

# Digital module - AXL F DO32/1 2H



1004925

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Axioline F, Digital output module, Digital outputs: 32, 24 V DC, 500 mA, 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 output digital signals. The outputs are protected against short circuit and overload.

## Your advantages

- 32 digital outputs
- 24 V DC, 500 mA
- Connection of actuators in 1-conductor technology
- Single-channel diagnostics
- Minimum update time of < 100  $\mu$ s
- Device rating plate stored

## Commercial Data

Item number	1004925
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	O1 - Automatisierungssys.
Product Key	DRI232
Catalog Page	Page 77 (C-6-2019)
GTIN	4055626474700
Weight per Piece (including packing)	214,3 g
Weight per Piece (excluding packing)	159 g
Customs tariff number	85389091
Country of origin	DE

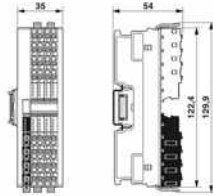
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## Technical Data

### Dimensions

Dimensional drawing	
Width	35 mm
Height	129.9 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).

### Material specifications

Color	traffic grey A RAL 7042
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### Interfaces

#### Axioline F local bus

Number of interfaces	2
Connection method	Bus base module
Transmission speed	100 Mbps

### System properties

#### Module

Input address area	0 Byte
Output address area	4 Byte
Required parameter data	1 Byte
Required configuration data	6 Byte

### Output data

#### Digital

Output name	Digital outputs
Connection method	Push-in connection
Connection technology	1-conductor
Number of outputs	32
Protective circuit	Short-circuit protection, overload protection of the outputs; electronic
Output voltage	24 V DC
Maximum output current per module	16 A (provide external protection)
Nominal output voltage	24 V DC

Output voltage when switched off	max. 1 V
Output current when switched off	max. 300 $\mu$ A
Nominal load, inductive	max. 12 VA (1.2 H, 48 $\Omega$ , with nominal voltage)
Nominal load, lamp	max. 12 W (at nominal voltage)
Nominal load, ohmic	max. 12 W (48 $\Omega$ , with nominal voltage)
Switching frequency	max. 5500 per second (with ohmic load)
	max. 1 per second (with inductive load)
	max. 16 per second (with nominal lamp load)
Reverse voltage resistance to short pulses	limited protection up to 0.5 A for 1 s
Behavior with overload	Shutdown with automatic restart
Behavior with inductive overload	Output can be destroyed

## Product properties

Type	block modular
Product type	I/O component
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	2.7 W
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## Potentials: Axioline F local bus supply ( $U_{Bus}$ )

Supply voltage	5 V DC (via bus base module)
Current draw	max. 60 mA
Power consumption	max. 300 mW

## Potentials: 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 draw	max. 16 A (Provide external protection; if the total current of 8 A is exceeded, connect the supply at the power connector parallel via both terminal points.)
Power consumption	max. 480 W (of which 2.4 W constitute internal losses)
Protective circuit	Surge protection; electronic (35 V, 0.5 s)
	Reverse polarity protection; parallel diode; with external 5 A fuse (only for commissioning)

## 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.

	With a small conductor cross section and high current, the terminal point temperature can reach up to 31 K above the ambient temperature.
	When selecting the cables, observe the permissible operating temperature in accordance with IEC or UL.

## Conductor connection

Connection method	Push-in connection
Conductor cross section solid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
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.
	With a small conductor cross section and high current, the terminal point temperature can reach up to 31 K above the ambient temperature.
	When selecting the cables, observe the permissible operating temperature in accordance with IEC or UL.
Conductor cross section, rigid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section, flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
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)

