

In-Cabinet Modular I/O

In-cabinet (IP20) modular I/O is a cost-efficient networking solution that is used in an enclosure and designed to replace terminal blocks with intelligent I/O. Providing flexible communication capabilities, TURCK in-cabinet modular I/O allows operators to mix and match I/O interfaces and adapters, including digital inputs, digital outputs, analog I/O and RFID. For enhanced performance, in-cabinet modular I/O offers significant space savings with up to 32 I/O on a single card. Modules are ideal for applications with large quantities of I/O, including packaging, conveying and general manufacturing.

BL20 System

The BL20 system is an IP20 Modular I/O system designed for remotely collecting I/O signals. In comparison to costly and time-consuming historic approaches that brought I/O signals back to a single large cabinet, BL20 uses multiple small cabinets placed near the I/O that they control—providing a flexible, modular solution that saves time and money.

Providing enhanced communication flexibility, the BL20 seamlessly mixes and matches I/O types, communication networks, connection technologies and package styles to meet any project needs.



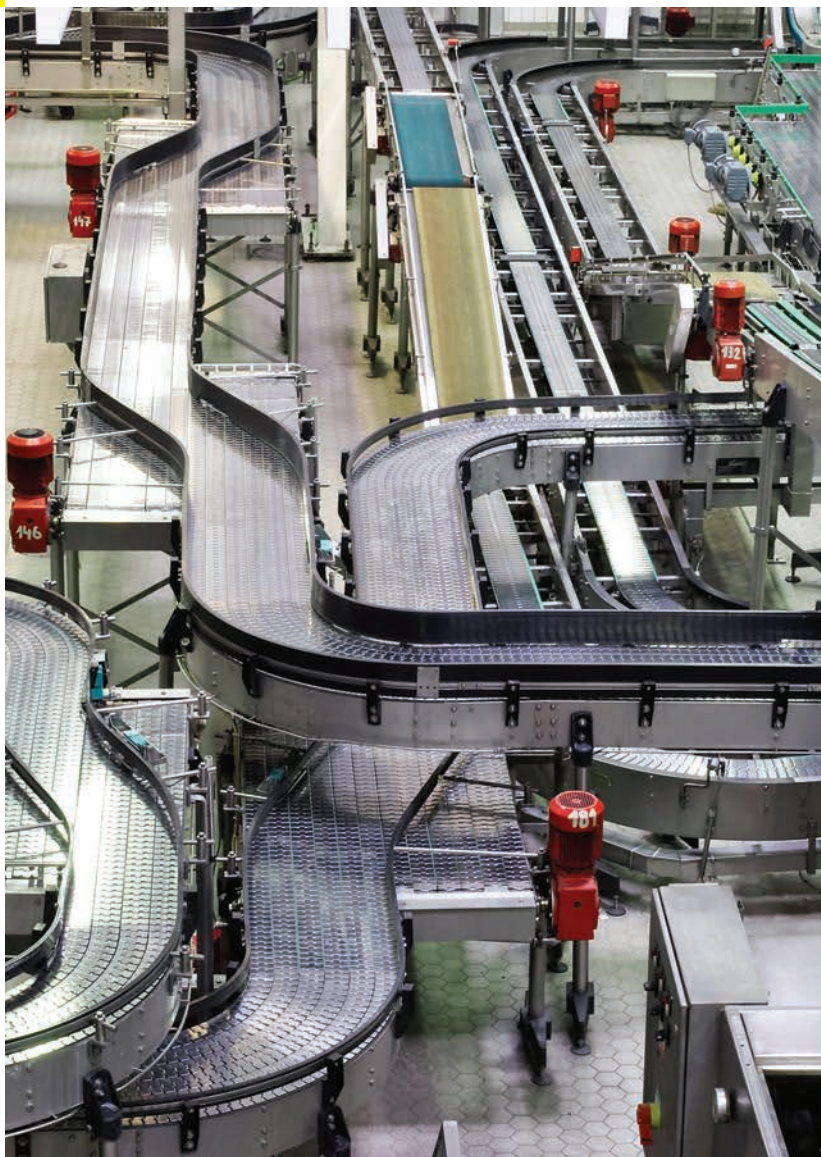
Standard BL20 System

- Programmable features for local or distributed control
- Mix and match slices to create the ideal mix of I/O
- System expands to integrate up to 72 slices to meet diverse requirements
- Screw and tension (spring) clamp wiring bases available



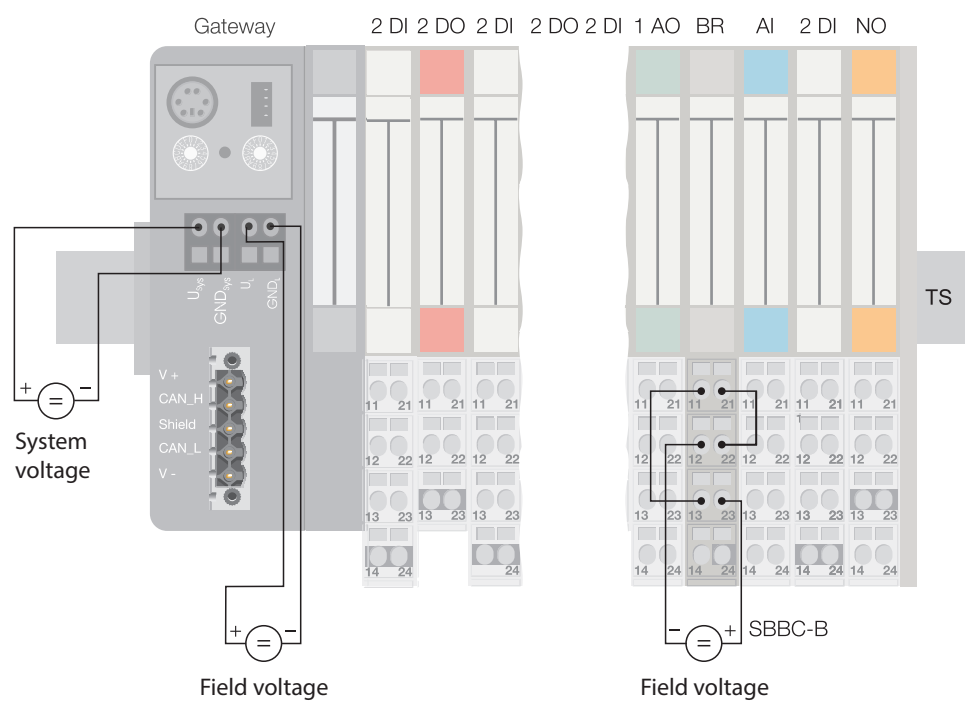
Economy BL20 System

- Multiprotocol gateway with interface to the higher level control system
- Low-cost gateways provide increased value when connecting to open networks
- Integrated Ethernet switch allows a line topology between multiple gateways without use of an external switch
- Accommodate up to 32 I/O modules
- Designed to work with all TURCK Economy I/O slices, as well as standard BL20 slices
- Economy gateway or slice requires tension (spring) clamp base



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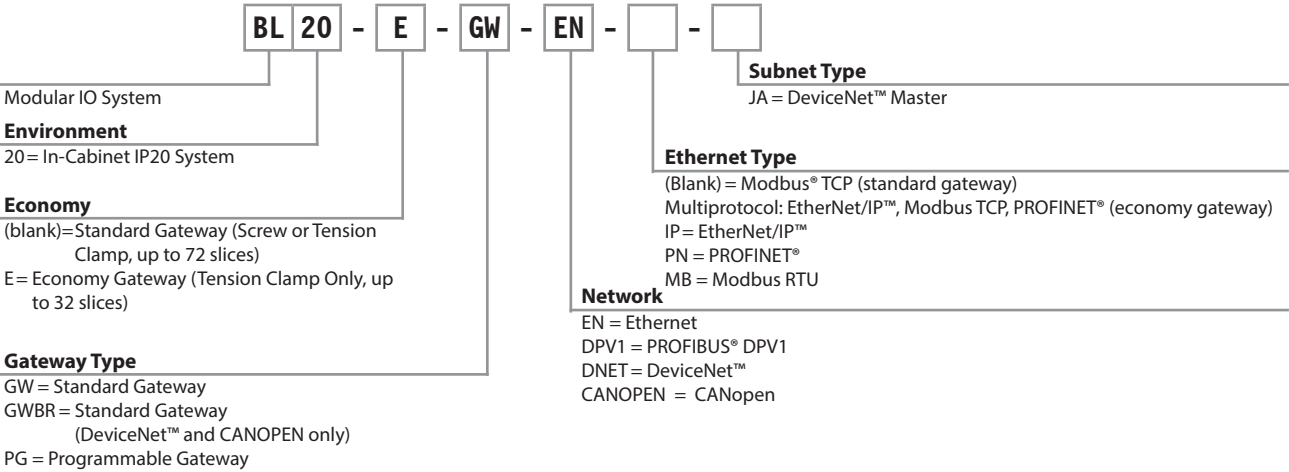
IN-CABINET MODULAR I/O



