

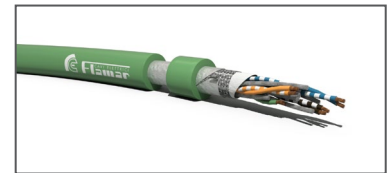
Flamar Standard Cables for Industrial Automation



Available in multiple packaging sizes with small minimum order quantities, Flamar provides a complete selection of cables for all industrial automation applications while utilizing in-house design and manufacturing to meet and exceed the most stringent quality requirements at a competitive cost

Features and Benefits

All cables are UL AWM/CSA recognized or UL listed	Delivers a complete selection of cables that adhere to the de-facto reliability standard for industrial automation cables
Several jacket materials available (PVC, WSOR*, PUR and TPE)	Enhances design and application flexibility. Ensures the correct cable for the required application features is available
Cables designed for Flexible or Drag-Chain installation	Solves almost all installation issues
Temperature ranges for multiple applications down to -40°C (-40°F) and up to 105°C (221°F)	Withstands wide temperature range. Delivers operational flexibility
Cross sections range from 0.25mm ² (AWG 24) to 2.5mm ² (AWG 14) for Signal & Control, 1.5mm ² (AWG 16) to 6.0mm ² (AWG 10) for Servo Motor, and from 0.14mm ² (AWG 26) to 0.5mm ² (AWG 20) for Network Cables	Ensures the most common cross sections for industrial automation applications are available in the cable offering
Flame-retardant compliance with UL Vertical Flame Test, UL VW-1, and CSA FT-1 up to CSA FT-4	Ensures safety for out-of-the-cabinet use



Flamar Standard Cables (from top to bottom): Signal & Control, Servo Motor, Network



Flamar standard cables for industrial automation brochure
[English 987651-3992](#)
[Chinese 987651-4141](#)

Applications

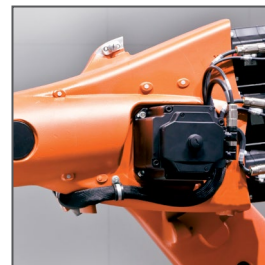
Industrial Automation —

Line and Machine Builders

- Sensors: Brad® M8 and M12 Connectors
- Valves: mPm® DIN Valve Connectors
- Ethernet: Brad® M12 Connectors
- Servo Motors: Brad® M23 Connectors
- Control Cabinets:
 - GWconnect® Heavy Duty Connectors
- Auxiliary Power: Brad® Mini-Change



Sensors, valves and control cabinets



Servo Motors



Smart I/O modules

Industrial Factory Automation

- Material Handling

Non Automotive/Commercial Vehicles

*Weld-Slag and Oil-Resistant

Flamar Standard Cables for Industrial Automation

Specifications

SIGNAL AND CONTROL

Series	Environment	Installation	Halogen Free	Temperature Rating (Min Max)		Voltage	Bending Radius	Jacket Material	Shielded	Approval
155210	Standard	Flexible	No	+5°C	+80°C	300V	> 15xOD	PVC	No	UL AWM 2464/CSA
155211				Yes						
155220	Severe	Drag Chain		-25°C		600V	> 7.5xOD	WSOR*	No	UL AWM 21215/CSA
155221				Yes						
155230	Harsh		Yes	-40°C	1000V	PUR		No	UL AWM 21223/CSA	
155231								Yes		
155240	Severe		No	-40°C	+105°C	300V	> 10xOD	TPE	No	UL Listed PLTC
155241									Yes	

SERVO MOTOR

Series	Environment	Installation	Halogen Free	Temperature Rating (Min Max)		Voltage	Bending Radius	Jacket Material	Shielded	Approval
155311	Standard	Flexible	No	+5°C	+80°C	1000V Power 600V Feedback	> 15xOD	PVC	Yes	UL AWM 2570/CSA
155321	Severe	Drag Chain		-25°C				WSOR*		UL AWM 21939/CSA (Power) UL AWM 21215/CSA (Feedback)
155331	Harsh		Yes	-40°C			PUR	UL AWM 21223/CSA		

NETWORK

Series	Environment	Installation	Halogen Free	Temperature Rating (Min Max)		Voltage	Bending Radius	Jacket Material	Shielded	Approval
155411	Standard	Flexible	No	+5°C	+60°C (CC-Link)	300V	> 15xOD	PVC	Yes	UL AWM 2464/CSA
155421	Severe	Drag Chain		-10°C	+60°C (PROFIBUS) +70°C (PROFINET)	600V		WSOR*		UL AWM 21215/CSA
155431	Harsh		Yes	-20°C	+60°C (EtherNet/IP)	300V		PUR		UL AWM 20233/CSA

*Weld-Slag and Oil-Resistant

Packaging Options

