

Specifications (continued)

Main Units

F3SJ-B□□□□P25 (continued)

Power cable	Connection method: Prewired connector cable, cable length 0.3 m, connector type (M12, 8-pin), connector: IP67 rated (when mated) Number of wires: Emitter: 8 wires Cable diameter: Dia. 6 mm Allowable bending radius: R5 mm
Extension cable	30 m max.
Material	Case: Aluminum Cap: ABS resin, PBT Optical cover: PMMA resin (acrylic) Cable: Oil resistant PVC
Weight (packed state)	Weight (g) = (protective height) x 2.7 + 500
Accessories	Test rod, User's Manual (CD-ROM) *7
Applicable standards	IEC 61496-1, EN 61496-1 UL 61496-1, Type 4 ESPE (Electro-Sensitive Protective Equipment) IEC 61496-2, CLC/TS 61496-2, UL 61496-2, Type 4 AOPD (Active Opto-electronic Protective Devices) IEC 61508-1 to -3, EN 61508-1 to -3 SIL3 IEC 13849-1: 2006, EN ISO 13849-1: 2008 (PLc, Cat.4) UL 508, UL 1998, CAN/CSA C22.2 No. 14, CAN/CSA C22.2 No.0.8

Accessories

Control Unit

		F3SP-B1P
Applicable sensor		F3SJ-B/A (Only for PNP output type)*
Power supply voltage		24 VDC ±10%
Power supply consumption		DC1.7 W max. (not including sensor's current consumption)
Operation time		100 ms max. (not including sensor's response time)
Response time		100 ms max. (not including sensor's response time)
Relay output	Number of contacts	3NO + 1NC
	Rated load	250 VAC 5 A (cos = 1), 30 VDC 5 A L/R = 0 ms
	Rated current	5 A
Connection type	Between sensors	M12 connector (8-pin)
	Others	Terminal block
Weight (packed state)		Approx. 280 g
Accessories		Instruction manual

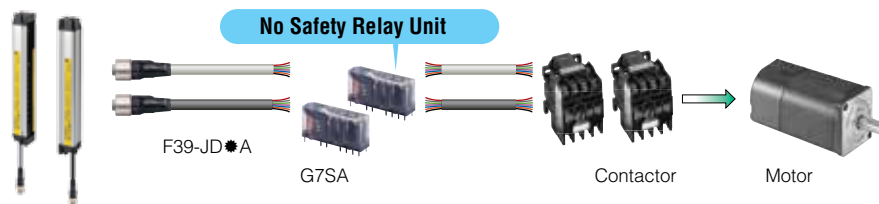
*NPN output type cannot be connected. Also, the system cannot be used as a muting system.

Applications

Selecting the Best Configuration

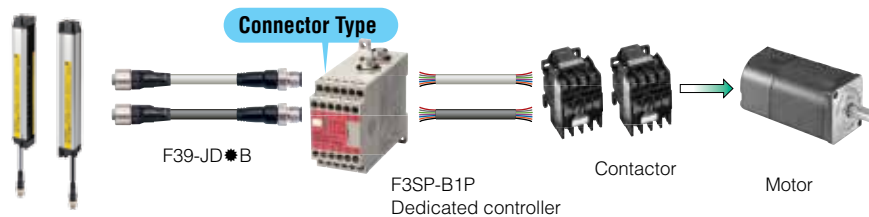
Space Efficient and Low Cost

The built-in external device monitoring function eliminates the need for a safety relay unit.