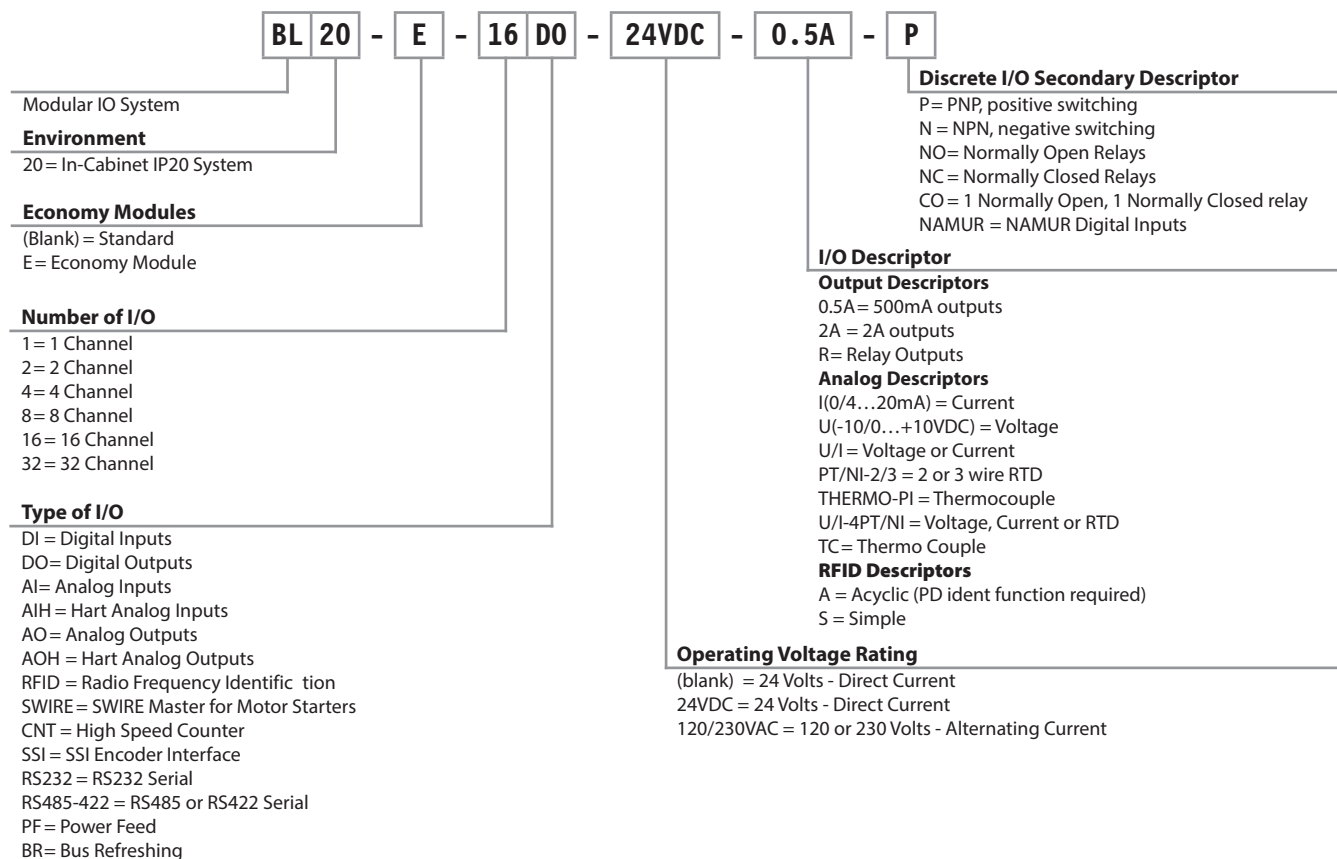
BL20 Mechanical Overview

- Operating Temperature: 0 to +55°C (32 to 131°F)*
- Protection: IP20
- Vibration: EN 61131
- Relative Humidity: 5 to 95%, Level RH-2, no condensation
- Shock Test: IEC 68-2-27
- Drop and Topple: IEC 68-2-31 and free full IEC 68-2-32
- Electro-magnetic Compatibility: EN 50 082-2
- Housing Material - Lexan (PC-V0)
- Approvals - CE, UL, CSA, Class 1 Div 2

BL20 Gateways Part Number Key

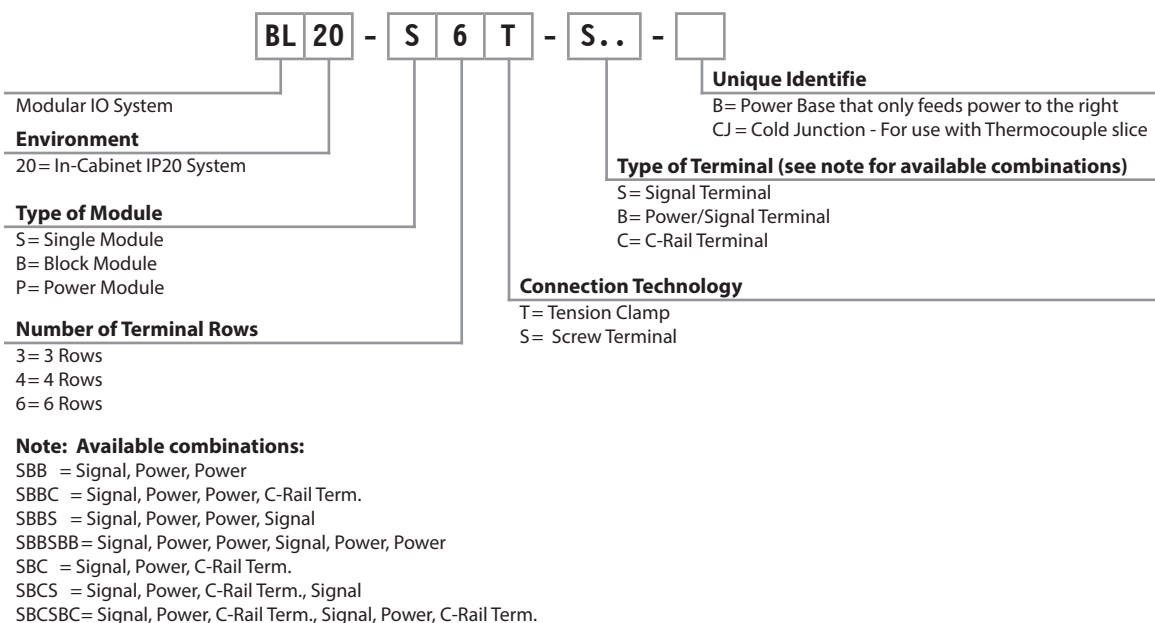


BL20 Slices Part Number Key



In-Cabinet Modular

BL20 Bases Part Number Key

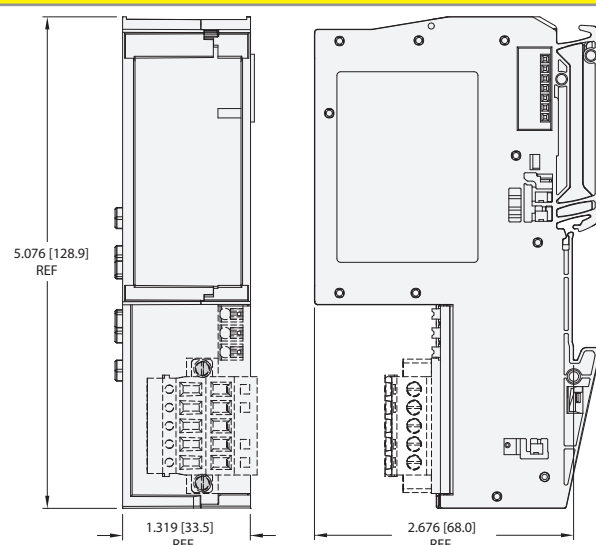
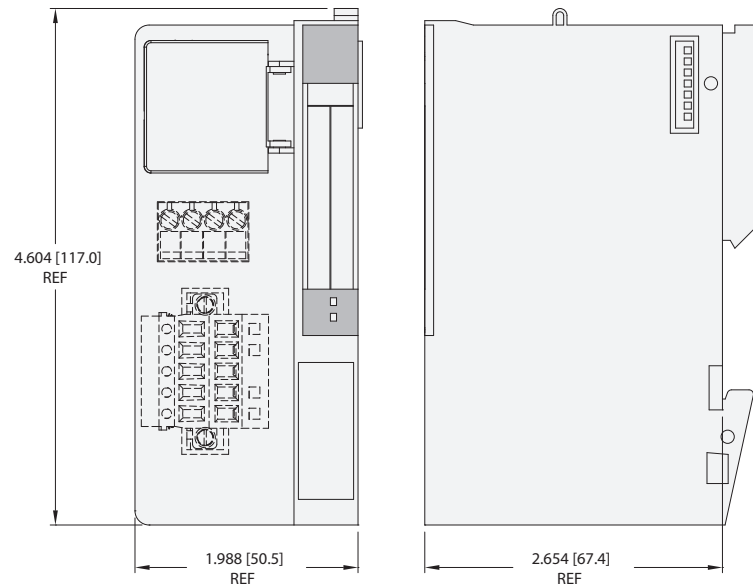


