Error	Priority	Channel/ group/ module	Error code	Text	Process data	LED			
	hex	hex	hex			D	U	E1	CH
No error	00	00	0000	Status OK	xxxx	●	●	○	○
Supply voltage faulty (supply for analog modules (U _A))	01	FF	5160	Supply fail	0000	●	○	●	○
Device error	01	FF	6301	CS FLASH	0000	●	●	○	○
Flash format error	01	FF	6302	FO FLASH	0000	●	●	○	○
Open circuit	01	01 ... 08	7710	Open circuit	8002	●	●	○	●
Overrange	02	01 ... 08	8910	Overrange	8001	●	●	○	●

Subindex	2	3	4	6					
Error	Priority	Channel/ group/ module	Error code	Text	Process data	LED			
	hex	hex	hex			D	U	E1	CH
Underrange	02	01 ... 08	8920	Underrange	8080	●	●	○	●
No HART subdevice present	01	01 ... 08	A001	Device miss- ing	-	●	●	○	○
HART subdevice replaced	02	01 ... 08	A003	Dev replaced	Channel value	●	●	○	○
HART communication error	01	01 ... 08	A020	Comm error	Last channel value	●	●	○	●
HART Timeout	01	01 ... 08	A021	Timeout	Last channel value	●	●	○	●

- Off ● Green on
 ● On ✱ Green/yellow flashing

11.3.2 Reset diagnostic messages (0019_{hex}: ResetDiag)

You can delete the diagnostics memory and acknowledge the diagnostic messages with this object.

0019 _{hex} : Reset diagnostic messages (read, write)				
Subindex	Data type	Length in bytes	Code (hex)	Meaning
0	UINT8	1	00	Permit all diagnostic messages
			02	Delete and acknowledge all diagnostic messages that are still pending
			06	Delete and acknowledge all diagnostic messages and do not permit new diagnostic messages
			Other	Reserved

11.4 Objects for process data management

IN process data (0025_{hex}: PDIN)

You can read the IN process data of the module with this object.

The structure corresponds to the representation in the "Process data" section.

0025 _{hex} : IN process data (read)			
Subindex	Data type	Length in bytes	Meaning
0	Octet string	48	Input process data

11.5 Objects for device management

Reset parameterization (002D_{hex}: ResetParam)

This object is used to reset the module to the default settings.

To reset the parameters, value 01_{hex} must be transferred during write access. All other values are invalid and will be acknowledged with an error.

Then the default settings of the channels are loaded and all the user-set parameters are reset.

12 Analog input objects

Index	Subindex	Object name	Data type	L	Rights	Meaning	Contents	
0100	FF	AI_DataFormat	UINT8	1	R/W	Data format	00 _{hex} (Default)	Inline
							02 _{hex}	S7-compatible
							06 _{hex}	Standard PD format
0200	Per channel: 00, 01 ... 08	AI_Mode	UINT8	8 1	R/W	Measuring range	06 _{hex}	4 ... 20 mA
							FF _{hex} (Default)	Channel inactive
0201	Per channel: 00, 01 ... 08	AI_Average	UINT8	8 1	R/W	Sliding average	00 _{hex} (Default)	Without mean value
							04 _{hex}	4-sample
							08 _{hex}	8-sample
							10 _{hex}	16-sample
							20 _{hex}	32-sample
0203	Per channel: 00, 01 ... 08	AI_Measured ValueFloat	32-bit FLOAT	8 1	R	Measured value	Channel float value	
0204	Per channel: 00, 01 ... 08	AI_NE43_Alarm	UINT8	8 1	R/W	NE43 Alarm	00 _{hex}	Disabled
							01 _{hex} (default)	Enabled

13 HART objects

Index	Subindex	Object name	Data type	L	Rights	Meaning	Contents	
07A0	Per channel: 00, 01 ... 08, FF	HART_Scan SubDevices	UINT8	1	R/W	Scan sub- devices	00 _{hex} (De- fault)	Disabled
							01 _{hex}	Enabled
07A1	Per channel: 00, 01 ... 08, FF	HART_ ChannelEnable	UINT8	1	R/W	HART channel enable	00 _{hex}	Disabled
							01 _{hex}	Enabled
							02 _{hex}	Enabled, no alarms
07A2	Per channel: 00, 01 ... 08, FF	HART_High Priority_Polling	UINT8	1	R/W	HART high priority polling	00 _{hex} (De- fault)	Off
							01 _{hex}	On
07A3	Per channel: 00, 01 ... 08, FF	HART_ Channel	UINT8	1	R/W	HART channel	00 _{hex}	Disabled
							01 _{hex} ... 08 _{hex}	Channel 1 ... chan- nel 8
07A4	Per channel: 00, 01 ... 08, FF	HART_Variable	UINT8	1	R/W	HART variable	00 _{hex}	Loop current
							01 _{hex} (de- fault)	PV
							02 _{hex}	SV
							03 _{hex}	TV
							04 _{hex}	QV
07A5	Per channel: 00, 01 ... 08, FF	HART_Diag Value	UINT8	1	R/W	HART di- agnostic value	01 _{hex}	Clear HART status byte
07A6	Per channel: 00, 01 ... 08, FF	HART_Sub DeviceInfo	Record	10	R	HART subdevice information		
	01	SubDevice Address	UINT8	1	R	Subdevice address		
	02	SubDevice Type	ENUM	2	R	Subdevice type		
	03	SubDeviceId	Octet string	3	R	Subdevice ID		
	04	SubDevice HartRevision	UINT8	1	R	Subdevice HART revision		
	05	SubDevice Manufacturer	ENUM	2	R	Subdevice manufacturer		
	06	SubDevice Status	UINT8	1	R	Subdevice status		

Index	Subindex	Object name	Data type	L	Rights	Meaning	Contents
07A7	Per channel: 01 ... 08	HART_Sub DeviceTag	STRING	33	R	HART subdevice tag	
07A8	Per channel: 00, 01 ... 08	HART_Sub DevicePV	32-bit FLOAT	4	R	HART subdevice PV	
07A9	Per channel: 00, 01 ... 08	HART_ChannelState	ENUM	1	R	HART channel state	00 _{hex} Idle
							01 _{hex} Starting
							02 _{hex} Polling
							03 _{hex} Getting name
							04 _{hex} Bursting
							05 _{hex} External command
							FF _{hex} Error state
07AA	Per channel: 01 ... 08	HART_External Command	Domain variable	Dy-namic	R/W	HART external command	

14 HART Functions of the Terminal

The module allows an easy-to-setup connection to HART devices. While this module does not support multi-drop, there are two HART modems embedded in the module that connect up to 8 HART devices. Once added to the Axioline F local bus, this module will start its HART loop scan until a device is found. The following diagram shows how the module polls for HART devices.

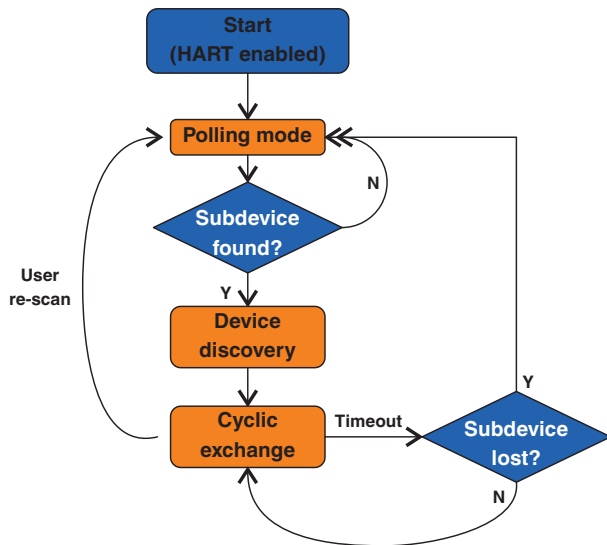


Figure 5 Polling HART devices

Configure the module so channels 1 to 8 are enabled or disabled, as well as high-priority selection. Within each HART group you have the ability to set a high priority flag for each channel, causing the polling of high priority channels to be more frequent than others.

Select the cyclic process data for each of the 8 channels in the module. Available HART data includes Loop Current, PV, SV, TV, and QV. The process data for the analog input values and HART process values is given in the following data block structure.

AI8 process data block	HART process data block
[0] [15]	[16] [47]

Figure 6 Data block structure of process data

The HART process data block provides all HART data from the module through 8 slots. Select Loop Current, PV, SV, TV or QV from the HART values of the field device to populate each of the 8 slots. Each of these 5 HART values will occupy just 1 slot. This allows a modular and customer specific configuration approach.

As an example, a HART device is connected to any one channel of the module. It is desired to receive the Loop Current, PV, and SV from the device. In this scenario, these 3 HART variables would take up 3 of the 8 available HART slots. These 3 HART variables may be placed anywhere in the 8 slots. The module can configure HART devices to poll at different priorities, by enabling priority polling on the desired channel of the module.

As a second example, 8 different HART devices could be connected to all 8 channels of the module. In this case, it is desired to receive 1 HART variable from each device. These 8 HART variables in total can be mapped to the 8 slots of HART process data in any order and polling priority desired.

The following table shows the 8 HART slots available for configuration and that make up the HART process data block.

Channel	1				2				3				4			
Byte	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	M				L	M			L	M			L	M		
	S				S	S			S	S			S	S		
	B				B	B			B	B			B	B		

Channel	5				6				7				8			
Byte	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	M				L	M			L	M			L	M		
	S				S	S			S	S			S	S		
	B				B	B			B	B			B	B		



For detailed information on PDI objects, please refer to the UM EN AXL F SYS INST user manual.

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Axioline F, Backplane, 4 slots for Axioline Smart Elements, transmission speed in the local bus: 100 Mbps, degree of protection: IP20



Descriere produs

The Axioline F backplane is intended for use in a station that is opened by an Axioline F bus coupler or an Axiocoupler. The backplane has four "Smart Element Interface" slots to accept Axioline Smart Elements.

Avantajele dumneavoastră

- Preparing the communications power supply for the plugged-in Axioline Smart Elements
- Supply feed-in for the peripheral supply U_P for the plugged in Axioline Smart Elements

Date comerciale

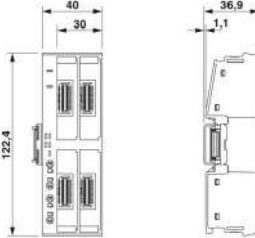
Număr articol	1088135
Unitate de ambalare	1 Bucată
Cantitate minimă pentru comandă	1 Bucată
Cod produs	DRIBU1
GTIN	4055626887487
Greutate pe bucată (inclusiv ambalajul)	118,933 g
Greutate pe bucată (fără ambalaj)	86,85 g
Cod tarifar vamal	85389091
Țara de origine	DE

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Date tehnice

Dimensions

Dimensional drawing		
Width		40 mm
Height		122.4 mm
Depth		36.9 mm
Note on dimensions		The depth applies when a TH 35-7.5 DIN rail is used (in accordance with EN 60715).
Complete module width		40 mm
Complete module height		124.6 mm
Complete module depth		76.1 mm
Note		The depth applies when a TH 35-7.5 DIN rail is used (in accordance with EN 60715).

Notes

Note on application	
Note on application	Only for industrial use

Interfaces

Axioline F local bus	
Number of interfaces	2
Connection method	Bus base module
Transmission speed	100 Mbps

Smart Element interface	
Number of interfaces	4
Connection method	Card edge connector

Product properties

Product type	I/O component
Product family	Axioline F
Type	block modular
Mounting position	Panel mounting on horizontal or vertical DIN rail
Special properties	4 slots for Axioline Smart Elements

Insulation characteristics	
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Overvoltage category	II (IEC 60664-1, EN 60664-1)
Pollution degree	2 (IEC 60664-1, EN 60664-1)

Electrical properties

Maximum power dissipation for nominal condition	0.6 W
---	-------

Potentials: Axioline F local bus supply (U_{BUS})

Supply voltage	5 V DC
----------------	--------

Potentials: Communications power supply of the Smart Elements (U_{SE})

Supply voltage	3.3 V DC (using card edge connectors)
----------------	---------------------------------------

Potentials: I/O supply feed-in (U_P)

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	max. 16 A (provide external protection) max. 12 A (Applications with UL approval, external fusing)
Current consumption	min. 1.5 mA (without connected Smart Elements, with nominal voltage)
Protective circuit	Surge protection; Suppressor diode

Electrical isolation/isolation of the voltage ranges

Test voltage: 5 V supply of the local bus (U_{BUS}) / 24 V supply (I/Os)	500 V AC, 50 Hz, 1 min
Test voltage: 5 V supply of the local bus (U_{BUS}) / functional ground	500 V AC, 50 Hz, 1 min
Test voltage: 24 V supply (I/O) / functional ground	500 V AC, 50 Hz, 1 min

Connection data

Connection technology

Connection name	I/O supply feed-in (U_P)
Note on the connection method	Please observe the information provided on conductor cross sections in the "Axioline F: system and installation" user manual.

