

On-Machine Modular I/O

On-machine (IP67) modular I/O does not require an enclosure, allowing it to be mounted directly on the machine. TURCK on-machine modular I/O offers quick connection and flexible performance.

BL67 System

The BL67 system is a completely modular and connectorized I/O system. With IP67-rated protection, the BL67 is rugged enough to be mounted directly on the machine, while flexible enough to handle all of the various I/O signals in the field. Enabling operators to create a unique and custom solution for diverse applications, the BL67 system allows use of any fieldbus gateway with any I/O module, in addition to multiple connectorized bases, depending upon the application.

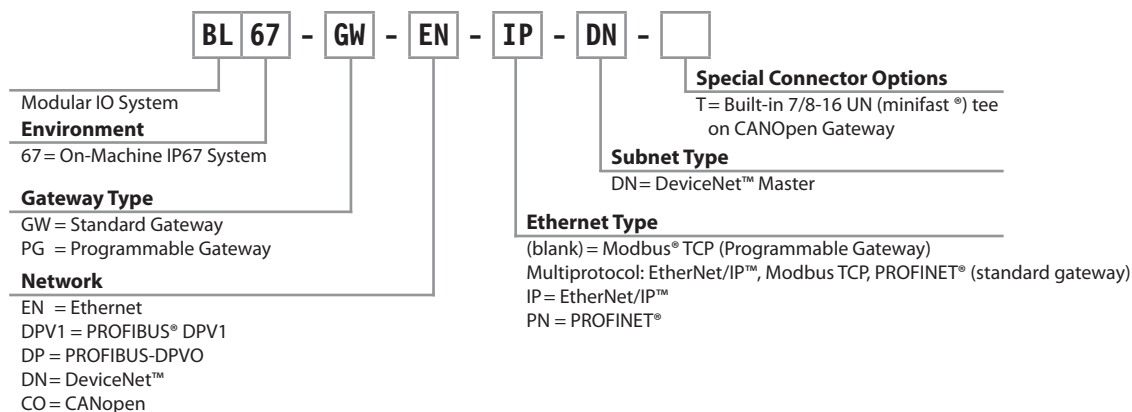
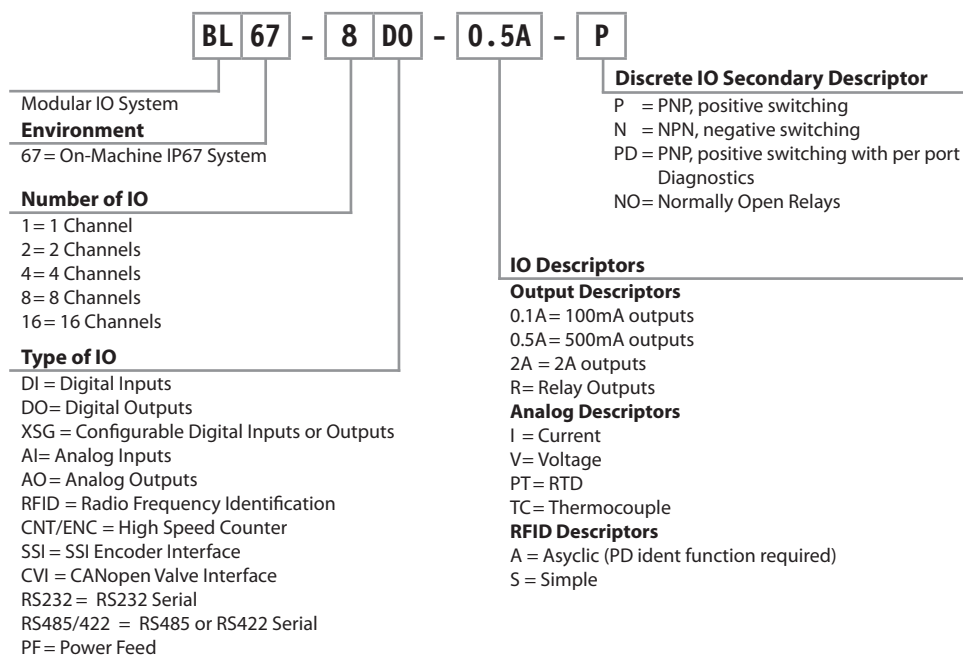