IN-CABINET MODULAR I/O

BL20 Gateways

- IP20 Protection
- Suitable for In-Cabinet 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 BL20 I/O
- Up to 72 BL20 Slices can be used with Standard Gateways, 32 with Economy
- Wide Variety of Digital and Analog I/O Available
- Specialty Slices Available inc. RFID, RSXXX, PWM Outputs, and Encoder Inputs



Housing Style		Part Number		
		Non-programmable gateways	Economy	BL20-E-GW-EN
				BL20-E-GW-EN-PN
				BL20-E-GW-DP
				BL20-E-GW-DN
				BL20-E-GW-CO
				BL20-E-GW-RS-MB/ET
				BL20-E-GW-EC
			Standard	BL20-GW-EN-IP
				BL20-GW-EN
				BL20-GW-EN-PN
				BL20-GW-DPV1
		BL20-GWBR-DNET		
		BL20-GWBR-CANOPEN		
		Programmable gateways	BL20-PG-EN-IP	
			BL20-PG-EN	
			BL20-PG-EN-DN-JA	

x standard feature

+ Via CoDeSys FB

o Optional

B5 B3027

Buy: www.ValinOnline.com | Phone 844-385-3099 | Email: CustomerService@valin.com

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Physical Characteristics

- Operating Temp 0°C to 55°C
- LED Indication for Quick Diagnostic
- Rotary Switches for ID Settings
- Clear Window

Approvals	Slave Functions								Master Functions				
	EIP	MB TCP/IP	PN	DP	DN	CO	MB RTU	ECAT	MB TCP	PCCC	MB RTU	DN	CO
CE, UL, FM	x	x	x										
CE, UL			x										
CE, UL, FM				x									
CE, UL, FM					x								
CE, UL, FM						x							
CE							x						
CE, UL								x					
CE, UL, FM	x												
CE, UL, FM		x											
CE, UL, FM			x										
CE, UL, FM				x									
CE, UL, FM					x								
CE, FM						x							
CE, UL, FM	x								+	+	+		
CE, UL, FM		x							+	+	+		
CE, UL, FM		x							+	+	+	x	o

In-Cabinet Modular

IN-CABINET MODULAR I/O

BL20 Digital I/O Slices

- IP20 Protection
- Tension Clamp and Screw Connection Technology
- All I/O Short-circuit Protected
- Standard Slices Include Separated Electronics and Wiring Base
- Economy Slices Include Integrated Electronics and Wiring Base
- PNP and NPN Options
- High Density Economy Slices Create a Small Footprint for Total System
- Powerful 0.5A and 2A Output Drivers Available



Housing Style		Part Number	Number of Inputs	Number of Outputs
	Inputs	BL20-2DI-24VDC-P	2	
		BL20-2DI-24VDC-N	2	
		BL20-4DI-24VDC-P	4	
		BL20-4DI-24VDC-N	4	
		BL20-4DI-NAMUR	4	
		BL20-16DI-24VDC-P	16	
		BL20-32DI-24VDC-P	32	
		BL20-2DI-120/230VAC-P	2	
	Outputs	BL20-2DO-24VDC-0.5A-P		2
		BL20-2DO-24VDC-0.5A-N		2
		BL20-2DO-24VDC-2A-P		2
		BL20-4DO-24VDC-0.5A-P		4
		BL20-16DO-24VDC-0.5A-P		16
		BL20-32DO-24VDC-0.5A-P		32
		BL20-2DO-R-CO		2
		BL20-2DO-R-NC		2
		BL20-2DO-R-NO		2
		BL20-2DO-120/230VAC-0.5A		2

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In-Cabinet Modular

			Base Module												
Type of I/O	Power of Outputs	Approvals	BL20-S3*-SBB	BL20-S4*-SBBC	BL20-S4*-SBB	BL20-S6*-SBB	Integrated	BL20-B3*-SBB	BL20-B4*-SBBC	BL20-B6*-SBB	BL20-S3*-SBC	BL20-S4*-SBC	BL20-S6*-SBC	BL20-B3*-SBC	BL20-B6*-SBC
PNP		CE, UL, FM	x	x											
NPN		CE, UL, FM	x	x											
PNP		CE, UL, FM			x	x									
NPN		CE, UL, FM			x	x									
NAMUR		CE, UL, FM			x										
PNP		CE, UL, FM						x	x						
PNP		CE, UL, FM								x					
AC		CE, UL	x	x											
PNP	0.5A	CE, UL, FM									x	x			
NPN	0.5A	CE, UL, FM									x	x			
PNP	2A	CE, UL, FM									x	x			
PNP	0.5A	CE, UL, FM										x	x		
PNP	0.5A	CE, UL, FM												x	
PNP	0.5A	CE, UL, FM													x
Relay		CE, UL, FM			x										
Relay		CE, UL, FM			x							x			
Relay		CE, UL, FM			x							x			
AC	0.5A	CE, UL									x	x			

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Housing Style		Part Number	Number of Inputs	Number of Outputs
	Inputs	BL20-E-8DI-24VDC-P	8	
	Outputs	BL20-E-8DO-24VDC-0.5A-P		8
	Inputs	BL20-E-16DI-24VDC-P	16	
	Outputs	BL20-E-16DO-24VDC-0.5A-P		16

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In-Cabinet Modular

			Base Modules												
Type of I/O	Power of Outputs	Approvals	BL20-S3*-SBB	BL20-S4*-SBBC	BL20-S4*-SBBS	BL20-S6*-SBBSBB	Integrated	BL20-B3*-SBB	BL20-B4*-SBBC	BL20-B6*-SBBSBB	BL20-S3*-SBC	BL20-S4*-SBCS	BL20-S6*-SBCSBC	BL20-B3*-SBC	BL20-B6*-SBCSBC
PNP		CE, UL, FM					x								
PNP	0.5A	CE, UL, FM					x								
PNP		CE, UL, FM					x								
PNP	0.5A	CE, UL, FM					x								

IN-CABINET MODULAR I/O

BL20 Analog & Specialty I/O

- IP20 Protection
- RFID Options
- Types of Communication: RS232, RS422, RS485
- Specialty Motor Starter (up to 16 Direct-on-line starter)
- High Speed Counter for Encoders
- SSI Communication for Position Elements (encoder or linear)
- Power Feed Modules to Ensure Proper Supply
- Bus Refreshing Modules to Ensure Proper Communication



Housing Style		Part Number		Number of Inputs	Number of Outputs
* PG gateway is recommended ** Use only with PG gateway	Inputs	BL20-1AI-I (0/4...20mA)	1		
		BL20-1AI-U (-10/0...+10VDC)	1		
		BL20-1CNT	1		
		BL20-1SSI	1		
		BL20-1RS232*	1		
		BL20-1RS485/422*	1		
		BL20-PF-24VDC-D	1		
		BL20-PF-120/230VAC-D	1		
		BL20-BR-24VDC-D	1		
		BL20-2AI-I (0/4...20mA)	2		
		BL20-2AI-U (-10/0...+10VDC)	2		
		BL20-2AIH-I	2		
		BL20-2AI-THERMO-PI	2		
		BL20-2AI-PT/NI-2/3	2		
		BL20-2RFID-S	2		
		BL20-2RFID-A**	2		
		BL20-4AI-U/I	4		
	Outputs	BL20-1AO-I (0/4...20mA)			1
		BL20-2AO-I (0/4...20mA)			2
		BL20-2AO-U (-10/0...+10VDC)			2
		BL20-2AOH-I			2

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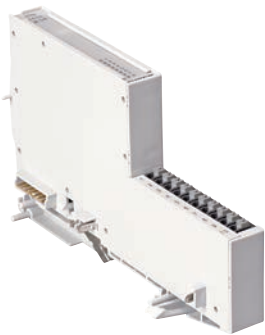
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0/4-20 mA Input	-10/0-10 V Input	0/4-20 mA Input (HART)	Thermocouple	RTD Input	0/4-20 Output	-10/0-10 V Output	0/4-20 mA (HART)	RFID	Counter	Counter/PWM	SSI	RS232	RS485/RS422	Motor Starter	Power Feed	Bus Refreshing	BL20-S3*-SBB	BL20-P3*-SBB	BL20-S4*-SBBS	BL20-S4*-SBBS-CJ	BL20-P4*-SBBC	BL20-S6*-SBCSBC	Integrated	BL20-P3*-SBB-B	Approvals
x																	x		x						CE, UL
	x																x		x						CE, UL, FM
									x										x						CE, UL, FM
											x								x						CE, UL, FM
												x							x						CE, UL, FM
													x						x						CE, UL, FM
															x			x			x				CE, UL, FM
															x			x			x				CE, UL
																x		x			x				CE, UL, FM
x																	x		x						CE, UL, FM
	x																x		x						CE, UL, FM
		x																	x						CE, UL, FM
			x																	x					CE, UL, FM
				x													x		x						CE, UL, FM
									x										x						CE, UL, FM
									x										x						CE, UL, FM
x	x																					x			CE, UL, FM
					x												x								CE, UL
					x												x								CE, UL, FM
						x											x								CE, UL, FM
							x												x						CE, UL, FM

