

Flamar Standard Cables for Industrial Automation

Flamar[®]

a **molex** company

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)

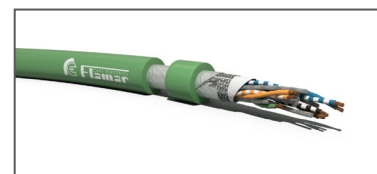
Withstands wide temperature range. Delivers operational flexibility

Cross sections range from 0.25mm² (AWG 24) to 2.5mm² (AWG 14) for Signal & Control, 1.5mm² (AWG 16) to 6.0mm² (AWG 10) for Servo Motor, and from 0.14mm² (AWG 26) to 0.5mm² (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

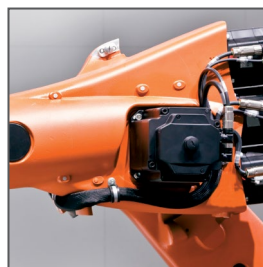
Industrial Factory Automation

Material Handling

Non Automotive/Commercial Vehicles



Sensors, valves and control cabinets



Servo Motors



Smart I/O modules

*Weld-Slag and Oil-Resistant

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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				-25°C					Yes	
155220	Severe		No	-25°C	+80°C	600V	> 7.5xOD	WSOR*	No	UL AWM 21215/CSA
155221				-25°C					Yes	
155230	Harsh	Drag Chain	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	> 10xOD		PUR

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



www.molex.com/link/flamar