BL67 Features

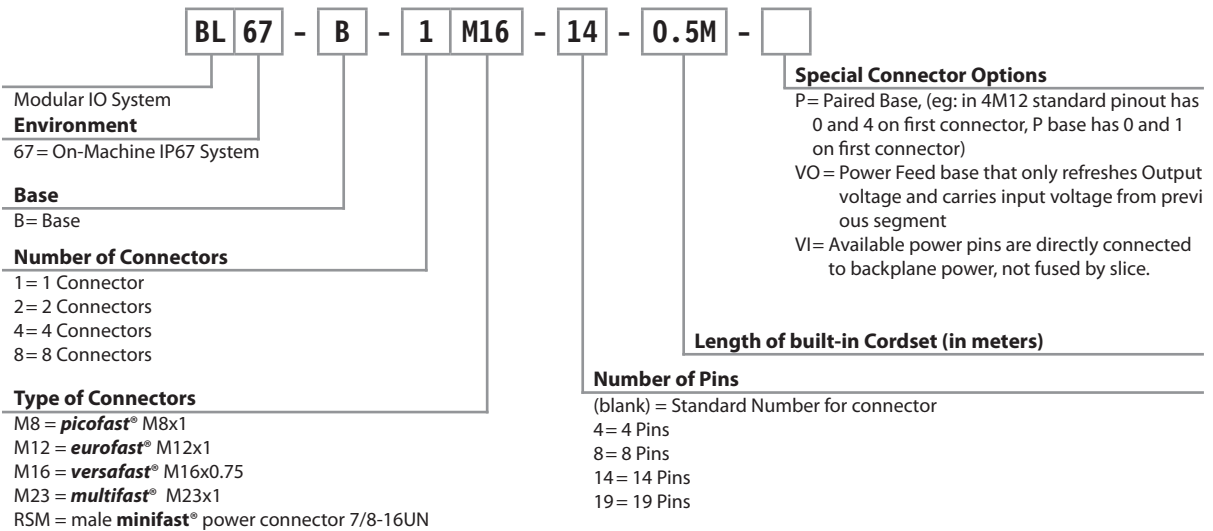
- Multiprotocol gateway with interface to the higher level control system
- Programmable features for local or distributed control
- Mix and match slices to create the ideal mix of I/O
- I/O subnet option to elevate device level I/O to Ethernet
- System can integrate up to 32 slices
- Multiple connectorized bases available, including M12 **eurofast**®, M8 **picofast**®, M23 **multifast**® and 7/8 **minifast**® connections



PRODUCT	PAGE
Part number key	D3
Gateways	D5
Digital I/O slices	D7
Analog and specialty I/O slices	D9
Bases	D11

BL67 Gateways Part Number Key**BL67 Slices Part Number Key**

BL67 Bases Part Number Key



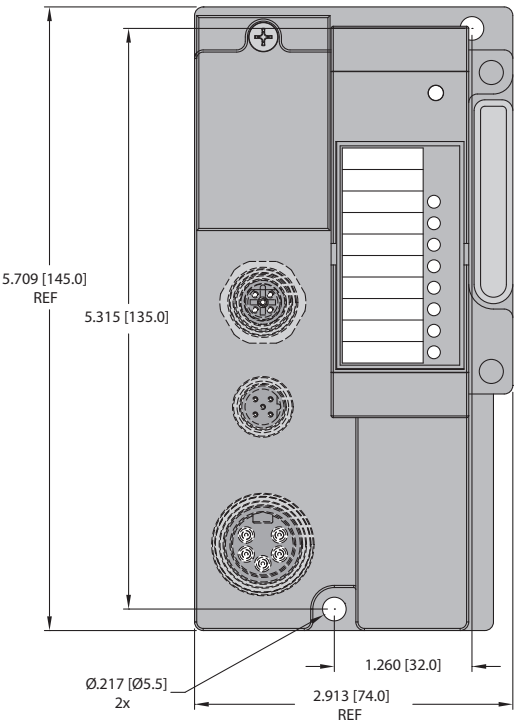
ON-MACHINE MODULAR I/O

BL67 Gateways

- IP67 Protection
- Suitable for most On-Machine Applications
- Some Versions Programmable via CoDeSys V2.3
- IEC 61131-3 Programming Structure
- Program in Ladder Logic, Structured Text, or 3 others
- Mix and Match Languages to Suit Application
- Large Library of Pre-written Function Blocks
- Provide Interface between Chosen Network(s) and BL67 I/O
- Up to 32 BL67 Slices can be Used
- Wide Variety of Digital and Analog I/O Available
- Specialty Slices Available inc. RFID, RSXXX, and Encoders



Housing Style



Part Number

BL67-PG-EN-IP
BL67-PG-EN
BL67-PG-EN-IP-DN
BL67-PG-EN-DN
BL67-PG-DP
BL67-GW-EN
BL67-GW-EN-DN
BL67-GW-EN-IP-DN
BL67-GW-DPV1
BL67-GW-DN
BL67-GW-C0