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- Specialty Motor Starter (up to 16 Direct-on-line starter)
- High Speed Counter for Encoders
- SSI Communication for Position Elements (encoder or linear)
- Power Feed Modules to Ensure Proper Supply
- Bus Refreshing Modules to Ensure Proper Communication



Housing Style		Part Number	Number of Inputs	Number of Outputs
	Inputs	BL20-E-8AI-U/I-4PT/NI	8	
		BL20-E-4AI-TC	4	
		BL20-E-1SWIRE	1	
	Outputs	BL20-E-4AO-U/I		4
	Inputs & Outputs	BL20-E-2CNT-2PWM*	2	2

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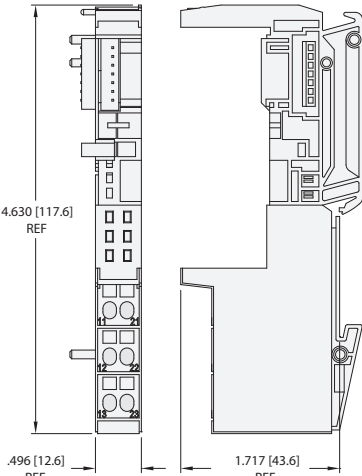
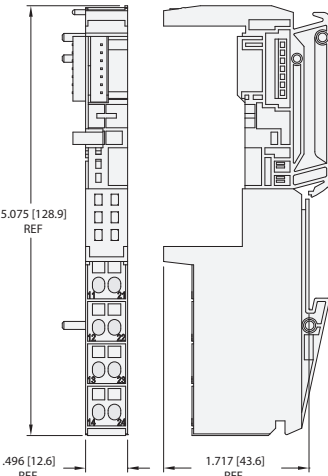
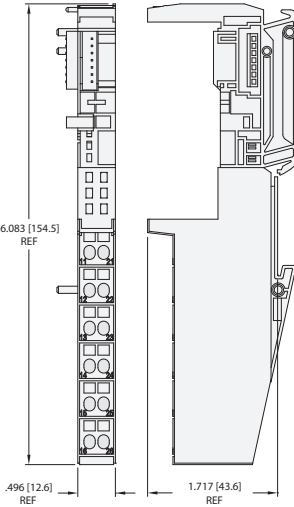
In-Cabinet Modular

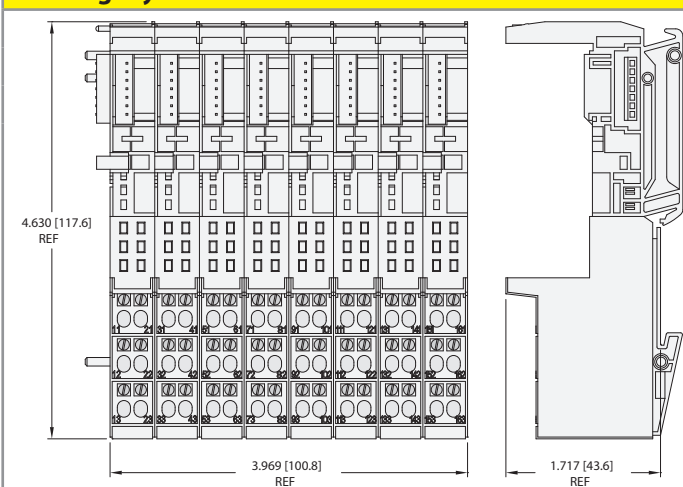
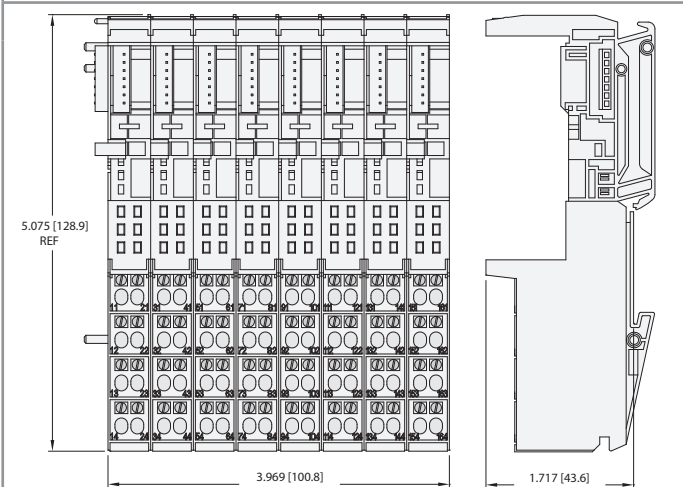
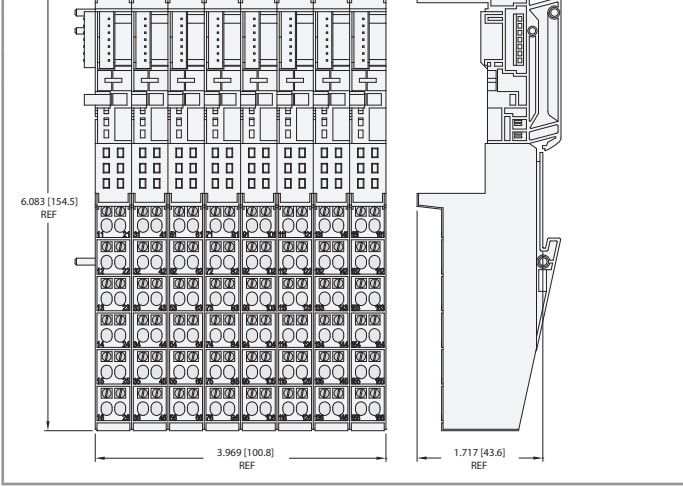
	x	0/4-20 mA Input
	x	-10/0-10 V Input
		0/4-20 mA Input (HART)
	x	Thermocouple
	x	RTD Input
		0/4-20 Output
		-10/0-10 V Output
		0/4-20 mA (HART)
		RFID
		Counter
x		Counter/PWM
		SSI
		RS232
		RS485/RS422
	x	Motor Starter
		Power Feed
		Bus Refreshing
		BL20-S3*-SBB
		BL20-P3*-SBB
		BL20-S4*-SBBS
		BL20-S4*-SBBS-CJ
		BL20-P4*-SBBC
		BL20-S6*-SBSCBC
x	x	Integrated
		BL20-P3*-SBB-B
UL		Approvals
		CE, UL, FM
	x	CE
	x	UL
	x	CE, UL, FM

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BL20 Wiring Bases



Housing Style	BL20 Wiring Bases
	BL20-S3S-SBB
	BL20-S3S-SBC
	BL20-S3T-SBB
	BL20-S3T-SBC
	BL20-P3S-SBB
	BL20-P3S-SBB-B
	BL20-P3T-SBB
	BL20-P3T-SBB-B
	BL20-S4S-SBBC
	BL20-S4S-SBBS
	BL20-S4S-SBBS-CJ
	BL20-S4S-SBCS
	BL20-S4T-SBBC
	BL20-S4T-SBBS
	BL20-S4T-SBBS-CJ
	BL20-S4T-SBCS
	BL20-P4S-SBBC
	BL20-P4S-SBBC-B
	BL20-S6S-SBBSBB
	BL20-S6S-SBCSBC
	BL20-S6T-SBBSBB
	BL20-S6T-SBCSBC

Housing Style	BL20 Wiring Bases
	BL20-B3S-SBB
	BL20-B3S-SBC
	BL20-B3T-SBB
	BL20-B3T-SBC
	BL20-B4S-SBBC
	BL20-B4T-SBBC
	BL20-B6S-SBBSBB
	BL20-B6S-SBCSBC
	BL20-B6T-SBBSBB
	BL20-B6T-SBCSBC

In-Cabinet Modular

excom[®] Remote I/O System

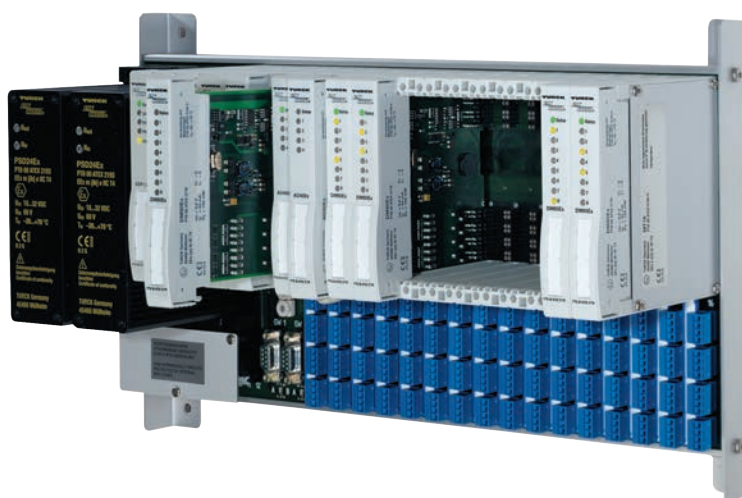
The excom[®] remote I/O system is ideal for use in hazardous or non-hazardous locations. The system provides bus-compatible, decentralized input and output connection modules with a protection rating of IP20 for connection of binary and analog intrinsically safe field devices. Explosion protection enables use in zones 1 and 2.