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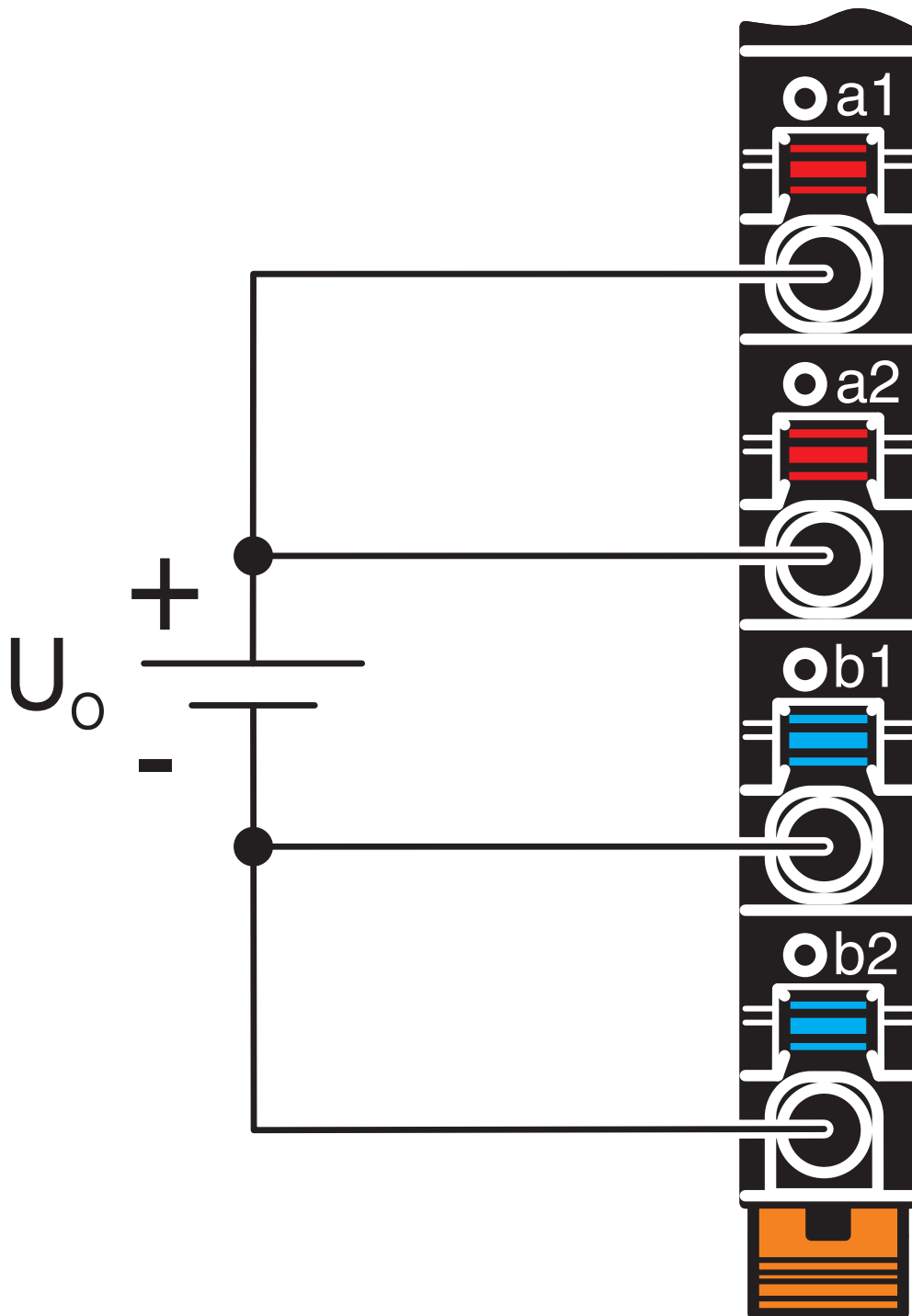
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## Drawings