Conductor connection

Connection method	Push-in connection
Conductor cross section rigid	0.5 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.5 mm ² ... 2.5 mm ²
Conductor cross section AWG	20 ... 14
Stripping length	8 mm

I/O supply feed-in (U_P)

Connection method	Push-in connection
Note on the connection method	Please observe the information provided on conductor cross sections in the "Axioline F: system and installation" user manual.
Conductor cross section, rigid	0.5 mm ² ... 2.5 mm ²
Conductor cross section, flexible	0.5 mm ² ... 2.5 mm ²
Conductor cross section AWG	20 ... 14

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Stripping length	8 mm
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Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Degree of protection	IP20
Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)

Standards and regulations

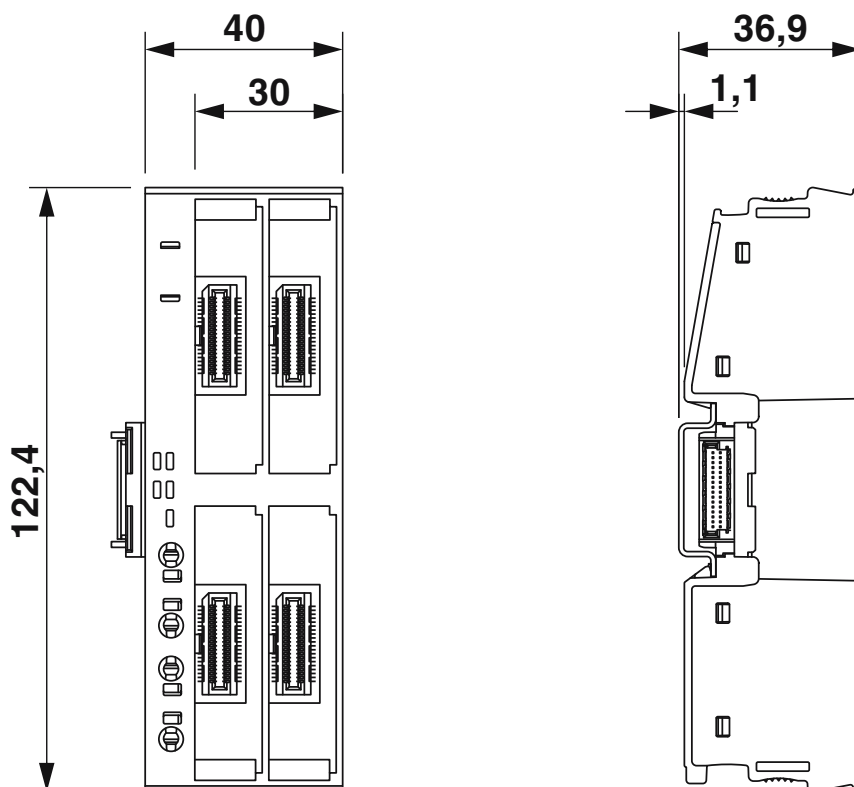
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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Mounting

Mounting type	DIN rail mounting
Mounting position	Panel mounting on horizontal or vertical DIN rail

Desene

Dimensional drawing

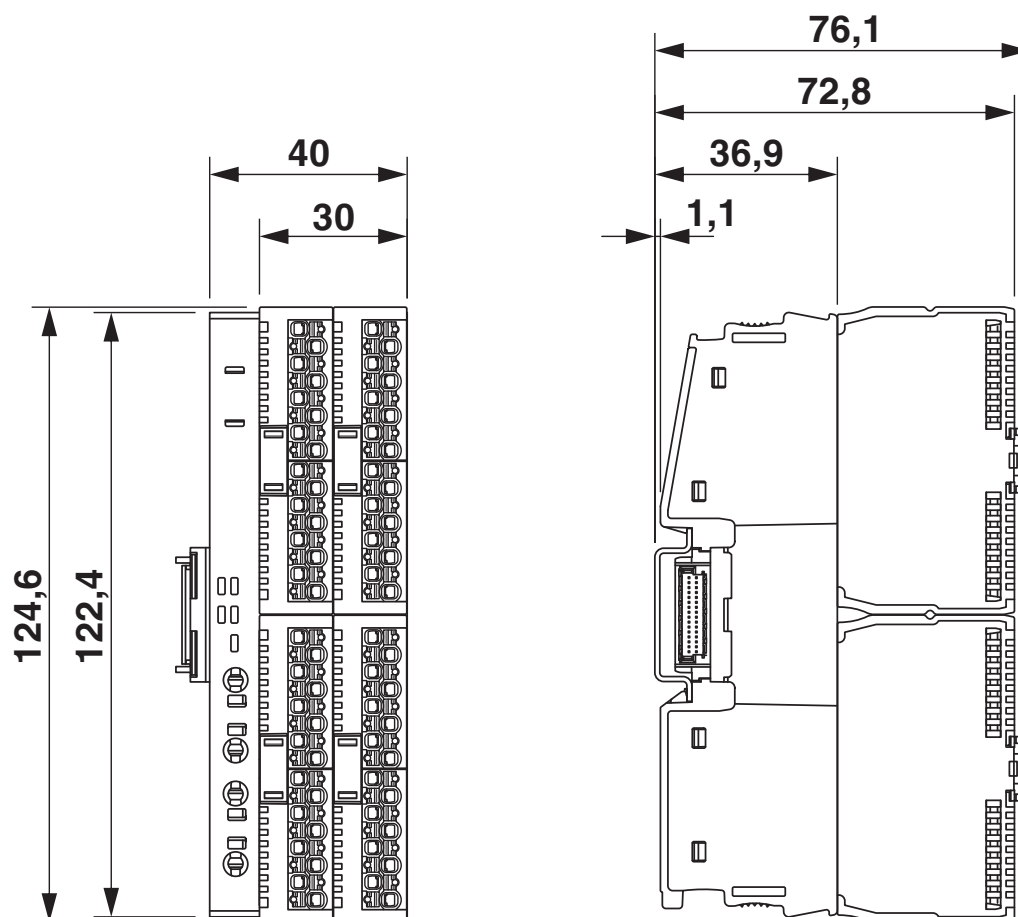


Dimensions (in mm)

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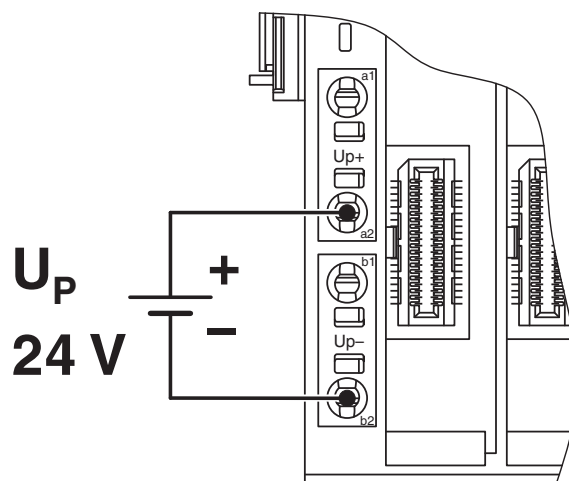
<https://www.phoenixcontact.com/ro/produse/1088135>

Dimensional drawing



Dimensions (in mm) with attached Axiline Smart Elements

Connection diagram

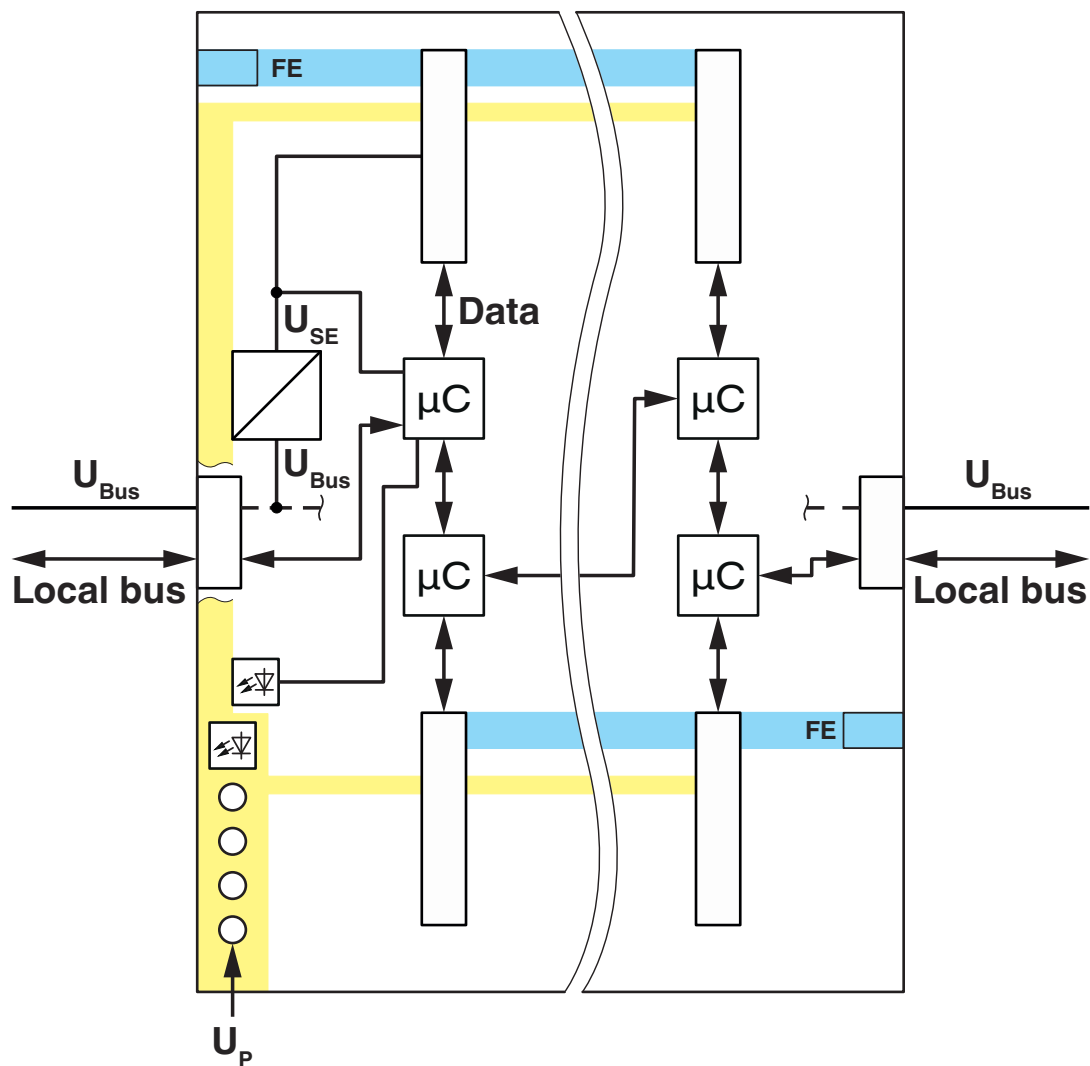


Connection example

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Block diagram



Basic circuit diagram

AXL F BP SE4 - Module carrier



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Aprobări

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/ro/produse/1088135>



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Clasificări

ECLASS

ECLASS-11.0	27242610
ECLASS-12.0	27242610
ECLASS-13.0	27242610

ETIM

ETIM 9.0	EC001600
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UNSPSC

UNSPSC 21.0	32151600
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Environmental product compliance

EU RoHS

Îndeplinește cerințele conform directivei RoHS	Da
reglementări excepționale, dacă sunt cunoscute	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	Un tabel de declarații China RoHS legat de articol poate fi găsit în zona de descărcare a articolului respectiv la „Declarația producătorului”. Nu se emite și nu este necesar niciun tabel de declarații China RoHS pentru toate articolele EFUP-E.

EU REACH SVHC

Trimitere la substanța candidată REACH (nr. CAS)	Lead(nr. CAS: 7439-92-1)
SCIP	aa4ef70b-2445-4e85-95a9-9f7127084e2f

EF3.0 Schimbările climatice

CO2e kg	4,882 kg CO2e
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AXL F DI32/1 1F - Digital module

2688035

<https://www.phoenixcontact.com/pc/products/2688035>



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Axioline F, Digital input module, Digital inputs: 32, 24 V DC, connection technology: 1-conductor, transmission speed in the local bus: 100 Mbps, degree of protection: IP20, including bus base module and Axioline F connectors

Product description

The module is designed for use within an Axioline F station. It is used to acquire digital signals. You can adjust the filter times of the inputs to increase noise immunity. Filter times of 100 μ s enable you to implement a counter function with a maximum input frequency of 5 kHz in the application.