excom System



The excom system is available in four mounting configurations for application flexibility:

- Standard MT18, when used with segment coupler, mounts in zone 1 (Class 1, Division 2) areas with up to 16 intrinsically safe I/O module connections to field devices in zone 0 (Class 1, Division 1) areas
- MT24, when used with segment coupler, mounts in zone 2 (Class 1, Division 2) areas with up to 24 intrinsically safe I/O module connections to field devices in zone 0 (Class 1, Division 1) areas
- MT24 mounts in non-hazardous areas with up to 24 intrinsically safe I/O module connections to field devices in zone 0 (Class 1, Division 1) areas
- MT24 mounts in non-hazardous areas with up to 24 non-intrinsically safe I/O module connections to field devices in non-hazardous areas



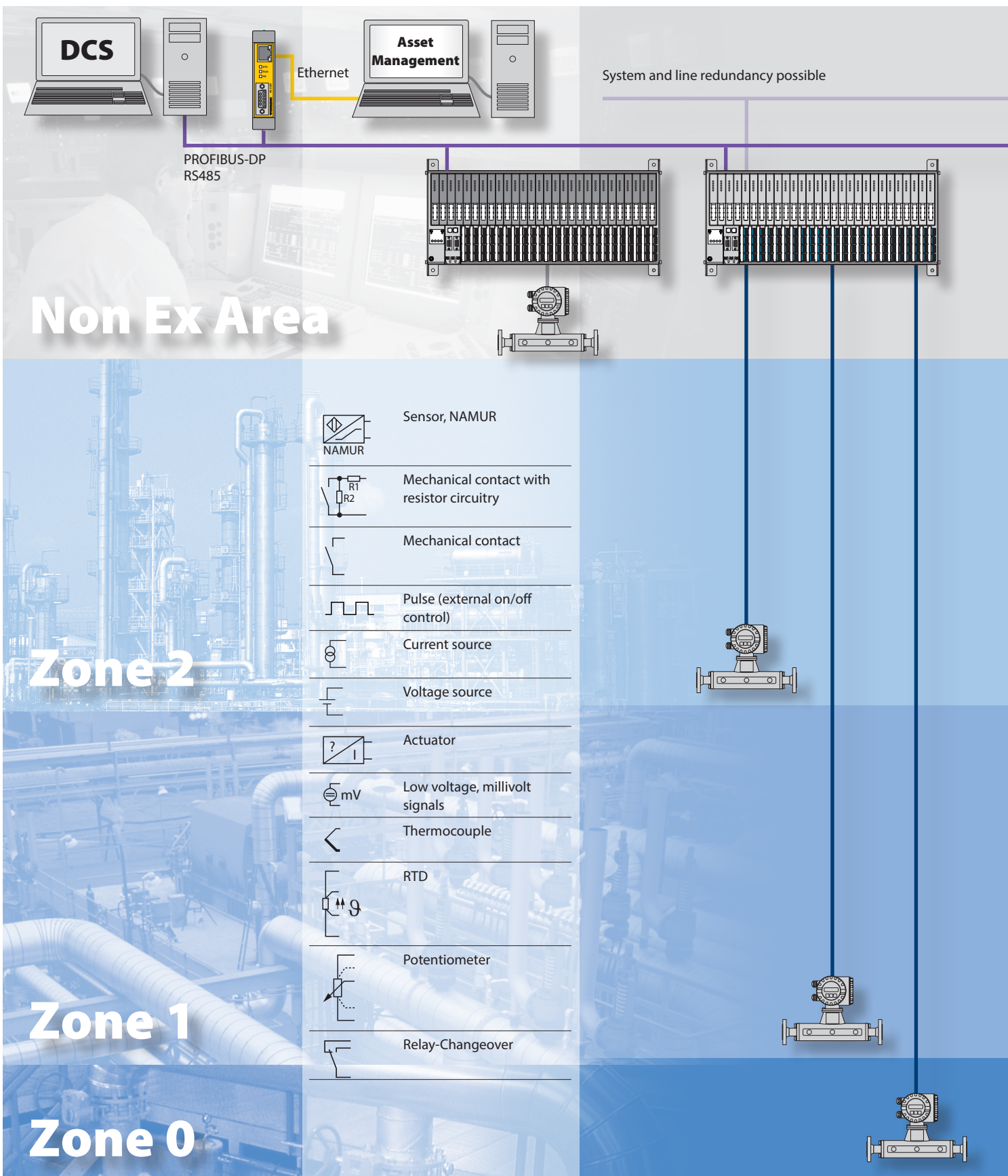
excom Features

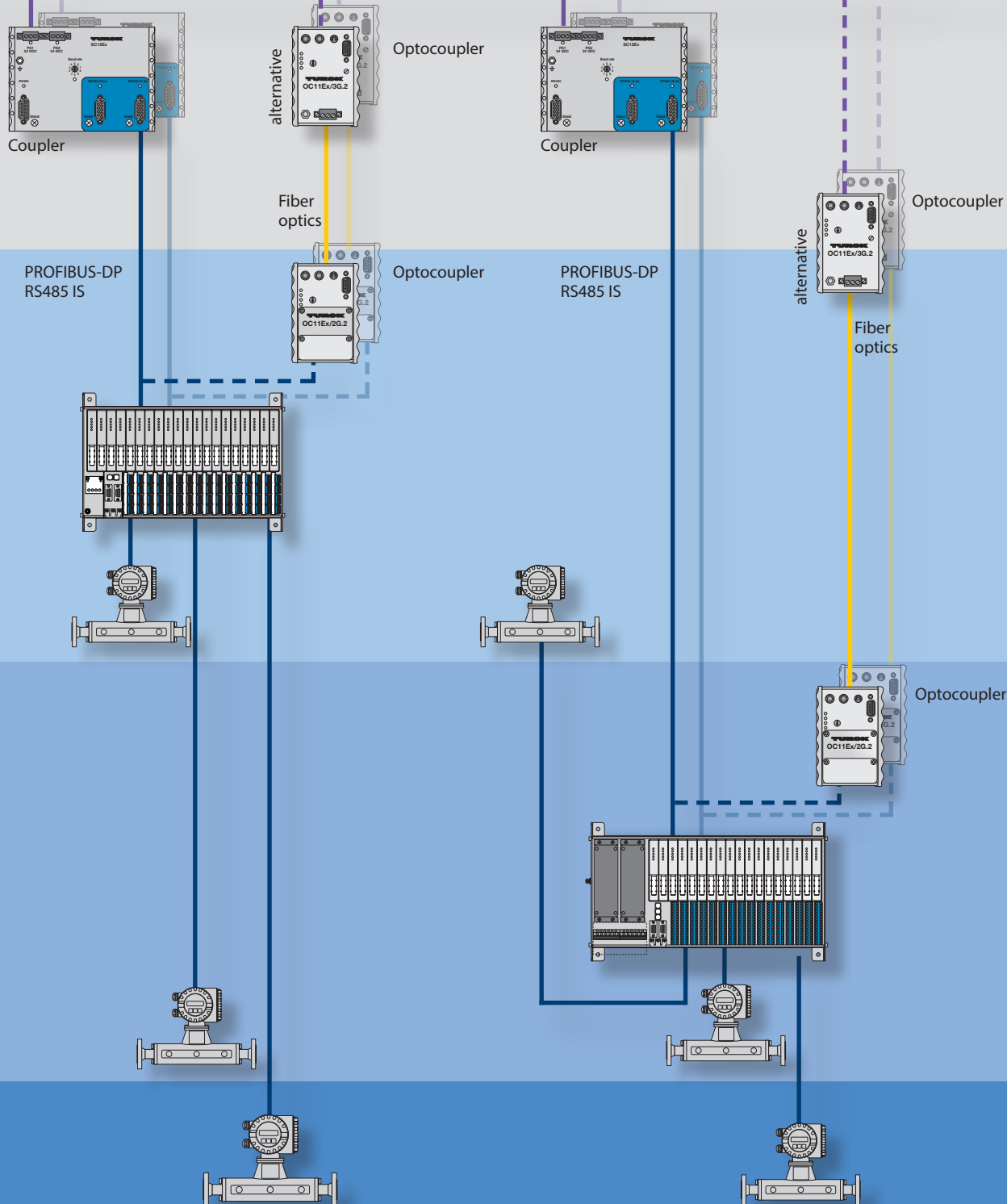
- Redundant power supplies and gateways
- Intrinsically safe connection to PROFIBUS-DP with V1 functionality
- Online programming and configuration of all parameters
- Consistent HART parameterization from the process control system to the field device
- Exchange and extension of all components during operation



PRODUCTS	PAGE
Typical System Layout	B17
Zone 1, excom - Remote I/O for Class I Div 2 Installation	B21
Zone 2, excom - Remote I/O for Hazardous Class I Div 2 Areas	B25
excom - Remote I/O for Non-Ex Areas with Ex hardware	B29
excom - Remote I/O for Non-Ex Areas with Non-Ex hardware	B33
excom - Accessories for Ex and Non-Ex Areas	B37