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Physical Characteristics

- Housing is Made of Lexan (PC-V0)
- Operating Temp -45°C to 70°C
- Vibration 5g @ 10-500hz
- LED Indication for Quick Diagnostic
- Rotary Switches for ID Settings
- Clear Window

Slave Functions					
EIP	MB TCP	PN	DP	DN	CO
x					
	x				
x					
	x				
			x		
x	x	x			
		x			
x					
			x		
				x	
					x

Master Functions					Approvals
MB TCP	PCCC	MB RTU	DN	CO	
+	+	+			CE, UL
+	+	+			CE, UL
+	+	+	x	o	CE, UL
+	+	+	x	o	CE
+	+	+			CE, UL
					CE, UL
			x		CE, UL
			x		CE, UL
					CE
					CE, UL
					CE, UL

On-Machine Modular

BL67 Digital I/O Slices

- IP67 Protection
- M12 eurofast, M8 picofast, and M23 multifast Connectivity
- All I/O Short-circuit Protected
- Separate I/O Electronics and Wiring Base
- PNP and NPN Options
- Multiple Power Options, from 0.1A to 4A
- Combined Input and Output Modules Reduce Inventory Needs
- Deluxe Diagnostics Available to Facilitate Various Power Scenarios



Housing Style	Part Number	Number of Inputs	Number of Outputs	Power of Outputs
	BL67-4DI-P	4		
	BL67-4DI-N	4		
	BL67-4DI-PD	4		
	BL67-8DI-P	8		
	BL67-8DI-N	8		
	BL67-8DI-PD	8		
	BL67-4DO-0.5A-P		4	0.5A
	BL67-4DO-2A-P		4	2A
	BL67-4DO-2A-N		4	2A
	BL67-4DO-4A-P		4	4A
	BL67-8DO-0.5A-P		8	0.5A
	BL67-8DO-0.5A-N		8	0.5A
	BL67-16DO-0.1A-P		16	0.1A
	BL67-4DI4DO-PD	4	4	0.5A
	BL67-8XSG-P	8	8	0.5A
	BL67-8XSG-PD	8	8	0.5A

Type of I/O	Approvals	Deluxe Diagnostics	Base Modules							
			M8 Connectors		M12 Connectors				M23 Connectors	
			BL67-B-4M8	BL67-B-8M8	BL67-B-2M12	BL67-B-2M12-P	BL67-B-4M12	BL67-B-4M12-P	BL67-B-1M23	BL67-B-M23-19
PNP	CE, UL		x		x	x	x		x	
NPN	CE		x		x	x	x		x	
PNP	CE, UL	x	x		x		x			
PNP	CE, UL			x			x	x	x	
NPN	CE, UL			x			x	x	x	
PNP	CE, UL	x		x			x		x	
PNP	CE, UL		x		x	x	x		x	
PNP	CE, UL		x		x	x	x		x	
NPN	CE, UL		x		x	x	x		x	
PNP	CE, UL		x		x	x	x		x	
PNP	CE, UL			x			x	x	x	
NPN	CE, UL			x			x	x	x	
PNP	CE	x								x
PNP	CE	x		x			x	x	x	
PNP	CE, UL			x			x	x	x	
PNP	CE, UL	x		x			x	x		

On-Machine Modular

BL67 Analog and Specialty I/O Slices

- IP67 Protection
- Configurable Voltage and Current Inputs
- Analog Inputs and Outputs on Same Module Available
- Separate I/O Electronics and Wiring Base
- Thermocouple Types: B, E, J, K, N, R, S, and T
- RTD Types: PT100, PT200, PT500, PT1000, Ni100, Ni1000
- Current Outputs can drive loads of $< 0.45 \text{ K ohm}$ or $< 1 \text{ mH}$
- Voltage Outputs can drive loads of $< 1 \text{ K ohm}$ or $< 1 \text{ uF}$
- 99.8% Accuracy
- 16 bit Resolution and Value Representation



* Max Response Time is the maximum amount of time for an I/O point to respond. This time does not take into account any Fieldbus or Backplane delays, so actual response times will vary.