Your advantages

- 32 digital inputs in accordance with EN 61131-2 type 1 and type 3
- 24 V DC, 2.4 mA
- Connection of sensors in 1-conductor technology
- Minimum update time of < 100 μ s
- Filter times can be adjusted in three increments: < 100 μ s, 1000 μ s or 3000 μ s
- Maximum input frequency: 5 kHz
- Device rating plate stored

Commercial data

Item number	2688035
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	DRI231
Catalog page	Page 75 (C-6-2019)
GTIN	4046356501590
Weight per piece (including packing)	233 g
Weight per piece (excluding packing)	186 g
Customs tariff number	85389091
Country of origin	DE

AXL F DI32/1 1F - Digital module

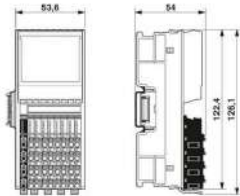
2688035

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Technical data

Dimensions

Dimensional drawing	
	
Width	53.6 mm
Height	126.1 mm
Depth	54 mm
Note on dimensions	The depth applies when a TH 35-7.5 DIN rail is used (in accordance with EN 60715).

Notes

Note on application	
Note on application	Only for industrial use

Interfaces

Axioline F local bus	
Number of interfaces	2
Connection method	Bus base module
Transmission speed	100 Mbps

System properties

Module	
Input address area	4 Byte
Output address area	0 Byte
Required parameter data	3 Byte
Required configuration data	6 Byte

Input data

Digital:	
Input name	Digital inputs
Description of the input	EN 61131-2 types 1 and 3
Number of inputs	32
Connection method	Push-in connection
Connection technology	1-conductor
Input voltage range "0" signal	-3 V DC ... 5 V DC
Input voltage range "1" signal	11 V DC ... 30 V DC

AXL F DI32/1 1F - Digital module



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Nominal input voltage U_{IN}	24 V DC
Nominal input current at U_{IN}	2.4 mA
Input filter time	3000 μ s (Default)
	1000 μ s
	< 100 μ s
Protective circuit	Polarity reversal protection of the inputs; parallel diode (30 V, 5 s)

Product properties

Product type	I/O component
Product family	Axioline F
Type	block modular
Mounting position	any (no temperature derating)
Scope of delivery	including bus base module and Axioline F connectors

Insulation characteristics

Overvoltage category	II (IEC 60664-1, EN 60664-1)
Pollution degree	2 (IEC 60664-1, EN 60664-1)

Electrical properties

Maximum power dissipation for nominal condition	3.65 W
---	--------

Potentials: Axioline F local bus supply (U_{BUS})

Supply voltage	5 V DC (via bus base module)
Current draw	max. 120 mA (up to HW 04)
	max. 60 mA (from HW 05)

Potentials: Supply for digital input modules (U_I)

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	max. 50 mA
Protective circuit	Surge protection; electronic (35 V, 0.5 s)
	Reverse polarity protection; parallel diode; with external 5 A fuse (only for commissioning)

Electrical isolation/isolation of the voltage ranges

Test voltage: 5 V supply of the local bus (U_{BUS}) / 24 V supply (I/Os)	500 V AC, 50 Hz, 1 min
Test voltage: 5 V supply of the local bus (U_{BUS}) / functional ground	500 V AC, 50 Hz, 1 min
Test voltage: 24 V supply (I/O) / functional ground	500 V AC, 50 Hz, 1 min

Connection data

Connection technology

Connection name	Axioline F connector
Note on the connection method	Please observe the information provided on conductor cross sections in the "Axioline F: system and installation" user manual.
	Applications with UL approval: only use copper conductors.

AXL F DI32/1 1F - Digital module

2688035

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Conductor connection

Connection method	Push-in connection
Conductor cross section rigid	0.2 mm² ... 1.5 mm²
Conductor cross section flexible	0.2 mm² ... 1.5 mm²
Conductor cross section AWG	24 ... 16
Stripping length	8 mm

Axioline F connector

Connection method	Push-in connection
Note on the connection method	Please observe the information provided on conductor cross sections in the "Axioline F: system and installation" user manual. Applications with UL approval: only use copper conductors.
Conductor cross section, rigid	0.2 mm² ... 1.5 mm²
Conductor cross section, flexible	0.2 mm² ... 1.5 mm²
Conductor cross section AWG	24 ... 16
Stripping length	8 mm

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Degree of protection	IP20
Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)

Standards and regulations

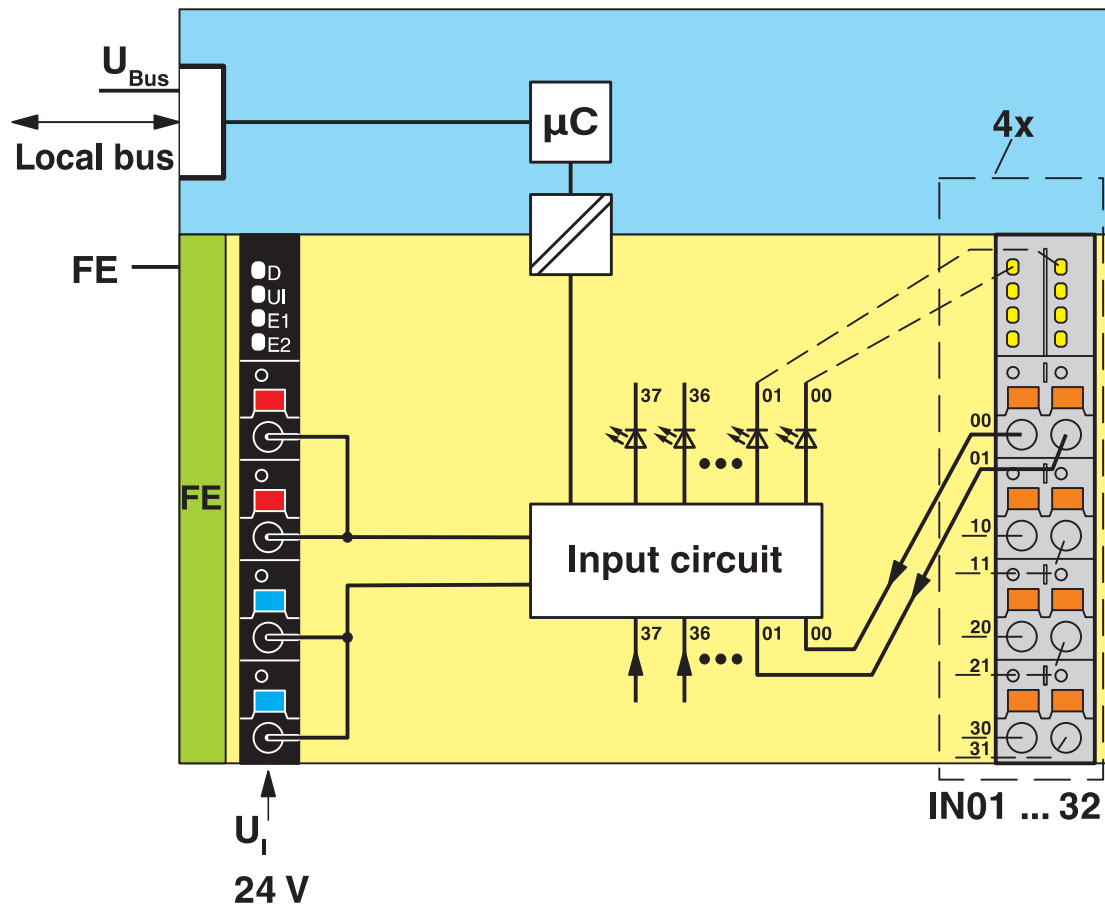
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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Mounting

Mounting type	DIN rail mounting
Mounting position	any (no temperature derating)

Drawings

Block diagram



Internal wiring of the terminal points

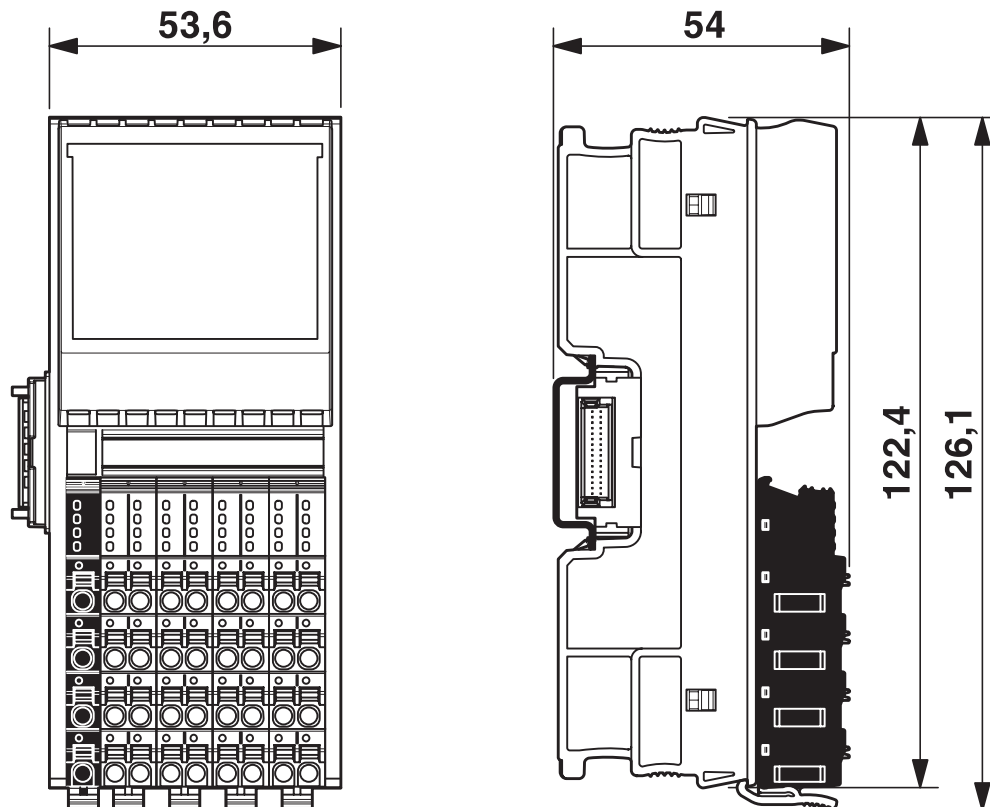
AXL F DI32/1 1F - Digital module

2688035

<https://www.phoenixcontact.com/pc/products/2688035>

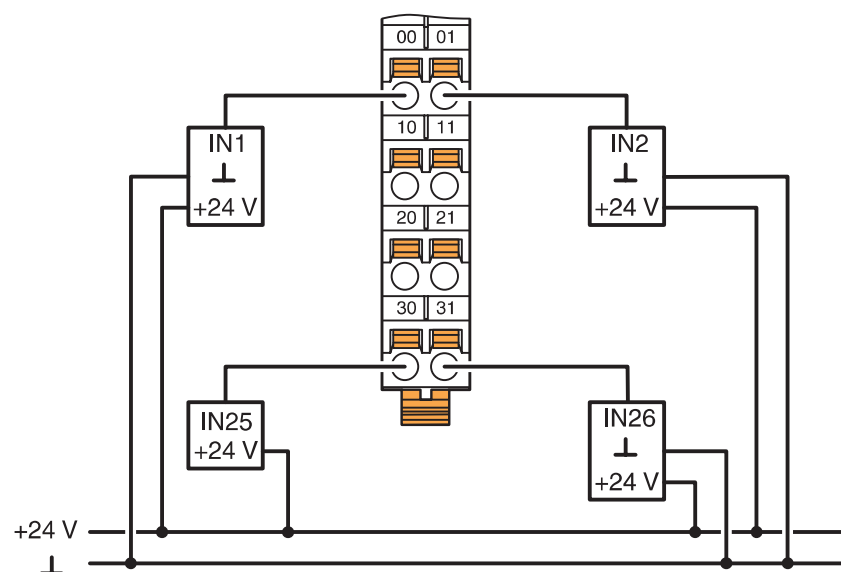


Dimensional drawing



Dimensions

Connection diagram



Connection in 1-conductor technology

AXL F DI32/1 1F - Digital module

2688035

<https://www.phoenixcontact.com/pc/products/2688035>



Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/2688035>



DNV GL

Approval ID: TAA00000DF



LR

Approval ID: LR2480202TA



BV

Approval ID: 36433/B4 BV



PRS

Approval ID: TE/1020/880590/21

BSH

Approval ID: 840



RINA

Approval ID: ELE008423XG

ABS

Approval ID: 20-2059154-PDA



EAC

Approval ID: TR_TS_D_01831-19

UAE-RoHS

Approval ID: 23-02-63242



cULus Listed

Approval ID: E238705



cULus Listed

Approval ID: E238705

AXL F DI32/1 1F - Digital module

2688035

<https://www.phoenixcontact.com/pc/products/2688035>



Classifications

ECLASS

ECLASS-11.0	27242604
ECLASS-12.0	27242604
ECLASS-13.0	27242604

ETIM

ETIM 9.0	EC001599
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UNSPSC

UNSPSC 21.0	32151600
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	5eec1585-35fb-4e9d-bba4-5559f46181d3

I/O module - AXL F DO16/1 1H - 2688349

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Axioline F, Digital output module, Digital outputs: 16, 24 V DC, 500 mA, connection method: 1-wire, transmission speed in the local bus: 100 Mbps, degree of protection: IP20, including bus base module and Axioline F connectors

Product Description

The module is designed for use within an Axioline F station.
It is used to output digital signals.
The outputs are protected against short circuit and overload.