IN-CABINET MODULAR I/O





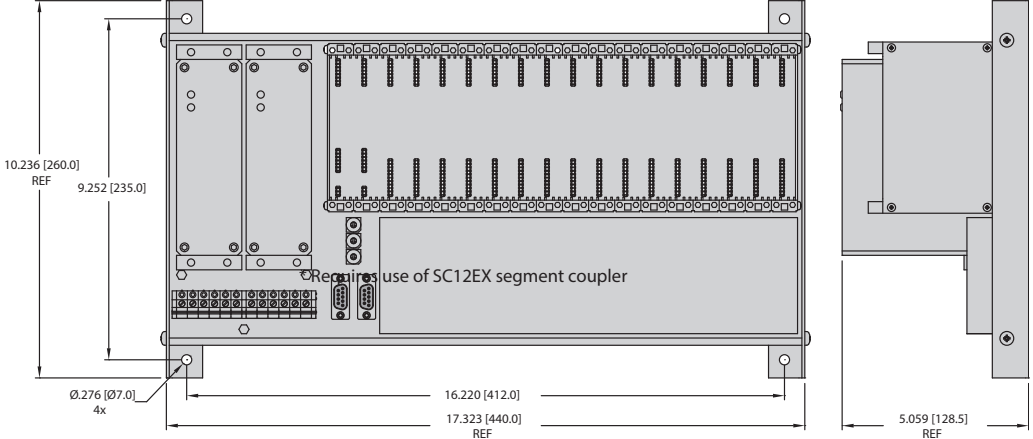
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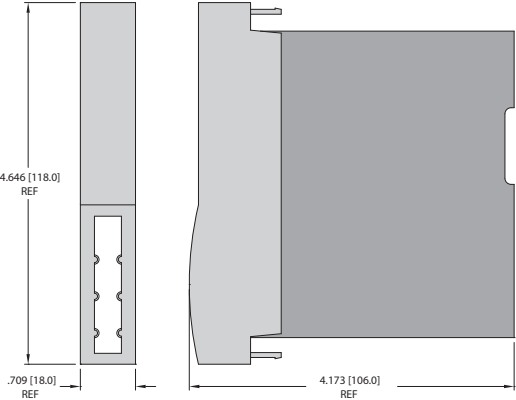
- Zone 1, excom[®] - Remote I/O for Class I Div 2 Installation*
- Up to 16 Intrinsically Safe I/O Module Connections to 128 Field Devices in Zone 0 (Class 1, Division 1) Areas



Module Rack

Housing Style	Part number
	MT18-R024
	MT18-C024
	MT18-C230

I/O Cards

Housing Style	Part Number	Number of Channels
	Input Cards	
	DI401EX	4-channel discrete
	AI401EX	4-channel analog
	AI41EX	4-channel analog
	AI43EX	4-channel analog
	AIH40EX	4-channel analog
	AIH41EX	4-channel analog
	TI40EX	4-channel temperature
	Output Cards	
	D040EX	4-channel discrete
	D0401EX	4-channel discrete
	A040EX	4-channel analog
	Input/Output Cards	
	DM80EX	8-channel
	DF20EX	2-channel frequency

Number of I/O modules	Connection type	Power supply	Approvals
16	Screw terminals	DC	FM (US/Canada)
16	Spring terminals	DC	
16	Spring terminals	AC	

Input/Output Type	Ambient Temp. (°C)	Approvals
NAMUR or dry contact	-20...+70	PTB 10 ATEX 2024
active/passive	-20...+60	FM (US/Canada)
passive	-20...+60	
potentiometer	-20...+60	
active/passive HART	-20...+60	FM (US/Canada)
passive HART	-20...+60	FM (US/Canada)
RTD, TC	-20...+70	FM (US/Canada)
IS actuators	-20...+60	FM (US/Canada), PTB 01 ATEX 2047
IS actuators	-20...+70	FM (US/Canada), PTB 10 ATEX 2024, CE
		FM (US/Canada)
NAMUR or dry contact	-20...+70	FM (US/Canada), PTB 00 ATEX 2178
NAMUR or dry contact	-20...+60	FM (US/Canada), PTB 00 ATEX 2178

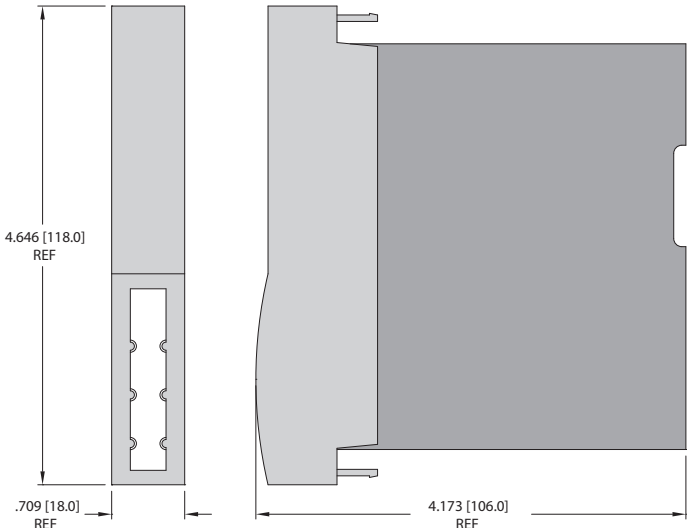
IN-CABINET MODULAR I/O

Zone 1, excom® - Remote I/O for Class I Div 2 Installation

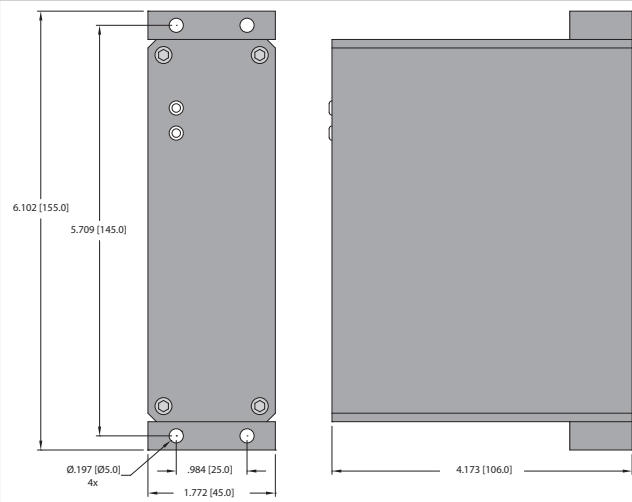
- In Order to Assemble a System, the Following are Required:
 - 1xMT18
 - 1xPSD24EX
 - 1xGDP-IS
 - 1xSC12EX



Gateway Card

Housing Style	Part Number	Fieldbus
	GDP-IS / FW2.1	PROFIBUS®-DP

Power Supply

Housing Style	Part number	Power supply type
	PSD24EX	24VDC
	PPSA115EX	115VAC



In-Cabinet Modular

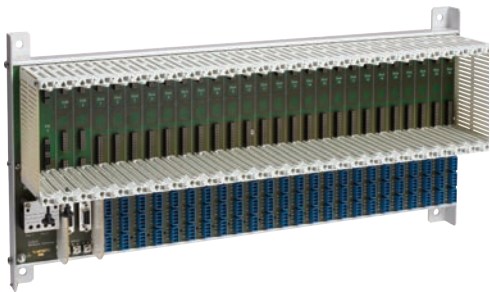
Transfer Rate	Ambient Temperature (°C)	Approvals
9.6kBit/s...1.5MBit/s	-20...+70	PTB 09 ATEX 2013, CE, FM (US/Canada)

Approvals
FM (US/Canada)

