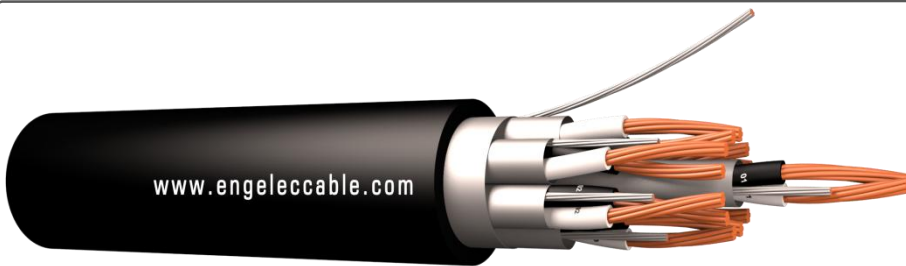


Part No: P1T1IOS

Description: The ENGELEC BS 5308 Part 2 Type 1 un-armoured individually & collectively (overall) screened instrument cables are generally use for indoor installation and suitable for wet and damp areas. Generally used within industrial process manufacturing plants for communication, data and voice transmission signals and services, Also used for the interconnection of electrical equipment and instruments, typically in chemical or petrochemical industry.



Construction

Conductor	Annealed or tinned copper, sizes: 0.5mm ² , 0.75mm ² and 1.5mm ² to BS 6360
Insulation	PE or XLPE
Pairing	Two insulated conductors uniformly twisted together with a lay not exceeding 100mm
Colour code	See technical information
Individual screen	Aluminium/polyester tape is applied over each pair metallic side down in contact with tinned copper drain wire, 0.5mm ²
Binder tape	PETP transparent tape
Collective screen	Aluminium/polyester tape is applied over the laid up pairs metallic side down in contact with tinned copper drain wire, 0.5mm ²
Outer sheath	PVC Sheath, type TM 1 or type 6 to BS 6746
Sheath colour	Black or blue

Mechanical and Electrical Properties

* **Operating temperature** : -20°C up to + 70°C(fixed installation) ; -10°C to +50°C(flexed operation).

* **Minimum bending radius** : 6 x overall diameter.

Conductor Area Size	mm ²	0.5	0.75	1.0	1.5	
Conductor resistance max	ohm/km	39.7	26.5	18.4	12.3	
Insulation resistance min	Mohm/km	25	25	25	25	
Max. Mutual Capacitance: pair or adjacent cores	pF/m	250	250	250	250	
Capacitance between any core or screen max.	pF/m	400	400	400	400	
Max. L/R Ratio for adjacent cores(Inductance/Resistance)	μH/ohm	25	25	35	40	
Test voltage	Core to core	V	1000	1000	1000	1000
	Core to screen	V	1000	1000	1000	1000
Rated voltage max	V	300/500	300/500	300/500	300/500	

Standards

RoHS Compliance :	Yes	UV Resistance :	Good, ISO 4892-3†
CE Compliant :	Yes (2014/35/EU)	Weather Resistance :	Good, ISO 4892-3†
Manufactured in accordance to :	BS 5308, BS 6746, IEC 60331-1	CPR Classification	F _{CA} (EN50575:2014+A1:2016)

Dimension Parameter

Engelec Cable Part Number	No. of Pairs	Nominal Conductor C.S.A.	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
		mm ²	mm	mm	mm	kg/km
P1T1IOS02P05X	2	0.5	0.6	1.1	11.2	170
P1T1IOS05P05X	5	0.5	0.6	1.2	14.6	270
P1T1IOS10P05X	10	0.5	0.6	1.3	19.4	520
P1T1IOS15P05X	15	0.5	0.6	1.5	22.7	650
P1T1IOS20P05X	20	0.5	0.6	1.5	25.9	860
P1T1IOS30P05X	30	0.5	0.6	1.7	31.2	1130
P1T1IOS50P05X	50	0.5	0.6	2.2	40.1	1880
P1T1IOS02P75X	2	0.75	0.6	1.1	12.2	200
P1T1IOS05P75X	5	0.75	0.6	1.2	15.8	355
P1T1IOS10P75X	10	0.75	0.6	1.3	21.1	560
P1T1IOS15P75X	15	0.75	0.6	1.5	24.9	770
P1T1IOS20P75X	20	0.75	0.6	1.7	28.6	990
P1T1IOS30P75X	30	0.75	0.6	2	34.7	1380
P1T1IOS50P75X	50	0.75	0.6	2.2	43.9	2225
P1T1IOS02P15X	2	1.5	0.6	1.2	13.6	265
P1T1IOS05P15X	5	1.5	0.6	1.3	147.8	490
P1T1IOS10P15X	10	1.5	0.6	1.5	24.1	820
P1T1IOS15P15X	15	1.5	0.6	1.7	28.2	1110
P1T1IOS20P15X	20	1.5	0.6	1.7	31.9	1470
P1T1IOS30P15X	30	1.5	0.6	2	38.8	2070
P1T1IOS50P15X	50	1.5	0.6	2.2	49.1	3340

Remark: 'X' is '1', '2' or '5', means IEC60228 conductor class, customized for class 1 or class 2 or class 5.

Conductor Option

Conductor Area Size	mm ²	0.5	0.75	1.0	1.5
Conductor Class 1	No. x mm	1/0.8	1/0.98	1/1.13	1/1.38
Conductor Class 2	No. x mm	7/0.3	7/0.37	7/0.43	7/0.50

Pair Identify

- Number marking : Pair color black and white, printed since from number '1', '2', '3', '4'
- Color marking :

Pair Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Wire A	White	White	White	White	White	Red	Red	Red	Red	Red	Black	Black	Black	Black	Black	Yellow	Yellow	Yellow	Yellow	Yellow	Blue/White	Blue/White	Blue/White	Blue/White	Blue/White
Wire B	Blue	Orange	Green	Brown	Grey	Blue	Orange	Green	Brown	Grey	Blue	Orange	Green	Brown	Grey	Blue	Orange	Green	Brown	Grey	Blue	Orange	Green	Brown	Grey

* Information and images on this datasheet are intended for guidance only and products may vary due to technical improvements and commercial factor