Your advantages

- ✓ 16 digital outputs
- ✓ 24 V DC, 500 mA
- ✓ Connection of actuators in single-wire technology
- ✓ Minimum update time of < 100 µs
- ✓ Device rating plate stored



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 606530
GTIN	4046356606530
Weight per Piece (excluding packing)	134.000 g
Custom tariff number	85389091
Country of origin	Germany

Technical data

Dimensions

Width	35 mm
Height	126.1 mm
Depth	54 mm
Note on dimensions	The depth is valid when a TH 35-7,5 DIN rail is used (according to EN 60715).

I/O module - AXL F DO16/1 1H - 2688349

Technical data

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Degree of protection	IP20

Connection data

Designation	Axioline F connector
Connection method	Push-in connection
Note on the connection method	Please observe the information provided on conductor cross sections in the "Axioline F: system and installation" user manual.
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	1.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	16
Stripping length	8 mm

General

Mounting type	DIN rail
Net weight	134 g
Note on weight specifications	with connectors and bus base module

Interfaces

Designation	Axioline F local bus
No. of channels	2
Connection method	Bus base module
Transmission speed	100 Mbps

Axioline potentials

Designation	Axioline F local bus supply (U _{Bus})
Supply voltage	5 V DC (via bus base module)
Current consumption	max. 120 mA (up to HW 02)
	max. 60 mA (from HW 03)
Power consumption	max. 600 mW (up to HW 02)
	max. 300 mW (from HW 03)
Designation	Supply for digital output modules (U _O)
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current consumption	max. 8 A (provide external protection)

I/O module - AXL F DO16/1 1H - 2688349

Technical data

Axioline potentials

Power consumption	max. 240 W (of which 560 mW with internal losses)
Type of protection	Surge protection of the supply voltage
	Polarity reversal protection of the supply voltage
Protection	max. 8 A (polarity reversal protection up to 5 A)

Digital outputs

Output name	Digital outputs
Connection method	Push-in connection
Connection technology	1-wire
Number of outputs	16
Type of protection	Short-circuit protection, overload protection of the outputs
Output voltage	24 V
Nominal output voltage	24 V DC
Maximum output current per channel	500 mA
Maximum output current per module	8 A (provide external protection)
Nominal load, inductive	12 VA (1.2 H, 48 Ω, with nominal voltage)
Nominal load, lamp	12 W (at nominal voltage)
Nominal load, ohmic	12 W (48 Ω, with nominal voltage)

Electrical isolation

Test section	5 V communications power (logic), 24 V supply (I/O) 500 V AC 50 Hz 1 min.
	5 V supply (logic)/functional earth ground 500 V AC 50 Hz 1 min.
	24 V supply (I/O) / functional earth ground 500 V AC 50 Hz 1 min.

Standards and Regulations

Mechanical tests	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6 5g
	Shock in acc. with EN 60068-2-27/IEC 60068-2-27 30g
	Continuous shock according to EN 60068-2-27/IEC 60068-2-27 10g
Protection class	III, IEC 61140, EN 61140, VDE 0140-1

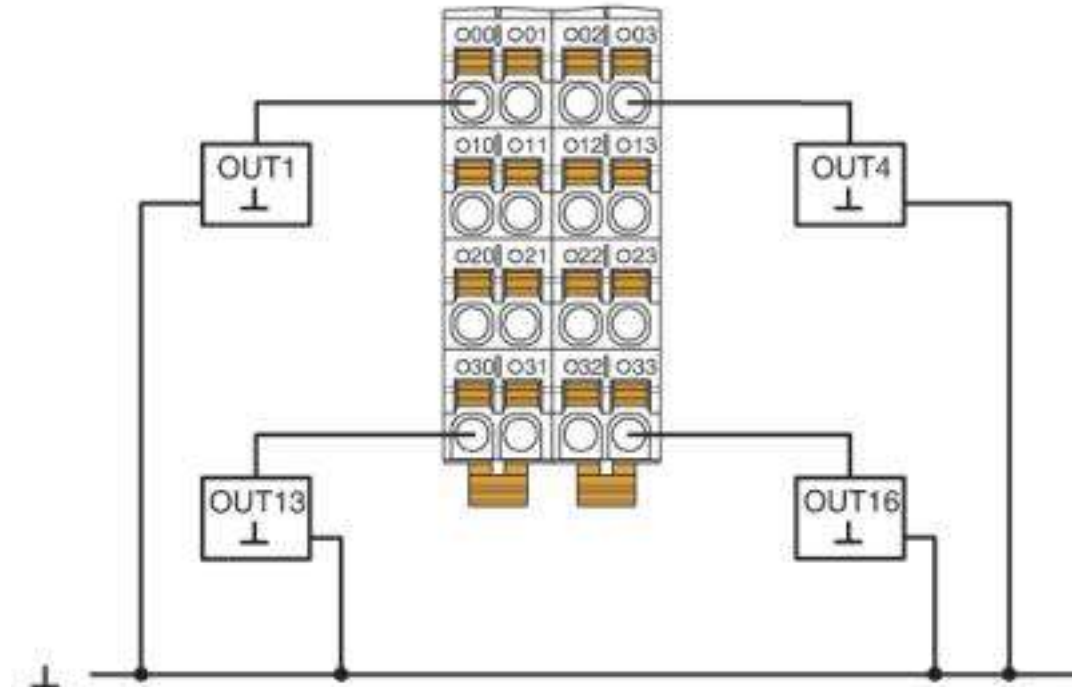
Environmental Product Compliance

	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

I/O module - AXL F DO16/1 1H - 2688349

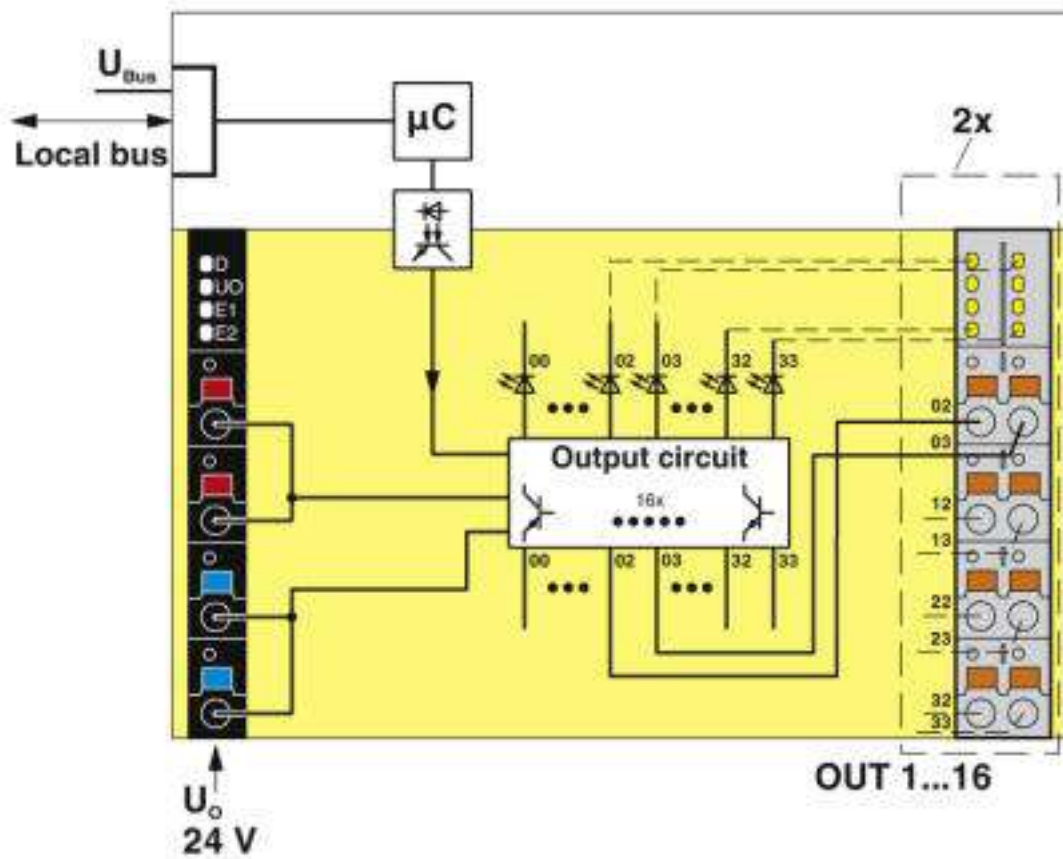
Connection diagram



Connection example

I/O module - AXL F DO16/1 1H - 2688349

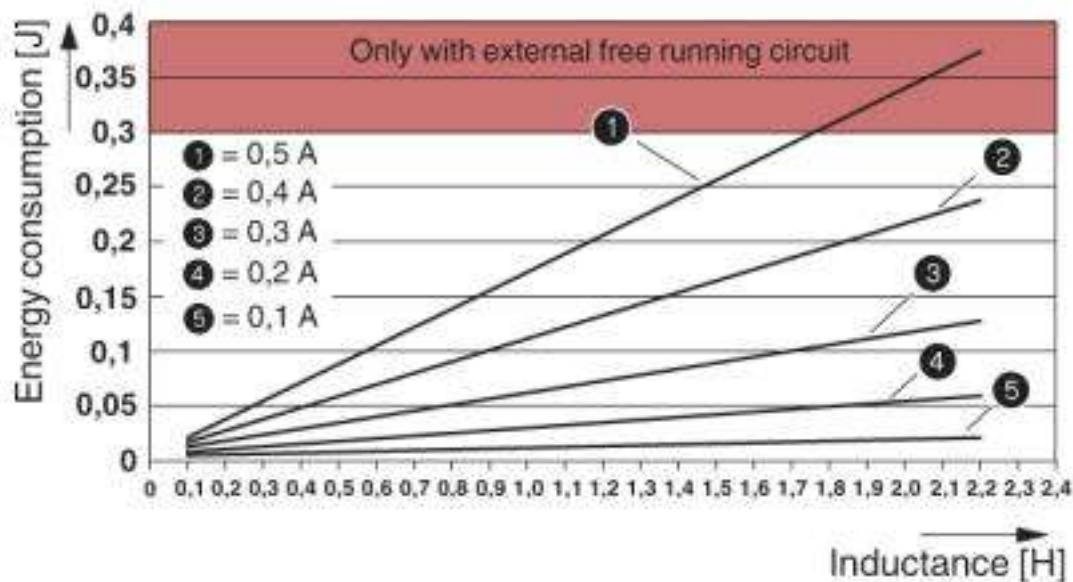
Block diagram



Internal wiring of the terminal points

I/O module - AXL F DO16/1 1H - 2688349

Diagram



Maximum energy consumption of the outputs when switching off inductive loads

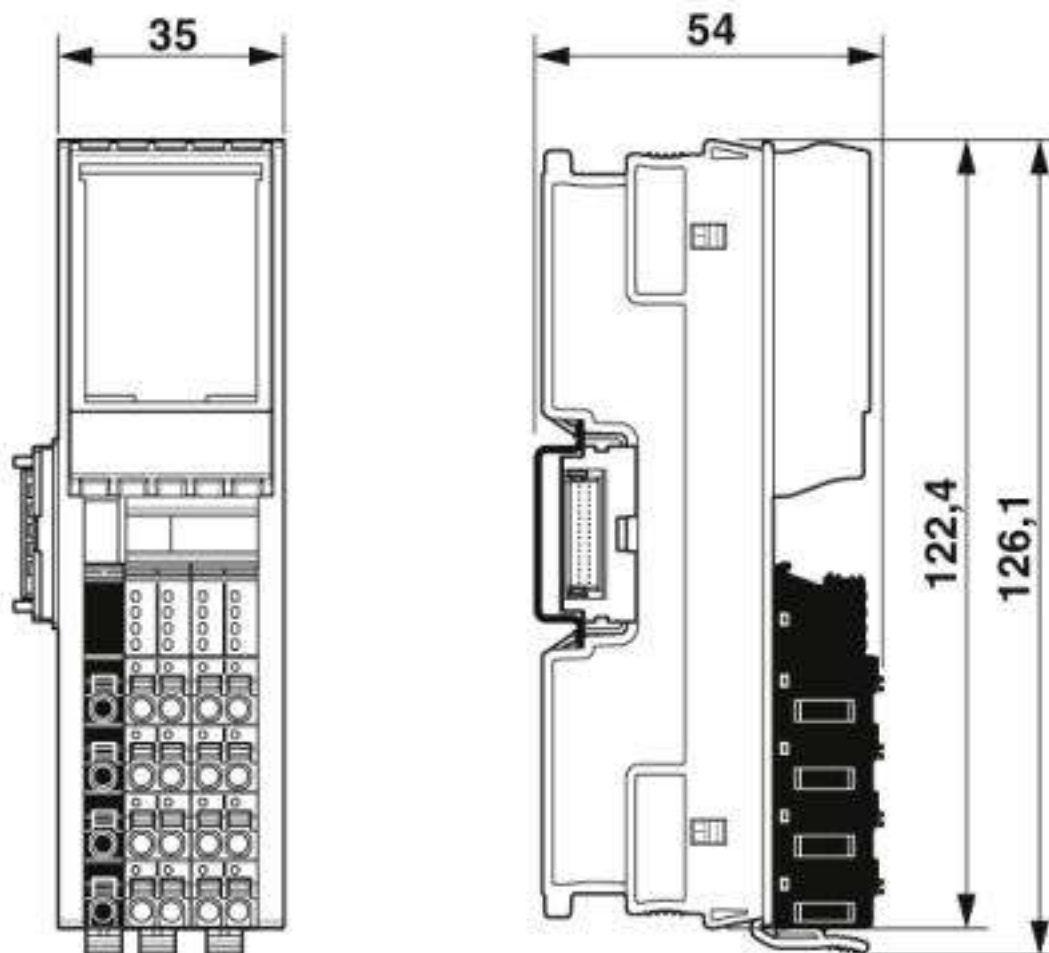
The diagram shows the maximum amount of energy that may be fed back into the corresponding output groups (outputs 1 to 4, 5 to 8, 9 to 12, 13 to 16) for each switch off procedure when switching off an inductive load without external freewheeling circuit.