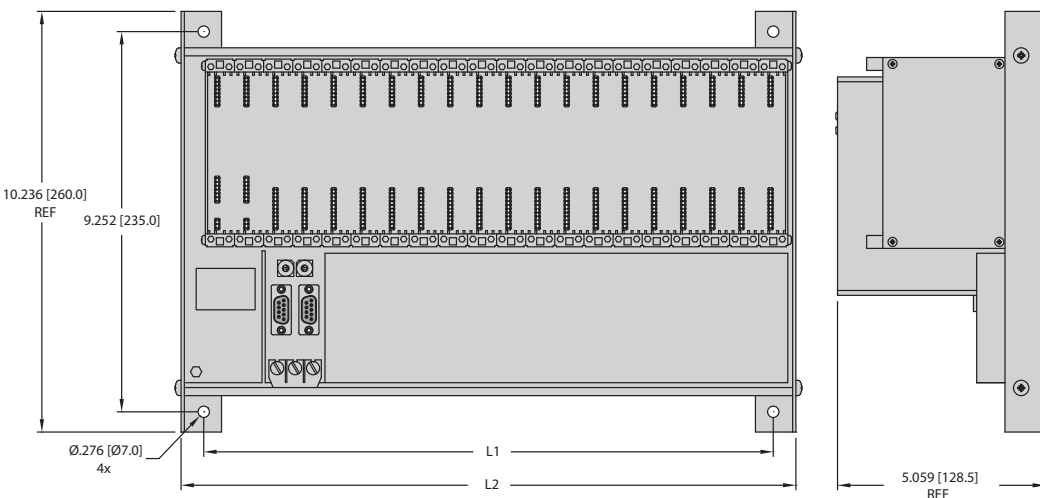
IN-CABINET MODULAR I/O

Zone 2, excom® - Remote I/O for Hazardous Class I Div 2 Areas*

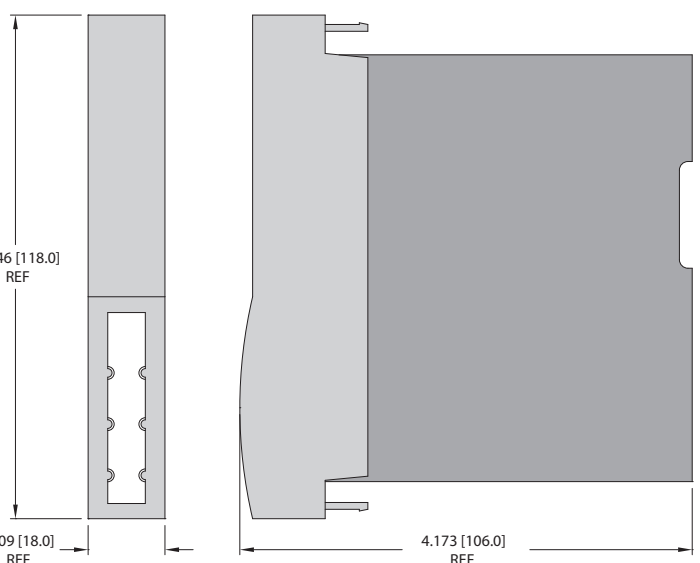
- Up to 24 Intrinsically Safe I/O Module Connections to 192 Field Devices in Zone 0 (Class 1, Division 1) Areas



Module Rack

Housing Style	Part number
 MT16: L1=352 mm L2=380 mm MT24: L1=498 mm L2=526 mm * Requires use of SC12EX segment coupler	MT16-3G MT24-3G

I/O Cards

Housing Style	Part Number	Number of Channels
	Input Cards	
	DI401EX	4-channel discrete
	AI401EX	4-channel analog
	AI41EX	4-channel analog
	AI43EX	4-channel analog
	AIH40EX	4-channel analog
	AIH41EX	4-channel analog
	TI40EX	4-channel temperature
	Output Cards	
	D040EX	4-channel discrete
	D0401EX	4-channel discrete
	A040EX	4-channel analog
	Input/Output Cards	
	DM80EX	8-channel
	DF20EX	2-channel frequency

Number of I/O modules	Connection type	Power supply
16	Screw terminals	DC
24	Screw terminals	DC

Input/Output Type	Ambient Temp. (°C)	Approvals
NAMUR or dry contact	-20...+70	PTB 10 ATEX 2024
active/passive	-20...+60	FM (US/Canada)
passive	-20...+60	
potentiometer	-20...+60	
active/passive HART	-20...+60	FM (US/Canada)
passive HART	-20...+60	FM (US/Canada)
RTD, TC	-20...+70	FM (US/Canada)
IS actuators	-20...+60	FM (US/Canada), PTB 01 ATEX 2047
IS actuators	-20...+70	FM (US/Canada), PTB 10 ATEX 2024, CE
		FM (US/Canada)
NAMUR or dry contact	-20...+70	FM (US/Canada), PTB 00 ATEX 2178
NAMUR or dry contact	-20...+60	FM (US/Canada), PTB 00 ATEX 2178

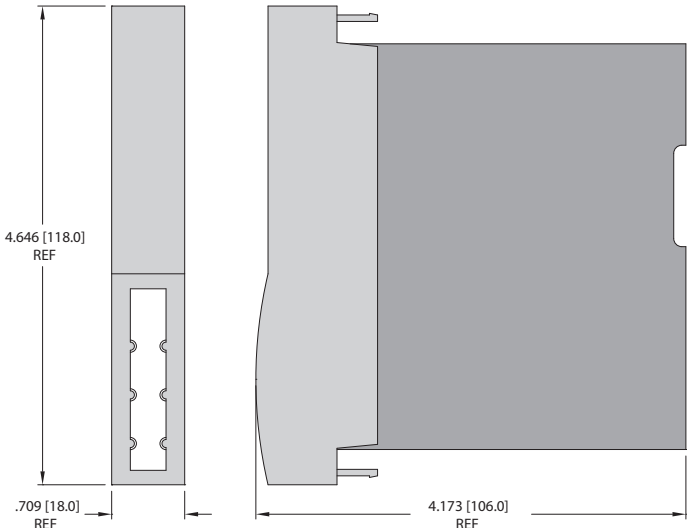
IN-CABINET MODULAR I/O

Zone 2, excom® - Remote I/O for Class I Div 2 Installation

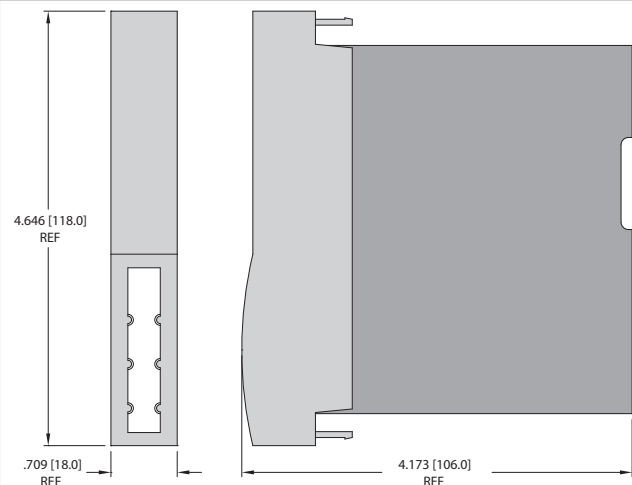
- In Order to Assemble a System, the Following are Required:
 - 1xMT16-3G or MT24-3G
 - 1xPSM24-3G
 - 1xGDP-IS
 - 1xSC12EX



Gateway Card

Housing Style	Part Number	Fieldbus
	GDP-IS /FW2.1	PROFIBUS®-DP

Power Supply Card

Housing Style	Part number	Power supply type
	PSM24-3G	24VDC



In-Cabinet Modular

Transfer Rate	Ambient Temperature (°C)	Approvals
9.6kBit/s...1.5MBit/s	-20...+70	PTB 09 ATEX 2013, CE, FM (US/Canada)

Approvals
FM* * Pending

IN-CABINET MODULAR I/O

excom® - Remote I/O for Non-Ex Areas with Ex hardware

- **Up to 24 Intrinsically Safe I/O Module Connections to 192 Field Devices in Zone 0(Class 1, Div. 1) Areas**

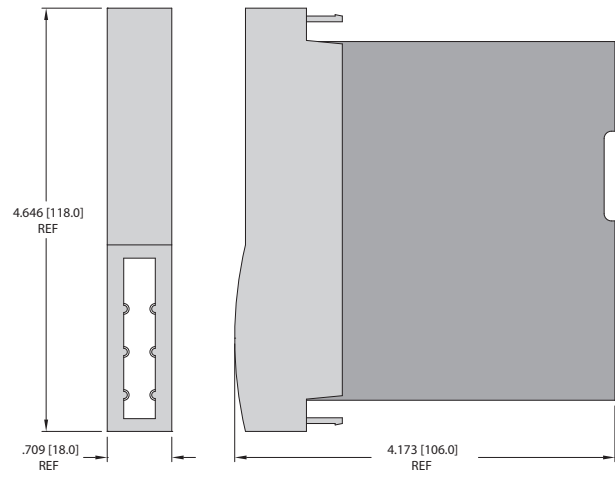


Module Rack

Housing Style		Part number
10.236 [260.0] REF 9.252 [235.0] Ø.276 [Ø7.0] 4x L1 L2 MT16: MT24: L1=352 mm L1=498 mm L2=380 mm L2=526 mm 5.059 [128.5] REF	MT16-G3G	
	MT24-3G	

Does not require SC12EX segment coupler

I/O Cards

Housing Style	Part Number	Number of Channels
 Technical drawing of the 4.646 inch high housing. The drawing includes a side view and a front view. The side view shows a central rectangular cutout with four mounting holes. The front view shows a wide base. Dimensions are given in inches and millimeters with reference values in brackets. 4.646 [118.0] REF .709 [18.0] REF 4.173 [106.0] REF	Input Cards	
	DI401EX	4-channel discrete
	AI401EX	4-channel analog
	AI41EX	4-channel analog
	AI43EX	4-channel analog
	AIH40EX	4-channel analog
	AIH41EX	4-channel analog
	TI40EX	4-channel temperature
	Output Cards	
	D040EX	4-channel discrete
	D0401EX	4-channel discrete
	A040EX	4-channel analog
	Input/Output Cards	
	DM80EX	8-channel
	DF20EX	2-channel frequency

Number of I/O modules	Connection type	Power supply
16	Screw terminals	DC
24	Screw terminals	DC