Connection diagram



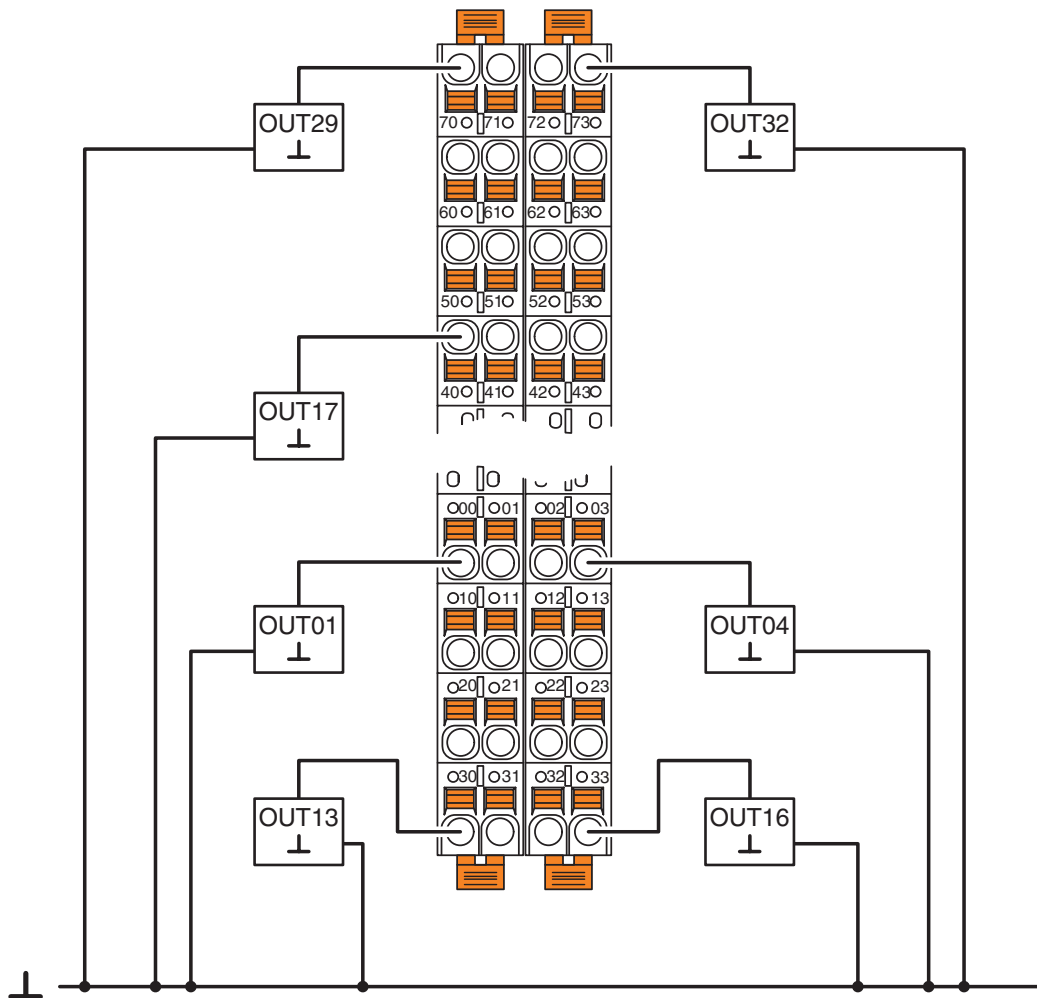
Parallel supply of the supply voltage

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Connection diagram



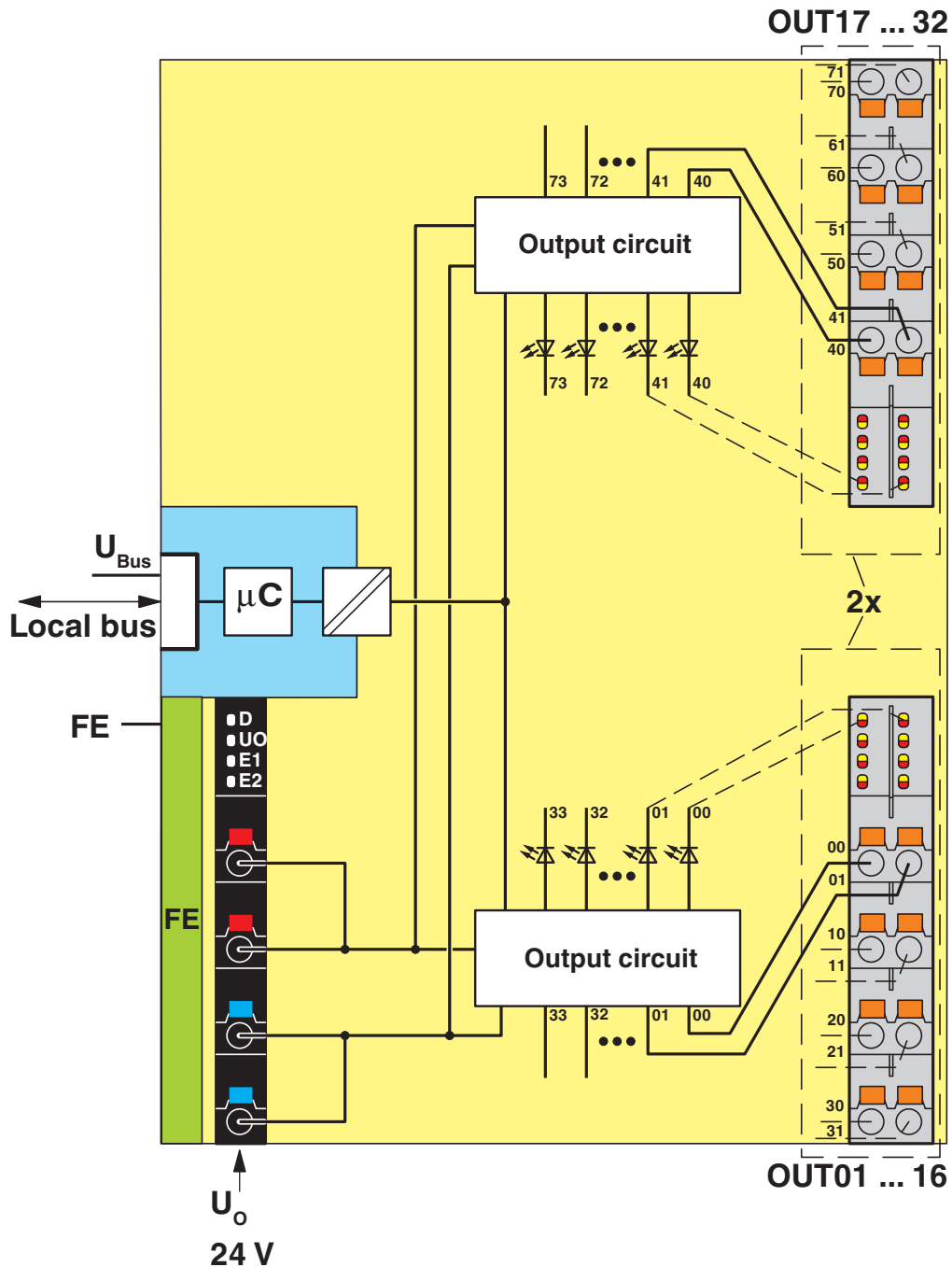
Connection in 1-conductor technology

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Block diagram



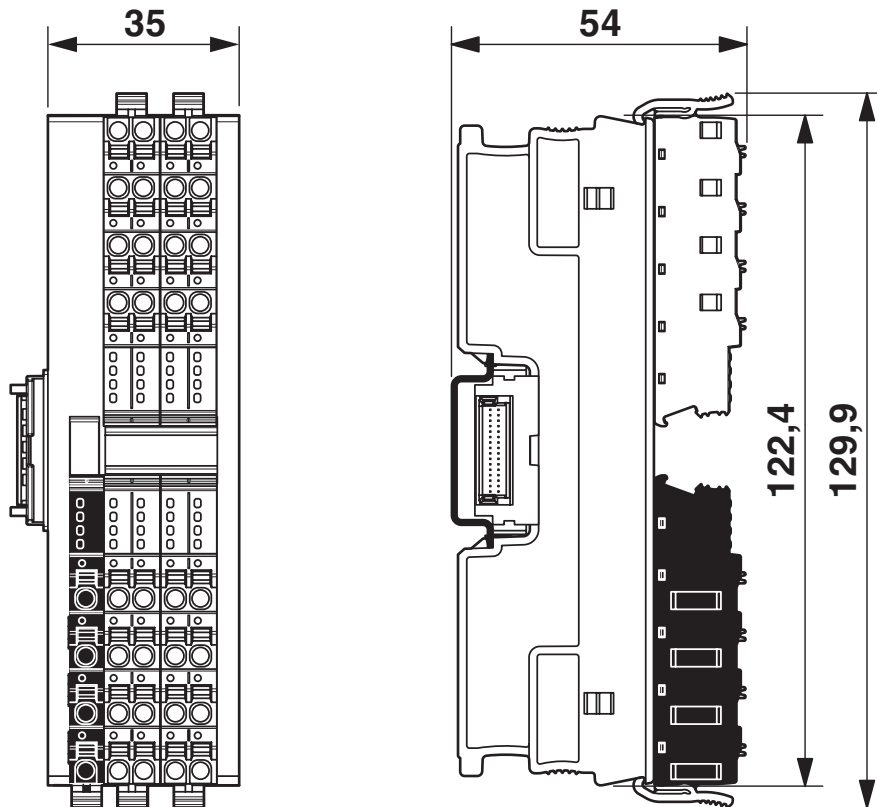
Internal wiring of the terminal points

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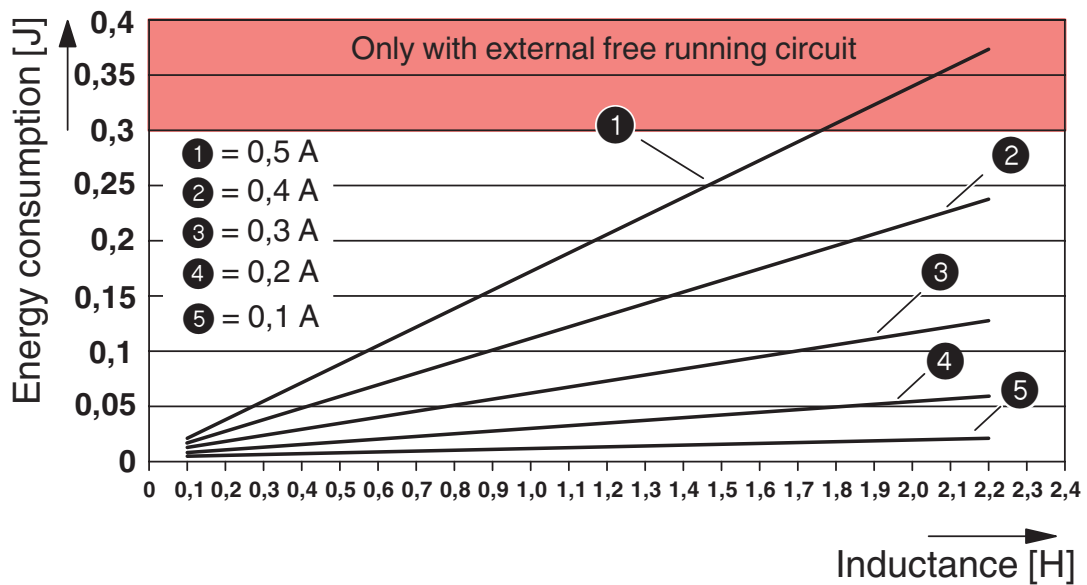
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Dimensional drawing



Dimensions

Diagram



Maximum outputs power consumption when inductive loads are switched off