The current data refers to the ohmic DC voltage component of the inductive load.

Note: Restrict freewheeling voltage to a maximum of -15 V when using an external freewheeling circuit. The external freewheeling circuit has no function in the event of a higher negative voltage.

I/O module - AXL F DO16/1 1H - 2688349

Dimensional drawing



Classifications

eCl@ss

eCl@ss 4.0	27240400
eCl@ss 4.1	27240400
eCl@ss 5.0	27242200
eCl@ss 5.1	27242600
eCl@ss 6.0	27242600
eCl@ss 7.0	27242604
eCl@ss 8.0	27242604
eCl@ss 9.0	27242604

ETIM

ETIM 3.0	EC001599
ETIM 4.0	EC001599
ETIM 5.0	EC001599

I/O module - AXL F DO16/1 1H - 2688349

Classifications

ETIM

ETIM 6.0	EC001599
ETIM 7.0	EC001599

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	39121311
UNSPSC 12.01	39121311
UNSPSC 13.2	32151602

Approvals

Approvals

Approvals

DNV GL / UL Listed / cUL Listed / NK / ABS / DNV GL / RINA / KR / LR / KR / NK / ABS / BSH / RINA / UL Listed / cUL Listed / EAC / EAC / PRS / BV

Ex Approvals

Approval details

DNV GL		https://approvalfinder.dnvgl.com/	TAA00000DF
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UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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NK		http://www.classnk.or.jp/hp/en/	14A006
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ABS	http://www.eagle.org/eagleExternalPortalWEB/	18-HG1767360-PDA
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I/O module - AXL F DO16/1 1H - 2688349

Approvals

DNV GL		https://approvalfinder.dnvgl.com/	TAA00000DF
RINA		http://www.rina.org/en	ELE256518XG
KR		http://www.krs.co.kr/eng/main/main.aspx	HMB17372-AC002
LR		http://www.lr.org/en	14-20019
KR		http://www.krs.co.kr/eng/main/main.aspx	HMB17372-AC002
NK		http://www.classnk.or.jp/hp/en/	14A006
ABS		http://www.eagle.org/eagleExternalPortalWEB/	18-HG1767360-PDA
BSH		http://www.bsh.de/de/index.jsp	840
RINA		http://www.rina.org/en	ELE256518XG
UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705

I/O module - AXL F DO16/1 1H - 2688349

Approvals

EAC		EAC-Zulassung
EAC		EAC-Zulassung
PRS		http://www.prs.pl/ TE/2239/880590/19
BV		http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials 36433/B0 BV

Accessories

Accessories

Device marking

Insert label - EMT (35X28)R - 0801602



Insert label, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLLMaster 300/600, THERMOMARK X1.2, THERMOMARK ROLL X1, THERMOMARK ROLL 2.0, THERMOMARK ROLL, mounting type: snapped into marker carrier, lettering field size: 35 x 28 mm, Number of individual labels: 500

DIN rail connector

Bus connector - AXL F BS H - 2700992



Axioline F bus base module for housing type H

Terminal marking

I/O module - AXL F DO16/1 1H - 2688349

Accessories

Zack marker strip - ZB 20,3 AXL UNPRINTED - 0829579



Zack marker strip for AxioLine F (device labeling), in 2 x 20.3 mm pitch, unprinted, 25-section, for individual labeling with B-STIFT 0.8, X-PEN, or CMS-P1-PLOTTER

Zack Marker strip, flat - ZBF 10/5,8 AXL UNPRINTED - 0829580



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 10.15 mm, lettering field size: 4 of 10.15 x 5 mm and 1 of 5.8 x 5 mm, Number of individual labels: 50

1088128

<https://www.phoenixcontact.com/ro/produse/1088128>

Vă rugăm să țineți cont de faptul că datele afișate în acest document PDF au fost generate din catalogul nostru online. Datele complete sunt disponibile în documentația pentru utilizator. În cazul descărcărilor, se aplică Termenii și condițiile generale de utilizare ale companiei noastre.



Axioline Smart Elements, Communication module, interface RS-485: 1, Process data width: 20 bytes, Transparent protocol, degree of protection: IP20

Descriere produs

You can integrate Axioline Smart Elements into systems with the Smart Element interface. This Smart Element is used to operate standard I/O devices with a serial interface on a bus system.

Avantajele dumneavoastră

- One serial input and output channel in RS-485 format
- Data is transmitted in transparent mode
- Transmission speed can be set up to 230,400 bps
- Number of data bits, stop bits and parity can be set
- Device rating plate stored

Date comerciale

Număr articol	1088128
Unitate de ambalare	1 Bucată
Cantitate minimă pentru comandă	1 Bucată
Cod produs	DRIB51
GTIN	4055626888002
Greutate pe bucată (inclusiv ambalajul)	35 g
Greutate pe bucată (fără ambalaj)	35 g
Cod tarifar vamal	85176200
Țara de origine	DE

AXL SE RS485 - Communication module

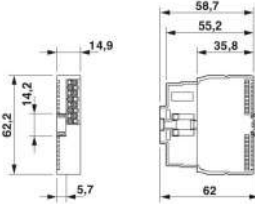


1088128

<https://www.phoenixcontact.com/ro/produse/1088128>

Date tehnice

Dimensions

Dimensional drawing		
Width		14.9 mm
Height		62.2 mm
Depth		62 mm

Notes

Note on application

Note on application	Only for industrial use
---------------------	-------------------------

Interfaces

Smart Element interface

Number of interfaces	1
Connection method	Card edge connector
Transmission speed	See system in which you use the Smart Element.
Start time until ready to operate	< 500 ms

RS-485

Number of interfaces	1
Connection method	Push-in connection
Note on the connection method	Use shielded cables.
Transmission speed	1200 bps ... 230,400 bps (can be parameterized)
Transmission physics	Copper
Termination resistor	120 Ω (active, integrated)
Data bits	7 or 8
Stop bits	1 or 2
Input buffer	4 kByte
Output buffer	1 kByte

System properties

Module

ID code (hex)	none
Process data channel	160 bit
Input address area	20 Byte
Output address area	20 Byte

1088128

<https://www.phoenixcontact.com/ro/produse/1088128>

Required parameter data	10 Byte
Required configuration data	7 Byte

Product properties

Product type	I/O component
Product family	Axioline Smart Elements
Type	modular
Mounting position	See the system in which the Smart Element is used.
Special properties	Process data width: 20 bytes Transparent protocol

Insulation characteristics

Overvoltage category	II (IEC 60664-1, EN 60664-1)
Pollution degree	2 (IEC 60664-1, EN 60664-1)

Electrical properties

Maximum power dissipation for nominal condition	0.7 W
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Potentials: Communications power supply of the Smart Elements (U_{SE})

Supply voltage	using card edge connectors
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Potentials: I/O supply (U_P)

Supply voltage	24 V DC (using card edge connectors)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	max. 10 mA typ. 8 mA
Current consumption	min. 6 mA (without connected peripherals)
Protective circuit	Surge protection; See the system in which the Smart Element is used. Reverse polarity protection; Polarity protection diode

Electrical isolation/isolation of the voltage ranges

Test voltage: Communications supply / 24 V supply (I/O)	500 V AC, 50 Hz, 1 min
Test voltage: Logic supply / RS-485 interface	500 V AC, 50 Hz, 1 min
Test voltage: Communications supply / functional ground	500 V AC, 50 Hz, 1 min
Test voltage: 24 V supply (I/O) / RS-485 interface	500 V AC, 50 Hz, 1 min
Test voltage: 24 V supply (I/O) / functional ground	500 V AC, 50 Hz, 1 min
Test voltage: RS-485 interface / functional ground	500 V AC, 50 Hz, 1 min

Connection data

Connection technology

Connection name	I/O
Note on the connection method	Please observe the information provided on conductor cross sections in the "Axioline Smart Elements" user manual.

Conductor connection

Connection method	Push-in connection
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<https://www.phoenixcontact.com/ro/produse/1088128>

Conductor cross section rigid	0.25 mm² ... 1.5 mm²
Conductor cross section flexible	0.25 mm² ... 1.5 mm²
Conductor cross section AWG	24 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 1.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 1.5 mm²
Stripping length	8 mm

I/O

Connection method	Push-in connection
Note on the connection method	Please observe the information provided on conductor cross sections in the "Axioline Smart Elements" user manual.
Conductor cross section, rigid	0.25 mm² ... 1.5 mm²
Conductor cross section, flexible	0.25 mm² ... 1.5 mm²
Conductor cross section AWG	24 ... 16
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 1.5 mm²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 1.5 mm²
Stripping length	8 mm

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Degree of protection	IP20
Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)

Standards and regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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Mounting

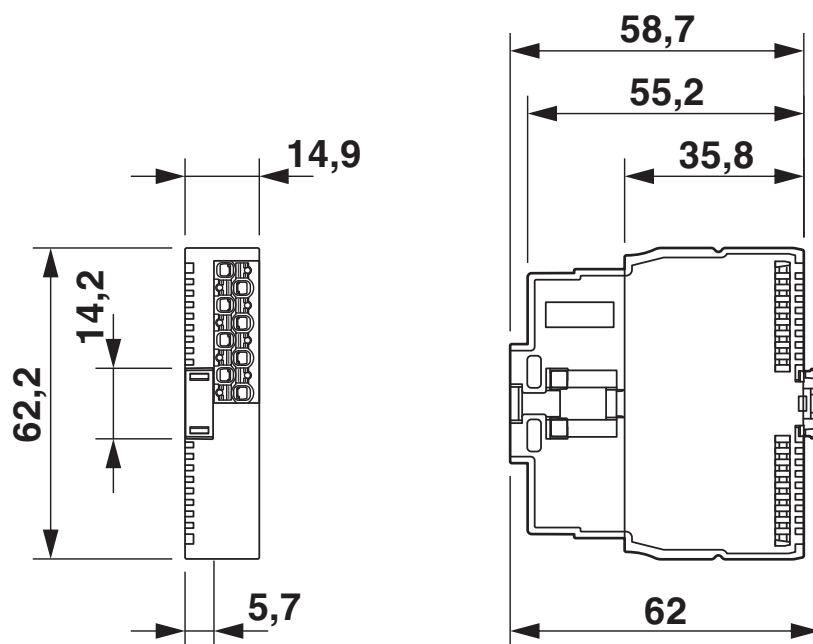
Mounting type	Smart Element slot
Mounting position	See the system in which the Smart Element is used.

