

### Product Selection

#### Standard Sensors—Assembled with Terminal Wiring

Standard E51 sensors feature long sensing ranges and a choice of top or side sensing heads. Alternate frequency units eliminate interference when mounted close to standard frequency units. Order sensors in component form, as assembled plug-in units, or in a sealed version where the sensor body is factory assembled to an epoxy filled receptacle with tamper-proof screws to ensure a lasting seal.

#### Assembled Sensor



#### Assembled Sensors—Standard (with Terminal Wiring)

##### Sensor Body and Receptacle



Operating voltage	20–264 Vac/dc	<b>Two-Wire Sensors</b>		<b>Four-Wire Sensors</b>		10–30 Vdc
Output	NO or NC <sup>①</sup>	NO and NC complementary		NO and NC complementary		NO and NC complementary
Sensor body	<b>E51SAL</b>	<b>E51SCL</b>	<b>E51SCN</b> Accepts logic modules <sup>②</sup>	<b>E51SPL</b> PNP	<b>E51SNL</b> NPN	
Receptacle <sup>③</sup>	<b>E51RA</b>	<b>E51RC</b>	<b>E51RCB</b>	<b>E51RN</b>	<b>E51RN</b>	

#### Sensor Heads <sup>①</sup>

##### Top Sensing



##### Side Sensing



Sensing Range	Shielding	Frequency	Sensor Head Only Catalog Number	Assembled Sensors with Head, Sensor Body and Receptacle Catalog Number								
<b>Top Sensing</b>												
0.51 in (13 mm)	Shielded	Standard	<b>E51DT1</b>	<b>E51ALT1</b>	<b>E51CLT1</b>	<b>E51CNT1</b>	<b>E51PLT1</b>	<b>E51NLT1</b>				
		Alternate	<b>E51DT2</b>	<b>E51ALT2</b>	<b>E51CLT2</b>	<b>E51CNT2</b>	<b>E51PLT2</b>	<b>E51NLT2</b>				
0.94 in (24 mm)	Unshielded	Standard	<b>E51DT5</b>	<b>E51ALT5</b>	<b>E51CLT5</b>	<b>E51CNT5</b>	<b>E51PLT5</b>	<b>E51NLT5</b>				
		Alternate	<b>E51DT6</b>	<b>E51ALT6</b>	<b>E51CLT6</b>	<b>E51CNT6</b>	<b>E51PLT6</b>	<b>E51NLT6</b>				
<b>Side Sensing</b>												
0.51 in (13 mm)	Shielded	Standard	<b>E51DS1</b>	<b>E51ALS1</b>	<b>E51CLS1</b>	<b>E51CNS1</b>	<b>E51PLS1</b>	<b>E51NLS1</b>				
		Alternate	<b>E51DS2</b>	<b>E51ALS2</b>	<b>E51CLS2</b>	<b>E51CNS2</b>	<b>E51PLS2</b>	<b>E51NLS2</b>				
0.94 in (24 mm)	Unshielded	Standard	<b>E51DS5</b>	<b>E51ALS5</b>	<b>E51CLS5</b>	<b>E51CNS5</b>	<b>E51PLS5</b>	<b>E51NLS5</b>				
		Alternate	<b>E51DS6</b>	<b>E51ALS6</b>	<b>E51CLS6</b>	<b>E51CNS6</b>	<b>E51PLS6</b>	<b>E51NLS6</b>				

#### Notes

<sup>①</sup> All sensor heads feature a programmable output selector switch for NO or NC operation. Operation is as follows:

For This Output Type:	Set Selector Position:	
	"TARGET"	"NO TARGET"
NO	Target present	Target absent
NC	Target absent	Target present

<sup>②</sup> Logic module must be ordered separately, see **Page V8-T3-91**. These sensor bodies are rated NEMA 4, 4X and 13.

<sup>③</sup> Receptacles feature terminal wiring with a 1/2 in NPT thread at the conduit entrance. Other connection options are available:

Connection Option	Catalog Number	Code Suffix	Example
20 mm thread at the conduit entrance	—	<b>20</b>	<b>E51ALT120</b>
Mini-connector termination with epoxy filled receptacle, see <b>Page V8-T3-92</b> for additional receptacle options	Two-wire, 3-pin connector	<b>CSMS3F3CY1602</b>	<b>P3</b> <b>E51ALT1P3</b>
	Four-wire, 5-pin connector	<b>CSMS5D5CY1602</b>	<b>P5</b> <b>E51CLT1P5</b>
Pre-wired cable with epoxy filled receptacle	8 ft long	—	<b>S</b> <b>E51ALT1S</b>
	12 ft long	—	<b>S12</b> <b>E51ALT1S12</b>
	20 ft long	—	<b>S20</b> <b>E51ALT1S20</b>

# 3.16

## Inductive Proximity Sensors

### E51 Modular Limit Switch Style Sensors

#### Standard Sensors—Assembled with Receptacles

Sensor body is attached to receptacle with tamper-proof screws.