Housing Style	Part Number	0-20mA Input	4-20mA Input	0-10V Input	-10-10V Input
	BL67-2AI-I	x	x		
	BL67-2AI-V			x	x
	BL67-4AI-V/I	x	x	x	x
	BL67-2AI-TC				
	BL67-2AI-PT				
	BL67-2A0-I				
	BL67-2A0-V				
	BL67-4A0-V				
	BL67-2AI2A0-VI	x	x	x	x
	BL67-4AI4A0-VI	x	x	x	x
	BL67-2RFID-A*				
	BL67-2RFID-S				
	BL67-1RS232				
	BL67-1RS485/422				
	BL67-1SSI				
	BL67-1CNT/ENC				
	BL67-1CVI				
	BL67-PF-24VDC				

* = Only with Programmable gateways

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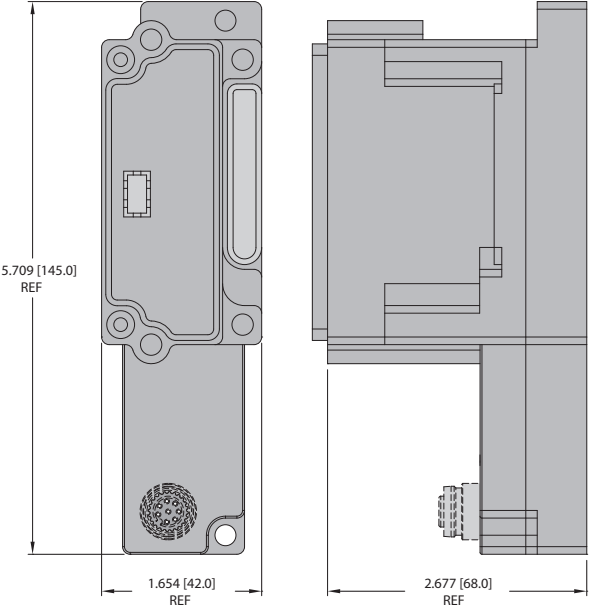
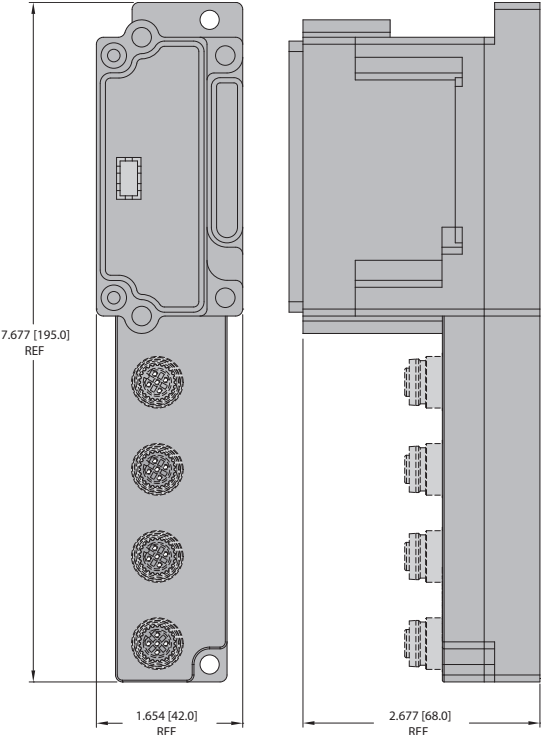
Approvals	Thermocouple Inputs	RTD Inputs	0-20mA Output	4-20mA Output	0-10V Output	-10-10V Output	RFID	RS232	RS485/422	SSI	Counter/Encoder	CANOpen	Power Feed	# of Input Channels	# of Output Channels	Base Modules							
																BL67-B-2M12	BL67-B-4M12	BL67-B-1M12	BL67-B-1M12-8	BL67-B-1M23	BL67-B-1M23-VI	BL67-B1RSM	BL67-B-RSM-4
CE, UL														2		x							
CE, UL														2		x							
CE, UL														4			x						
CE, UL	x													2		x							
CE, UL		x												2		x							
CE, UL			x	x											2	x							
CE, UL					x	x									2	x							
CE, UL					x	x								2	2		x						
CE, UL					x	x								4	4		x						
CE, UL							x							2		x							
CE, UL							x							2		x							
CE								x						1				x	x	x	x		
CE, UL									x					1				x	x	x	x		
CE, UL										x				1				x	x	x	x		
CE											x			1					x	x			
CE, UL												x		1				x					
CE, UL													x	1								x	x

On-Machine Modular

ON-MACHINE MODULAR I/O

BL67 Bases



Housing Style	BL67 Wiring Bases
	BL67-B-1M12
	BL67-B-1M12-8
	BL67-B-2M12
	BL67-B-2M12-P
	BL67-B-4M8
	BL67-B-1M23
	BL67-B-1M23-VI
	BL67-B-1M23-19
	BL67-B-RSM
	BL67-B-RSM-4
	BL67-B-4M12
	BL67-B-4M12-P
	BL67-B-8M8