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Desene

Dimensional drawing

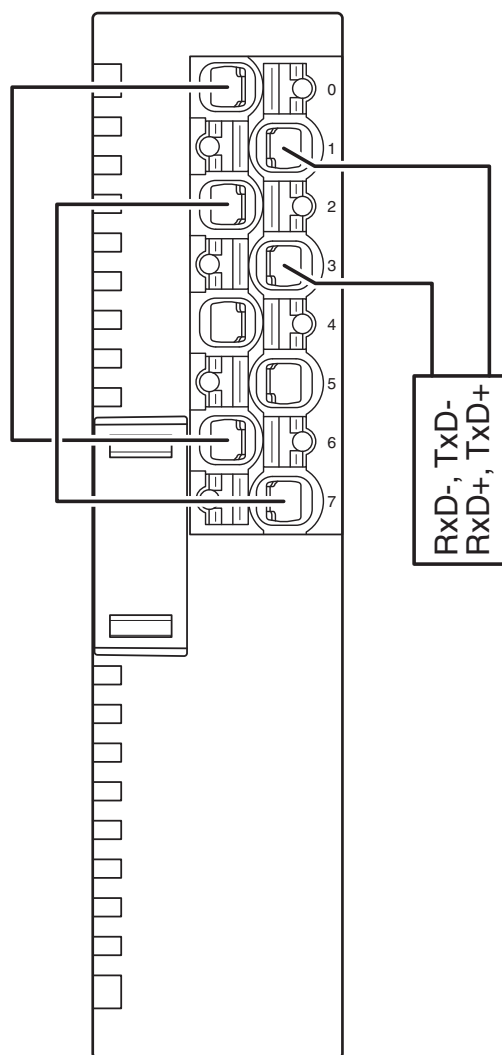


Dimensions

1088128

<https://www.phoenixcontact.com/ro/produse/1088128>

Connection diagram

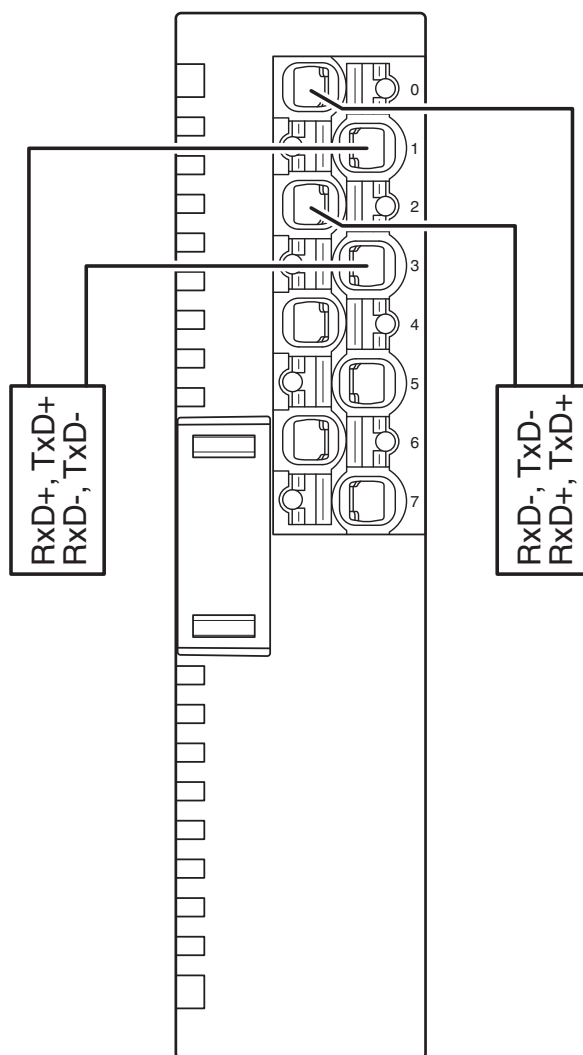


Smart Element as the network end point

1088128

<https://www.phoenixcontact.com/ro/produse/1088128>

Connection diagram

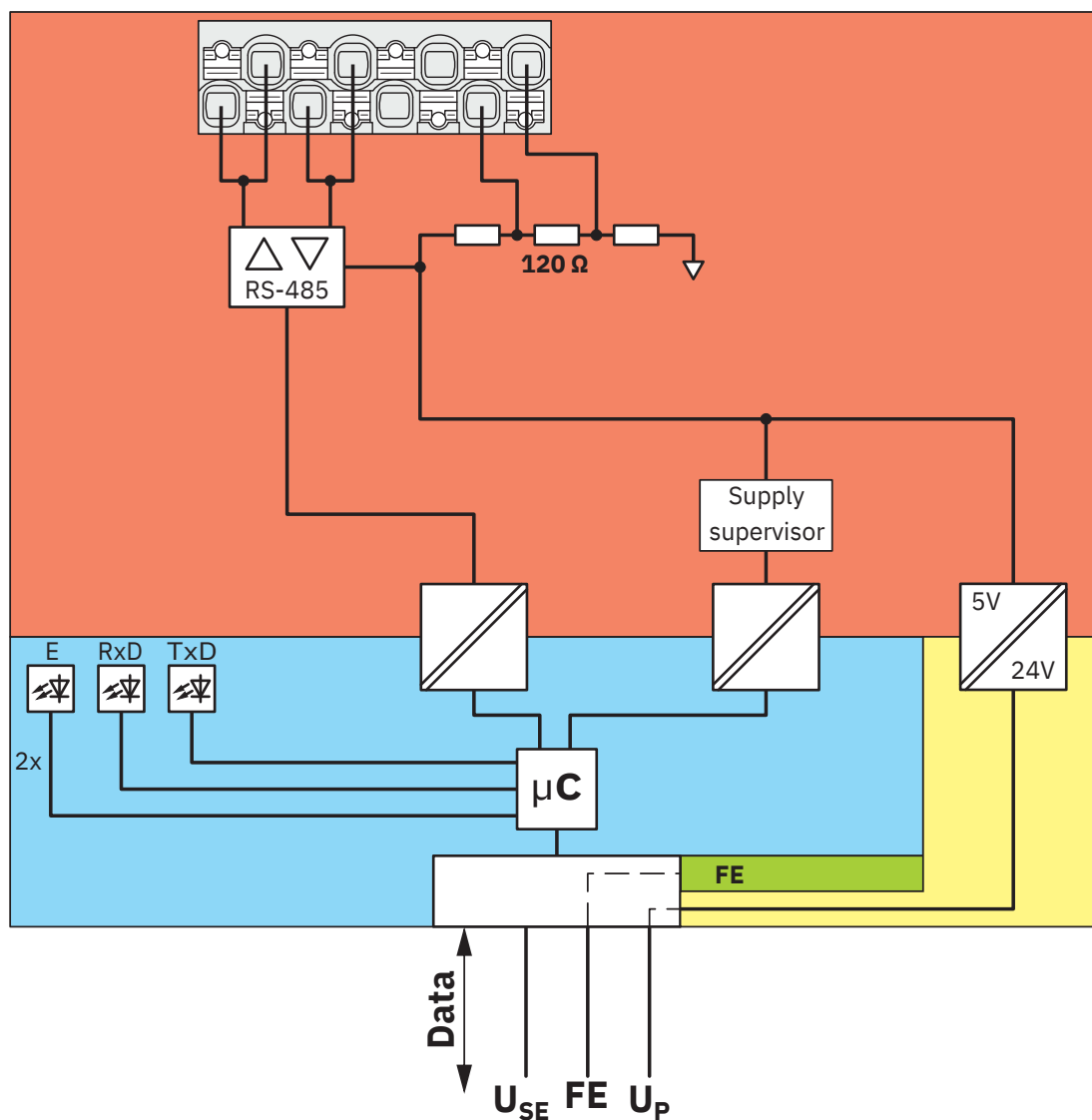


Smart Element in the middle of a network

1088128

<https://www.phoenixcontact.com/ro/produse/1088128>

Block diagram



Internal wiring of the terminal points

AXL SE RS485 - Communication module



1088128

<https://www.phoenixcontact.com/ro/produse/1088128>

Aprobări

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/ro/produse/1088128>



LR

ID de înregistrare: LR23402057TA

DNV

ID de înregistrare: TAA00003B0



RINA

ID de înregistrare: ELE263623XG

ABS

ID de înregistrare: 24-2510075-PDA



cULus Listed

ID de înregistrare: E238705

1088128

<https://www.phoenixcontact.com/ro/produse/1088128>

Clasificări

ECLASS

ECLASS-11.0	27242608
ECLASS-12.0	27242608
ECLASS-13.0	27242608

ETIM

ETIM 9.0	EC001604
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UNSPSC

UNSPSC 21.0	32151600
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1088128

<https://www.phoenixcontact.com/ro/produse/1088128>

Environmental product compliance

EU RoHS

Îndeplinește cerințele conform directivei RoHS	Da
reglementări excepționale, dacă sunt cunoscute	7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	Un tabel de declarații China RoHS legat de articol poate fi găsit în zona de descărcare a articolului respectiv la „Declarația producătorului”. Nu se emite și nu este necesar niciun tabel de declarații China RoHS pentru toate articolele EFUP-E.

EU REACH SVHC

Trimitere la substanța candidată REACH (nr. CAS)	Nicio substanță cu un procentaj masic mai mare de 0,1 %
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EF3.0 Schimbările climatice

CO2e kg	2,422 kg CO2e
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 +40 21 350 88 12 - 3
sales.ro@phoenixcontact.com

19. FIȘA TEHNICĂ: E-PCA Panel PC AUTOMATIZARE

Nr. crt.	Specificațiile tehnice impuse prin Caietul de sarcini	Correspondența propunerii tehnice cu specificațiile tehnice impuse prin Caietul de sarcini	Producător
0	1	2	3
1.	Parametrii tehnici și funcționali: 1.1. Amplasare: • Loc montaj: pe ușa TGA; • Temperaturi ambiante: 0 ~ 50 °C sau -20 ~ 60 °C funcție de tipul componentelor interne; • Umiditatea relativă: 95% 1.2. Condiții execuție mecanice: • Diagonală: minim 19inch • Montare: pe ușă tablou cu kit de instalare inclus; 1.3. Parametrii funcțional • ecran multi-touch • Rezoluție minim 1920x1080 Pixel • Comunicație ethernet cu automatul programabil • Chipset: Intel sau echivalent • Procesor: minim Intel® Core™ i5 • RAM: minim 8 GB • Stocare: SSD minim 120Gb • 2 x Port ethernet (10/100/1000 Mbps), RJ45 • 3 x USB 3.0 • 1 x Display Port • Tensiune de alimentare: 24Vdc 1.4 Cerințe software • Sistem de operare Windows 10 IoT Enterprise 64bit cu acces pentru configurație și aplicații terță parte sau superior • Interfață de comunicare și sincronizare timp • Posibilitate instalare aplicații terțe pentru utilizare fișiere .pdf, .xlsx • Soft de aplicație (dezvoltare + Run-Time): ○ furnizat cu echipamentul (Run-Time) ○ Soft deschis pentru a putea prelua și transmite semnale unor aplicanți terți ○ Softul se va preda însoțit de licență și de documentațiile necesare pentru interconectarea cu alte sisteme sau pentru o dezvoltare ulterioară fără implicarea contractantului ○ Aplicația de monitorizare și control local automatizare va funcționa în tandem cu aplicația similară instalată pe Stația de operare	 DA DA DA DA DA DA DA DA DA DA DA DA DA DA DA DA DA	PhoenixContact
2.	Specificații de performanță și condiții privind siguranța în exploatare: • Certificări CE, FCC Class A, UL, CCC, BSM, TPM 2.0		
3.	Condiții privind conformitatea cu standarde relevante: • Protecție la șocuri, conform IEC 60068-2-27, 50G, sau similar		

	• Protecție la vibrații, conform IEC 60068-2-64, 2 Grms sau similar		
4.	Condiții de garanție și postgaranție: • Producătorul va garanta calitatea și buna funcționare a produsului timp de 24 luni de la punerea în funcțiune sau de 36 luni de la data livrării.		
5.	Condiții cu caracter tehnic: • Nu vor fi luate în considerație decât ofertele însoțite de documentație completă pentru selecție și montaj în limba română. • Vor fi anexate: ○ instrucțiuni de montaj (scheme de conectare, broșuri, cataloage); ○ instrucțiuni de exploatare; ○ buletine de încercări, verificări, probe; ○ declarație de conformitate.		



1376798

<https://www.phoenixcontact.com/ro/produse/1376798>

Vă rugăm să țineți cont de faptul că datele afișate în acest document PDF au fost generate din catalogul nostru online. Datele complete sunt disponibile în documentația pentru utilizator. În cazul descărcărilor, se aplică Termenii și condițiile generale de utilizare ale companiei noastre.



IP66-rated industrial panel PC (PPC) with an 11th generation Intel® processor with up to 64 GB RAM and support for two M.2 2280 SSDs. A variety of I/O options are available, including wireless LAN.