Input/Output Type	Ambient Temp. (°C)	Approvals
NAMUR or dry contact	-20...+70	PTB 10 ATEX 2024
active/passive	-20...+60	FM (US/Canada)
passive	-20...+60	
potentiometer	-20...+60	
active/passive HART	-20...+60	FM (US/Canada)
passive HART	-20...+60	FM (US/Canada)
RTD, TC	-20...+70	FM (US/Canada)
IS actuators	-20...+60	FM (US/Canada), PTB 01 ATEX 2047
IS actuators	-20...+70	FM (US/Canada), PTB 10 ATEX 2024, CE
		FM (US/Canada)
NAMUR or dry contact	-20...+70	FM (US/Canada), PTB 00 ATEX 2178
NAMUR or dry contact	-20...+60	FM (US/Canada), PTB 00 ATEX 2178

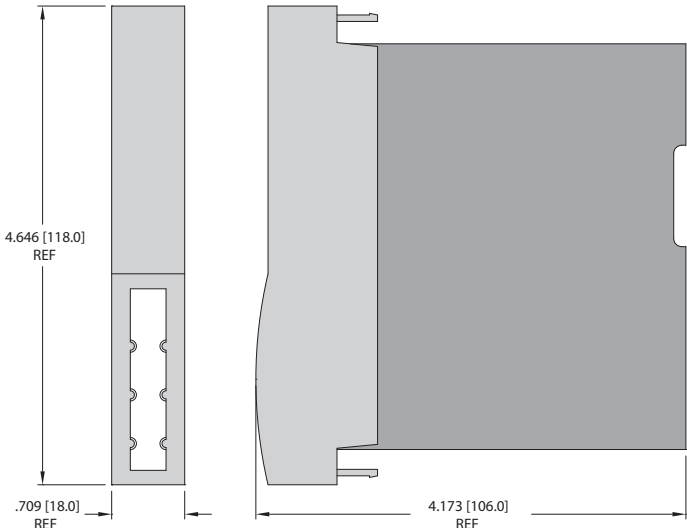
IN-CABINET MODULAR I/O

excom® - Remote I/O for Non-Ex Areas with Ex hardware

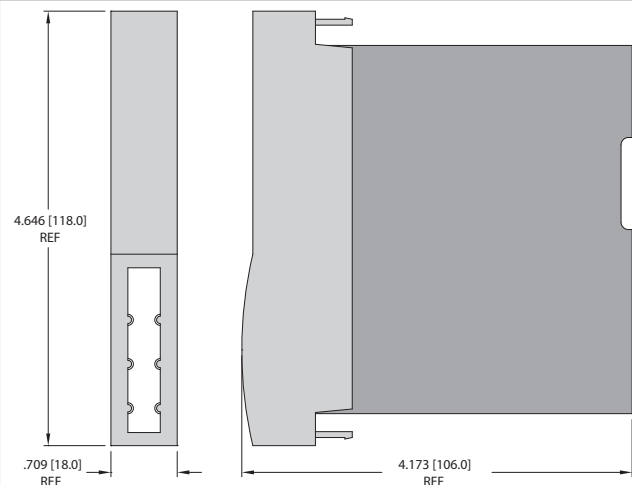
- In Order to Assemble a System, the Following are Required:
1xMT16-3G or MT24-3G
1xPSM24-3G
1xGDP-NI



Gateway Card

Housing Style	Part Number	Fieldbus
	GDP-NI / FW...	PROFIBUS®-DP

Power Supply Card

Housing Style	Part number	Power supply type
	PSM24-3G	24VDC



In-Cabinet Modular

Transfer Rate	Ambient Temperature (°C)	Approvals
9.6kBit/s...1.5MBit/s	-20...+70	

Approvals
FM* * Pending

IN-CABINET MODULAR I/O

excom® - Remote I/O for Non-Ex Areas with Non-Ex hardware

- Up to 24 Non-Intrinsically Safe I/O Module Connections to 192 Field Devices in Non-Hazardous Areas



Module Rack

Housing Style	Part number
*Screw terminals ordered separately	MT24-N

I/O Cards

Housing Style	Part Number	Number of Channels
	Input Cards	
	AI40-N	4-channel analog
	AIH41-N	4-channel analog
	AI43-N	4-channel analog
	AIH40-N	4-channel analog
	AIH41-N	4-channel analog
	TI40N	4-channel temperature
	Output Cards	
	D040-N	4-channel discrete
	A040-N Cards	4-channel analog
	D060R-N	6-channel mechanical
	Input/Output Cards	
	DM80-N	8-channel
	DF20-N	2-channel frequency

Number of I/O modules	Connection type	Power supply
24	Screw terminals	DC

Input/Output Type	Ambient Temperature (°C)	Approvals
active/passive	-20...+60	
passive	-20...+60	
potentiometer	-20...+60	
active/passive HART	-20...+60	
passive HART	-20...+60	
RTD, TC	-20...+70	
IS actuators	-20...+70	
SPST Relay contacts		
NAMUR or dry contact	-20...+70	
NAMUR or dry contact	-20...+60	

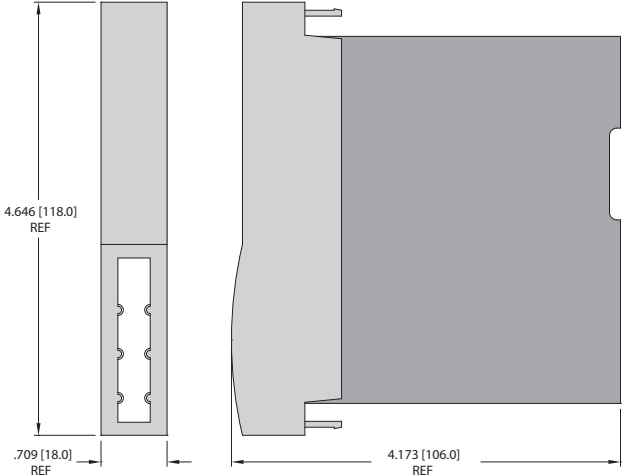
IN-CABINET MODULAR I/O

excom® - Remote I/O for Non-Ex Areas with Non-Ex hardware

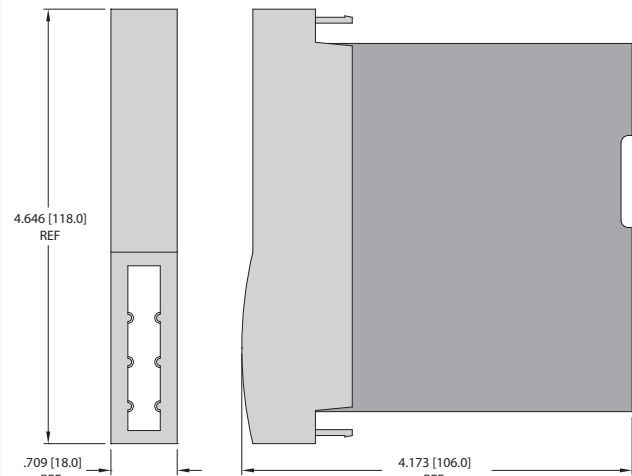
- In Order to Assemble a System, the Following are Required:
 - 1xMT24-N
 - 1xPSM24-N
 - 1xGDP-N



Gateway Card

Housing Style	Part Number	Fieldbus
	GDP-N/FW...	PROFIBUS®-DP

Power Supply Card

Housing Style	Part number	Power supply type
	PSM24-N	24VDC



In-Cabinet Modular

Transfer Rate	Ambient Temperature (°C)	Approvals
9.6kBit/s...1.5MBit/s	-20...+70	

Approvals

IN-CABINET MODULAR I/O

excom® - Accessories for Ex and Non-Ex Areas

- Segment Coupler Allows Mounting in Zone 1 or 2



Housing Style	Part Number	Description/Notes
	SC12-EX	PROFIBUS®-DP to RS485IS interface

Housing Style	Part Number	Description
 Preconfigured cable part number: D9T-RS485IS D9T-RS485IS 451B-*M	D9T-RS485IS	Connector for excom MT (backplane) and SC12-EX RS485-IS Connector
 Preconfigured cable part number: D9S/T D9S D9S/T 455-*M-*M	D9T-RS485	Connector for SC12-EX PROFIBUS-DP and PB-XEPI2 Connector

* denotes length in meters



Number of Nodes	Ambient Temperature (°C)	Approvals
62 (31 with redundancy)	-20...+70	FM (US)

In-Cabinet Modular

IN-CABINET MODULAR I/O

excom® - Accessories for Ex and Non-Ex Areas

- FDT-DTM Parameterization Via PACTWARE



Housing Style	Part Number	Description	Supply Voltage
	PB-XEPI2	EtherNet to PROFIBUS® interface	24VDC (19.2...28.8VDC)

Housing Style	Part Number	Description
	STB16-4RS/1,5-BU	4-pin terminal block, screw terminals, blue (set of 16)
	STB16-4RS/1,5-BK	4-pin terminal block, screw terminals, black (set of 16)



In-Cabinet Modular

Current Consumption	Ambient Temperature (°C)	Operating Systems
≤200 mA	0...+50	Windows XP/7