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## Approvals



**DNV GL**

Approval ID: TAA00000DF



**LR**

Approval ID: LR2001902TA



**NK**

Approval ID: 14A006



**BV**

Approval ID: 36433/B4 BV



**PRS**

Approval ID: TE/1020/880590/21



**UL Listed**

Approval ID: FILE E 238705



**cUL Listed**

Approval ID: FILE E 238705

**BSH**

Approval ID: 840



**RINA**

Approval ID: ELE283021XG

**ABS**

Approval ID: 21-2187864-PDA



**cUL Listed**

Approval ID: FILE E 238705



**UL Listed**

Approval ID: FILE E 238705

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## ABS

Approval ID: 21-2187864-PDA

## BSH

Approval ID: 840



## BV

Approval ID: 36433/B4 BV



## DNV GL

Approval ID: TAA00000DF



## PRS

Approval ID: TE/1020/880590/21



## NK

Approval ID: 14A006



## RINA

Approval ID: ELE283021XG



## LR

Approval ID: LR2001902TA

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## Classifications

### ECLASS

ECLASS-9.0	27242604
ECLASS-10.0.1	27242604
ECLASS-11.0	27242604

### ETIM

ETIM 8.0	EC001599
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### UNSPSC

UNSPSC 21.0	32151600
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## Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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