Avantajele dumneavoastră

- 11th generation Intel® Core™ or Celeron® processor
- 15.6-, 18.5-, and 21.5-inch FHD multi-touch displays
- One DP++ port
- Supports TPM 2.0 and Intel® AMT
- I/O expansion options
- Optional wireless LAN
- Supports two M.2 SSDs

Date comerciale

Număr articol	1376798
Unitate de ambalare	1 Bucată
Cantitate minimă pentru comandă	1 Bucată
Indicație	Produs la comandă (nereturnabil)
Cod produs	DRBAAB
Greutate pe bucată (inclusiv ambalajul)	100 g
Greutate pe bucată (fără ambalaj)	50 g
Cod tarifar vamal	84715000
Țara de origine	TW

Date tehnice

Notes

Note on application

Note on application	Only for industrial use
---------------------	-------------------------

Product properties

Product type	Panel PC
--------------	----------

Computer data

Processor	Intel® Celeron® 6305E, Number of cores: 2 x 1.8 GHz
	Intel® Core™ i3-1115G4E, Number of cores: 2 x 3 GHz (TDP-up)
	Intel® Core™ i5-1145G7E 2.6 GHz (TDP-up)
	Intel® Core™ i7-1185G7E 2.8 GHz (TDP-up)
Trusted Platform Module	dTPM 2.0, Infineon® SLB9670 (Encryption technology not Chinese)
Operating system	without operating system
	Windows® 10 IoT Enterprise LTSC 2021 X64
	Windows® 11 IoT Enterprise LTSC 2024 X64
RAM	4 GB DDR4 SODIMM
	8 GB DDR4 SODIMM
	16 GB DDR4 SODIMM
	32 GB DDR4 SODIMM
	64 GB DDR4 SODIMM
Data storage system	without data storage
	60 GB, M.2 2280 SSD, M key, SATA 3
	120 GB, M.2 2280 SSD, M key, SATA 3
	240 GB, M.2 2280 SSD, M key, SATA 3
	480 GB, M.2 2280 SSD, Key M, SATA 3
	960 GB, M.2 2280 SSD, M key, SATA 3
Cooling	Passive (i7 includes convection booster)
PCI option 1	without slot
Raid system	0, 1

Display

Display type	39.6 cm / 15.6"-TFT
	47 cm / 18.5"-TFT
	54.6 cm / 21.5"-TFT
Screen resolution	1920 x 1080 Pixel(s) (Full HD)
Touch technology	projective-capacitive, ten-touch control
MTBF	50000 h

System properties

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Processor	Intel® Celeron® 6305E, Number of cores: 2 x 1.8 GHz
	Intel® Core™ i3-1115G4E, Number of cores: 2 x 3 GHz (TDP-up)
	Intel® Core™ i5-1145G7E 2.6 GHz (TDP-up)
	Intel® Core™ i7-1185G7E 2.8 GHz (TDP-up)
User software	without user software
	Visu+

Electrical properties

Service life of battery	5 years (typical)
Supply	
Supply voltage	24 V DC $\pm 20\%$
Real-time clock	
Realtime clock	Yes (battery-backed)

Interfaces

Interfaces	1x COM (RS-232/422/485)
	4x USB 3.1 external
	1x USB 3.1 internal
	1x DP++
Optional interfaces	1x 1000 Mbps, 2x COM (RS-232/422/485), 2x USB
	4x D-SUB 9, selectable RS-232/422/485
	4x D-SUB 9 isolated, selectable RS-232/422/485
	Wireless LAN
Network	2x Ethernet (10/100/1000 Mbps), RJ45
LAN chipset	Intel® I211-AT
	Intel® I225-LM

Dimensions

External dimensions	
Width / Height / Depth	398 mm / 273 mm / 88 mm (15.6-inch display)
	465 mm / 310 mm / 89 mm (18.5-inch display)
	532 mm / 346 mm / 89 mm (21.5-inch display)

Environmental and real-life conditions

Ambient conditions	
Degree of protection	IP66 (Front)
	IP30 (back)
	IP66 (front), IP30 (back)
Ambient temperature (operation)	-20 °C ... 50 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Altitude	2000 m (above sea level)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)

VL3 PPC - Panel PC



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Shock	15g, 11 ms in accordance with IEC 60068-2-27
Vibration (operation)	1g, according to EN 60068-2-6

Mounting

Mounting type	Front mounting
	VESA holder
Holder system	VESA MIS-D 100 C

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<https://www.phoenixcontact.com/ro/produse/1376798>

Aprobări

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/ro/produse/1376798>



EAC-RoHS

ID de înregistrare: RU*-DE*HB.B.00386/20



UL Listed

ID de înregistrare: FILE E 238705



cUL Listed

ID de înregistrare: FILE E 238705



IECEE CB Scheme

ID de înregistrare: US-41152-M1-UL



IECEE CB Scheme

ID de înregistrare: US-41152-UL



cUL Listed

ID de înregistrare: E196811



UL Listed

ID de înregistrare: E196811

cULus Listed

cULus Listed

1376798

<https://www.phoenixcontact.com/ro/produse/1376798>

Clasificări

ECLASS

ECLASS-11.0	19200103
ECLASS-12.0	19200103
ECLASS-13.0	19200103

ETIM

ETIM 9.0	EC001414
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UNSPSC

UNSPSC 21.0	43211500
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Environmental product compliance

EU RoHS

Îndeplinește cerințele conform directivei RoHS	Da
reglementări excepționale, dacă sunt cunoscute	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-10
	Un tabel de declarații China RoHS legat de articol poate fi găsit în zona de descărcare a articolului respectiv la „Declarația producătorului”. Nu se emite și nu este necesar niciun tabel de declarații China RoHS pentru toate articolele EFUP-E.

EU REACH SVHC

Trimitere la substanța candidată REACH (nr. CAS)	1, 2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)(nr. CAS: 110-71-4)
	Lead(nr. CAS: 7439-92-1)

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20. FISA TEHNICĂ: E- SOA – STATIE DE OPERARE AUTOMATIZARE

[illegible]

	• Producătorul va garanta calitatea și buna funcționare a produsului timp de 24 luni de la punerea în funcțiune sau de 36 luni de la data livrării.		
5.	Condiții cu caracter tehnic: • Nu vor fi luate în considerație decât ofertele însoțite de documentație completă pentru selecție și montaj în limba română. • Vor fi anexate: ○ instrucțiuni de montaj (scheme de conectare, broșuri, cataloage); ○ instrucțiuni de exploatare; ○ buletine de încercări, verificări, probe; ○ declarație de conformitate.		



NEW



WISE-DeviceOn

SUSI API



Features

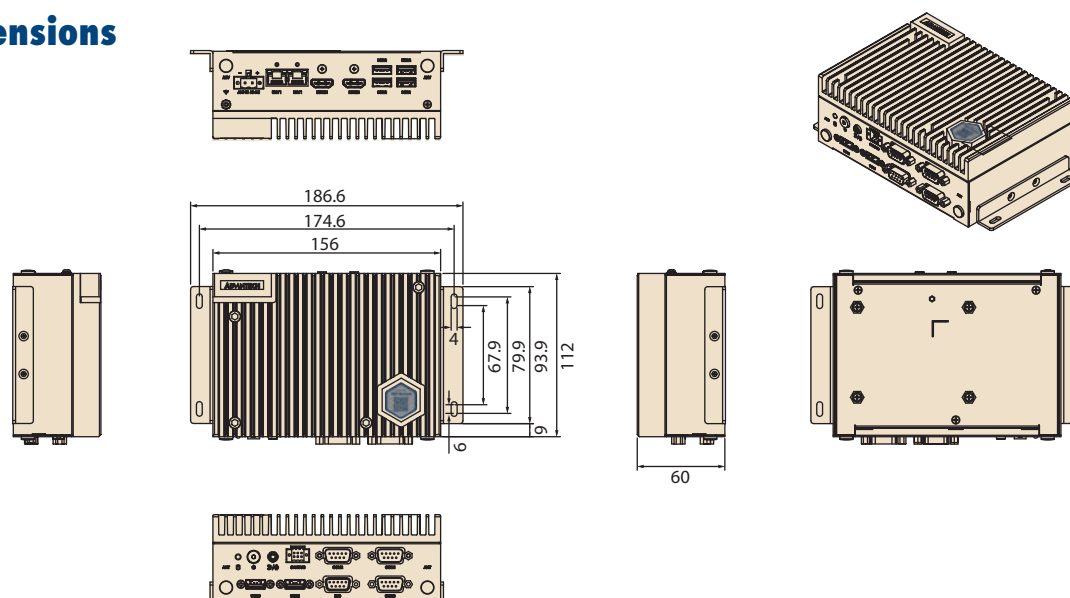
- Intel 13th Gen. Core i7/i5/Celeron up to 14 Watt with 10 Cores
- Compact Fanless 156 x 112 x 60mm dimensions
- Dual 4K lockable HDMI 2.0b, 4096x2160 resolution
- Vertical I/O: 3x COM/1x DIO/2x CANBus/2x LAN/6x USB
- Compatible with EWM-W165M203E Wi-Fi Module (NO RED)
- Compatible with AIW-357DK-G2U 5G Module (NO RED)
- WISE-DeviceOn for device management and remote control
- Support Robotics Development for Robotic Development SDK
- 5 year Long-Term Support (LTS) program for Ubuntu

Specifications

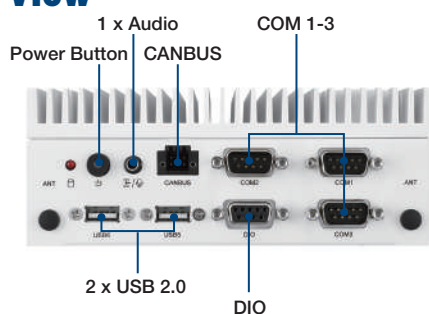
Name		EI-53-S7A1U	EI-53-S5A1U	EI-53-S0A1U
Processor System	CPU	Core i7-1365UE	Core i5-1345UE	Celeron U300E
	Core Number	10 core (2P+8E)	10 core (2P+8E)	5 core (1P+4E)
	Frequency	1.7GHz	1.3GHz	1.1 GHz
	BIOS	AMI EFI 256Mbit		
Memory	Technology	Up to DDR5 5200 MHz		
	Capacity	Max. capacity 64GB		
	Socket	2x 262-pin SODIMM (no Support ECC)		
Graphics	Chipset	Intel® Iris® Xe Graphics eligible	Intel® Iris® Xe Graphics eligible	Intel® UHD Graphics for 13th Gen Intel® Processors
	Graphic Engine	Direct X 12.1, OpenGL 4.6 HW Encode: H.265/HEVC, H.264/AVC, VP9, SCC HW Decode: H.265/HEVC, H.264/AVC, VP9, SCC		
	HDMI	2x HDMI 2.0b: 4096x2160@60Hz, Dual Display		
Storage	SSD/M.2	2.5 inch SATA SSD M-Key 2280 (SATA, PCIe4 Gen.4 NVMe)		
I/O Interface	LAN1	10/100/1000 Mbps Intel i219 1GbE, support Wake On LAN		
	LAN2	100/1000/2500 Mbps Intel i226 2.5 GbE, support Wake On LAN		
	USB 2.0/USB 3.2	3/3		
	Audio	1 x Mic-in, Line-out, Realtek ALC888S HD Audio		
	COM	2 x RS-232/422/485 1x RS-485 (COM3)		
	DIO	DB9 8 bit, 1 port		
	CANBus	2x3 pin, 2 ports		
Expansion	M.2	1 x E-Key 2230 (PCIex1, USB2.0) 1 x B-Key 2242/3042/3052 w/ Nano SIM (PCIex1, USB 3.2) 1 x M-Key 2280 (SATA, PCIe4)		
Trusted Platform Module	TPM 2.0	SLB9670XQ2.0 (on board)		
Power Requirement	Power Input Voltage	12-24 V _{DC}		
	Power Type	ATX/AT mode (Default ATX)		
Power Consumption	Typical (OS idle mode)	17.44W	17.9W	18.15W
	Max. (Full loading)	41.67W	45.81W	43.62W
Physical Characteristics	Mounting	Wall Mounting/Din-Rail		
	Dimensions (W x H x D)	156 x 112 x 60 mm		
	Weight	1.3 Kg		
Environment	Operating Temperature	-20 ~ 60 °C (-4°~140°F), with 0.7m/s air flow		
	Storage Temperature	-40 ~ 85 °C (-40 ~ 185°F)		
	Relative Humidity	95% @ 40 °C (non-condensing)		
	Vibration during Operation	3 Grms, IEC60068-2-64, random, 5~500 Hz, 1hr/axis (with Wall Mount)		
Software Support	Shock during Operation	30 G, IEC-60068-2-27, half sine, 11 ms duration (with Wall Mount)		
	Microsoft Windows	Windows 10 IoT 2021 LTSC 64bit / Windows 11 IoT 64bit		
Certification	Linux	Ubuntu Desktop 22.04 LTS 64bit		
	EMC	CE/FCC Class B, Heavy Industry 61000-6-4, 61000-6-2, CCC, BSMI		
	Safety	UL, CB, CCC		

Dimensions

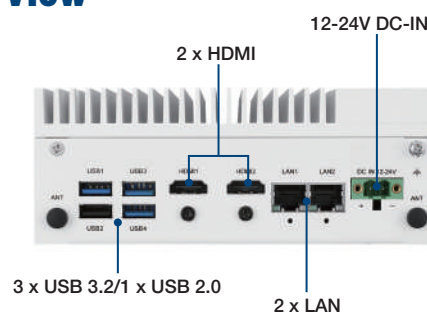
Unit: mm



Front View



Rear View



Ordering Information

Part No.	CPU	Memory	Storage	Display	LAN	USB	CANBus	DIO	RS-232/422/485	M.2	Power Input	Operating Temp.	Audio
EI-53-S7A1U	Intel Core i7-1365UE	UP to 64GB	Support 1x 2.5 inch SATA SSD/ 1 x M-Key 2280	2 x HDMI	2 (1GbE/2.5GbE)	3 x 3.2 3 x 2.0	2	1	3	E-key 2230 & B-Key 2242/3042/3052 & M-Key 2280	12-24 V _{DC}	-20 ~ 60 °C	Mic-in/Line-out
EI-53-S5A1U	Intel Core i5-1345UE	UP to 64GB											
EI-53-S0A1U	Intel Celeron U300E	UP to 64GB											