#### Assembled Sensor



#### Assembled Sensors—Standard (with Epoxy Filled Receptacles and Pre-wired Cables)

##### Sensor Base Type with 8 ft Cable <sup>②</sup>



Operating voltage	<b>Two-Wire Sensors</b> 20–264 Vac/dc	<b>Four-Wire Sensors</b> 120 Vac 10–30 Vdc NO and NC complementary	
Output	NO or NC <sup>①</sup>	NO and NC complementary	PNP NPN

#### Sensor Heads <sup>①</sup>

##### Top Sensing



Sensing Range	Shielding	Frequency	Sensor Head Only Catalog Number	Assembled Sensors with Head and Sensor Base Catalog Number			
<b>Top Sensing</b>							
0.51 in (13 mm)	Shielded	Standard	<b>E51DT1</b>	<b>E51ALT16P</b>	<b>E51CLT16P</b>	<b>E51PLT16P</b>	<b>E51NLT16P</b>
		Alternate	<b>E51DT2</b>	<b>E51ALT26P</b>	<b>E51CLT26P</b>	<b>E51PLT26P</b>	<b>E51NLT26P</b>
0.94 in (24 mm)	Unshielded	Standard	<b>E51DT5</b>	<b>E51ALT56P</b>	<b>E51CLT56P</b>	<b>E51PLT56P</b>	<b>E51NLT56P</b>
		Alternate	<b>E51DT6</b>	<b>E51ALT66P</b>	<b>E51CLT66P</b>	<b>E51PLT66P</b>	<b>E51NLT66P</b>
<b>Side Sensing</b>							
0.51 in (13 mm)	Shielded	Standard	<b>E51DS1</b>	<b>E51ALS16P</b>	<b>E51CLS16P</b>	<b>E51PLS16P</b>	<b>E51NLS16P</b>
		Alternate	<b>E51DS2</b>	<b>E51ALS26P</b>	<b>E51CLS26P</b>	<b>E51PLS26P</b>	<b>E51NLS26P</b>
0.94 in (24 mm)	Unshielded	Standard	<b>E51DS5</b>	<b>E51ALS56P</b>	<b>E51CLS56P</b>	<b>E51PLS56P</b>	<b>E51NLS56P</b>
		Alternate	<b>E51DS6</b>	<b>E51ALS66P</b>	<b>E51CLS66P</b>	<b>E51PLS66P</b>	<b>E51NLS66P</b>

##### Side Sensing



#### Sensor Heads

##### Sensor Heads <sup>①</sup>

##### Top Sensing



Sensing Range	Shielding	Frequency	Target Material	Catalog Number
<b>Top Sensing</b>				
0.51 in (13 mm)	Shielded	Standard	All metals	<b>E51DT1</b>
		Alternate		<b>E51DT2</b>
0.94 in (24 mm)	Unshielded	Standard	All metals	<b>E51DT5</b>
		Alternate		<b>E51DT6</b>
<b>Side Sensing</b>				
0.51 in (13 mm)	Shielded	Standard	All metals	<b>E51DS1</b>
		Alternate		<b>E51DS2</b>
0.94 in (24 mm)	Unshielded	Standard	All metals	<b>E51DS5</b>
		Alternate		<b>E51DS6</b>

##### Side Sensing



#### Notes

<sup>①</sup> All sensor heads feature a programmable output selector switch for NO or NC operation. Operation is as follows:

For This Output Type:	Set Selector Position:	
	"TARGET"	"NO TARGET"
NO	Target present	Target absent
NC	Target absent	Target present

<sup>②</sup> Switch bases feature 8 ft of SOOW-A cable. Other connection options are available:

Connection Option <sup>③</sup>	Suffix	Example
Mini-connector mounted on 3 ft (0.9m) pigtail cable	<b>T</b>	<b>E51ALT16PT</b>
Mini-connector mounted to switch base	<b>C</b>	<b>E51ALT16PC</b>
Cable longer than 8 feet, add required length in 1 ft increments to listed catalog number—20 ft maximum	<b>Length in ft</b>	<b>E51ALT16P12 for 12 ft</b>

<sup>③</sup> See listing of compatible connector cables on **Page V8-T3-93**.