Reduced Wiring and Easy Maintenance

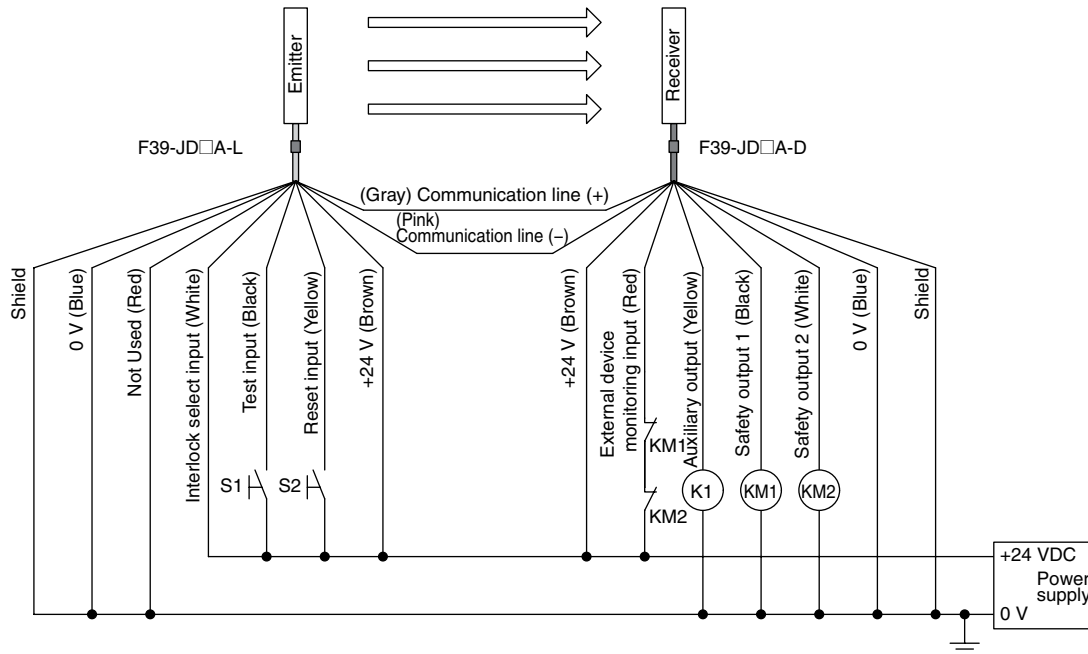
Cables with connectors on both ends simplify connections and prevent wiring errors.



Wiring

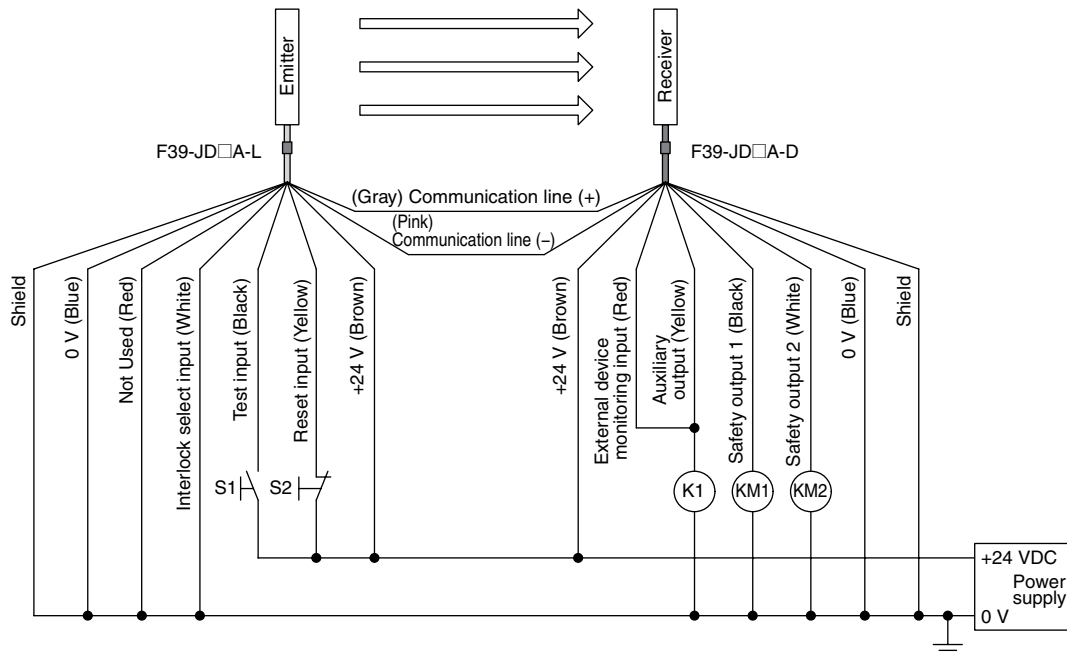
Basic Wiring Diagram

Wiring when using manual reset mode, external device monitoring



- S1 : External test switch (connect to 0 V if a switch is not required)
 S2 : Interlock/lockout reset switch
 KM1, KM2 : Safety relay with force-guided contact (G7SA) or magnetic contactor
 K1 : Load or PLC, etc. (for monitoring)

Wiring for auto reset mode and deactivated external device monitoring



- S1 : External test switch (connect to 0 V if a switch is not required)
 S2 : Lockout reset switch
 KM1, KM2 : Safety relay with force-guided contact (G7SA) or magnetic contactor
 K1 : Load or PLC, etc. (for monitoring)