* System Made in Taiwan

* default 3xSKU have no SSD/RAM

Packing List

Part Number	Description
-	1 x EI-53 unit
1960052226N004	2 x Wallmount
2006EI5310	1 x User manual (Simplified Chinese)
36WSWPDOBUND11	1 x WISE-DeviceOn Package
1652000099	1x Phoenix connector counterpart
1652008233-01	1x Canbus counterpart

Optional Items

Part Number	Description
XARK-ADP-90MDH	90W Power Adaptor (19V DC in)
1700001524	Power Cable 3-pin 180cm, USA type
170203183C	Power Cable 3-pin 180cm, Europe type
170203180A	Power Cable 3-pin 180cm, UK type
1700008921	Power Cable 3-pin PSE Mark 183cm
AMK-A0048	Thermal kit for 5G and NVME
AMK-R006E	DIN-Rail Mounting for EI-53

Embedded OS

Part Number	Description
20706WX1HS0066	Windows 10 IoT Enterprise 2021 LTSC ENU 64bit for Core i7
20706WX1VS0066	Windows 10 IoT Enterprise 2021 LTSC ENU 64bit for Core i5
20706WX1ES0066	Windows 10 IoT Enterprise 2021 LTSC ENU 64bit for celeron
20706WXH1S0001	Windows 11 IoT Enterprise GAC ENU 64bit for Core i7
20706WXV1S0001	Windows 11 IoT Enterprise GAC ENU 64bit for Core i5
20706WXE1S0001	Windows 11 IoT Enterprise GAC ENU 64bit for Celeron
20706U22DS0028	Ubuntu Desktop 22.04 LTS ENU 64bit

21. FISA TEHNICĂ: E-MASMG - MONITOR AUTOMATIZARE

Nr. crt.	Specificațiile tehnice impuse prin Caietul de sarcini	Corespondența propunerii tehnice cu specificațiile tehnice impuse prin Caietul de sarcini	Producător
0		2	3
1.	Parametrii tehnici și funcționali : Loc de montaj: - se va livra cu suport pentru montare pe birou; Temperaturi ambiante: - în funcționare: 0°C ÷ 35°C; Mediul ambiant: - mediu lipsit de praf, fum, gaze inflamabile sau corozive, vapori sau săruri; - Umiditatea relativă: max 80 %, fără condens la 20 ° Dimensiune: - Diagonală: minim 27”. Cerinte tehnice generale: - Tip ecran: LED-backlit LCD monitor / TFT active matrix, IPS Black Technology - Rezoluție: 4K 3840 x 2160 at 60 Hz, 16:9 - Luminozitate: 400 cd/m² - Contrast: 2000:1 / 2000:1 (dynamic) - Timp de răspuns: 5 ms ~ 8 ms - Unghi de vizualizare vertical și orizontal: 178° - Interfețe: HDMI (HDCP 2.2), DisplayPort 1.4 - DisplayPort ieșire, 4 x USB 3.2 intrare și încărcare 15W, Audio și LAN opțional - Alimentare: AC 100-240V; 50 - 60 Hz. - Putere consumată: max 220W, 0.3W în standby Accesorii minim incluse: 1 x cablu de alimentare 1 x cablu DisplayPort (DP to DP) - 1.8 m 2 x Cablu HDMI, lungime min 10m, pentru rezoluții de 4K (4096 x 2160 at 60hz, 4:4:4), capacitate până la 18Gbps	DA DA	DELL
2.	Specificații de performanță și condiții privind siguranța în exploatare: Suport pentru ajustare pe înălțime și pivotare și rotire		
3.	Condiții privind conformitatea cu standarde relevante: RoHS, BFR-free, PVC-free, Mercury-free, EPEAT Gold, ENERGY STAR Certified		
4.	Condiții de garanție și postgaranție: Producătorul va garanta calitatea și buna funcționare a produsului timp de 24 luni de la punerea în funcțiune Produsul va corespunde normelor tehnice și standardelor europene.		
5.	Condiții cu caracter tehnic: Nu vor fi luate în considerație decât ofertele însoțite de documentație completă pentru selecție și montaj în limba română. Vor fi anexate: - instrucțiuni de montaj (scheme de conectare, broșuri, cataloage); - instrucțiuni de exploatare;		

	• buletine de încercări, verificări, probe; • declarație de conformitate.		
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DELL ULTRASHARP
27 AND 32 4K
USB-C HUB
MONITORS

U2723QE

U3223QE

See it all as it was intended



DELL Technologies

**THE WORLD'S # 1
MONITOR COMPANY***

ULTRASHARP MONITORS

U2723QE, U3223QE

See it all as it was intended

Be your most productive on the world's first monitors with IPS Black technology[^]. These UltraSharp 27" and 31.5" 4K USB-C Hub monitors deliver brilliant color and contrast and come with extensive connectivity options and multitasking features.



Brilliance—because it matters

Power through your tasks in 4K clarity, incredible color and exceptional contrast with groundbreaking IPS Black technology. These 27" and 31.5" 4K monitors come with a wide color gamut and VESA certified DisplayHDR 400 for true-to-life visuals.

Peak productivity

Streamline any workplace with USB-C Hub monitors that connect you to the Ethernet and a host of other devices. Stretch productivity with a dual 4K monitor set up and multitask efficiently with KVM, Picture-by-Picture and Picture-in-Picture.

Skillfully crafted

Sophisticated with a premium finish, these monitors fit any environment. Enjoy edge-to-edge views with the virtually borderless InfinityEdge design. Easy-to-use with full adjustability, you'll work comfortably all day.

U2723QE, U3223QE

World's first monitors with
IPS Black technology[^]

**See more in
outstanding clarity**

4K (3840 x 2160)
resolution on a large
31.5" (U3223QE) or 27"
(U2723QE) monitor

Exceptional contrast

See incredible color and
superior black performance
with a contrast ratio of 2,000:1
on the world's first monitors
with IPS Black technology[^]

True brilliance

Experience true-to-life visuals with
1.07 billion colors, a wide color
gamut including 100% sRGB, 100%
Rec. 709, 98% DCI-P3, and VESA
Certified DisplayHDR™ 400

Virtually borderless

InfinityEdge for a
seamless view across
multiple monitors

Daisy chain two 4K
monitors and get
uncompromised
picture quality with
**DSC (Display Stream
Compression)**
technology

Optimize eye
comfort with built-in
ComfortView Plus
that reduces harmful
blue light emissions
without sacrificing color
performance

Adjust to your comfort

Tilt, swivel, pivot, and
height adjustable
(150mm max)

**Easy-to-use
joystick control**

To navigate through
the On-Screen
Display (OSD) menu

**Premium platinum
silver finish**

For a polished look that
complements the home
and office

ENERGY STAR®
TCO Certified Edge,
EPEAT® Gold registered

Connect 2 PC sources
and multitask efficiently
with **Picture-by-Picture/**
Picture-in-Picture and
KVM (with **Auto KVM**)

These productivity hub
monitors come with
USB-C (up to 90W power
delivery), **RJ45** (wired
Ethernet), **super speed**
USB 10Gbps, and **quick**
access front ports



Click to explore:

Dell UltraSharp 27 4K USB-C Hub Monitor – U2723QE

Dell UltraSharp 32 4K USB-C Hub Monitor – U3223QE

U2723QE, U3223QE

See brilliant visuals with groundbreaking
IPS Black technology

Exceptional contrast

See incredible color and deeper blacks with a contrast ratio of 2,000:1 on the world's first monitors with IPS Black technology.[^] With a wide 178°/178° viewing angle, images remain spectacular, from virtually any angle.

True brilliance

With 4K resolution, 1.07 billion colors, a wide color gamut (100% sRGB, 100% Rec. 709, 98% DCI-P3) and VESA DisplayHDR 400, images are displayed in outstanding color and clarity.

Enhanced eye comfort

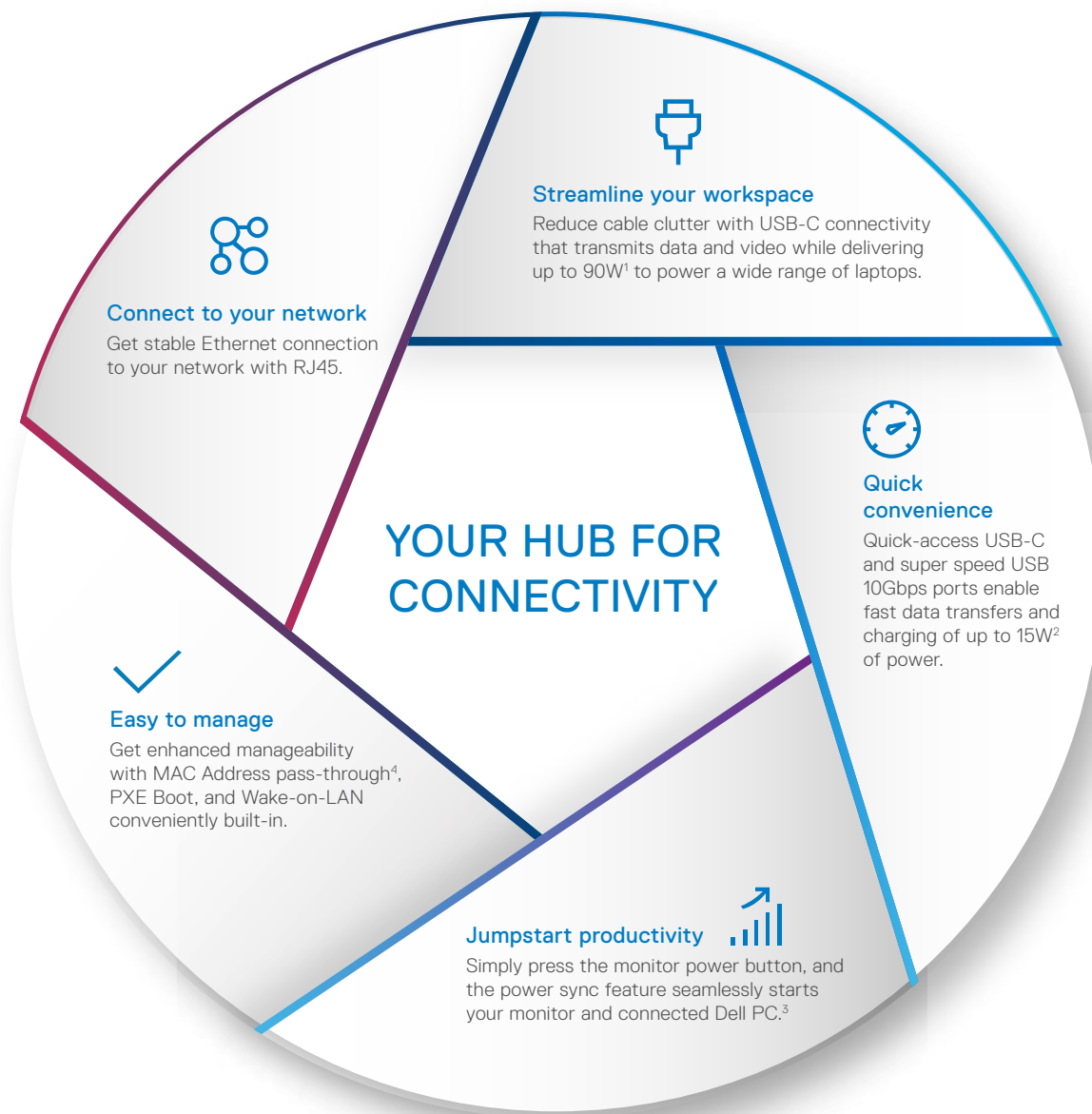
ComfortView Plus—an always-on, built-in low blue light screen—reduces potentially harmful blue light emissions without compromising color.



U2723QE, U3223QE

Connectivity that drives productivity

These USB-C Hub monitors offer extensive connectivity options including USB-C (up to 90W power delivery), RJ45 for wired Ethernet access, super speed USB for fast data transfers, and more.



U2723QE, U3223QE

Work on content from two connected PCs for multitasking efficiency

Productivity unlocked

- Connect two PC sources and the Auto KVM feature seamlessly switches controls over to the second connected PC.
- Use KVM (keyboard, video, and mouse) to control both PCs with a single keyboard and mouse.
- View content from both PCs at the same time with Picture-by-Picture (PBP) and Picture-in-Picture (PIP).



Picture-in-Picture (PIP)

Work on applications from one PC and view content in an inset window from another PC.



Picture-by-Picture (PBP)

View content from two different PC sources side-by-side on the screen, similar to a dual monitor setup.